munity has created a new social situation in the Philippines—a large residential university area similar to the American patterns. Few still yet realize the full implications of such a development.

As a supplement to this issue the REVIEW presents the timely observations and recommendations of Dr. Isidro about his recent Southeast Asian tour. Naturally, publication of his recommendations is not to be construed as full editorial endorsement of all Dr. Isidro's recommendations. For example, some may not be too alarmed about the possibilities of Communist penetration into schools controlled by the Nationalist Chinese Embassy.

G.H.W.

SIMILARITIES AND DIFFERENCES IN THE THEORIES OF HUMAN GEOGRAPHY AND HUMAN ECOLOGY

Richard Coller

I. Definitions of Human Geography and Human Ecology

Although both of these fields of inquiry are characterized by considerable amounts of written material, few writers have concerned themselves with the relations between human geography and human ecology. So we shall first clarify our perspective by noting the fundamental definitions before considering the more general aspects of theory.

Human ecology is thus defined by A. B. Hollingshead; "Human ecology deals with society in its biological and symbiotic aspects, that is, those aspects brought about by competition and by the struggle of individuals, in any social order to survive and to perpetuate themselves." [1] According to Dawson and Gettys; "The idea of competition is basic in human ecology and the human ecologist proceeds to study the human community in the impersonal manner pursued by the plant ecologist. Human ecology, then, explains how human beings and their institutions assume their characteristic patterns of distribution in space at a given time. It pays particular attention also to the organic relations of the distributed units." [2] Another definition by one of the "founders" of human ecology, namely R. D. McKenzie, is; "Human ecology deals with the spatial aspects of the symbiotic relations of human beings and human institutions. It aims to discover the principles and factors involved in the changing patterns of spatial arrangement of population and institutions resulting from the interplay of living beings culture." [3] In these definitions it will be noted the common elements of competition and/or interaction processes and spatial or symbiotic distribution are prominent.

A greater variety of definitions is available for human geography. First is Pomfret, "Human geography is the study of the relationship between the physical environment and the social environment. The chief interest, therefore, in the study of human geography lies in the manner of man's adjustment to the physical environment, not in the elements of that environment." [4] Next follows the somewhat narrower but more verbose view of Vallaux, "Human geography is a natural as well as a social science, but treats of man only as far as the substance of the surface of the earth is affected by him or to the extent that physical forces affect his individual or collective life. Human geography may thus be defined as the science which deals with the adaptation, in the widest sense, of human groups to their natural environment; passive adaptation

[1] A. M. Lee, *New Outline of the Principles of Sociology.* Barnes and Noble, 1946, p. 70

[2] C. A. Dawson and W. E. Gettys, *An Introduction to Sociology.* Ronald Press, 1935, p. 122

[3] R. D. McKenzie, "Ecology, Human." *Encyclopedia of the Social Sciences.* 1931, vol. 5, pp. 314-315

[4] J. E. Pomfret, *The Geographic Pattern of Mankind.* Appleton-Century, 1935, pp. 3-4

when they subject themselves with no or with little resistance to the action of physical forces as occurs in the failure of men to settle certain regions; active adaptation when man to a greater or lesser extent modifies the surface of the earth as is everywhere the case in regions in which man is present." [5]

The last definition of White and Renner shows a somewhat different approach, "Human geography is studied from two points of view. In one it is assumed that the natural environment exerts a control on the distribution, character, and activities of man. In the other viewpoint, no such assumption is made, and the subject is considered as *human ecology* or man's adjustment to his natural environment." [6] This attempt to equate the terms and subject matter of human geography and human ecology is a trend among a certain segment of American geographers which apparently originated in the year 1923. At that time Harlan H. Barrows, "argued, that the task of geography is to examine, and explain in so far as may be possible, the relations of man to his physical environment rather than to attempt to ascertain geographic influence on man." [7] However, despite the use of the words "human ecology," both Barrows and White and Renner seem to be using the same concepts and definitions as Vallaux and Pomfret use for human geography.

In spite of some similarity between these two sets of definitions, certain significant disparities exist. The first is the geographer's emphasis upon man's adjustment to the *natural* environment. Although a school of "cultural" geographers writes of the "cultural landscape" the greater bulk of the human geographers seem to place the works of man in a secondary position. Human ecology, on the other hand, is apparently more concerned with man's cultural handiworks than the topography. Thus we see in ecology a concern over "spatial patterns of human institutions" and individuals, which is much less evident in geography.

Another point of disagreement is on the matter of the interaction processes. The "man to land" relationship is most prominent in the definitions of human geography, but in human ecology the interaction *within* the community was considered most important. Thus the ecologists so often mention "competition" whereas the geographers never did. This, apparently indicates the ecologists' desire to note the sub-groupings in a geographical unit, rather than always view it as a whole. The difference also shows in the human geographer's concern with the whole community's location while the ecologist seeks more to determine the "spatial distribution" of units *within* an area.

II. Approaches to Environment

In earlier days a great number of the human geographers were steadfast environmentalists. Of this era, White and Renner write, "Proceeding from the natural environment to life responses, our pioneer

[5] Vallaux, "Geography, Human". *Encyclopedia of the Social Sciences.* 1931, vol. 6

[6] C. L. White and G. T. Renner, *Geography, An Introduction to Human Ecology.* Appleton-Century, 1936, p. 5

[7] H. W. Odum & H. E. Moore, *American Regionalism,* Henry Halt, 1938. p. 296

geographers, who were nearly all 'rebuilt geologists', found it comparatively easy to assign to environmental factors a determinative influence over man which many modern geographers feel is not justified by the facts." [8] However, even today some contemporary geographers hold to the extreme environmentalist position. Foremost among these men today, who sometimes pay "lip service" to the role of culture, is Elsworth Huntington.

In treating of the geographer's concern with the distribution of "human conditions" Huntington writes, "He finds that in many cases the distribution is directly connected with geographical surroundings such as mountains, rivers, rainfall, or forests. In others it depends upon human factors, such as density of population, stage of civilization, or the physical and mental capacities which people inherit from their ancestors. Even where human conditions are directly responsible for the distribution of certain types of human activity, further study shows that indirectly the geographical environment has a great deal to do with the matter." [9] So it seems that Huntington will trace as much as possible to environment, despite the intervention of culture.

Griffith Taylor is another contemporary human geographer who holds to the concept of definite environmental *control* over human society. He writes, "However as a geographer who has always been primarily interested in *Environmental Control,* it seemed to me that by isolating this aspect of the problem [of civilization] one might hope to present a connected view of the way in which nature has 'controlled' (or as many geographers prefer to say "conditioned") man's activities during his slow evolution... — ...it is our material environment which is probably the major factor in determining just how this slow evolution shall take place." [10]

In these and allied writings, is found, then, an assumption that the relationship of man to his environment is primarily a one-way affair. In other words, they tend to emphasize what was described by Vallaux as the "passive adaptation" 'of man to physical forces, rather than the action of man upon nature. In addition, these relatively stronger adherents of environmentalism seem to evidence a greater emphasis upon *climate* as the principal factor in the environment which influences man. Huntington is especially conspicuous in this regard.

A second approach to environment is that of a relatively more modified view of the effect of the physical forces on man. Historically this perspective is traced to the French school of "possibilism" which rose in reaction to the early determinism. All authorities consulted regard Vidal de la Blache as the leader and Lucien Febvre as the namer of this movement. One of the greatest early writers of this school is Jean Brunhes whose "Human Geography" now has the status of a classic work. This fairly representative statement of Brunhes well indicates his intermediate position, "Man does not escape the common law; his activity is included in the network of terrestrial phenomena. But, if human activity is thus circumscribed, it does not follow that it is fatally determined. Because

[8] White and Renner, *op. cit.* p. 5

[9] E. Huntington, *Principles of Human Geography.* Wiley and Sons, (5th Edition) 1935, pp. 1-2

[10] G. Taylor, *Our Evolving Civilization.* University of Toronto Press, 1946, pp. 3 & 5

of its connection with natural phenomena it is, without question, included in geography in two ways: it responds to the influences of certain facts and, on the other hand, it exercises its influence on other facts. That is why we must add to the group of material forces....this new force—human activity—which is not only a material thing but which also expresses itself through material effects." [11]

In the excellent work of Franklin Thomas, [12] which reviews the past and present theories of "anthropo-geography," we have a thorough cataloging of men and theories through the years which fall within the "Possibilist" category. So we have the faint murmurings beginning with Hippocrates, then Strabo, Bodin, Montesquieu, Ferguson, Herder, Humboldt, Buckle, Ritter, Ratzel, Le Play, Kirchhoff, and Treitschke swell the tide. Finally Vallaux, Brunhes, and Fairgrieve arrive on the scene as the more recent and more integrated proponents of this theoretical development.

An interesting corollary to this school of thought was the concept held primarily by Buckle, but also by Humboldt, Montesquieu, Spencer and Ritter.[13] This view is that the influence of geographic conditions decreases as the cultural complexity and civilization of man increase. Of course, this leads to the question of where, then, is geography to limit its field of inquiry on this continuum. These modified environmentalists seem to hold that they should be primarily concerned with man's culture where it directly affects the environment, otherwise other disciplines should carry on. Now we shall consider those geographers who advocate a further extension of human geography into the cultural sphere with a very limited use of the "environmental control" concept.

One of the most recent (1949) publications in this group is "A Geography of Man" by Preston E. James. In this preface are listed five basic concepts, of which the most revealing are the first and fourth, "1. that the significance to man of the physical features of the land is determined by the culture, or way of living, of the people; and therefore any change in the attitudes, objectives, or technical abilities of a people inhabiting an area requires a re-evaluation of the significance of the land... 4. That the simple cultures, in which the ways of making a living are few, form a few simple, direct connections with the land in base areas which are closely restricted, and that the more complex is the culture (that is, the greater is the number of ways of making a living), the greater is the variety of possible connections with the land, the less direct those connections are, and the larger is the base area."

Thus in James and his associates; Dryar, Bryan, Sauer, Renner, Jones, and Cressey, we find a viewpoint which stresses that only through human culture is the physical environment made significant. In fact, this stand has so been elaborated, especially by Sauer, that a new field of inquiry, "cultural geography" has risen. From the Germans was derived the term "cultural landscape" to designate the works of man upon the earth. An-

[11] J. Brunhes, *Human Geography.* (Translated by T. C. Le Compte), Rand McNally, 1920, p. 27
[12] F. Thomas, *The Environmental Basis of Society.* Century, 1925, Chapter X
[13] F. Thomas, *op. cit.* pp. 232-236

thropology with the "culture area" notion has also exerted great influence on this group. Since it is beyond the scope of this paper, no further mention will be made of this school except to observe that it and "human geography" receive an equal amount of space in the "Encyclopedia of Social Sciences."

In human ecology the matter of environment has been approached from quite a different point of departure. So Odum quotes Park, "Human ecology, as sociologists conceive it, seeks to emphasize not so much geography as space." [14] Then, going back to the fundamental definitions, the stress upon the distributing effect of competition and the spatial patterns of organization is conspicuous. McKenzie, too, is quoted as setting forth this view, "Human ecology differs from demography and human geography in that the main object of attention is neither the population aggregate nor the physical-cultural habitat, but rather the relations of man to man." [15] Human ecologists, therefore, evidentally conceive of the so-called processes of competition, centralization, etc. than, as powerful influences on man's society.

So, to recapitulate, it is seen that human geography views the physical environment from the one extreme as a controlling force in man's "civilization," and from the opposite pole as significant only in relation to human culture. And, although there are varying degrees of thought between these two limits, apparently all human geographers to date still conceive of society largely as a functioning entity. The geographers well note the circular interaction between cultures and their settings. On the other hand, the human ecologists seem to find it difficult to gaze beyond the social horizon.

The ecological emphasis, as McKenzie and Park indicate, is concerned with interaction *within* the community and its ensuing spatial and symbiotic results. McKenzie notes the difference thus, "...geography is concerned with place; ecology, with process." [16] This, to the writer, seems to indicate that neither discipline is obtaining the total "gestalt" or integrated perspective of the human community and its geographic setting. For the processes studied by the ecologist are affected by the physical environment and affect it in turn just as is the whole society. And the "adjustment of man to his environment" so discussed by the geographer is, of course, affected by internal processes as well as by external factors.

III. Approaches to Spatial Areas

As a preliminary observation, human geography appears to emphasize the larger earth areas. This impression is confirmed when consulting the tables of contents of the standard works. In Pomfret [17] we find the headings of "Climatic Types," "Tropical Environments," "India," "The Mediterranean Environment," and "Western Europe." Huntington [18] also covers a great scope, treating of, "Effects of the Earth's Form and

[14] Odum and Moore, *op cit.*, p. 333
[15] *Ibid.* p. 331
[16] R. D. McKenzie, "The Scope of Human Ecology," *The Urban Community.* (edited by E. W. Burgess), University of Chicago Press, 1926, p. 617
[17] Pomfret, *op. cit.*, Table of Contents
[18] Huntington, *op. cit.*, Table of Contents

Motions," "The Climate of Continents and Oceans," "Countries of the New World," and "The Better Tropical Regions." The approach of Brunhes [19] varys somewhat in that he begins with "essential facts" and then examines the manifestation of each fact in turn around the globe. Thus in one section, houses and roads are surveyed the world over. In general, this world-wide perspective of human geography clearly seems to stem from an attempt to group similar geographical areas and then note the varying cultures which accompany them or, to note the occurrence of a single trait of society in the larger world areas.

The next largest spatial area considered by human geographers is the region. This is quite a time-honored type of study among geographers, for the first regional study is dated as of 1537.[20] However, apparently all of the following regional studies were restricted to the study of purely physical areas until about the 1880's. At that time, according to Odum, A. J. Herbertson wrote that a region was a "complex of land, water, air, plant, animal and man regarded in their special relationships as together constituting a definite characteristic portion of the earth's surface." [21] Around the late 1880's, the regional geographers of Germany began to use the term, "Landschaft" or "cultural landscape." These scholars, "insist upon the land areas as the basis of consideration, but conceive it as the stage of man's action, taking as their task the tracing of the transformation of the natural region into the cultural landscape through the efforts of man." [22]

After passing through the hands of several prominent American geographers such as Unstead, Fower, Hall, Joerg, Jefferson, and Whitbeck emphasis upon the cultural aspect in the study of the region became more prominent. Apparently the last peak of this growing interest in the region as linked to cultural factors came in the years 1934 and 1935. At that time the "Annals of the Association of American Geographers" placed their main emphasis on the physical and human nature of the region.

R. B. Hall's article among these papers came out decidedly in favor of a greater emphasis on the culture of a region. He is quoted as writing that, "Probably the greatest single need of the regionalist is a series of systematic studies of culture forms and complexes, *per se*. . . a great deal of value might come from approaching the region through the medium of culture rather than through the orthodox approach surface configuration" [23] It can be seen from this account that human geographers have evinced concern over the region and become increasingly aware of the cultural factor. However, this trend leads more to a consideration of the region as a whole and blurs the intra-regional perspective. Little or no mention is made of component culture traits or their various positions and effects on spatial relationships.

A few human geographers, nevertheless, do devote some attention to the urban area. Vidal de la Blache wrote a section titled "The City" [24]

[19] Brunhes, *op. cit.*, Table of Contents
[20] Odum and Moore, *op. cit.*, p. 282
[21] *Ibid.* p. 291
[22] *Ibid.*, p. 291
[23] *Ibid.*, p. 292
[24] V. de la Blache, *Principles of Human Geography*, Henry Holt, 1926, pp. 471-478

which treats of the location of cities, their inner "hub", and a comparison of the distinctive traits of European, American, and Asiatic cities. Emphasis is placed upon both man-made factors such as highways and natural features such as mountains which influence urban settlement. Patterns of urban growth are also noted in a superficial way (i.e., gradual accretion vs. swift growth as a unit). One quite acute observation bears quoting, "Every new group, [in America] however modest, begins as an urban centre. Even in an embryonic state, it already possesses or tends to acquire organs which make it a city, such as hotels, bank, general store. . . . Even if the city miscarries it will disappear without leaving a village behind." Beyond the mention of the "hub" of a city, no attention is given to possible urban "zones".

Brunhes writes of the urban area, but largely in terms of location and transportation. However, he does observe that the inner center of great cities tends to become deserted,[25] but unfortunately this is linked to no theoretical framework. The city street is noted as a geographical factor, particularly as it influences "circulation." [26] Yet, he also recognizes that such a thing as preference for a sunny view can negate the effect of a city street pattern.[27] One of his final comments is that, "The city is preeminently the 'projection' of a collective mass of human wills. An ancient abbey becomes a manufacturing city." [28] So in Bruhnes are found some excursions into the more detailed aspects of the spatial patterns in the city, but no integrated view or general theories of the topic.

An entire chapter is devoted to, "The City—A Product of Location," in White and Renner.[29] The over-all patterns of the various types of cities are described such as; port cities are crescent-shaped, cross-road cities are star-shaped, etc. Of special interest is the listing of the geographic areas in a city, which are:

> "a financial and wholesale commercial district
> a retail shopping district
> an "industrial" or manufacturing district
> a political and civic center
> hospitals and resort facilities
> parks and recreational areas
> several kinds of residential areas"

However, the relationships between these areas or their origins are almost completely omitted from the discussion. Thus here again are stressed location, general settlement patterns, and some of the "inner geography" of the city.

A somewhat variant approach to the urban area is used by Griffith Taylor.[30] He first classifies towns according to general traits into "Oriental" (based on handicrafts and subsistence farming) and "Occidental" (based on industry and/or European agriculture) types. The

[25] J. Brunhes, *op. cit.*, p. 389
[26] *Ibid.*, pp. 196-207
[27] *Ibid.*, pp. 132-133
[28] *Ibid.*, p. 600
[29] White & Renner, *op. cit.* Chapter 31
[30] G. Taylor, *op. cit.*, Part III

next significant element in Taylor's discussion is his listing of the ten zones of an "occidental city undisturbed by 'growing pains'." From the center outwards they are: "(1) administrative; (2) professional offices; (3) better shops; (4) smaller shops; (5) church zone; (6) school zone; (7) third-class houses; (8) second-class houses; (9) first-class houses; (10) hospitals and institutions."

The next concept presented by Taylor is that towns pass through seven "ages" in their growth. These stages are: 1. Infantile, 2. Juvenile, 3. Adolescent, 4. Early Mature, 5. Mature, 6. Late Mature, 7. Senile. The real purpose behind this seemingly naive system is an attempt to distinguish stages in the shifts of spatial distribution as a town grows. Thus for each "age" Taylor describes a characteristic spatial pattern of the structures within a city.

He also uses the terms "Connurbation" and "Megalopolis" which were derived from Geddes and Mumford respectively. In this section Taylor shows at least a rudimentary awareness of the process of "concentration." From this description of Taylor's views one can surmise that a real attempt was made to analyse the intra-urban patterns. There is most certainly support for more disciplinary communication in the fact that although Taylor has been at the University of Chicago during his career, his theory of urban zones appears to have been postulated with a complete unawareness of the Burgess concentric zone theory. As it is, Taylor shows an unusual interest in the inner workings of the city for a human geographer, but a very elementary approach from the perspective of an ecologist.

Since the human geographers do not, as far as the writer could ascertain, regard any other spatial areas as units of study a brief resumé of the approaches shall be presented before continuing. The human geographers particularly take global, hemispheric, or nation-wide perspectives. However, since the turn of the last century there has been an increasing consciousness of the region as a spatial unit. The importance of human culture in the region has become ever more recognized of late, but the interaction of the elements *in* cultures has not as yet been considered. Some attention has been devoted to urban areas, but much of the work is descriptive and primarily concerned with the location of cities. Only a few isolated attempts have been made towards considering areas within the urban centers, with again virtually no mention of their interrelations. Now the human ecologists approach to spatial areas will be examined.

Since the urban area is evidentally the primary spatial unit emphasized by human ecology, it shall be our starting point. Odum observes that, "...this urban emphasis constitutes a large part of the human ecological approach in sociology." [31] One area of transition between the human geographers and the human ecologists is the study of the location of cities. Cooley and others have traced the effects of technological advances in transportation on cities in America.[32] The effect of early forms in establishing the basic urban distribution over the country is noted as well as later modifications of the order. However, little mention was made

[31] Odum and Moore, *op. cit.*, p. 405
[32] *Ibid.*, pp. 113-121 and 335-338

by these authors of the effects of transportation on the inner organization of the city.

Ecological organization has been one of the central concerns in the study of the city, particularly as it is the result of "Competition." Thus, "The structure of the city is a product of competitive interaction between people, market facilities, transportation and communication agencies, type of functions performed and the site... furthermore, the processes operative in the growth of cities are the same from the small provincial city to the large metropolis." [33] So, in order to understand the ecologists concepts of urban organization, the processes regarded as operating to form it must be noted.

As has been previously discussed, competition is regarded as the basic ecological process operating in all human communities, especially the city. From this the concept of "equilibrium" follows, "Competitive factors produce relative equilibria between numbers of the population and the resources of their sustenance base." [34] Thus, competition underlies equilibrium and the general ecological organization. However, a superstructure is built upon the end products of competition by the additional processes of "Concentration," "Centralization," "Segregation," "Invasion," "Succession," "Decentralization," and "Routinization." [35] In brief, these all describe the various movements made by people and facilities within the urban area, and characteristic spatial patterns associated with the movements.

Another theory of human ecology which is essential to an understanding of the main tenets, in the field, is the city zone pattern. The ecologist divides the city from the center outward into five zones: "The Headquarters Area or Central Business District, The Interstitial Area, The Area of Workingmen's Homes, The High-Class Apartment and Residential Zone, and The Suburban Zone." [36] These zones are correlated to items such as; land values, population traits, condition of the structures, types of economic activity, land use, and family patterns. Then these zones are further sub-divided into "Natural Areas or Cultural Districts" which constitute another spatial unit of study. The characteristics of these natural areas are: (1) a few specific functions, (2) physical differentiation, (3) social distinctiveness, (4) natural selection of population elements, and (5) institutional adjustments.[37] Now attention can be focused on the spatial unit which is the next largest to the city in the human ecologist's eyes.

The "Metropolis" has long been a favorite concern of human ecology. It is defined as, "...a city which economically and culturally dominates a region." [38] The nature and function of the metropolis are described as: "...The dominant center which organizes over a wide region, commerce, manufactures, finance, and business enterprise.... Economic dominance over its tributary hinterland characterizes the metropolis.... Subordinate

[33] A. M. Lee, *New Outline of Sociology*. Barnes & Noble, 1946, pp. 87-88
[34] *Ibid.*, p. 68
[35] *Ibid.*, pp. 88-89
[36] *Ibid.*, pp. 89-90
[37] *Ibid.*, pp. 90-91
[38] *Ibid.*, p. 85

to the metropolis are cities, towns, villages, and the open country." [39] So the essential characteristic of a metropolis is economic dominance over a hinterland in which are the open country, and "satellite cities" — all tributary to the metropolis.

The human ecologist makes a facile transition from the urban area to the region *via* the metropolitan region. Since the dominance of a metropolis extends beyond its legal boundaries, it is logical to extend the spatial unit of study as well. The traits of a metropolitan region are thus described; "It is composed of the central metropolis surrounded by its suburbs, satellite cities, then farther out the smaller semidependent cities, towns, villages, and open countryside. Its size and shape are determined by several factors, the most important being physiographic configurations, position of other metropolises, and lines and modes of transportation and communication." [40]

This concern with the metropolitan region and regions in general among human ecologists has been well analysed by Odum.[41] He observes that the metropolitan region has for a long time been the prime topic for study. This era emphasized the urban area above all and tended to neglect the remainder of the area. However, Odum now believes that the "culture area" concept is filtering into human ecology as well as geography. Thus in the future he expects to find more attention given to the region *per se*, rather than regarding it as an appendage of the metropolis.

Larger spatial areas than the region receive only a cursory treatment in human ecology. Thus continents, nations, and the world are mentioned briefly by Halingshead only in regard to patterns of population, dominance and migration.[42] Otherwise the human ecologists generally fix their attention on smaller areas, especially *American* areas. An attempt to summarize and contrast the views on spatial areas held by human ecology and human geography now seems apropos.

Human ecology definitely holds the primacy in regard to smaller areas. The concepts of the "natural area" and "zones" in the urban area are not found in any but a rudimentary form among human geographers. Even the urban area itself has been largely the domain of human ecology. It is there that the processes of competition, invasion, succession, etc. are so well described. However, human geography definitely does enter when urban location and transportation are, under consideration. Here there are signs of overlap, especially between such theoreticians as Codey and Brunhes.

It is study of the region, however, which provides the great common meeting ground for these two disciplines. Although the metropolitan region has been the method of approach in human ecology, the trend is increasingly toward the region as a "gestalt" *per se*. This has been fostered by Odum and a few others. The geographers, on the other hand, have come from a study of the region in terms of physical resources to a "culture area" approach. Thus the amount of congruence in the study of the region is steadily increasing.

[39] *Ibid.*, p. 83
[40] *Ibid.*, p. 85
[41] Odum and Moore, *op. cit.*, Chapters V, XIV, and XVII
[42] A. M. Lee, *op. cit.*, pp. 76,100, and 105-107

In regard to the larger spatial areas, human geography is by far the leader. As has been noted ,the ecologists make only intermittent excursions beyond the regional area, and then only for very narrowly defined purposes. Human ecology has yet to undertake the continental and global surveys so common in human geography. This seems, by implication, to lead to the observation that the geographers may have been too *extensive* in their generalizing, while the ecologists have been too *intensive*.

IV. Final Observations and Comparisons

This paper has endeavored to present the essential theories of the two disciplines under consideration and to compare these tenets. In the definitions the human ecologists' primary concern was described as the spatial patterns of human institutions and individuals plus the processes that operate to form these patterns. The human geographer in distinction to this, was oriented toward man's adjustment to the natural landscape.

Nevertheless, when the actual theories and their applications were examined, these large general distinctions were not always applicable. The human geographers of one school of thought emphasize environment in a way that removes them far from ecology. Yet, on the other side, a school of geographers emphasizes that human culture is actually the only factor giving meaning to the physical environment. So, among the former group the human ecologist has little in common, but with the latter there is much more affinity. There is one factor of which the geographers are extremely conscious but which the ecologists seem to overlook. This item is the circular interaction between man and the physical world. The ecologists apparently find it acceptable to consider the action one way or another, but shrink from the study of circular interaction. This, to the writer, seems a loss to ecology.

The "man to nature" vs. "man to man" distinction between human geography and human ecology still does seem to have a valid reference however. As was noted in the section on spatial areas the geographers have almost no body of theory comparable to the ecologists' concept of processes such as "Succession." Although these processes are often described in terms of physical patterns, they are still quite a distance from the geographical studies. Allied to this is the ecologists' principle of the "web of life" and balance or "equilibrium" between the processes, which is quite foreign to human geography. However, through all of this human ecology appears to stress "Competition," especially the economic connotation of the team, which would seem to limit the concepts to Western European Civilization. Human geography, on the other hand, seems to always strive for a more nearly universal application of theory. In the matter of spatial areas it is the geographers who have taken the wider view. Their writings so often refer to world patterns, variations by continents, and national anthropogeographic characteristics. The ecologists have been the students of smaller areas, principally directing their efforts towards the urban area, especially in the metropolitan form. Here again the interaction approach was evident in the ideas of metropolitan dominance and the metropolitan region. Here is another meeting ground of the two fields of inquiry.

The human geographers have come a long way since the days of physiographic regional studies. The "cultural landscape" school of thought and

the growing concern with culture patterns and their effects draw the ecologists and geographers closer. The ecologists have come to recognize the region as a significant spatial unit by itself as well as a network of "dominance." This has given writer such as Odum hope for more interdisciplinary collaboration.

Lastly it may be remarked that many of these various concepts and theories with which this paper has been concerned are still not perfectly formed. There are yet some staunch environmentalists among human geographers and equally steadfast "metropolitanists" among human ecologists. Human ecology being especially new has not as yet produced any definitive source book. These indications suggest that in time the hopes of Odum and others may be realized in that the now infant trends toward a closer harmony between the two disciplines will mature into a new synthesis for the study of the human community and its physical setting.

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A REPORT ON A VISAYAN FISHING BARRIO

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This paper is an attempt to depict the life of a rural group—its setting (location, population, and topography), the chief factors which condition the life of the people, its institutions, its patterns of thought and behavior, its deeply rooted attitudes, and the beliefs which have embedded themselves in the warp and woof of their lives. These are treated in this report in so far as they affect the sociological make-up of the community.

Mabilo is a barrio of the town of Calivo, Capiz. It is seven kilometers away from the *poblacion* and is situated on the fringe of the richer fishing grounds of the Visayas. This seaside barrio is somewhat rectangular in shape, is a little over four square kilometers in size and has a population of approximately 500 grouped into less than ninety families.

The topography of the barrio is regular. Mabilo is situated on a plain which is dotted by several other barrios. Mabilo is bounded on the north by the Sibuyan Sea, on the east by Barrio Ka-ano, on the west by Barrio Tambac, and on the south by a winding marshy stream twelve meters wide at its largest portion and three meters at its narrowest. This stream swells and ebbs with the tide and is the borderline which separate Mabilo from the nipa swamps of Barrio Nalo-ok. Interestingly enough, this stream has never been named; it is simply called "sapa" which is the dialect for "stream."

The soil of Mabilo is of the sandy and clayish variety and is not adaptable for farming. Rice planting yields poor returns. Nature is not so generous in this respect as she is in other portions of the Aklan Valley. The people must work hard for a living. Most of the marshy lands bordering the sea have been converted into fish points for *bangus* (milkfish) production. The greater portion of the barrio is planted with coconut trees. Rice paddies are found in the more fertile portions to the east (towards Barrio Ka-ano). The lands near the "sapa" have been utilized as nipa swamps, which now supply the barrio with thatch for roofing.

The barrio is roughly subdivided into—

a. Takas—the inland portion which is mostly rice paddies and which is sparsely populated.
b. Ilawood—the seaside portion which is the homesite for 85% of the Mabilo population.

Most of the people own the small lots wherein their houses stand. Only a few own rice fields or coconut groves of considerable size.

The people have utilized their natural assets and resources to advantage. They supplement their income with vegetable gardens which they tend laboriously in spite of the poor soil, and through home industries such as the making of abaca slippers and the weaving of piña (*birang*) and abaca (*pinukpok*) cloth. The steady demand for these