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Settlement Geography in Latin America

The study of settlement geography in Latin America is one of the more challenging, interesting, and neglected sub-fields of our discipline. The neglect should not exist. Hopefully, this brief essay will provoke more awareness of the advantages that accrue from utilizing settlement geography as an integrative device for the study of the Latin American rural scene.

Initially, it is necessary to define settlement geography and to give a few examples from the voluminous literature which exists and deals with the subject. This way, hopefully, we can avoid semantic morasses, have clearly in mind what the subject matter is, and focus directly on the issues at hand: the importance of studies dealing with settlement and the uses that can be made of such studies.

Settlement geography

Settlement geography is the study of the distribution of functional units used by people to exploit or extract from the physical environment that which they want. It is concerned, therefore, with the functional units used in primary economic activity: farming, hunting and gathering, fishing, etc. It is not concerned with the functional units that exist mainly for secondary and tertiary economic activity. These latter functional units, commonly called urban agglomerations or cities, are the proper study of urban geography.

The functional units that form the core of settlement geography can be farms, *haciendas*, *fincas*, or *estancias*; they can be logging camps or mining camps; they can be a temporary gathering of huts or *chozas* built by nomadic Indians to be used for a few months or a few years; they can be long established agricultural or peasant villages of a few hundred or a few thousand people. These are the basic units with which we must work. In all cases they consist of a dwelling or group of dwellings and the area of land used, in some fashion, by the inhabitants of those dwellings. How the units are distributed, the patterns they make, and how they function is the subject matter for a study of settlement form; how and why the pattern is established, when is it established and how and why it is changed is the subject for a study of settlement process (I follow Stone, 1965, in this distinction). The study

of form and the study of process constitute two distinguishable types of settlement geography; form has been sadly neglected, process has not. Both types of study are necessary.

Settlement form

Studies of settlement form describe a pattern of basic units and then explain it by analyzing the functions and functioning of these units. For example, a village and the area surrounding it used by the villagers can be thought of as a settlement unit. This type of situation is a common occurrence in countries such as Mexico and Peru. A study of the settlement form of such an area would first describe the morphology of the village and the surrounding lands. This would constitute the description of the pattern of settlement. Then the study would explain the morphology by analyzing the functions and the methods of operation of sub-units, individual families, extended families, or farms. The sub-units will vary from one area to another; the most appropriate in terms of importance and frequency should be chosen for each situation.

The study of settlement form has been much neglected by United States geographers in the last decade. Only a few brief articles directly related to the topic have appeared (Sheck, 1965; Chardon, 1963), and only a couple peripherally related (Nelson, 1963; Pfeifer, 1966). Our foreign colleagues, including Latin Americans, have not been so neglectful. Representative examples include works by Sandner (1961), Helbig (1961), and Chaves (1967). Governmental agencies sometimes contribute this type of study to the literature, for example the voluminous Peru ONERN/CORPUNO study on the Department of Puno (1965).

If we dip back into the literature of preceding decades, studies of settlement form are much more plentiful; for example, McBryde's work in Guatemala (1947), Stanislawski's and Brand's works in Michoacán (1950 and 1951 respectively), Sterling et al.'s work in the Venezuelan Andes (1955), Keller's in the Bolivian *Altiplano* (1950). and Wagner's in the Nicoya peninsula of Costa Rica (1958). For an understanding of settlement form, including both the pattern and the functioning of the units for the respective areas covered, the works cited in this vintage group are virtually indispensable. Consequently, their importance extends far beyond the areas described and analyzed.

Settlement process

The study of settlement process is concerned primarily with the formation or creation of a pattern of functioning units: villages, ranches, or scattered farms for example. The organizing variable in this instance is time -- happenings in space at given times and in discernible sequences. Process studies, while mindful of the functioning or operation of individual units, are primarily interested in how and why the functions of the units and the units themselves were established, or how and why the units have changed over time. For example, when were the banana plantations established on the West Coast of Costa Rica? Why in that area? When and why did their functions change and what effect did this have on the plantations? How do we account for the presence of some large cattle ranches in the same area? These are the types of questions on which the study of settlement process focuses.

The literature on the process of settlement is voluminous, but unlike the studies of form, much of it seems to have been written in the last decade. Among noteworthy examples we have the works of Hills (1964), Stewart (1961, 1955), Eidt (1962, 1967), Augelli (1962), Fifer (1967), and Dozier (1969). We also have classic examples of settlement process studies from decades gone by. Representative are the works of Jefferson (1921, 1926). Monbeig (1952), Parsons (1949, 1952), Bowman (1931), and Crist and Guhl (1956).

The neglect of settlement as a focus of study

This brief perusal of studies of settlement geography indicates that in the past decade United States geographers have neglected studies of settlement form. I see several reasons why this is so. 1) In our era of problem orientation and problem solution this type of study is unfashionable and research funds are consequently scarce. 2) There has been little attention given to settlement theory. Thus, lacking the consistency of a theoretical framework, the studies lack a comparative basis. Further, the lack of a theoretical umbrella for the data gathered hampers not only comparability, but also predictability. 3) The study of settlement demands a breadth of training and interest seldom packaged in today's geography graduate student. Specialization on narrow topics prevails. This results in bringing many problems clearly and sharply into focus, a commendable practice if it does not become a rut and if it does not dull our antennae and capacities for grappling with problems of greater area and scope. It is the strength and at the same time the weakness of settlement geography that it attempts to bring into focus and account for a great complex of variables (economy, politics, culture, climate, soils, flora,

fauna, etc.) for a particular area. 4) Another deterrent to settlement studies is the length of time required in the field for the gathering of data. Because settlement studies encompass such a breadth of variables, more time is required to collect data. Further, established scholars who could do superior jobs of studying settlement and who are more likely to have access to funding are the very people facing varied and extensive demands that limit their time in the field.

The process of settlement, as indicated, has not been totally neglected. It has been studied when particular situations and peoples are involved: most notably in areas of very rapid change -- pioneer settlement, colonization projects -- and when particular foreign cultural groups are imbedded in a normal Latin American matrix (Augelli, 1958a, 1958b; Burt et al., 1960; Eidt, 1968; Dozier, 1963; and Winsberg, 1964).

Both common types of settlement process studies, the pioneer and the alien cultural group, very much need a systematic review and analysis to pull together the voluminous but scattered information available, identify the gaps, and see what we have learned. Perhaps then we could answer some very important and urgent questions such as: Can the Amazon Basin be settled productively given the conditions under which we are currently carrying on the task? Are foreign cultural groups beneficial to recipient countries or do they form worrisome cysts? Can the settlement process be tampered with to give desirable or wanted results?

What has been neglected in the study of settlement process is the change taking place in stable or traditional areas. These are those long settled regions where change is slow and perhaps not so noticeable, where settlement is organized in a complex fashion, where long established crops are grown in well known ways, and where population densities are usually high. Examples include the Central Valley of Chile, the Argentine pampa, the plantation zone of Northeast Brazil, the *Altiplano* of Bolivia and Peru, and the *bajío* of Mexico. Where are the studies of the important changes going on in these nuclear areas? We may not see the changes but they are taking place; witness the important and interesting results of a close scrutiny in a small area by Lentnek (1969). Core area settlement process studies are very rare and very much needed.

The study of traditional areas can take several forms. One is that alluded to above focusing on current settlement change. In this field I feel we have not even scratched the surface of the traditional areas. A second form is the well known historic approach exemplified by works of Parsons (1949, 1954), Schmieder

(1928), Sandner (1961) and Deffontaines (1938). There is still another approach, equally historic in character but more current temporally: the effect of important and significant happenings within the last few decades. An example of this would be studying the effects of the *ejido*, a widespread product of the Mexican Revolution in the second decade of the twentieth century, on the distribution of people and settlements. Another example would be to focus on the effects of the Bolivian land reform program of the 1950s. One further approach that can be used when studying traditional areas is what I would call a functional analysis of the settlement unit hierarchies. This is not really an impingement on central place studies -- it is central place study. There is no better laboratory than traditional core regions in which to look at trade areas, hierarchies, circulation, and the effects of culture and economic forces on the man-environment relationship.

Why should settlement be a focus of study?

There are many important reasons to recommend the study of settlement, both form and process, for more intensive and widespread study. One of these is the versatility of skills and knowledge forced on the researcher. By my criteria this is desirable and a welcome counterpart to narrowly specialized geographers. Let anyone seriously attempt a study of settlement, either form or process, and he will soon see the need for knowledge of such diverse items as soils, climate, cultural heritage, and economic forces. Settlement can serve as an integrating and central theme for most of what we call geography. Secondly, analyzing settlement is the most direct, way of understanding the characteristics and complexity of the man-nature relationship. It is while seeing how man reacts to nature, how he spatially organizes himself and his society to extract products from nature, that we are likely to gain insights and a fuller understanding of the man-environment interface.

Form and function studies, particularly in core regions, are needed for almost every traditional area in Latin America. They are needed because that is where the people are; that is where subtle changes are taking place in technology and marketing; that is where large numbers of People are affected by the subtle changes. Those are the areas where the problems of man's abuse of his physical environment will be resolved -- for greater future stability. The answers to the problem are not in the rapidly and drastically changing pioneer zones, though they are also important and may give us insights, as explained below; the answers are in the core regions and in the cities.

Process studies are also needed, perhaps with a slightly different focus than much of what has been forthcoming in the past decade. These should focus on areas of rapid change, on the active pioneer fronts. From them we should gain insights into the formation of settlement patterns. While in core areas the patterns are usually crystalized or can change only by overcoming an inertia imposed by decades if not centuries of time, in areas being settled, patterns are still fluid. What causes the patterns to form? Government regulations or decrees? The free play of unchecked economic forces? The cultural baggage of the settlers? The ability or lack of ability to cope with certain physical factor such as slope, excessive ground moisture, or diseases? Most probably the pattern is being formed in response to a complex intermingling of all these forces and many more.

If we fully (or even partially) understand the causes of settlement pattern formations, the process of settlement, we can then expect that many other benefits will follow. These will include a better understanding of traditional core regions and what is going on there. For example, the causes of migration are best understood by talking to those that have migrated -- the settlers in developing areas (and central city slums). Also, the limits of culturally imposed knowledge about environment are very evident when we see peoples reactions to new and different environments.

Another benefit is to have in hand the information which will allow us to tamper with the settlement process. This means that the all-too obvious and undesirable impact of man on fragile tropical soil and biotic complexes can perhaps be minimized if we can find alternatives to the wide-spread use of slash-and-burn agriculture for the production of rice, maize, and manioc. But to do this we must know where and how to tamper with the process and what the results of our tampering will be. There are enough planned and spontaneous settlement projects in Latin America so that a careful study of their evolutionary processes should give us some solid and reliable information which in turn can be used for predictive purposes.

Studies of settlement geography should have appeal to scholars at several levels and from different countries. Advanced graduate students in this country would greatly benefit from attempting such studies. It would build knowledge about a wide range of sub-topics within geography and at the same time bring them quickly to an appreciation and understanding of Latin American culture. Our Latin American colleagues also could profitably undertake these studies. With their background and knowledge insights should be forthcoming which we as

North Americans could never achieve (or alternatively, reach only laboriously after long and intimate study). Working within their own culture, they understand, they know, and they have intuition which we acquire only with prolonged experience, if ever. Then there is also the mature scholar in the United States or Europe who should be particularly adept and anxious to meet the challenge of settlement studies. He has the experience and breadth, is generally reflective, and is not afraid to raise issues concerning the effect of environment nor to point out some of the limitations of currently in-vogue models.

The uses of settlement geography

The justification for studying settlement geography lies not only within the subject itself, but also in the many uses to which it may be put. Two broad categories of use suggest themselves: as a source of much needed information and as the inspiration for theories or models.

As a source of information settlement studies of either form or process furnish a wealth of raw material which has many uses. Among these are the following. 1) The testing of theories and models derived inductively in academic milieus. In this sense the information and reader-experience derived from a good settlement study can be thought of as a surrogate for field work. 2) The comparison of the effects of different cultures on areas. These comparisons can be either between other parts of the world and Latin America or comparisons of variations in cultural effects within that region. 3) The use as building blocks for country or regional studies. Our texts reflect the availability, or more frequently the unavailability, of information contained in settlement studies, particularly form studies in traditional core areas. 4) Understanding the functioning of areas, regions, and countries. This should result in our being able to interpret and analyze accurately ongoing events, a task which I feel is very neglected. The neglect does not surprise me, however, when I glance at some of the topics on which we do research.

Lastly is the use of settlement geography studies as inspiration for theories and models. The very lack of theory coupled with the very basic nature of the information presented should prompt theory or model building. Central place theory did get its start with the study of settlements. Why can not this happen again? Settlement studies do furnish the needed materials, for both theory and models.

Studying settlement geography in Latin America is a challenge which demands versatility and a wide range of interests. One facet of it has been taken up with increasing frequency over the past decade, the process of settling; one facet has not, the form and function of settlements. Both types are needed -- form studies in traditional core regions with greater urgency than process studies in rapidly developing or changing areas. A revitalized interest in settlement geography should spur development of new regional methodologies and new theoretical constructs. It could also lead to functional models that will give us greater insights into the man-environment relationship in Latin America.

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