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Geography and the Emergent Areas of Latin America

One of the apparent future research needs in the general area of settlement geography is to cast further light on specific parts of a settlement frontier that is today very fluid and dynamic. It is clear that not all Latin Americans are flooding into the large cities, but that in almost every country things have been happening in the hinterlands during the past two decades that have substantially altered the pre-existing settlement patterns and man-land relationships for each. Some of the most rapid and drastic changes in Latin America are occurring in areas that formerly were thinly populated but now have scores of in-migrants, in areas that formerly were isolated but now have all-weather road links with the outside, in areas that were formerly tropical forest but now have cleared agricultural land, in areas that had once a deficiency of water but now have new and ample irrigation facilities. The face of the land is being altered by man, and man himself is being altered by the new relationships with the land which are opening up, not everywhere but in some places. We fail in our responsibility if we do not investigate these areas of rapid transition and thus add to the geographical knowledge of Latin America.

The academic discipline, in its teaching aspects alone, must inevitably suffer if regional geography remains static in the classroom and in the textbooks when in reality there is constant metamorphosis. What is to be the raw material for presenting the geography of Latin America as it really is today unless we have a fairly regular flow of studies dealing with specific zones undergoing marked change in infrastructure, settlement characteristics, land use, and general utility? While systematic geography and methodological techniques have seen great advances in recent years, it appears that regional synthesis in general has not kept pace. The lethargy could be due to malnutrition.

The proportion of published research of this nature by American geographers (or anyone) has been very small. An approximate count was made of all articles in three leading geographical journals dealing with specific case studies of transition and emphasizing changing settlement and development patterns of Latin American areas. A similar count was made of all published materials (books, articles, or reports) in English of this nature listed in the comprehensive

bibliography, *Current Geographical Publications*, from 1961 through 1969. Of a total of 49 articles on Latin America in the *Annals of the Association of American Geographers*, only three were in the above category; of a total of 110 in *Economic Geography*, there were 12; of a total of 241 in *The Geographical Review* there were approximately 30. We find, further, that a mere dozen studies of the type specified from all three journals relate to the past decade when most of the transition has been taking place in Latin America.

During the period 1961 through 1969 approximately 50 English language entries in *Current Geographical Publications* could be considered within the category of studies as above defined. Of these only a half dozen were books or monographs. Considering that the number of entries for Latin America in this bibliography has averaged about 40 for each issue, the percentage of entries of the type mentioned would come to slightly over one percent for the entire nine year period.

Although they must together constitute only a beginning for what is actually a constantly expanding research frontier, there are many works of quality in this field which point the way. This writer has noted them elsewhere (Dozier, 1969), and, with some modifications, that bibliographical survey is presented here. It is not intended to be exhaustive but rather to indicate representative directions that previous research has taken.

Book-length treatments of ease studies involving directed efforts in land development and settlement are few (Poleman, 1964; Posada, 1966; Thiesenhusen, 1966). These books, read together, should provide the reader with a very comprehensive and detailed view of directed projects: their various facets, what they have attempted to accomplish, how, and with what problems. It should be noted that none of these were written by geographers. However, awaiting publication is an outstanding book-length treatment of the Misiones district of Argentina by one of our number, Robert C. Eidt.

Supplementing these more detailed studies and still relating to specific experiences are a number of useful articles (Sariola, 1960; Benessini, 1961; Eidt, 1962; 1964; 1968; Ferragut, 1963; Stewart, 1965; Siemans, 1966; Minkel, 1967; Pifer, 1967).

One of the best sources of information, with evaluation, on recent colonization efforts is in a collection of papers presented at the Latin American Regional Conference of the International Geographical Union in Mexico City in 1966. Papers relating to directed projects in Brazil, Bolivia, Peru, Colombia, Venezuela,

Costa Rica and the Dominican Republic have been reprinted (in Spanish), along with one on agricultural development in Mexico's Tabasco lowland, mostly historical but brought down to, the present (Sociedad Mexicana de Geografía y Estadística, 1966).

A number of studies appearing during the last decade have served to illuminate established Latin American zones undergoing recent transition (Fifer, 1964; Stouse, 1967; Lentnek, 1969; Floyd, 1969).

The Land Tenure Center of the University of Wisconsin has a number of mimeographed reports of investigations carried on by their researchers in various parts of Latin America. These reports deal with all aspects of land reform and tenure problems, with a strong sociological emphasis. Representative and particularly pertinent to the subject of colonization, with a comparison of directed and spontaneous types, is one on developments in the eastern lowlands of Colombia (Tinnermeier, 1964).

A sociological study written ten years ago (Erasmus, 1961) still contains some of the most useful information relating to the changing economy and society of new lands being developed at that time in Northwestern Mexico.

One geographer's pioneer studies of migration and spontaneous settlement in lands east of the Andes along roads of penetration from Venezuela to Bolivia (presently to be in book-form) have been very enlightening (Crist, 1946; 1956; 1964; Crist and Gehl, 1956). Other major currents of spontaneous settlement in Costa Rica, Southeastern Mexico, the Upper Amazon Basin of Southern Colombia-Ecuador-Northern Peru, Venezuela, Northern Colombia and Guatemala have each been handled in a proficient manner (Sandner, 1960; 1961; 1962; Siemans, 1964; Hegen, 1966; Marcano, 1966; Parsons, 1967; Carter, 1969).

The expanding settlement frontier of São Paulo State in Brazil has been the subject of a very absorbing and perceptive book-length study (Monbeig, 1952).

Foreign colonization in Latin America has captured the interest of many researchers and a number of perceptive studies have emerged which bring to this non-indigenous aspect perhaps the best coverage of any. There are four monograph-length studies (Fretz, 1962; Winsberg, 1963; Stewart, 1967; Sawatsky, 1969) and several articles to broaden the perspective (Waibel, 1950; Augelli, 1958a; 1958b; 1962; Stevens, 1967; Tigner, 1967; Eidt, 1968; Winsberg, 1968).

Some of the studies are of historical rather than current interest, but in all of them the cultural emphasis, together with the distinctive evaluations, provide valuable dimensions within the over-all picture.

There have been a number of timely studies of the two new cities of Latin America, Brasilia and Ciudad Guayana (Venezuela) by geographers and planners alike, but fewer of their regional impact (Carmin, 1960; Augelli, 1963b; Snyder, 1963; 1964; Miller, 1965; Penfold, 1966). Mention should also be made within this context of an early study in which is given a good appraisal of the Planalto Central of Brazil, its potential and problems, vis-a-vis the location of a national capital, which was then only in the planning stages (James and Faissol, 1956).

Finally, a more general study including useful material relating to specific experiences, presents an excellent analysis of the social framework within which programs in certain countries must operate (Nelson, 1963).

In the case of these zones and their transformation, it can be contended, description is not "mere." It is absolutely essential as the first step in enlightenment. Their modern-day transformation and dynamic character makes these areas *terrae incognitae* in a certain sense. It would seem better that the work be done, if it is well-done and increases knowledge and understanding, than to belabor and become immobilized by the old question, "Is it geography?" There are many possible factors that might relate to the area's transitional process and to its viability, and the geographer should not feel any self-imposed limitation in bringing any of them into his realm of attention, so long as his field methods can competently deal with them. The research objective, it seems, is to portray and to explain the area in transition. There is room in this kind of research for all social scientists and all approaches, whether quantification, map-centered, descriptive-interpretive, or whatever. It is interesting to note that one of the outstanding pieces of research of this kind, and one that is highly useful to geographers, is Poleman's (1964) work on the Papaloapan Project of Mexico. Poleman is an agricultural economist. Each can add its bit to expose and explain. A common interest in emergent areas in Latin America should be the binding cement despite the variety of the building blocks of exposition. Nothing can be gained by a restrictive outlook, either as geographers (speaking only with ourselves) or as to approach.

After making the point that Latin America's newly emerging zones are "under-researched" in general and especially by geographers, one might mention four

specific aspects which seem worthy of concentrated attention.

One of these would be a study in depth of such an emergent area at different stages in the past, if it has had any prior settlement at all, to examine the stimuli at various times in its history and the negative factors which have prevailed and prevented any sustained development until the present period. This kind of research, of a library or archival nature, is often shunned by investigators of the dynamic present-day scene but gives a much-needed frame of reference and perspective for understanding the significance of that scene. A model might well be Eidt's forthcoming study of the Misiones district of Argentina.

Another aspect which could bear much greater attention is that of attitudes of settlers and of administrators (as expressed in official policies and in individual action) as factors in change and rapidity of change, together with its effectiveness. In what ways are the people involved, those on the receiving end and those on the dispensing end, reacting, responding, and adapting? How do both groups perceive the transition in its various manifestations, methods, and results? These are questions that cannot afford to be overlooked in any analysis of this kind, whether done by geographers or other social scientists. Attitude or perception studies as such within the context of emergent area research seem to offer unusual opportunities for contribution. Happily, the time has come that such studies, far from being disowned as "nongeographic" are at the very forefront of current methodological thought and research trends in geography.

A third significant direction that research endeavors might take would be the investigation of the impact upon the environment of zones undergoing transformation. Comparative studies of this aspect in zones of differing types of development, such as spontaneous versus directed colonization, would be especially useful. It should never be assumed that the changes occurring will prove unequivocally beneficial in the long run. There is a real service opportunity for research that would expose dangerous trends and possible negative results of an environmental nature for emerging areas, and geographers are obviously well-equipped to provide it. These are zones that, because of their early stages of development, are in a position to avert future environmental problems by proper planning. But already there are indications that long-range environmental consequences are being overlooked in the sometimes frenzied flurry of short-range uncontrolled economic growth. Warnings need to be sounded, and to be effective they need not necessarily come from technicians. The geographer, because of his unique capacity for overview, can recognize better than some the

ecological trends, and by bringing emphasis to them in his research, make a decided contribution. Such subjects as erosion in areas of spontaneous settlement of cleared tropical forest slopelands, the effects of forest removal and continuous cultivation upon the productivity of tropical, wetland soils, watershed destruction in areas of large dam and reservoir development, and soil salinization resulting from inadequate attention to drainage in recently irrigated lands are only a few possible environmentally-related problems that await study.

Land use and market studies would be of outstanding value. In the directed type of land development-settlement project it is clear that indebtedness incurred by settlers (for infrastructure and the like) will require a reasonably early arrival at some cash surplus basis. This will depend upon a harmony being established (and indeed capable of being established) between crops for which there is physical suitability and the presence of a market for those crops, one that is both substantial and not too expensive to reach. The successful endeavors of a directed type have been those in which this harmony existed; therefore, studies of the degree to which it exists in any project would be very meaningful and in the final analysis critical if we are to be concerned with prospects, of on-going viability.

As to specific areas, there appear to be several in Latin America which have begun to be emergent during the last decade and in which little research has been done. To discover what has happened in these places would not only be highly interesting to the geographer but would fill in many gaps in our knowledge of the various countries as they are today. A most surprising dearth of studies, for example, exists pertaining to changes on the Planalto of Brazil resulting from the creation of the new capital city of Brasilia and the transportation facilities related thereto. Reference is made not so much to studies of Brasilia itself, although they have been fewer than one might have expected, but rather to the impact and stimulus of Brasilia and its coincident infrastructure upon the surrounding countryside and towns of the state of Goias which was until 1960 a relatively stagnant part of Brazil. Expanding this somewhat, the changes that have resulted from the opening of the Brasilia-Amazon highway, much of it traversing a previously virgin wilderness, the remainder at best backward and isolated, have received little attention. Speaking of new zones of transition resulting from completion of vital roads of penetration, Crist's (1946; 1956; 1964) and Hegen's (1966) studies of the Eastern Andean routes and Parsons' (1967) studies of Northern Colombia's new links with the Caribbean are outstanding contributions, but there are other new roads that would bear study of a similar nature. As but

one example, there is the long-planned, finally completed road connecting for the first time the Nicaraguan Pacific coreland with the Caribbean coast. Surely things are now happening to the Caribbean coast and to this traversal zone, formerly a mule-trail forested wilderness, that are changing the geography of Central America as we have known it. Then there are two railway lines of recent construction in Latin America which have in some instances opened up zones of almost complete isolation and in other instances recast the internal geographical relationships previously existing. They could use some research too, and it would be a significant contribution.

Although the list of specific examples could be extended, perhaps it would be sufficient to conclude simply by pointing out several zones of modern transition that seem to warrant increased attention. The Planalto of Brazil has been mentioned. There are also the following: parts of Northern Argentina; Eastern Paraguay around the Parana River; certain valleys of Peru's desert coast and of Southern Mexico; Coastal El Salvador; Southeastern Jamaica; zonal developments along the Amazon; parts of the Venezuelan Llanos and lower Orinoco basin, where developments have been so striking and of such significance to Venezuela that much needs yet to be done to obtain a realistic up-to-date view of that country's geography.

Although the decade of the sixties has brought us more research of the nature described than previous decades, it is clear that what Augelli (1963a) wrote still stands:

After the efforts of at least two generations of geographers, knowledge of Latin America's environment can still be measured largely by the often-unwarranted textbook generalization. Field geographers have frequently stuck to the beaten paths, and there still is little realization in this profession that the most pressing research need in Latin America is to evaluate in realistic, detail the conditions, the problems, and the possibilities of the under-populated and underdeveloped areas lying outside the orbit of present settlement. The present slogans in Washington notwithstanding, there have been too few "frontiersmen" among geographers.

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