

SPATIAL CHARACTERISTICS OF
INTERNAL MIGRATION TO
SAN PEDRO SULA, HONDURAS

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
CHARLES MARC CRONER
1972

This is to certify that the
thesis entitled
SPATIAL CHARACTERISTICS OF INTERNAL MIGRATION
TO SAN PEDRO SULA, HONDURAS

presented by

CHARLES MARC CRONER

has been accepted towards fulfillment
of the requirements for

PH.D. degree in GEOGRAPHY

Law Minkel

Major professor

Date 5-16-72

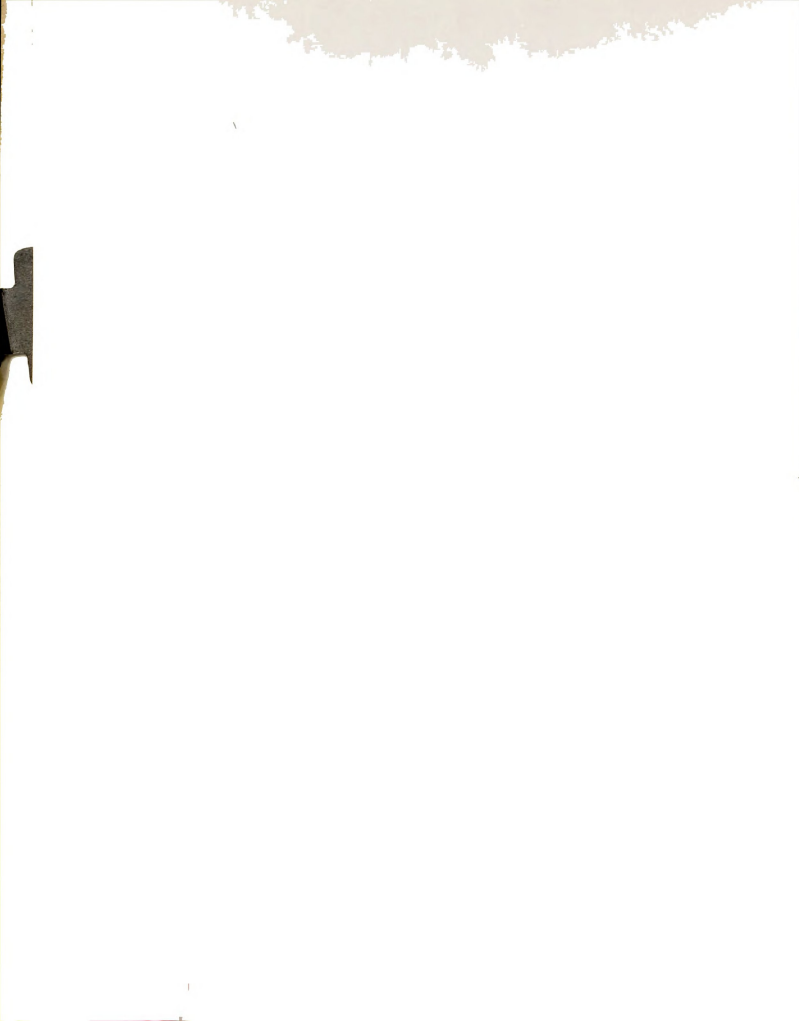
~~XXXXXXXXXX~~ 029

~~2574~~ 151

P2 057

H 315





ABSTRACT

SPATIAL CHARACTERISTICS OF INTERNAL MIGRATION TO SAN PEDRO SULA, HONDURAS

By

Charles Marc Croner

The past two decades have been a period of unprecedented urban growth in the Republic of Honduras. Whereas there were no urban centers of 100,000 persons in 1950, today there are two. Tegucigalpa, the national capital since 1880, is approaching the 300,000 mark while San Pedro Sula, the newly-established industrial leader of the North Coast, has a rapidly growing population of almost 130,000. Compared with urban growth rates of other Latin American nations, that of Honduras is the highest in the region.

Of the two largest cities, San Pedro Sula has experienced the more remarkable transformation. Having grown about six times its 21,000 population in 1950, the city has become the fastest growing community in Central America. Its recent emergence and dynamic industrial development represent a revolutionary achievement in the

Honduran tropical lowlands. Perhaps more important, this budding mecca has triggered a large-scale redistribution of human beings to what was once sparsely occupied earth space.

At the official request of Honduran agencies, a one-year study of the internal migration component of population growth in San Pedro Sula was conducted. With the purpose of providing useful information to national planners and professional scholars interested in migration theory, the findings can be summarized as follows:

1. Migrant heads of household in San Pedro Sula are predominantly male, less than thirty years old, occupationally unskilled, and primary educated. By comparison, non-migrant family heads in the city include a significantly lower proportion of females, are slightly younger, have a similar ratio of unskilled members, have attended school in relatively greater numbers, and have a significantly higher level of educational achievement.

2. Distance plays an important role in migration, as evidenced by the heavy participation of migrants from those areas closest to the city. Measurement of fifty-mile homogenous distance surfaces from San Pedro Sula reveals a fairly distinct inverse relationship between the propensity of migration and these surfaces. The most discernable distortion in the distance-decay surface occurs in the western part of the country and is due to

the absence of highway outlets to the east. Four main highway systems provide overland accessibility for roughly 99 per cent of all internal migrants.

3. More than 80 per cent of all migrant heads were born in urban places, with the majority coming from municipio capitals. About half of all migrants, including those from rural places, move indirectly or, step-wise, to the city. Although there are no significant statistical differences between place-size origins and occupational achievement (income) among migrants, there is a clear tendency for those from urban places to earn more than their rural-indirect and rural-direct counterparts, once in San Pedro Sula.

4. The decision to migrate by almost three-fourths of all migrant heads was based on prior assessments of the attributes, and limitations, of the home community, of San Pedro Sula, and of alternative destinations. Foremost concerns were employment and general economic conditions, and, to a lesser extent, family considerations. Friends, kinship, and other contacts in San Pedro Sula were important stimuli in the decision process, since clearly half of all migrants received some form of assistance upon arrival and during the first few months of residence.

SPATIAL CHARACTERISTICS OF INTERNAL MIGRATION
TO SAN PEDRO SULA, HONDURAS

By

Charles Marc Croner

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Geography

1972

675654

©

ACKNOWLEDGMENTS

This study of internal migration to San Pedro Sula represents the combined efforts of many organizations, professional associates, and concerned citizens in both the United States and the Republic of Honduras. It is, thus, a model of cooperative intra-hemispheric social science research.

It should be noted that the study itself does not represent an isolated contribution to Honduran geography and planning. Rather, it is one of many such projects aimed at providing a comprehensive research package to aid professionals in that country. Thanks largely to the vision and efforts of Dr. Clarence W. Minkel, president of the Committee on Applied Geography of the Pan American Institute of Geography and History, O.A.S., this program has achieved a high degree of success in just three years of operation.

A variety of agencies deserve special recognition for their support of this research. In the United States, the Ford Foundation, through the International Studies Program at Michigan State University, and the Foreign Area Fellowship Program, of New York, awarded me the funds required to conduct the research. I am grateful to the

representatives of each of these programs, Dr. John M. Hunter and Mr. Michael Potashnik, respectively, for their assistance.

In Honduras, the study was coordinated closely with the National Geographic Institute and the Housing Institute. The combined services rendered by these organizations and their respective representatives, Ing. Fernando Lanza and Lic. Rubén Mondragón (currently Minister of Economy and Commerce) were most important. Additional services were contributed by Lic. Carlos Raudales, Director of Census and Statistics; Arq. Mario Martín, past Director General of Public Works and Urban Affairs; and Mr. Rodney Saubers, resident chief of the Inter-American Geodetic Survey in Tegucigalpa.

There are many persons in San Pedro Sula who also provided invaluable support. Among them are Ing. Juan Fernando López and Lic. José Fernández Gúzman, the former and current city mayors; Crnel. Raúl Flores Gómez, Political Governor of Cortés Department; Sr. Oscar Echenique Bustillo, Municipal Public Relations Director; Lic. Amanda Moreno de Mejía and Lic. Marcial Solís, Dean of the Faculty of Economic Sciences and Chairman of the Economics Department at the Centro Universitario Regional del Norte, respectively; Lic. Carlos Manuel Zerón, General Manager of La Prensa; and Dr. George Wilson, Director of the Research Division of United Fruit Company at La Lima. The interview

team was comprised of Benjamín Zelaya Chávez, Carlos Collier, Ricardo Morales, Antonio Palacios, Evangelina Torres, and Olga Helen Urbina.

The task of supervising and editing a dissertation is tedious and time-consuming. For this, I thank Dr. Clarence W. Minkel, both academic advisor and friend. Much appreciation is also extended to Dr. Robert N. Thomas, who provided frequent consultation and the valuable service of second reader.

Finally, I wish to acknowledge the support and encouragement of my parents, Mr. and Mrs. Milton Croner, and parents-in-law, Dr. and Mrs. Donald Kramer, throughout my graduate program. To my wife, Lois, I extend a special thanks for her untiring teamwork and unfaltering inspiration. It is to her that this work is dedicated.

TABLE OF CONTENTS

	Page
LIST OF TABLES	viii
LIST OF ILLUSTRATIONS	x
Chapter	
I. INTRODUCTION	1
Objective	5
Hypotheses	5
Migration Literature	6
Procedure	10
Statistical Sample	11
Methods	13
Pilot Study	14
Findings of the Study	15
II. THE SULA VALLEY	17
Physical Background	17
Climate	18
Soils and Hydrographic Features	24
Vegetation	29
Cultural Background	31
Pre-Columbian Era and Discovery	31
Colonial Period	35
Independence through the Twentieth Century	41
Modern Period	44
III. EVOLUTION OF SAN PEDRO SULA	49
Founding to 1900	50
1900-1950	53
The Emergence of a City	57

Chapter	Page
IV. COLONIA "SESENTA Y UNO": A PILOT STUDY . .	61
"Sesenta y Uno" Colony	61
Origins of Population and the Migration Field	62
Decision to Migrate and the Directionality of Move	68
The Move to the City and Intra-Urban Mobility	72
Channeling Future Migrations: Government Housing Projects	75
Conclusion	79
V. THE MIGRATION SYSTEM OF SAN PEDRO SULA: POPULATION CHARACTERISTICS	82
Sex	83
Age	85
Occupational Skills	87
Education	89
VI. THE MIGRATION SYSTEM OF SAN PEDRO SULA: DISTANCE AND THE PROPENSITY OF MOVEMENT . .	93
Origins of Migrants	94
Transportation Facilities	98
Migration "Streams"	101
VII. THE MIGRATION SYSTEM OF SAN PEDRO SULA: THE MOBILITY PROCESS	105
Urban Place Origins	106
The Move to the City	110
Occupational Achievement	114
VIII. THE MIGRATION SYSTEM OF SAN PEDRO SULA: THE DECISION-MAKING PROCESS	118
Assessing the Home Community	119
Assessing San Pedro Sula	122
Assessing an Alternate Destination	124
Stimuli to the Decision Environment	128

Chapter	Page
IX. PERSPECTIVE ON FUTURE GROWTH OF SAN PEDRO SULA	132
Planning Problems	132
Water	133
Housing	134
Public Health	135
Prospectus on Urbanward Migration	137
Regional Trends	138
Migration through Time	139
Influential Factors in Migration	141
X. CONCLUSION	144
Characteristics of Migrants	144
Distance in Migration	145
The Mobility Process	146
Decision-Making Behavior	147
BIBLIOGRAPHY	149
APPENDICES	162
A. INTERVIEW SCHEDULES	162
B. BASE MAP 10	174

LIST OF TABLES

Table	Page
1. Population Growth of Tegucigalpa and San Pedro Sula, Honduras, 1950-1970	3
2. Meteorological Observations at Selected Stations in Honduras, 1967-1969	23
3. Climograph of San Pedro Sula, 1932-1961	25
4. Population in Province of Honduras, 1574	52
5. Population Change in Cortés Department and San Pedro Sula, 1910-1950	55
6. Place of Birth of Heads of Family in "Sesenta y Uno" and "Las Crucitas" Communities	63
7. Directionality of Move Among the Migrant Populations of "Sesenta y Uno" and Ciudad Guayana	70
8. Incidence of Intra-City Mobility Among "Sesenta y Uno" Residents (Heads of Household)	74
9. "Sesenta y Uno" Colony: Attitudes Toward Government Housing	77
10. Age Structures for Honduras, San Pedro Sula, and Migrants to San Pedro Sula (in per cent)	86
11. Education Levels Within the Urban and Rural Population of Honduras, 1961	90
12. Education Levels Among Migrant and Non-Migrant Heads of Household in San Pedro Sula	91
13. Sequence of Migration Among Heads of Household from Place of Birth to San Pedro Sula (in per cent)	111

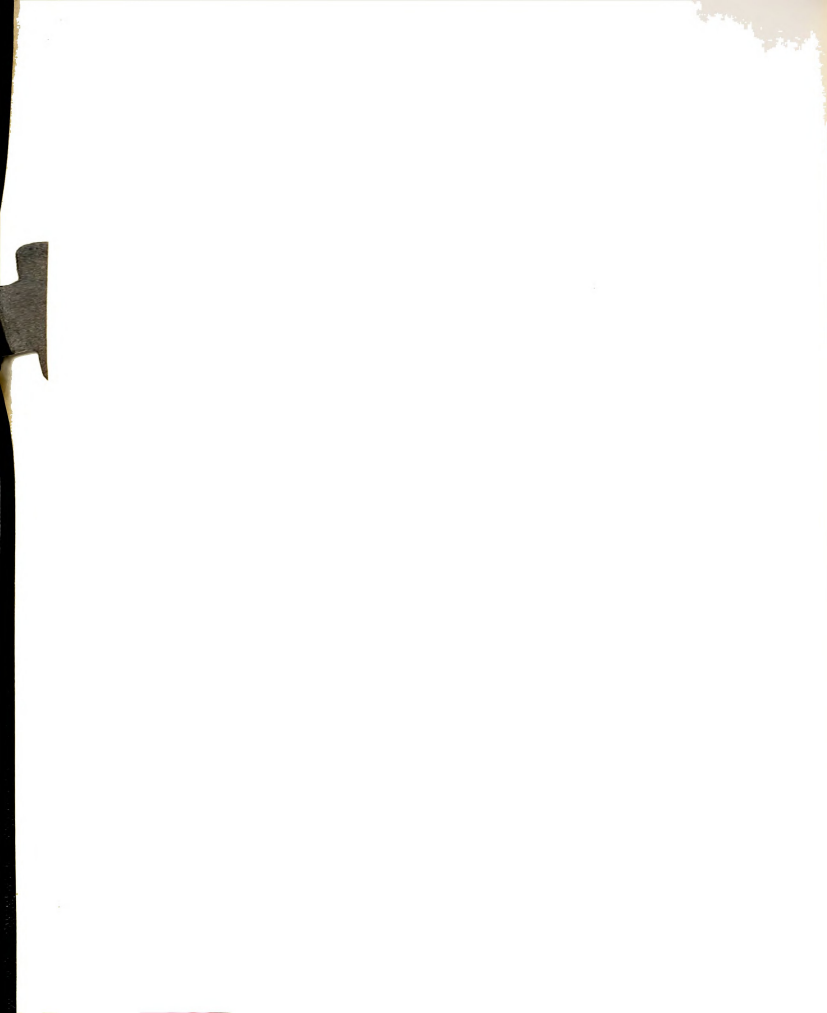


Table	Page
14. T-Score Matrix for Place-Size Origins and Occupational Achievement	116
15. Migrant Heads of Household: Reason for Leaving the Home Community	119
16. Problems Confronting the Home Community	121
17. Visits to San Pedro Sula by Migrant Family Heads Prior to Residence	123
18. Reason for Migrating to San Pedro Sula	124
19. Reasons Direct Movers Chose not to Select an Alternate Site (such as El Progreso, Choloma, or La Lima)	125
20. Reason for not Migrating to Tegucigalpa	127
21. Place of Residence for Migrant Family Heads at Time of Arrival in San Pedro Sula	129
22. Assistance Rendered to Migrant Family Heads by Relatives, Friends and Other Sources during First Few Months of Residency in San Pedro Sula	130
23. Arrival of Migrant Family Heads in San Pedro Sula, 1900 - Mid-1971	140

LIST OF ILLUSTRATIONS

Map	Page
1. Honduras: Location Map	4
2. San Pedro Sula: Sampling Zones	12
3. Honduras: Physiographic Regions	19
4. Honduras: Archaeological Sites	34
5. Honduras: Covariation of "Sesenta y Uno" and "Las Crucitas" Migration Fields	67
6. Honduras Department Zones: Internal Migra- tion to San Pedro Sula	95
7. Honduras Municipios: Distance and Internal Migration to San Pedro Sula	97
8. Honduras: Migration Streams from Department of Birth to San Pedro Sula	102
9. Honduras Municipios: Urban Place Origins among Migrants to San Pedro Sula	107
10. Honduras: Departamentos y Municipios	174

CHAPTER I

INTRODUCTION

Population mobility within Latin America has reached unprecedented levels within the past two decades. The accelerated exodus of people from rural areas and small urban communities to the sprawling urban centers has been an especially remarkable trend. During the period 1950-1965, Latin America's urban population grew at an annual rate of 4.6 per cent, compared with 1.5 per cent in the rural areas.¹ Rates of urban growth ranged from a high 7.6 per cent in Honduras, 6.3 per cent in Costa Rica, and 6.1 per cent in Venezuela, to a low 2.5 per cent in Argentina, 1.7 per cent in Uruguay, and 1.4 per cent in Jamaica. The region's marked increase of 58 million urban inhabitants, 1950-1965, established a total urban population of 120 million, or roughly equal that of the countryside.

¹Rates based on data from twenty-three republics. See John A. Hopkins, The Latin American Farmer, U. S. Department of Agriculture, Economic Research Service, Washington, D. C., 1969, p. 125.

In few other countries of Latin America has the move to the cities been so striking as in Honduras. In 1950, Honduras ranked within the lowest category as to percentage of total population living in localities of 100,000 inhabitants or more. Tegucigalpa, the national capital and long the dominant urban center of the nation, had fewer than 75,000 persons, and the north coast center of San Pedro Sula, with a diminutive population of 21,000, was the nation's second largest city. Within the following twenty-one years, however, both cities underwent a dramatic transformation. From 1950-1961, they nearly doubled and tripled their respective populations, as shown in Table 1. By 1971, Tegucigalpa had again nearly doubled and San Pedro Sula has grown more than sixfold from its size in 1950.²

Within the span of two decades, Honduras has witnessed the emergence of two major metropolitan centers (Map 1), of which San Pedro Sula represents the fastest-growing in all of Central America. This city, whose recent and unparalleled growth has overwhelmingly been a function of internal migration, offers an ideal site for the examination of one of Latin America's most dynamic migration systems.

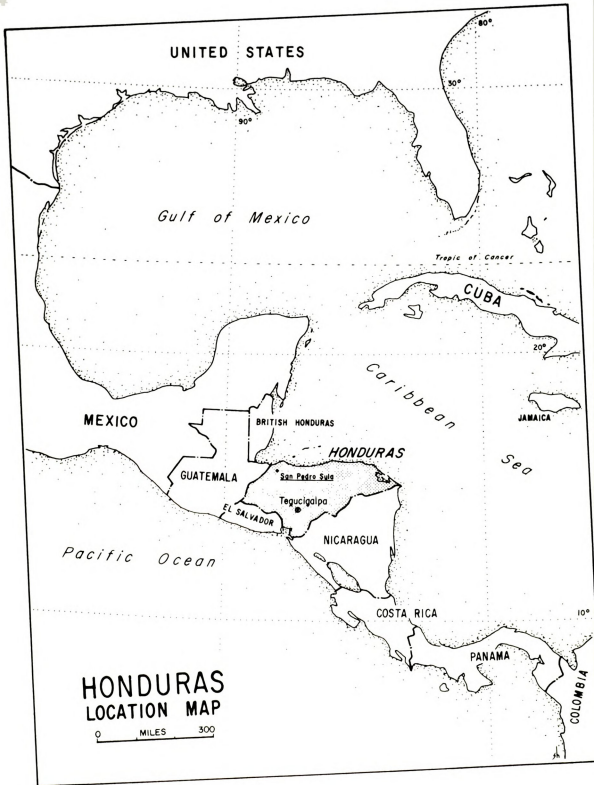
²By comparison, the annual natural increase for the country was about 3.5 per cent. Crude birth and death rates, 1950-1964, are tabulated in: Dirección General de Estadística y Censos, Secretaría de Economía y Hacienda, Honduras en cifras: 1964, Tegucigalpa, Honduras, 1965.

TABLE 1
POPULATION GROWTH OF TEGUCIGALPA AND SAN PEDRO SULA,
HONDURAS, 1950-1970

Year	Tegucigalpa	Increase		San Pedro Sula	Increase	
		Relative	Absolute		Relative	Absolute
1950	72,385			21,139		
1961	134,075			58,632		
1950-61 ^a		85.2	61,690		177.4	37,493
1970 ^b	232,276			102,516		
1961-70		73.2	98,201		74.9	43,884

^aDirección General de Estadística y Censos, Secretaría de Economía y Hacienda, Anuario Estadístico, Tegucigalpa, Honduras, 1966 and Dirección General de Estadística y Censos, Secretaría de Economía y Hacienda, Departamentos de Cortés and Francisco Morazán (Población y Vivienda, Abril-1961), Tegucigalpa, Honduras, 1963.

^bUnpublished population projections, Dirección General de Estadística y Censos, entitled "Población total en cabeceras municipales y en aldeas y caseríos, 1967-1970," Tegucigalpa, Honduras.



Map 1



Objective

The objective of this research is to examine and interpret, in its spatial context, the evolving migration system of San Pedro Sula, Honduras. This study represents the first major investigation of the role of internal migration in the population growth of San Pedro Sula. It will serve to provide information useful to both Honduran urban planners and professional scholars concerned with Latin American migration theory.

Hypotheses

The study focuses upon four main areas of inquiry in migration theory, namely, the characteristics of migrants, the role of distance in migration, the mobility process, and the decision-making behavior of migrants. Each has been incorporated into one of the following hypotheses:

1. Migrants to San Pedro Sula are for the most part female, less than thirty years of age, unskilled and primary educated.
2. The number of migrants to San Pedro Sula is inversely related to distance from the urban center.
 - a. Most of the migrants are from neighboring municipios and departments.
 - b. Some distortion in the distance-decay factor is accounted for by proximity to transportation facilities.

- c. A small number of well-defined migration "streams" can be identified, due to the paucity of highway infrastructure within the country.
- 3. Prior to their move to San Pedro Sula, the majority of migrants were residents of small to medium-sized urban places.
 - a. A very small proportion of migrants have moved directly from the countryside to San Pedro Sula.
 - b. The former residency of migrants in small to medium-sized places has facilitated occupational assimilation into the urban milieu.
- 4. The decision to migrate to San Pedro Sula, by the majority of migrants, was a rational one.
 - a. Migrants were cognizant of the social and economic limitations, and attributes, of their previous action space (e.g., housing, employment, family, and education).
 - b. Migrants were cognizant of the social and economic limitations, and attributes, of an alternate destination (other than San Pedro Sula).
 - c. Migrants were cognizant of the social and economic limitations, and attributes, of San Pedro Sula prior to their move.
 - d. Friends, kinship, or contacts established in the city were important stimuli to the migrants' "mover-stayer" decision environment (sources of information and/or adjustment).

Migration Literature

The hypotheses tested in this investigation are designed to build upon the growing literature on internal migration. First, it has generally been recognized that a migrant population has unique characteristics which

distinguish it from the total population. In a study of migration to Santiago, Elizaga found sex (more males) and age (younger cohorts) selectivity among the migrant population.³ Similarly, Ducoff's study in San Salvador suggests an age (younger), literacy (higher than non-migrants), and education (more than non-migrants) differential, but found a higher proportion of females in the migrant population.⁴ In a more recent study conducted in Monterrey, Mexico, Browning and Feindt forecast eventual decreasing selectivity among migrants to Latin American cities while still others, Bock and Iutaka, found selectivity to be an important tool in urban adjustment.⁵

The fact that migration tends to occur through well defined "streams" is discussed on theoretical grounds by Lee and illustrated in Whetten and Burnight's study of

³Juan C. Elizaga, "A Study of Migration to Greater Santiago," Demography, Vol. 3, No. 2, 1966, pp. 352-377.

⁴Louis J. Ducoff. "The Migrant Population of a Metropolitan Area in a Developing Country," Ekistics, Vol. 13, No. 79, May, 1962, pp. 330-332.

⁵Harley L. Browning and Waltraut Feindt. "Selectivity of Migrants to a Metropolis in a Developing Country: A Mexican Case Study," Demography, Vol. 6, No. 4, November, 1969, pp. 347-358, and Wilbur E. Bock and Sugiyama Iutaka, "Rural-Urban Migration and Social Mobility: The Controversy on Latin America," Rural Sociology, Vol. 34, No. 3, 1969, pp. 343-355.

internal migration in Mexico.⁶ It is also believed that distance and the propensity of movement are inversely related, a hypothesis established in the former's article and probably conceived nearly a century ago with the work of Ravenstein.⁷

The actual path followed to and subsequent relocation process once within the city is likewise important to this study. There is strong opinion that migrants follow a "stepwise" route to large urban centers, rather than moving directly from farm to large city. Similar to Elizaga, Flinn found that only a very small proportion of migrants to Bogotá had come from centers with less than 2,000 population.⁸ As proposed by Arriaga, "migration seems to take place in a series of steps according to city-size. A flow of migrants from rural areas goes to small or middle-sized cities, and from these cities to the larger urban areas."⁹

⁶Everett S. Lee, "A Theory of Migration," Demography, Vol. 3, No. 1, 1966, pp. 47-57, and Nathan L. Whetten and Robert G. Burnight, "Internal Migration in Mexico," Rural Sociology, Vol. 21, Nos. 1-4, 1956, pp. 140-151.

⁷E. G. Ravenstein, "The Laws of Migration," Journal of the Royal Statistical Society, Vol. 48, 1885, pp. 167-235 and Vol. 52, 1889, pp. 241-305.

⁸William L. Flinn, "The Process of Migration to a Shantytown in Bogotá, Colombia," Inter-American Economic Affairs, Vol. 22, No. 2, Autumn, 1968, pp. 77-88.

⁹Eduardo E. Arriaga, "Components of City Growth in Selected Latin American Countries," The Milbank Memorial Fund Quarterly, Vol. 46, No. 2, 1968, pp. 237-252.

Finally, the question as to why people migrate looms as a fertile area of inquiry for Latin American migration studies.¹⁰ Undoubtedly, economic forces often play an influential role in the decision to migrate, as shown in Robock's study of northeast Brazil.¹¹ Mortara suggests a "follow-my-leader mentality" among migrants, Flinn found close kinship ties a common bond between migrants and the city, while MacDonald and MacDonald uncovered a complex structure of economic and personal considerations, including attitudes and values, underlying the migration decision.¹² If stability does in fact persist in migration behavior regardless of the observable

¹⁰ Robert N. Thomas, "Internal Migration in Latin America: An Analysis of Recent Literature," in Barry Lentnek, Robert L. Carmin, and Tom L. Martinson, (eds.), Geographic Research on Latin America: Benchmark 1970: Muncie, Indiana: Ball State University, 1971, pp. 104-118.

¹¹ Stefan H. Robock. "The Rural Push for Urbanization in Latin America: The Case of Northeast Brazil," Latin American Studies Center (Michigan State University), Occasional Paper No. 1, East Lansing, 1968.

¹² Giorgio Mortara, "Factors Affecting Rural-Urban Migration in Latin America: Influence of Economic and Social Conditions in these Two Areas," Proceedings of the World Population Conference 1965, Vol. IV, United Nations, New York, 1967, pp. 509-512; Flinn, op. cit., and Leatrice D. MacDonald and John S. MacDonald, "Motives and Objectives of Migration: Selective Migration and Preferences Toward Rural and Urban Life in Guayana," Ekistics, Vol. 28, No. 168, 1969, pp. 321-327.

characteristic changes as proposed by Wolpert, a new era of migration explanation may be forthcoming.¹³

Procedure

At the official request of the Honduran Geographic and Housing Institutes, in Fall, 1970, plans were initiated to conduct an investigation of internal migration in San Pedro Sula. This agreement was made possible through a convenio of November 27, 1969, between representatives of the Honduran government and Dr. Clarence W. Minkel and Dr. Robert N. Thomas, president and vice-president, respectively, of the Committee on Applied Geography of the Pan American Institute of Geography and History.¹⁴

A thorough review of pertinent literature at the Michigan State University and Johns Hopkins University libraries preceded departure from the United States. In addition, preparations for the trip to Honduras were facilitated by a previous visit to the study area in April, 1970. The journey to San Pedro Sula was made by automobile

¹³ Julian Wolpert, "Behavioral Aspects of the Decision to Migrate," Papers, Regional Science Association, Vol. 15, 1965, pp. 159-169.

¹⁴ As a result of this agreement, doctoral research in Honduras during the last two years has nearly equaled all previous research dating from 1927. See: Allan D. Bushong, Doctoral Research on the Republic of Honduras in United States Universities (A working paper prepared for a seminar of the Committee on Applied Geography, Commission on Geography of the Pan American Institute of Geography and History), Tegucigalpa, June, 1968.

where a one-year period of research was initiated in January, 1971.

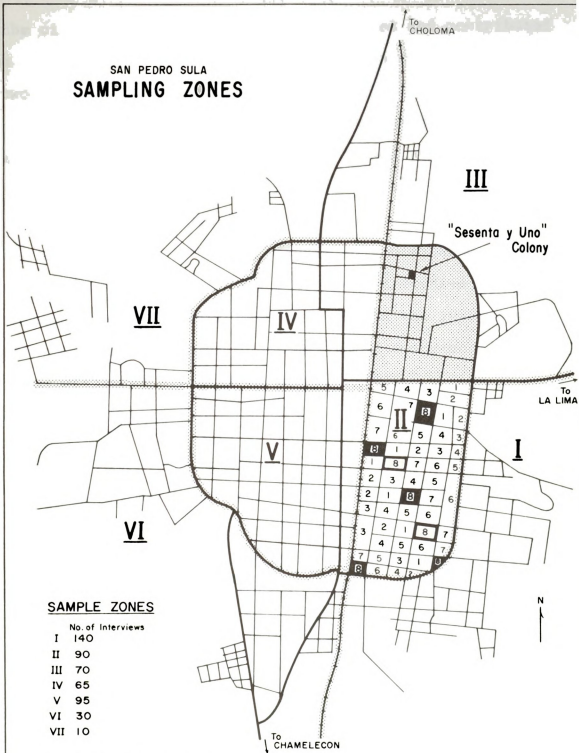
Channels of communication were established at the outset of field research with the National Geographic Institute, Housing Institute, and Department of Public Works, in Tegucigalpa, and the various municipal government agencies, in San Pedro Sula. These relationships were maintained closely throughout the study period and proved instrumental in garnering a high degree of community support.

Statistical Sample

The selection of 500 urban households, based on an estimated population projection of 102,000, for 1970, provided approximately a 2.5 per cent sample of San Pedro Sula.¹⁵ Due to the absence of either block statistics or a completed cadastral survey of the urban area, sampling zones were stratified according to housing densities and plotted on an air photo of the city (Map 2). Zone I, for example, contributed 140 sample households or 28 per cent of the total as it accounted for a similar share of the total population. Zone VII, on the northwest fringe of

¹⁵This figure was tabulated by dividing the 1961 housing count of 10,363 dwellings (including nearly 200 collectivos or grouped households) into the total population of the city. The total number of households was then arrived at for 1970 by assuming the average size of household to be the same as 1961, or 5.6 persons.

SAN PEDRO SULA SAMPLING ZONES




SAMPLE ZONES

	No. of Interviews
I	140
II	90
III	70
IV	65
V	95
VI	30
VII	10

ZONE II SAMPLE BLOCKS

INITIAL SAMPLING UNIT INCLUDED
ALL NUMBER 8 BLOCKS

(B) FINAL SAMPLING UNIT

 BARRIO BARRANDILLA

0 1 MILES

the city, was the least densely populated and contributed a corresponding share of ten sample households or only two per cent of the total.

Sampling units consisting of city blocks were subsequently delimited within zones.¹⁶ Each unit was represented by eight blocks numbered consecutively to assure a uniform geographic distribution throughout zones. A random drawing of 1-8 then identified the working sampling unit of any zone. Units were further stratified according to area, a modification that facilitated the interviewing process (Zone II, Map 2). Finally, all individual households within sampling units were identified by the drawing of random numbers.¹⁷

Methods

The population sampled consisted of heads of household residing in San Pedro Sula at the time of interview. In the case where a head of household was not present, the next closest dwelling unit with head of household present was selected. The sampling plan included those individual and collective residences within the corporate limits of the city.

¹⁶This technique is similar to the one outlined in Sampling Methods, Public Health Service Publication No. 1230 (U.S. Department of Health, Education, and Welfare), Washington, March, 1965.

¹⁷Hubert M. Blalock, Jr., Social Statistics (New York: McGraw-Hill, 1960), pp. 437-440.

Migration and family histories were recorded by the administration of interview schedules, as illustrated in Appendix A.¹⁸ The open-ended format utilized in a pilot study was designed to permit complete freedom of expression and offered an unlimited range of responses by the interviewee. In addition, it ultimately served to coalesce numerous responses to questions for the more close-ended or coded questionnaire format that followed. Interviews were conducted on Saturday afternoons and Sunday mornings, due to the greater availability of heads of household at those times.

Pilot Study

The implementation of a pilot study, during the early stages of field work, proved pivotal to the direction and organization of the major investigation. First, it offered an overall test of procedures. The technical aspects of interview timing, techniques of execution, and re-evaluation of questionnaire content were areas that merited close attention. Second, the findings from the pilot study community were in themselves suggestive of those mechanisms underlying the migration system of its parent universe. Lastly, it provided a valuable training

¹⁸Two sources found particularly helpful in questionnaire design include A. N. Oppenheim's Questionnaire Design and Attitude Measurement, Basic Books, Inc., New York 1966, and Morris Rosenberg's The Logic of Survey Analysis, Basic Books, Inc., New York, 1968.

environment for the twenty-three graduate students, of the Centro Universitario Regional del Norte, who assisted in the administration of the questionnaire. From this group, the six most proficient received supplementary training and were organized into an interview team for the main investigation.

Findings of the Study

In most cases, the hypotheses upon which this study was based were found to be valid. There were, however, variations discovered in the actual conditions pertaining to some of the premises.

Migrant heads of household to San Pedro Sula transport certain identifiable characteristics through earth-space to the city. As a group, they are predominantly male, less than thirty years old, occupationally unskilled, and primary educated.

There is a fairly distinct inverse relationship between the propensity of migration and distance from San Pedro Sula. The most apparent distortion in the distance-decay surface occurs in the western part of the country, a region traversed by a sole artery of transportation that links directly to San Pedro Sula.

Most migrant heads were born in small urban places. At the time of residence in San Pedro Sula, more than three-fourths had experienced some sustained urban exposure

in previous settings. Place-size origins do not appear to strongly distinguish occupational achievement among migrants in San Pedro Sula.

A majority of migrant heads made extensive assessments of their home community, of San Pedro Sula, and of some alternative destination before migrating. At least half received some form of assistance upon arrival, and during the first few months of residence, from friends, kinship, and other contacts established in the city.

CHAPTER II

THE SULA VALLEY

The growth of a city can be viewed, through time, as a result of the relationship between the environment and man. In the case of San Pedro Sula, it has been only during the past seventy years of its 435-year existence that some form of equilibrium between the two has been established. Man's activities, particularly during the twentieth century, have provided a dynamic catalyst for the recent emergence of a north coast metropolis. The setting for these man-land relationships, of which San Pedro Sula is an integral part, is the Sula valley. In this chapter, the natural and cultural forces whose interplay have synergistically produced a city are examined.

Physical Background

Cast within the tropical setting of the Caribbean lowlands and endowed with rich alluvial soils, the Sula valley has provided an extensive natural resource base for the nation.¹⁹ Only since the recent and successful

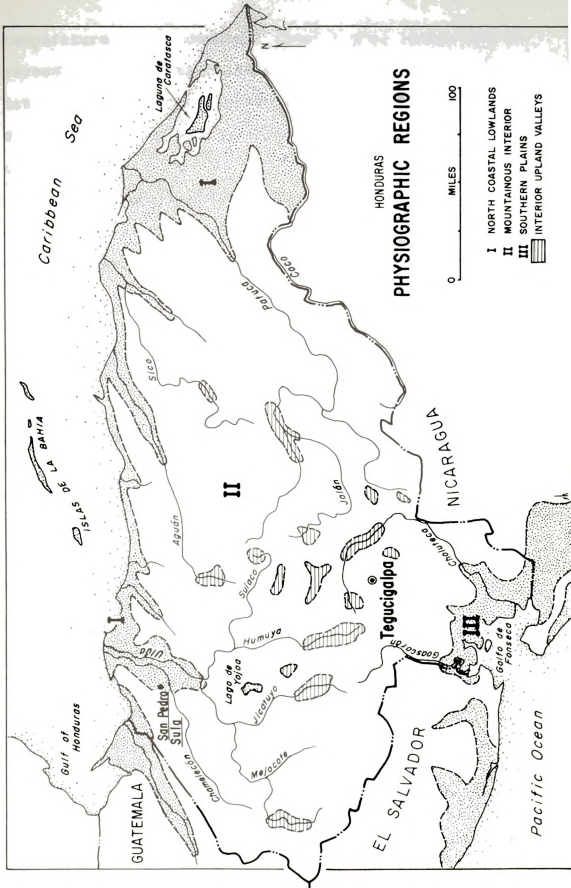
¹⁹The term "Sula" used by Honduran cartographers has Aztec origins (zula, usula, sola, sulin) meaning codornices or quail.

utilization by man has the economic significance of the long-dormant Caribbean lowlands been visualized. The Sula valley, and its offspring metropolis of San Pedro Sula, is rapidly converting the North Coast into Honduras' most productive region.

The Sula valley is located in the northwestern portion of Honduras. It is one of a series of inland-stretching alluvial coastal lowlands along the north coast of the country which collectively form a distinct physiographic region referred to as "La Costa" (Map 3). The valley's extension of about sixty by twenty miles (and up to forty-eight miles at its widest span) constitutes an impressive part of the coastal landscape. With the exception of "La Misquitia," in the far eastern portion of the country, the Sula valley appears to be one of the foremost in size among the north coast lowlands. Structurally, it forms the northern extension of the Comayaguan transisthmian depression.

Climate

One of the important characteristics that distinguish the Sula valley and its lowland counterparts from the rest of the nation is climate. Due to their low-elevated north coastal position and exposure to the strong influence of the trade winds, the Caribbean lowlands experience the highest yearly averages of rainfall and



temperature in the country, about eighty inches and in excess of 64°F, respectively. By comparison, less precipitation, cooler temperatures, and pronounced wet and dry seasons characterize the extensive mountainous interior to the south.

Although the Caribbean lowlands do experience comparatively higher year-round rainfall and temperatures than the rest of the nation, there is a distinct seasonal climatic change. Rainfall tends to be more prolonged and heavier during the period from June to January, while the largest accumulations occur in October and November. The short dry period from February to May also marks a considerable lowering of temperatures. The main intra-regional difference is a higher and more sustained rainfall in the eastern half of the zone which is capable of supporting year-round rainforest vegetation. In addition, seasonal differences within individual lowland valleys occur, with a tendency for those areas immediately fronting the coast to receive substantially higher rainfall than more interior locations.

Another important climatic feature of the Caribbean lowland zone is cyclonic disturbances that appear in the form of tropical hurricanes and nortes, or northers. Both phenomena have periodically presented a strong deterrent to man's development in the tropics. The hurricanes associated with Honduras follow a rather well-defined

track westward across the Caribbean, striking parts of the north coast between July and October. Damaging winds and flooding usually account for the extensive destruction of plantation agriculture and property, as illustrated by Hurricane Francelia in 1969. The nortes are cold winds originating in high-latitude regions and have been known to extend as far south as Nicaragua. Transporting high-velocity winds and cooling temperatures they, too, pose a considerable natural hazard to the expansive commercial activity of the north coast.

Upon close inspection, the Sula valley reveals climatic patterns which distinguish it within the coastal region. As a result of its far western location along the northern littoral, the valley lies outside of the tropical monsoon rain-forest climatic zone found to the east.²⁰ This peripheral position has resulted in a distinct seasonality of rainfall, making the Sula valley one of the less-watered parts of the coastal lowlands. A recent meteorological report indicates that the area encompassing Tela, Trujillo, the Bay Islands, and the coastlines of Colón and La Misquitia receive an annual precipitation of

²⁰ The tropical monsoon climatic type corresponds to Wladimir Köppen's Am classification. For a broader discussion on the subject see: Arthur N. Strahler, Introduction to Physical Geography, John Wiley and Sons, Inc., New York, 1966, pp. 105-109.

up to 152 inches, while as little as seventy-three inches fall on the coast of Cortés (and interior sectors of Atlántida and Colón).²¹ It also provides evidence of intra-valley differences by noting that highest annual rainfall diminishes to about fifty inches along the western portions of the Sula valley.

Meteorological data, representative of the three-year period 1967-1969, tend to substantiate the Sula valley's climatic position as illustrated in Table 2. Rainfall, in particular, shows a decreasing trend from east to west along the coast (La Ceiba-Tela-Puerto Cortés) and from the coast toward the interior (Puerto Cortés-La Mesa).²² The comparatively pronounced seasonality of rainfall at the latter two stations is also reflected by both mean annual accumulations and average number of days with precipitation. Temperature differences, on the other hand, appear less distinctive along the coast, although La Mesa's high of 107.4°F in 1969 may reflect its more interior location. Winds blow generally from a N-NE direction and tend to be

²¹See article entitled, "Vientos alisios influyen en actual clima del país" appearing in El Día (Tegucigalpa), May 25, 1971.

²²The one anomaly toward the interior is a high rainfall pocket at the southern end of the valley near Lake Yojoa. Here, the terrain rises abruptly to the north of the lake and a mean annual rainfall of 231 inches has been recorded (Anuario Estadístico, 1969, p. 1).

TABLE 2

METEOROLOGICAL OBSERVATIONS AT SELECTED
STATIONS IN HONDURAS, 1967-1969

	La Ceiba	Tela	Puerto Cortés	La Mesa
<u>Rainfall (inches)</u>				
Mean Annual	130.0	119.1	115.7	52.4
24-hour maximum	14.7	9.3	6.3	4.1
and date	10-20-68	9-2-69	11-19-69	5-25-68
Monthly maximum	NDS*	NDS*	NDN*	OMayN*
Average number of days	168	197	134	137
with rain				
<u>Temperature (Fahrenheit)</u>				
Average Annual	78.0	76.9	n.a.	77.2
Extreme maximum	100.2	95.0	n.a.	107.4
and date	6-10-68	3-8-69	n.a.	5-6-69
Extreme minimum	47.1	55.8	n.a.	55.4
and date	3-31-68	2-28-68	n.a.	2-8-68
<u>Winds (M.P.H.)</u>				
Dominant direction	n.a.	N	n.a.	N-NE
Maximum velocity	n.a.	51.8	n.a.	51.8
and date	n.a.	9-2-69	n.a.	9-2-69

*Monthly abbreviations.

Source: Anuario Estadístico, 1967-1969.

seasonal, with highest velocities in the latter half of the year.

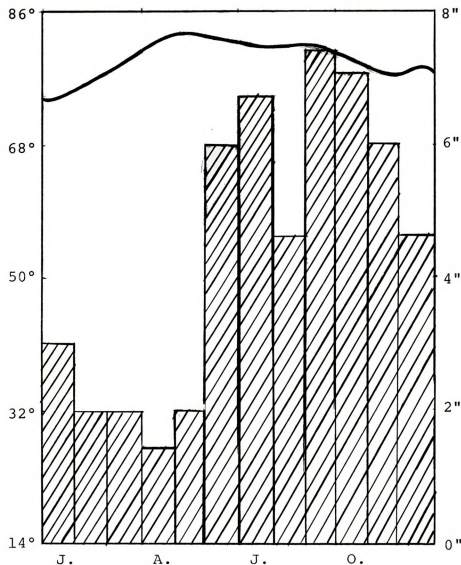
San Pedro Sula, about thirty miles inland and at the extreme western periphery of the valley (15° 28' N and 88° 01' W.), reflects the climatic position of that part of its region. Average monthly precipitation does not exceed two inches from February to May, climbs to between six and seven inches for the months of June, July, and October, and peaks to over seven inches in September, as shown in Table 3. With the advent of sustained periods of high evapotranspiration rates, it is not difficult to understand why the topic of water availability in the city becomes a central issue. Average monthly temperatures vascillate between 73.4 and 82.5°F, although maximum and minimum extremes have reached above 106° and below 50°.

The key component of climate in the Sula valley is rainfall. Despite its tropical lowland position, the valley receives substantially less precipitation than its eastern counterparts. It is this one factor, above all, upon which the agricultural and emerging industrial development is most closely associated.

Soils and Hydrographic Features

Soils are a vital component of the coastal landscape. The fact that they are alluvial makes the Sula valley and the remaining Caribbean lowlands one of the

TABLE 3

CLIMOGRAPH OF SAN PEDRO SULA
1932-1961

Note: Curve shows Fahrenheit temperature; vertical bars show rainfall in inches.

30-year rainfall averages

8-year temperature averages

Source: Compiled from Cervantes Asociados, p. 27.

most potentially productive soil zones in the nation. With the exception of southwestern Honduras, where volcanic ash from past eruptions was deposited along the north coast of the Gulf of Fonseca, most of the country is covered by thin, worn, and less productive rocky soils of crystalline origin.

As a result of the seasonality of rainfall, the Sula valley has long received periodic deposits of alluvial materials from its riverine network. The transported alluvium has formed a relatively new soil base which is rich in organic material, plant nutrients, and minerals. With added drainage controls and the supplementation of nitrogen fertilizers where needed, these soils are ideal for intensive use. It is an interesting historical fact that these soils were once used effectively by Pre-Columbian inhabitants, but they lay relatively dormant for nearly four centuries following European settlement.

The somewhat abrupt topographical disparity between the Sula valley lowland and the mountainous borders to the west and south provides a distinctive drainage pattern. Generally extending at elevations of less than 300 feet above sea level and flanked by the Merendón and Montecillos Mountains, the Sula valley provides a natural pathway for drainage to the Caribbean. Two rivers in particular, the Ulúa and Chamelecón, dominate the drainage system of the valley.

The Río Ulúa is the product of Honduras' largest hydrographic system. Supported by the fluvial discharge from neighboring departments of Ocotepeque, Copán, Santa Barbara, Lempira, Intibucá, La Paz, Comayagua, Francisco Morazán, Yoro, Atlántida and Cortés, the Ulúa drains an area of approximately 13,020 square miles or nearly one-third the national territory.²³ Fed by the Río Jicatuyo from the west, the Río Ulúa enters the Sula valley to the west of Potrerillos and is joined, following a brief eastern traverse, by the Río Humuya (Comayagua) near Pimienta. At full strength, it meanders northward for the remaining fifty-odd miles to the Caribbean, forming common departmental boundaries between Cortés and adjoining Yoro and Atlántida. During the rainy season, the river is navigable by small craft upstream to Pimienta.

Paralleling the Río Ulúa for approximately the last forty-three miles of its journey northward is the Río Chamelecón. The latter originates in the Sierra del Gallinero portion of the Merendón Mountains, in western Copán Department. Although draining a comparatively diminutive basin of about 2,580 square miles, it turns

²³Carlos Antonio Aguilar B., Texto de enseñanza de la geografía de Honduras: Estudios sociales, Tomo primero, Imprenta la República, Tegucigalpa, D.C., 1969, p. 143.

and flows parallel with the Ulúa, in the vicinity of La Lima, to make the Sula valley a vertible oasis. The river is navigable for small launches upstream to a point near Cofradía during the rainy season.

Because of its location at the extreme western flank of the valley, the city of San Pedro Sula does not directly benefit from either major river.²⁴ Rather, it must depend upon a few small seasonal rivers, of which the closest are the Río de Piedras and the Santa Ana. Both originate beyond the western fringes of the city in the Sierra de Omoa portion (less than 5,500 feet) of the Merendón Mountains. Other small rivers to the east of the city are tapped for farming purposes and eventually join with the Chamelecón.

The combination of rich alluvial soils and the merger of two extensive well-watered drainage basins provides the Sula valley with an advantageous physical base. These two characteristics appear to compensate appreciably for the seasonality of rainfall, making the valley highly productive.

²⁴ San Pedro Sula is situated at an elevation of approximately 183 feet above sea level, with the western extension of the city literally ascending the base of the Merendón Mountains.

Vegetation

With the exception of the Misquitia lowlands of northeastern Honduras and adjoining Nicaragua, high annual rainfall and an alluvial soil base have provided a fairly uniform pattern of vegetation for the low-lying north coast valleys.²⁵ It appears that prior to settlement, and the subsequent alteration of the natural landscape, most of the area was covered by tropical rainforest. Similar evidence can be shown for much of the Caribbean and Gulf of Mexico lowlands through the extension of broadleaf evergreen forest which penetrates as far north as Veracruz state, Mexico.

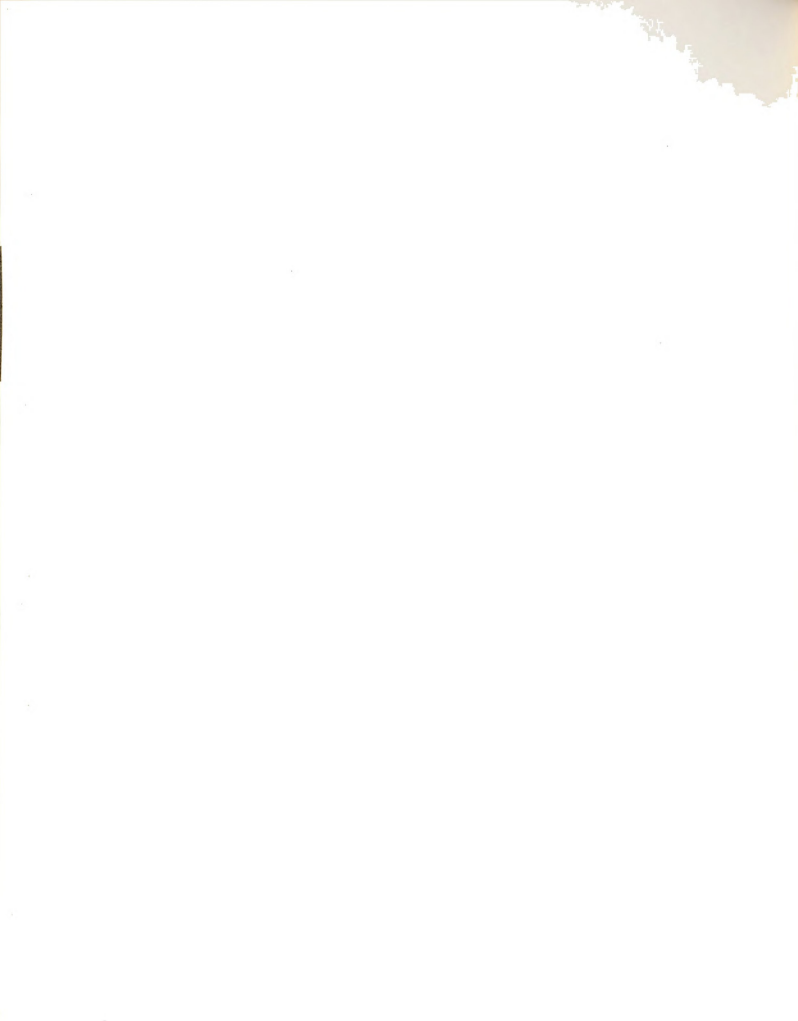
The Sula valley today, with extensive clearings and some remnant forests, reflects many decades of man's use. Low-lying and leeward-facing hill slopes, particularly during the low-rainfall period, take on a tropical scrub-like appearance with short deciduous trees, grasses, and scattered coconut and corozo palms. Only in the galeria vegetation of the lower portions of the valley,

²⁵ The Misquitia, one of the most sparsely populated portions of Honduras' Caribbean lowlands, is an anomaly to the rainforest pattern. Although it receives more than eighty inches of rainfall per year, there are extensive areas of humid savannas characterized by open stands of tropical lowland pine and grasses. Causes are thought to be edaphic, cultural, or a combination of the two. See: James J. Parsons, "The Miskito Pine Savanna of Nicaragua and Honduras," Annals of the Association of American Geographers, Vol. XLV, No. 1, 1955, pp. 36-63.

and possibly in a few isolated pockets of the surrounding mountainsides, is dense evergreen vegetation encountered. The once abundant dyewood, mahogany, San Juan, palo de rosa, carreto, cedar, sangre de dragón and guayacán stands within the valley have virtually disappeared as a result of plantation and pasture replacement.

Some of the natural fauna remains in the form of deer, peccary, wild turkey, monkey, alligator, tapir and an occasional jaguar in the surrounding highlands. A myriad of birds, water fowl and insects also abounds, including the quail, whitewing pigeon, dove, parrot, jilguero, zensontle, and zorzal. Man's ultimate design for utilizing the valley will undoubtedly affect the balance and perpetuation of the existing wildlife.

Alteration of the landscape, particularly in terms of vegetation, has left its mark upon the Sula valley. For more than two thousand years, the sequent occupancy of man has greatly modified the flora that preceded his arrival. The clearing and burning of forests or the preparation of land for milpa was a technique conceived by the earliest Mayan inhabitants and is still practiced by many farmers even today. European occupation introduced the hacienda, and contemporary efforts have developed plantation agriculture and grazing on a scientific basis. The original rainforest which covered much of the valley has virtually disappeared as a result of human modification.



Cultural Background

Although the exact time of the first incursion by man into the north coastal area of Honduras remains unknown, the Sula valley has probably been the setting of different cultural forms for at least two thousand years.

During this period, a variety of peoples have utilized the valley, each leaving some vestige upon the modern landscape.

Throughout much of his occupation of the valley, man's numerical presence has been relatively small, and his development remained largely at the subsistence level. Dictated by the combination of culture and a hot, tropical lowland environment, man's activities through millennia of time simply marked and failed to alter the natural setting of the valley. It has only been during the past seven decades that man has significantly challenged this relationship, giving rise to large-scale population growth in the valley.

Pre-Columbian Era and Discovery

Of the estimated 12 to 15 million Indians occupying Mesoamerica prior to European discovery, relatively few lived in what is now Honduras. Approximately 100,000, or less than one per cent of the total pre-contact population, resided in the area corresponding to the present-day

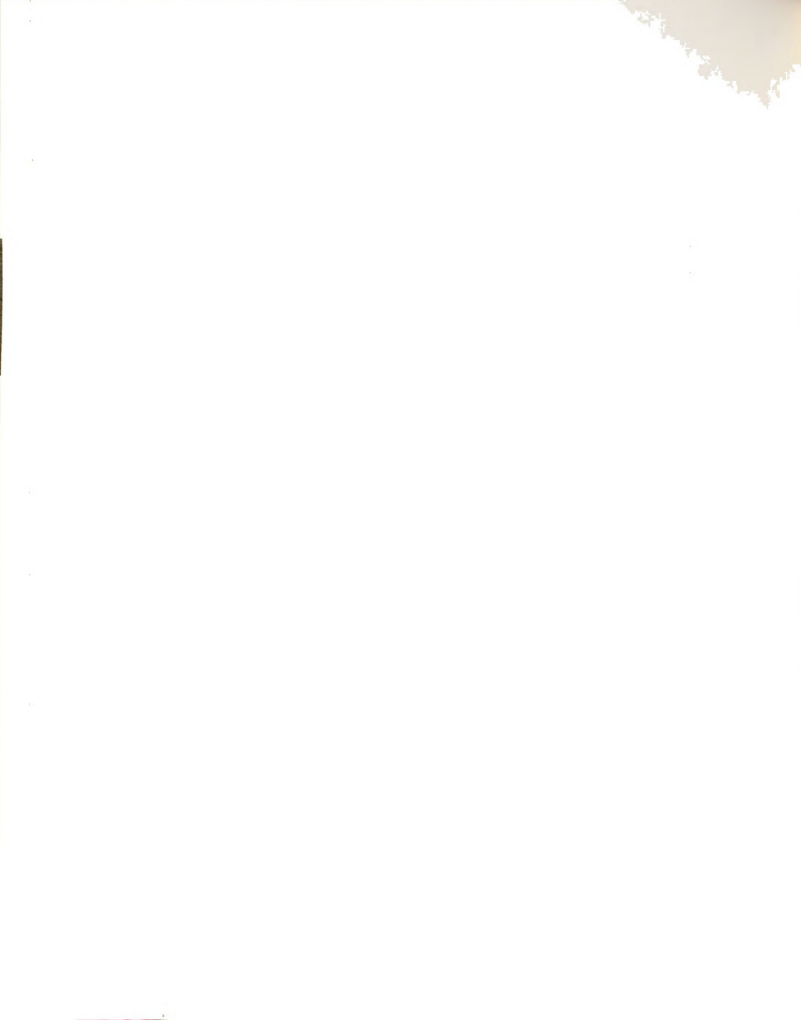
nation.²⁶ Heterogeneous and widely dispersed, they included the Chorotegas and Pipiles to the south, the Lencas to the southwest, the Jicaque, Paya, Suma and Misquito to the east, the Chorti to the west and northwest, the Matagalpas to the southeast, and a scattering of Mejicanos and north coastal Indian groups. With the added disadvantage of having not sustained any strong political organization by the time of contact, Indian resistance in this part of Central America was of slight consequence to the Conquest.²⁷

Among these many tribes, the most advanced were the Chorti. Descendants of the Maya, they engineered a society comparable to Luxor in Egypt and Angkor Wat in Cambodia almost 600 years before the first Spanish arrivals. Situated in western Honduras, and extending as far north as the Sula valley, they established the highland city of Copán which became the centripetal force of the southern Maya culture from 200 to 900 A.D.²⁸ Their knowledge of the domestication of maize probably made them the progenitor of the agricultural community in this area.

²⁶Miguel Navarro, Nuestro país, Publicaciones Navarro, Tegucigalpa, 1964, p. 88.

²⁷Luis Mariñas Otero, Honduras, Ediciones Cultura Hispanica, Madrid, 1963, p. 174.

²⁸The Chorti also extended into Guatemala, with many descendants residing even today in La Unión, Zacapa, Jocotán, Camotán, and Esquipulas. See: Fabian S. Ymeri, Antropología, cultura autóctona de Guatemala y civilización Maya, Imprenta Hispania, Guatemala, 1955.

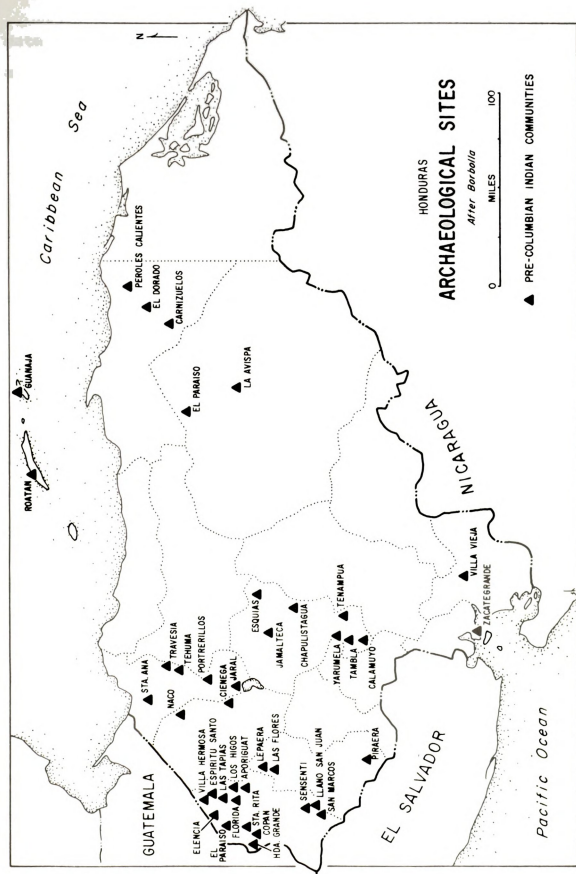


The extent to which the Chorti utilized the Sula valley is not fully known. They did have contact with the southern end of the valley (in the vicinity of Lake Yojoa), the upper reaches of the Chamelecón basin, and along the banks of the Ulúa, as evidenced by polychrome ceramics, golden artifacts, and other vestiges of their settlements (Map 4).²⁹ Despite the early demise of Copán to the west, numerous small indigenous communities proliferated on the margins of the Río Ulúa as late as the sixteenth century.³⁰ Soon after the conquest, the villa of San Pedro Sula was to emerge as an important comarca of Spanish jurisdiction over these many remaining pueblos of the valley.

During the Pre-Columbian era, the Sula valley indigenous were highly dependent upon the vagaries of nature. The extent of the annual rise and recession of the Ulúa and Chamelecón riverine system was a vital factor for a productive year, particularly in the basin. While milpa agriculture was most likely endemic throughout, the basin settlements along the floodplains were certain to further benefit from the periodic deposits of alluvial

²⁹ Pedro Aplícano Mendieta, Introduction to Mayan History, March, No. 85, Imprenta Calderón, Tegucigalpa, 1971, pp. 4-5.

³⁰ "Al recorrer Alvarado en persona el valle de Sula, encontró muchos pueblos de nativos, deteniéndose al fin cerca de uno de ellos a orillas del Río de Piedras," Perfecto H. Bobadilla, Monografía del departamento de Cortés, Sociedad de Geografía e Historia de Honduras, Talleres Tipográficos Nacionales, Tegucigalpa, 1944, p. 130.



Map 4

material. A successful harvest anywhere in the valley was an event dependent ultimately upon rainfall conditions.

Indigenous settlement in the Sula valley suggests an interesting environmental corollary to that of the Yucatan peninsula. Although human resources and achievements varied appreciably between the two, neither location, a hot, tropical, sultry lowland setting, was a deterrent to human activity. On the contrary, considering the tools at his disposal, in each site man established himself with a high degree of success long before Old World encroachment.

The discovery of the north coast of Honduras occurred on August 11, 1502, when Columbus, on his fourth trip to the New World, landed at Punta Castilla in the Bay of Trujillo. While the event itself was of little or no consequence to the native populace, the subsequent occupation of the coast and most of Mesoamerica, initiated a period of profound cultural impact on the New World way of life. By virtue of a resident Indian population and a favorable port location to the north, the Sula valley was among the first to experience the effects of this intrusion.

Colonial Period

The scramble for the middle part of Mesoamerica actually commenced about eleven years after Columbus' historic voyage. Pedrarias Dávila, as first Governor and Captain General of Castilla de Oro (Panama), laid claim to

the north coast area extending from Gracias a Dios to the Gulf of Darién as early as 1513.³¹ In 1519, the Gulf of Chorotega (Fonseca) was discovered on the Pacific coast and, in 1524, Gil Gonzalez Dávila circuited the north coast of Honduras to establish San Gil de Buena Vista (near Livingston, Guatemala), the first settlement in the newly discovered lands.³²

Meanwhile, the Spanish drive from the north toward Guatemala and Honduras began under the direction of Hernán Cortés in Mexico. In pursuit of "riches" and with the orders to "conquer and populate," Pedro de Alvarado departed Mexico City November 13, 1523, with a cortage of "300 soldiers (among them 120 musketeers), 135 horses, 4 canon, powder, over 200 Tascatecas and Cholutecas, and 100 Mexican carriers."³³ Whereas Alvarado moved overland, Cristóbal de Olid (also commissioned by Cortés) left for the new lands, in the following year, by sea. Conspiring with Diego de Velásquez, Governor of Cuba and political enemy of Cortés, Olid landed at Villa de Triunfo de la

³¹ Otero, *op. cit.*, p. 182.

³² At some point along his trip, he encountered a storm which took the lives of many of his horses aboard ship. They were discarded overboard at a point subsequently named Puerto Caballos and later called Puerto Cortés.

³³ Bernal Díaz del Castillo, Verdadera y notable relación del descubrimiento y conquista de la Nueva España y Guatemala, Tomo III, Vol. 73, Centro Editorial "José de Pineda Ibarra," Guatemala, 1964, pp. 162-163.

Cruz, near present-day Tela, on May 11, 1524.³⁴ It was, however, a short-lived rebellion, as Olid was killed the following year by the combined forces of his own men, Francisco de las Casas and Gil González Dávila, at the town of Naco (in Santa Barbara).

Cortés departed for the new land in October, 1524, to put down Olid's conspiracy and, upon reaching Puerto Caballos, founded the villa Natividad de Nuestra Señora. He "saw it to be a good harbor and supposed Indians to be living near."³⁵ On May 18, 1525, the first populated center of Honduras was founded at Trujillo by order of Francisco de las Casas. The nearly two decades of argument over possession of Honduras ended shortly thereafter when the Audencia of Santo Domingo appointed Diego López de Salcedo the governor of the territory.

The Colonial period made its initial mark upon the Sula valley under the leadership of Pedro de Alvarado. Having left Guatemala in February, 1536, with eighty soldiers and about 3,000 Indians, he entered Honduras through Ocotepeque and pacified the region of Buena Esperanza (near Quimistán).³⁶ Shortly afterward, he moved

³⁴ Villa de Triunfo de la Cruz was the first site in Honduras to be named by the Spaniards.

³⁵ Díaz, op. cit., p. 1296.

³⁶ Navarro, op. cit., p. 117.

into the Sula valley. The principal resistance was provided by the cacique Cicumba ". . . who ruled extensive and populous territories along the lower stretches of the Río de Ulúa and who had many warriors at his command In a brief but decisive campaign Alvarado took his great fortress by launching a daring attack from canoes."³⁷ Cicumba's demise gave the Spaniards uncontested control of the Sula valley.

On June 27, 1536, Alvarado founded the Villa de San Pedro del Puerto de Caballos. Eighteen days later, he made repartimiento general of all Indian towns declared within the jurisdiction of the village.³⁸ In all, there were 137 repartimientos distinguished, most of which had previously pertained to the town of Gracias a Dios. He also divided the two towns of San Pedro and Puerto Caballos, outlined the population of the comarca, and gave lots to his friends.³⁹

At the time of Alvarado's death, in 1541, Honduras had been pacified and the Conquest stabilized. Five cities, Trujillo, Choluteca, Gracias, Comayagua, and San Pedro Sula, had been founded, and the first camino real (ordered by

³⁷Robert S. Chamberlain, The Conquest and Colonization of Honduras, 1502-1550, New York: Octagon Books, 1966, pp. 34 & 57.

³⁸The repartimento was a division and allotment of the land and its Indian occupants among the Spaniards.

³⁹Bobadilla, op. cit., p. 130.

Alvarado) was opened between Puerto Caballos and San Pedro Sula.⁴⁰

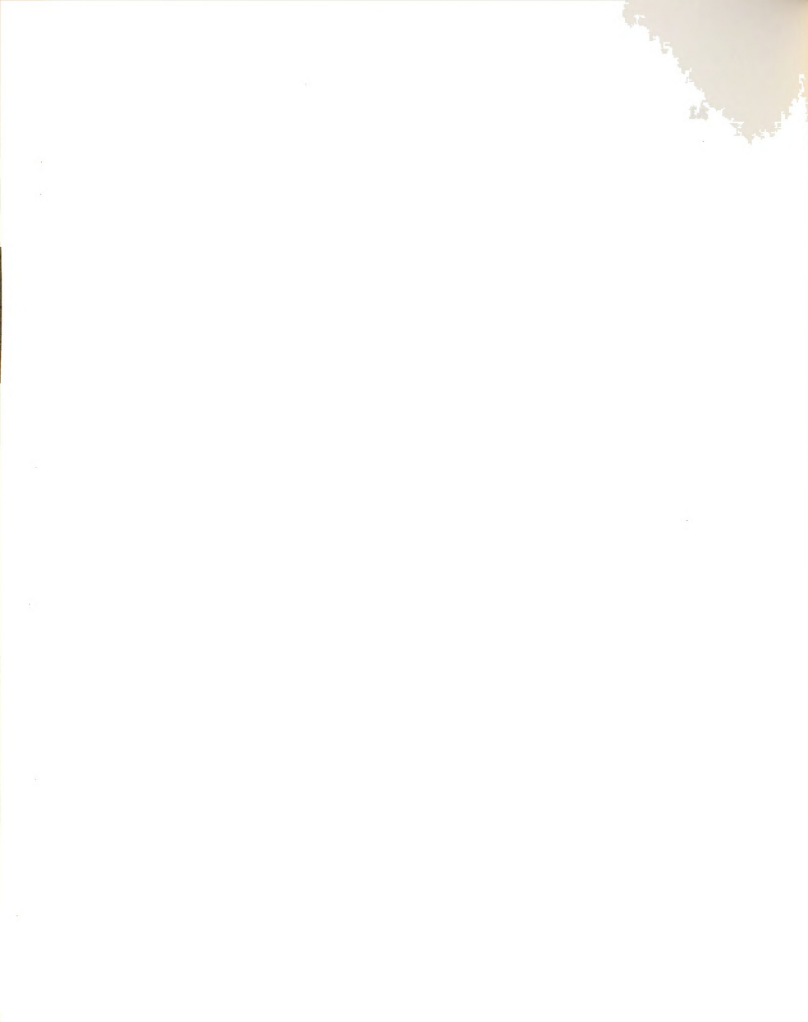
Throughout the remaining part of the Colonial period, the Spaniards consolidated their position in the valley through the encomienda system and the rapid depletion of the Indian population.⁴¹ Due to harsh social forms, ravages of previous battles, malnutrition, disease, and piracy, the number of Indians were greatly reduced long before the turn of the century.⁴² Accepting López de Velasco's estimates for 1571-1574, the population for thirty Indian towns or 700 tributarios corresponding to San Pedro Sula fell between 1,960 and 2,310.⁴³ In other

⁴⁰"El primer camino real fue el que don Pedro de Alvarado mandó abrir entre Puerto Caballos y San Pedro Sula, concludido en diez dias, y que 'podian transitarlo, sin embargo, dos recuas de mulas, una de ida y otra de vuelta'." Otero, op. cit., p. 203.

⁴¹A system not unlike that employed by the Aztecs in which the Spaniards exacted tribute from their Indian subjects.

⁴²"...it is estimated that the approximate pre-Conquest population of 12 to 15 million in Mesoamerica was reduced to about 2.5 million after the first century of Spanish occupation. Even by 1550, one of the most frequent complaints of the encomenderos of New Spain was the great decrease in tribute due to deaths among their Indians. The population of most highland villages had been more than halved and many lowland settlements had disappeared completely." Robert C. West and John P. Augelli, Middle America, Englewood Cliffs: Prentice-Hall, Inc., 1966, p. 267.

⁴³Juan López de Velasco, Geografía y descripción universal de las Indias desde el año 1571 al de 1574, Establecimiento Tipográfico de la Fortanet, Madrid, 1894, p. 306.



areas, the early and rapid decline of the Indian induced development of the new Iberian cattle culture, particularly in the Comayagua, Choluteca and Olancho regions.⁴⁴

Although mineral production in colonial Honduras never reached the dimensions of that in Mexico, Colombia or Peru, there were two periods of mineral activity that had consequence for the Sula valley. There was an initial period of placer mining in the riverine network of the Caribbean Coast and adjacent valleys between 1530 and 1560, and there was the subsequent discovery and exploitation of major deposits of gold and silver in the mountainous interior to the south from 1570 to near the close of the Colonial era.⁴⁵ Mining in the first period gave impetus to San Pedro's commercial function in its official capacity as gold registry. The latter development, coupled with the prolific indigo industry of San Salvador during the seventeenth and eighteenth centuries, undoubtedly increased the importance of the Sula valley as a pathway to the interior and exit to the Old World.

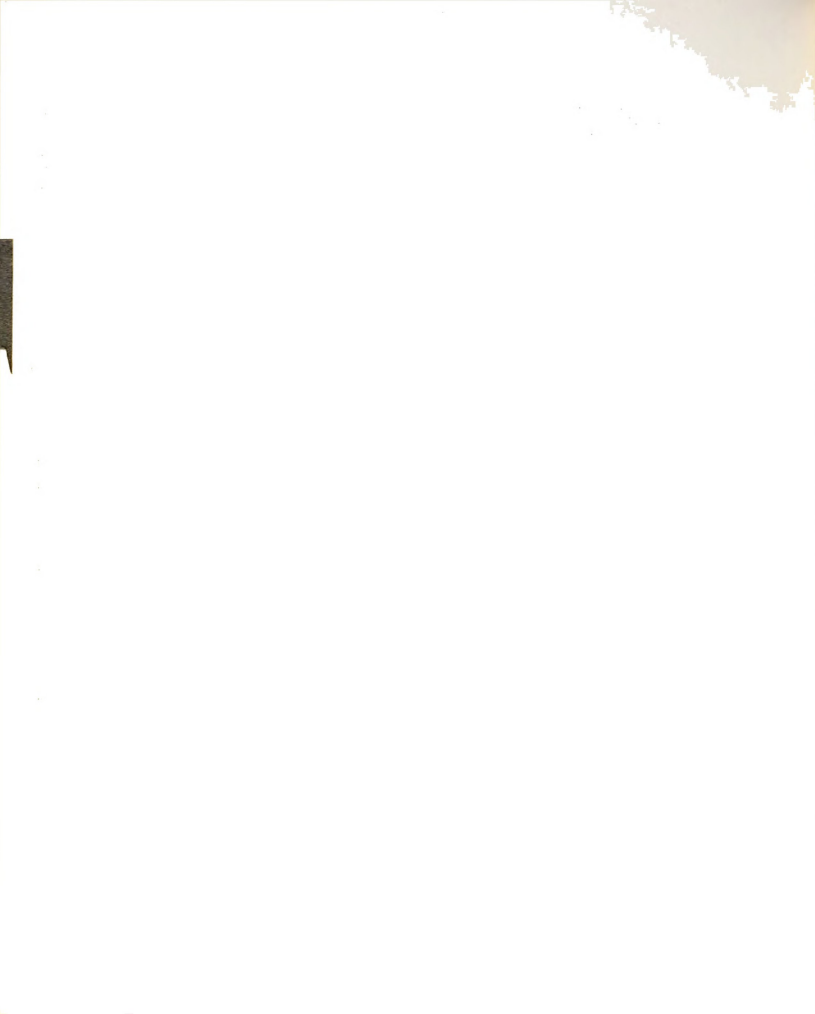
⁴⁴Carl L. Johannessen, *Savannas of Interior Honduras, Ibero-Americana*, No. 46, University of California Press, Berkeley, 1963, p. 27.

⁴⁵Robert C. West, "La economía minera de Honduras durante el período colonial," *La Prensa*, San Pedro Sula, September 14, 1971, p. 14.

Independence Through the
Twentieth Century

At the time of independence in 1821, it was apparent that the vast mountainous interior of the Province of Honduras had emerged as an economic and political focus for the Spanish settlers. Mineral deposits, grassy intermontane valleys well-suited to grazing, and a generally healthy environment combined to attract man's activities to the south of the Sula valley and North Coast region.

From the backdrop of mineral exploitation and large cattle estancias, two centers emerged in a political rivalry which helped ultimately to polarize the North Coast region from the interior. Valladolid de Comayagua, the initial capital of the province for more than 300 years, eventually lost its position of national leadership to Tegucigalpa. The latter, founded in 1579 as Real de Minas, raised to the Villa de San Miguel y Heredia in 1762, and established as a city (of about 6,000 inhabitants) after independence in 1821, was declared the capital of Honduras on October 30, 1880. It emerged in its new capacity during a troubled period of civil wars and disorder that began with the rupture of the Federation of Central American States in 1838 and was to last well into the twentieth century. In terms of an already distant regional relationship, the shift of the national capital from Comayagua to



Tegucigalpa served to further partition the interior from the North Coast.

The Sula valley to the north developed a style of life independent of that to the south. English and Dutch piracy was a common phenomenon along the Caribbean Coast throughout much of the eighteenth and nineteenth centuries and was probably the foremost preoccupation of settlers in the coastal area. The pueblo of Lemoa (or Marcayo) along the course of the Río Ulúa, for example, was sacked and destroyed by more than 200 zambos and "a considerable number of English" in 1704.⁴⁶ In 1775, the Spaniards constructed the fort of San Fernando de Omoa about nine miles west of Puerto Caballos. Other forts, such as Castillo San Felipe and Bacalar, in Guatemala and southeastern Mexico, respectively, were erected to consolidate the Spanish line of defense along the coast. Finally, following more than two centuries of English harassment, a treaty was signed in 1859 recognizing the official sovereignty of Honduras over the Islas de Bahía. In 1861, the archipelago was incorporated as Honduran territory.⁴⁷

With the exception of small population concentrations at San Pedro Sula and Puerto Caballos (changed to Puerto Cortés in 1869), settlement in the valley was

⁴⁶ Bonilla, op. cit., p. 97.

⁴⁷ Navarro, op. cit., p. 37.

confined to a scattering of caserios and aldeas along the path to the interior. Cattle production, wood cutting, and periodic gold washing were the principal occupations of the Sula valley inhabitants. On a visit to this part of the country around 1853, E. George Squire, the man originally contracted to construct the interoceanic railroad, recorded the following description of the valley:

The great plain of Sula, which may be said to commence at Yojoa, is a distinguishing feature of this department. It is not only of great extent, but of unbounded capacity. The early accounts of the country represent it to have been densely populated by the aborigines. It is now mostly covered by a heavy forest, relieved only by a few narrow patches of cultivated grounds in the vicinity of the towns which are scattered along the camino real. This forest abounds in valuable woods, and from it a greater part of the mahogany exported from Honduras has been derived. The Chamellicón and Ulúa are the natural channels through which the mahogany has been, and still is, carried to the sea-side.⁴⁸

The fact that the valley was forested in this period may provide added support for the idea that pre-contact populations here were not large. On the other hand, the recycling of the forest may have conceivably occurred in the 300 years following the reduction of the Indians. In either case, the valley probably contained 6-10,000 persons, or a figure nearly comparable to that of its original population, prior to the turn of the century.

⁴⁸E. George Squire, Notes on Central America; Particularly the States of Honduras and El Salvador, New York: Harper and Brothers, Publishers, 1855, p. 149.

The relative social and economic dormancy long characterizing the Sula valley and some of its north coastal counterparts was to soon change with the introduction of the banana. "As early as 1860, a few Honduran planters on the Caribbean coast were cultivating bananas on a small scale and selling them to freighters that stopped at the old ports of Omoa and Trujillo. By 1896, bananas accounted for nearly a quarter of the value of Honduran exports."⁴⁹ These initial successes were the first indication of impending large-scale changes in the man-land relationships of the North Coast.

Modern Period

Having occupied a somewhat peripheral and inconsequential position during the Pre-Columbian, Colonial, and post-Colonial periods, the North Coast has evolved, in the short span of seven decades, as the nation's fastest-growing region of social and economic activity. The uncontested leadership in both respects has been that of the Sula valley.

Without question, the United Fruit Company constituted the single-most important catalyst for the Sula valley's newly-discovered role. As early as 1912, the Company established a foothold on the North Coast with two

⁴⁹West and Augelli, op. cit., p. 424.

subsidiaries, the Tela and Trujillo Railroad Companies. In the following two decades, the Company acquired vast territorial concessions and rose to "a \$242,000,000 banana empire when it bought its chief competitor, the Cuyamel Fruit Company [Omoa and La Lima] in December, 1929."⁵⁰ By 1930, the population of Cortés Department (incorporating much of the Sula valley) had nearly tripled from 23,559 in 1910, and the Republic of Honduras had become a major banana producer of the world.⁵¹

The significance of United's achievements in the Sula valley, regardless of the company's much criticized business ethics during this early period of operation, cannot be dismissed. United Fruit represented not only a pioneer in tropical agriculture but led the way for man's successful accommodation to a previously limiting environment. Malaria control, soil and plant diseases, flooding and winds, and even widespread fires due to drought, were among the array of natural obstacles eventually surmounted.⁵²

⁵⁰Charles David Kepner, Jr., and Jay Henry Soothill, The Banana Empire, New York: Vanguard Press, Inc., 1935, p. 131.

⁵¹The Standard Fruit and Steamship Company's holdings in the Aguán River valley and near La Ceiba, although on a smaller scale than the United, also contributed to Honduran banana supremacy during this period.

⁵²On the Caribbean side of Guatemala, malaria rates among banana personnel were reduced from a high 21.9 per cent, in 1929, to 0.3 per cent, in 1955. On the Pacific side, they declined from 15.3 per cent, in 1938, to 0.2 per cent in 1955. Also, the admissions of infected personnel in Costa Rica dropped by 88 per cent at Quepos, 98 per cent at Golfito, and 99 per cent at Limón, between 1945 and

It proved the contention that man-land relationships in the tropics are intimately associated with "culture."⁵³

The fruit companies focused their attention on still another area of development, that of transporation. The Honduran government, hopeful of one-day having a unified land-transportation system had granted " . . . generous concessions in return for the promise of railroad development to the interior."⁵⁴ Although almost 1,000

1955. Stacy May and Galo Plaza, The United Fruit Company in Latin America, Washington, D.C.: National Planning Association, 1958, p. 188. Among the many plant and soil diseases eventually brought under control, Sigatoka and Panama disease had probably the most devastating record. Carlos Evers, "Breve reseña histórica del centro de investigaciones científicas tropicales en La Lima," La Prensa, San Pedro Sula, May 20, 1971, pp. 12-13. "In 1924 the effect of drought was so severe on some of the plantations of Honduras that much damage was reported to have been by fires started among the parched leaves." Hugh H. Bennett, Annals of the Association of American Geographers, Vol. XVI, No. 2, June, 1926, p. 72.

⁵³Despite these achievements, a popular theme of social scientists was that human development in the tropics is dictated by environment. "To sum up, it is not surprising that hot, wet, regions should have populations which are generally small and in poor health and that the level of civilization should be low, for there man is attacked by terrible foes, and, if he survives their attacks, the conditions of his existence remain precarious." Pierre Gourou, The Tropical World, London: Longmans, Green, and Co., 1953, p. 12. See also, Ellsworth Huntington, Main-springs of Civilization, New York: John Wiley and Sons, 1945, and M. F. A. Montagu, An Introduction to Physical Anthropology, Springfield: Charles C. Thomas, 1945.

⁵⁴Kepner and Soothill, op. cit., p. 141.

miles of track were laid and port improvements were undertaken, it is significant that the resulting design did not serve national interests. Rather, it further polarized the North Coast from the interior in that:

. . . only the North Coast benefitted from the railroad and port facilities, thus developing a strong, economically independent base for industrial and trade relations with its own region and with foreign markets. Tegucigalpa not only was not integrated into this relatively powerful economic force, but also lacked a strong enough agricultural base in its hinterland to give impulse to its economic development. The only economic activity of major importance was government activity.⁵⁵

The division between the North Coast and interior has become even more evident during the past twenty years as a result of the industrial leadership assumed by San Pedro Sula and its environs. In the wake of the banana boom, industrial diversification spawned an unprecedented era of human mobility and activity in the Sula valley. With the aspiration to improve their economic position and quality of life, thousands of people have flowed steadily into the valley and, in particular, to San Pedro Sula. While the population of Cortés Department mushroomed

⁵⁵ Mario E. Martín, "Urban Systems in Central America: A Survey of Factors Influencing Size and Function of Cities," Unpublished Master's thesis, Yale University, Department of City Planning, New Haven, May, 1966, p. 40.

to nearly 275,000 in 1970, the growth of San Pedro Sula has been nothing short of phenomenal, having increased from 21,139 in 1950, to approximately 130,000 in mid-1971.⁵⁶

⁵⁶Interview with Ing. Juan Fernando López, Mayor of San Pedro Sula, San Pedro Sula, May 19, 1971.

CHAPTER III

EVOLUTION OF SAN PEDRO SULA

Despite the rich soils, the year-round flow of the Ulúa and Chamelecón, and the prolific assortment of animal and vegetative life, the tropical setting of the Sula valley did not sustain any large population centers prior to European contact. Other than the neighboring highland metropolis of Copán, about forty-five miles to the west of the valley, settlements tended to be small with an average estimated occupancy of between sixty-five and 100 inhabitants.⁵⁷

It was not until four centuries after Spanish discovery that noticeable changes in population growth occurred. As a result of a banana boom in the early 1900's, many people from throughout the nation began to move to the

⁵⁷ This estimate is based upon several factors: 1) There was no major resistance to the conquest and settlement of the Sula valley, 2) there were no recorded large centers of indigenous population, and 3) at the time of repartimiento general (1536), many pueblos were already difficult to identify as a result of depopulation or extinction. Lastly, assuming all 700 tributarios in 1574 to be located in the valley and applying a reduction ratio of 3-4:1, some ninety-odd pueblos prior to discovery would have had roughly an average of 65-100 occupants and constituted a population of between 5,850-9,000.

Sula valley and North Coast. By mid-century, the rural population of the valley had grown to remarkable proportions, and in 1954 a debilitating labor strike on the banana plantations triggered the first large-scale migration of people to San Pedro Sula. Subsequently, the city attracted thousands of migrants as a result of industrial growth and, in less than twenty years, garnered the uncontested social and economic leadership of the North Coast and, possibly, the nation.

Founding to 1900

The genesis of San Pedro Sula dates from June 27, 1536. Don Pedro de Alvarado, Governor and Captain General of Guatemala, founded the "Villa de San Pedro del Puerto de Caballos," at a site distinguished by a large madre-cacao tree and in the vicinity of the indigenous population of Tholoma.⁵⁸ It was initiated as a Spanish center and contained only twenty vecinos (persons), most of whom had encomiendas of Indians.

Despite the diminutive size and population growth that was to characterize San Pedro Sula until the twentieth century, the city developed an early regional character. The inhospitality of the environment at Puerto Caballos and the early need for a royal gold registry

⁵⁸Bobadilla, op. cit., p. 130.



within the valley, provided an important commercial and administrative function for San Pedro Sula as early as the mid-sixteenth century. Moreover, the geographical location of this town astride the pathway to the provincial capital (Comayagua) and interior gave it immediate accessibility to trade and travel.

San Pedro Sula, in 1574, ranked fourth among the six largest Spanish towns in the Province of Honduras, as shown in Table 4. By 1582, twenty-six indigenous towns remained within the comarca, including Llamatepec, Chinda, Talpetate, Petoa, Espoloncal, Santiago, Tehuma, Trinixol, Ticamay, Quelequele, Tibombo, Zuzumba, Chapoa, Laysla de Vtila, Chumba, Xoxon, Colupa, Yoroc, and Ximia, many of which were located along the margins of the Río Ulúa.⁵⁹

Parish records provide some insight into subsequent developments. Fray Fernando de Cadiñano conducted a pastoral visit to the North Coast in 1789 and indicated that San Pedro Sula continued as a small town, with the entire parish totalling 357 persons.⁶⁰ Based upon the combined 2,800 Spaniards, mestizos, and Indians censused in the area corresponding to Cortés Department and most of Santa Barbara, in 1801, the population of San Pedro Sula was

⁵⁹ Ibid., p. 131.

⁶⁰ Jaime Brufau (Bishop of San Pedro Sula) "Apuntes para la historia de la catedral de San Pedro Sula," La Prensa, San Pedro Sula, February 20, 1971.

TABLE 4
POPULATION IN PROVINCE OF HONDURAS, 1574

Population	Spaniards	Indian Population in the Comarca	Number of Indios Tributarios
Valladolid (Comayagua)	100	56	2,600
Trujillo	100	24	600
San Pedro Sula	50	30	700
Gracias A Dios	50	61	3,000
Olancho (San Jorge de)	40	?	10,000
Puerto Caballos	20*	0	0

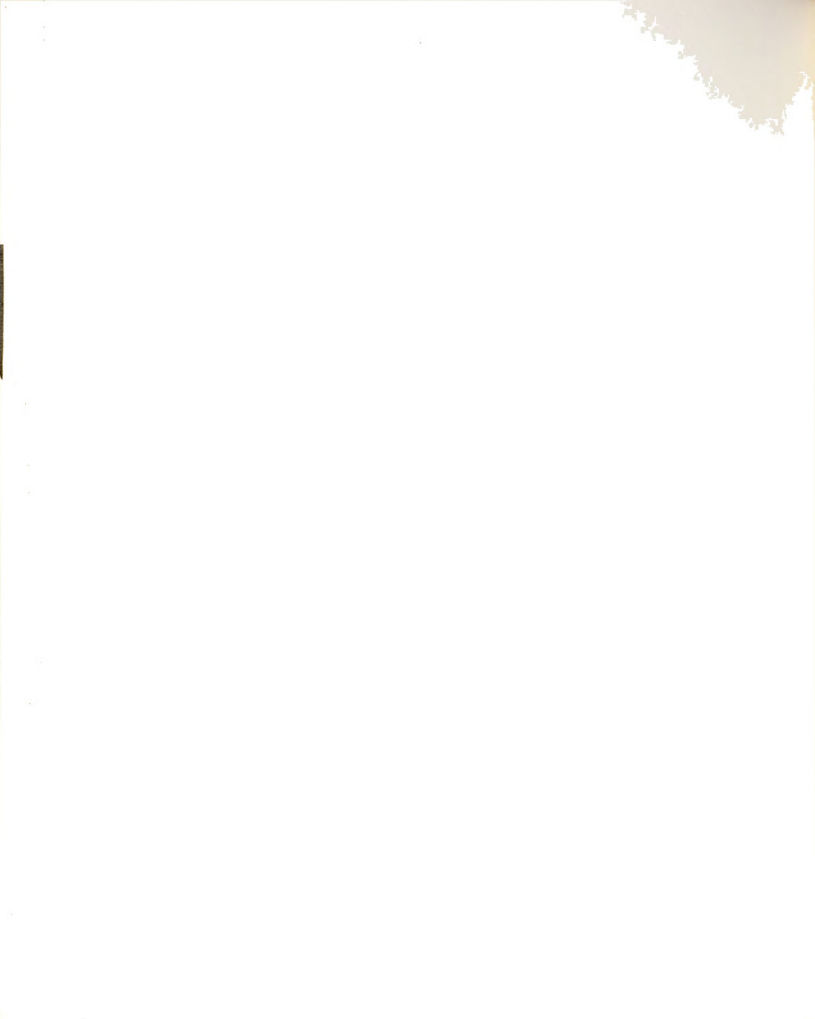
*Houses of merchants and negroes.

Source: Juan López de Velasco, pp. 306-313.

believed to have grown to approximately 500 inhabitants by the turn of the nineteenth century.⁶¹

Following the era of Independence, two events focused national attention upon the North Coast. First, work on the much heralded interoceanic railroad was begun from Puerto Cortés to the interior and, second, there was a flourish of private enterprise in lowland banana cultivation. During the latter half of the nineteenth century,

⁶¹Ibid., p. 8.



about fifty miles of national railway track were laid, while in the same period bananas accounted for more than 22 per cent of the total value of Honduran exports.⁶² The immediate effect on San Pedro Sula was that the city's position was improved as a result of rail connection, and the era of private banana enterprise stimulated commercial activity in the area.

In 1888, San Pedro Sula was a center of 1,714 residents, and by 1893, it became one of two districts for the newly created Cortés Department.⁶³ Relatively small, isolated and inconsequential on a national scale, the city of San Pedro Sula was to soon reflect the mixed fortunes of a multi-million dollar banana bonanza in the twentieth century.

1900-1950

The introduction of North American banana plantation agriculture on the North Coast of Honduras had great impact on the nation. In terms of the national economy, the value of banana exports grew so rapidly at the outset that by the early 1930's they accounted for 70-80 per cent

⁶² Kepner and Soothill, op. cit., pp. 96-104.

⁶³ An early consequence of banana cultivation was the creation of Colón, Cortés, and Atlántida departments in 1891, 1893, and 1902, respectively. Navarro, op. cit., p. 44.

of total exports. On the regional level, banana production began to transform the dormant north coastal valleys into a zone of social and economic activity. By 1930, the North Coast departments of Atlántida, Colón, Cortés, and Yoro, which had contained less than 10 per cent of the national population in 1900, supported approximately one-fifth of the total Honduran populace.⁶⁴

Population movement to Cortés Department received special impetus as a result of the extensive banana holdings within the Ulúa-Chamelecón river basin. The number of people in Cortés increased more than fivefold during the period 1910-1950, as shown in Table 5. By comparison, the growth of San Pedro Sula was much more deliberate. Yet, despite its small size, the city maintained a numerical leadership within the emerging North Coast urban hierarchy at the end of the period.

The decreasing proportion of San Pedro Sula's contribution to departmental growth, 1910-1950, reflects the strong attraction of the cultivation zone and a corresponding growth of smaller commercial and trade centers. Within the broader statistics, however, the city and banana campo appear to have engaged in a "give and take" relationship

⁶⁴ Jeffrey Royle Gibson, "A Demographic Analysis of Urbanization: Evolution of a System of Cities in Honduras, El Salvador, and Costa Rica," Latin American Studies Center, Dissertation Series No. 20, Cornell University, Ithaca, September, 1970, pp. 69 and 186.

TABLE 5
POPULATION CHANGE IN CORTES DEPARTMENT
AND SAN PEDRO SULA, 1910-1950

Year	Cortés Department	San Pedro Sula	San Pedro Sula as % of Cortés Dept.
1910	23,559	---	25
1913	---	7,820	--
1930	58,273	13,130	22.5
1940	87,269	17,500	20
1950	125,728	21,139	17

Source: Compiled from Censuses 1930-1961.

based upon the vagaries of the industry. For example, the decade following peak production in 1931 was one of declining output. The world depression, the first labor revolt in 1932, and a sustained period of Sigatoka and Panama disease contributed to sharp decreases in the number of workers and level of production for the duration of the decade.⁶⁵ The resulting unemployment, however, produced a period of substantial growth for San Pedro Sula. Conversely, the net decrease of city population from 22,116 in 1945 to

⁶⁵Kepner and Soothill, op. cit., p. 137; May and Plaza, op. cit., p. 384.



21,139 in 1950 can be attributed to subsequent reclamation of the cultivation zone (i.e., new opportunities in the countryside).⁶⁶

The symbiotic relationship between the city of San Pedro Sula and the banana industry had another important dimension, namely, that the large accretion of people in the cultivated areas constituted a migratory body of potentially massive proportions by the mid-twentieth century. Similarly, in Turrialba Cantón, Costa Rica, the banana bonanza reached its highest proportions between 1926 and 1948 and led, subsequently, to urban growth:

Thus, while Turrialba Cantón and the Central District both had their most rapid population growth during the banana boom, expansion in the town continued at a high rate. The town had a gain of approximately 162 per cent between 1926 and 1948, as compared to that of 107 per cent in the Central District and 103 per cent in Turrialba Cantón between 1926 and 1950. By 1948, nearly one-half of the people in the Central District were living in Turrialba, as compared with a little over one-third in 1926.⁶⁷

As if by some historical design, the relationship between the banana zone and San Pedro Sula underwent a similar transformation on a much larger scale shortly after mid-century. The change occurred when the potential

⁶⁶ San Pedro Sula: Plan para el año 2,000. Cervantes Asociados, México, D. F., September, 1964, p. 13.

⁶⁷ Carroll J. Schwartz and Paul C. Morrison, "Origins of Population, Turrialba, Costa Rica, 1948," The Journal of Geography, Vol. LXII, No. 8, No. V, 1963, p. 355.



migratory farm force was triggered into motion, and the common destination for many became San Pedro Sula.

The Emergence of a City

Since 1950, San Pedro Sula has been transformed into a city of substantial proportions. With a population in excess of 100,000 in 1970, it possibly represented the fastest-growing center of its size category in all of Latin America. In addition, it has assumed national importance as a result of industrial development. In less than twenty years, San Pedro Sula has emerged as the undisputed leader of social and economic activity on the North Coast of Honduras.

The events which led to the large-scale movement of people to San Pedro Sula were initiated by developments on the banana plantations. In 1954, the United Fruit Company experienced its most severe and "crippling strike" among farm labor.⁶⁸ One year later, the company lost the entire crop in the Ulúa valley and sustained extensive

⁶⁸"From April to July, 1954, a new force disturbed the Honduran scene, one that could no longer be ignored-- the labor movement. Carías and Gálvez had shackled labor as an incentive to private enterprise. The fruits of that disastrous policy were evident in the crippling strike of 1954. The fact that foreign companies were involved, UFCO in particular, added the explosive issue of nationalism, especially when those companies resorted to strike breaking tactics long since outmoded in the United States." Mario Rodríguez, *Central America*, Englewood Cliffs: Prentice-Hall, Inc., 1965, p. 136.

damage to facilities as a result of flooding.⁶⁹ Due mainly to these setbacks and the accompanying rise of nationalism, the United Fruit Company consequently consolidated part of its holdings. "In the 1950-55 period, the company disposed of 65,000 acres, most of which was donated to the Honduran government."⁷⁰ As production declined, the migratory force was inevitably triggered:

The immigration proceeding from the rural zones had resulted in part from the unemployment of the striking 12,000 employee heads of family that were working up to 1954 in banana cultivation in the rural zones surrounding San Pedro Sula. About 70,000 inhabitants sought a new source of work and as their most important recourse headed for the city of San Pedro Sula. Other families from the rural sector, with the incentive to improve their economic conditions and the attraction of city services, also emigrated toward San Pedro.⁷¹

Despite the decrease in banana production, the influx of people to the Sula valley, and in particular San Pedro Sula, continued at a high rate. In addition to transforming the tropical lowlands into a more livable environment, the banana boom had stimulated the commercial production of livestock, sugar cane and foodstuff, the growth of market towns and transportation centers, and the beginnings of light industry. By 1961 the population of

⁶⁹May and Plaza, op. cit., pp. 151 and 158.

⁷⁰Ibid., p. 152.

⁷¹Cervantes Asociados, op. cit., p. 14.

Cortés Department had nearly doubled to 200,099, and San Pedro Sula had grown nearly threefold to 58,632.⁷²

The single most important cause of the rapid population growth during the past decade has been industrial development. The city's proximity to a good port, a large labor shed upon which to draw somewhat higher-skilled workers than those of the interior, and a wide range of investment opportunities have created a favorable setting for industrial expansion. Two factors, the presence of primary and fabricated metal products and the largest average employment per establishment in the country, now make San Pedro Sula a more advanced industrial community than Tegucigalpa.⁷³ Increasing industrialization may consequently lead to an even sharper alteration in the rapidly changing demographic relationship between the capital and North Coast center:

The case of the second cities has more often been dynamic growth of secondary activities, since the administrative function has never had the importance it has had in the capital cities. The example of San Pedro Sula is all the more important, then, because

⁷² Honduras, Secretaría de Economía y Hacienda, Censo nacional de Honduras-Abril 1961, Características generales y educativas de la población (Tegucigalpa, D.C.: Dirección General de Estadística y Censos, 1964).

⁷³ Ruth I Shirey, "An Analysis of the Location of Manufacturing, Tegucigalpa and San Pedro Sula, Honduras," Unpublished Ph.D. Dissertation. University of Tennessee, Knoxville, 1970, p. 50.

that city has grown in population at an unusually fast rate without the economic base which has propelled population growth in the capital city. This is a case of city growth which does not conform to the traditional pattern and which may indicate a greater future potential than even that of the capital city, in spite of the present difference in population.⁷⁴

A mid-1971 population estimate of 130,000, reflecting a remarkably sustained high rate of growth for San Pedro Sula, tends to support this supposition.

The most important single component of city growth between 1950 and 1971 has been internal migration. In fact, approximately two-thirds of the total population can be attributed to this phenomenon. This research project provides a close examination of the evolving spatial characteristics of internal migration to San Pedro Sula with the broad objective of more fully understanding this one component of change.

⁷⁴ Martín, op. cit., p. 50.

CHAPTER IV

COLONIA "SESENTA Y UNO": A PILOT STUDY

The preliminary investigation was conducted on a sample community in San Pedro Sula. "Sesenta y Uno" is a representative part of the city and offered an appropriate testing ground for subsequent city-wide research. On a small scale, it permitted the inspection of various major themes which apply to the migration system of this or any other rapidly developing city.

The parameters of investigation include: 1) the origins of population and the migration field, 2) the decision to migrate and the directionality of move, 3) the move to the city and intra-urban mobility, and 4) the role of government housing in channeling future migrations.

"Sesenta y Uno" Colony

"Sesenta y Uno" colony is located within Barrio Barrandilla, in the northeastern part of the city (Map 2). The total area of the colony measures one manzana (1.73 acres), of which slightly more than fifty solars, or lots, have been partitioned and distributed as terreno donado (donated land). Although many occupants own the houses

in which they live, the land remains technically the property of the municipio.

Of the fifty heads of household sampled, forty-three or 86 per cent were migrants.⁷⁵ About one-fourth of these entered San Pedro Sula prior to 1950, and nearly 50 per cent arrived during the past ten years. At the time of arrival, 60 per cent of all migrants were less than thirty years of age, and only 12.5 per cent were older than forty.⁷⁶ The ratio of male to female migrants was slightly greater than two to one. In addition, most of the migrants received very little formal education prior to leaving their home community, as nearly half had never attended school and only three reported having attained sixth-grade instruction.

Origins of Population and the Migration Field

In recording place of birth, it was found that the departments of Cortés, Santa Barbara, Copán, Ocotepeque and to a lesser extent, Lempira, accounted for 88 per cent of all migrants in "Sesenta y Uno" colony, as illustrated in Part A, Table 6. These five departments show a high

⁷⁵ The term "migrant" applies to those persons born outside of San Pedro Sula.

⁷⁶ Migrants tend to be in a more youthful and economically productive age group than the average population. The data presented here conform very closely to a similar study in neighboring San Salvador. See: Ducoff, op. cit., p. 331.



TABLE 6

PLACE OF BIRTH OF HEADS OF FAMILY IN "SESENTA
Y UNO" AND "LAS CRUCITAS" COMMUNITIES

Department of Birth	Per Cent
Part A. Sesenta y Uno (San Pedro Sula):	
Cortés	35
San Pedro Sula	14
Other centers	21
Santa Barbara	21
Copán	12
Ocotepeque	12
Lempira	8
Other departments	12
Foreign country	0
<hr/> Total	<hr/> 100 (N=50)
Part B. Las Crucitas (Tegucigalpa- Comayagüela)	
Francisco Morazán	56
Capital	16
Other centers	40
Choluteca	8
La Paz	8
El Paraíso	7
Other departments	17
Foreign country	4
<hr/> Total	<hr/> 100 (N=400)

Source of Part B: J. Mayone Stycos, et al., p. 43.

degree of contiguity, as all are located in the western portion of the country. The two largest contributors are Cortés and Santa Barbara, the latter supplying as many migrants as those areas immediately surrounding San Pedro Sula. Ocotepeque, though more distant than Copán, was the source of an equal number of migrants.

The effect of departmental population size on the number of resident migrants was computed by rank-order correlations. A r (Spearman's rank order correlation coefficient) of .620, significant at the .05 level, indicates a meaningful relationship between all other departments and Cortés, based on the 1961 census. In the case of "Sesenta y Uno," however, there is an extremely weak association ($r = .046$), resulting in acceptance of the null hypothesis. That is, the rank size of other departmental populations has no meaningful relationship with the origin of migrants residing in "Sesenta y Uno." This might be explained in that most of the migrants have been extremely mobile within the city and some residential selectivity may have resulted through time. Possible support of this idea is illustrated by the clear omission of Atlántida, an adjoining department, whose migrants ranked third in relation to population size and fourth in percentage of those moving to Cortés, in 1960.⁷⁷

⁷⁷ From a dissertation draft by William K. Crowley, Department of Geography, Sonoma State College, California, October, 1970.



Distance (straight-line) plays an obvious role in the migration field of "Sesenta y Uno," as more than 80 per cent of all migrants have come from within approximately 100 miles of the city. Theoretically, migrants should have been fairly evenly distributed around San Pedro Sula, as major arteries of access follow a cardinal design. This is not the case. Migration to the city is oriented overwhelmingly from the western part of the country.

Movement within the migration field reveals a general inverse relationship between the number of migrants and distance traveled. As distance from the city increases, the number of migrants decreases. On a national scale, the distance-dacay pattern has applicability to the movement of people between San Pedro Sula and the capital:

Migrants in Tegucigalpa and San Pedro Sula were drawn from the areas which have best access to the cities. Heaviest in-migration comes from villages and towns in proximity to the urban centers, and as distance from the two major cities increases the number of migrants decreases. Although some people from the north coast work in Tegucigalpa and some from the south coast are found in San Pedro Sula, Tegucigalpa draws the majority of its migrants from the central highlands and the south coast while San Pedro Sula draws primarily from the north coast and the western region of Honduras.⁷⁸

Additional findings in the role of distance in migration to Tegucigalpa help illustrate the duality of migration fields. In the community of "Las Crucitas"

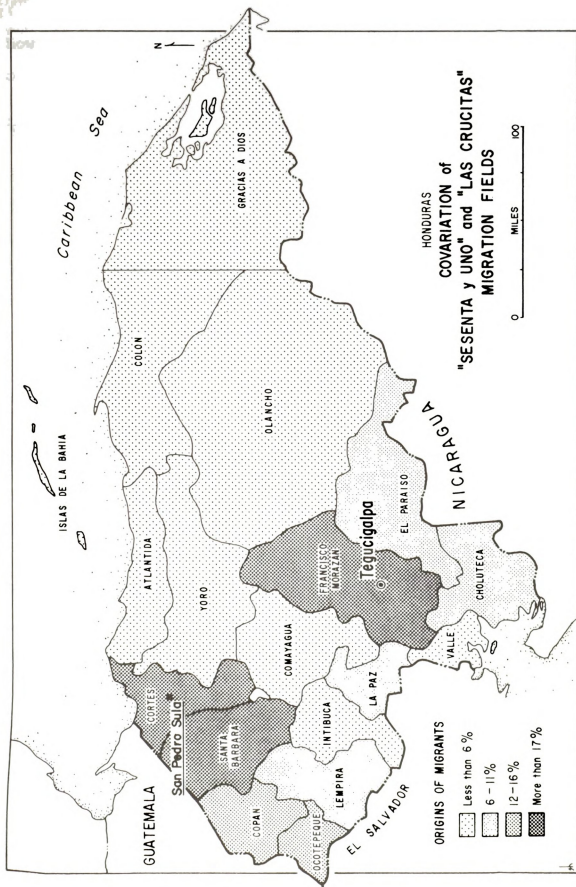
⁷⁸ Shirey, op. cit., p. 108.

(four contiguous barrios), for example, 56 per cent of all family heads were drawn from the home department, Francisco Morazán, as shown in Part B, Table 6.⁷⁹ Only the three contiguous departments of Choluteca, La Paz, and El Paraíso, contributed more than 5 per cent each, although all departments were represented.

Viewed in their spatial context (Map 5), the migration fields of San Pedro Sula and Tegucigalpa covary in rather discernable patterns, to the point of appearing mutually exclusive. Migrants to each city reflect geographically a distinct orientation within, and an independence between, their respective fields. A most interesting question yet to be answered is whether or not the intermediary departments of Yoro, Comayagua and Intibucá constitute a "reflecting" barrier between the two, with migrants being channeled to San Pedro Sula on the one side, and to the capital on the other.⁸⁰ It does become evident,

⁷⁹ J. Mayone Stycos, et al., Una evaluación de fecundidad y programas de salud y planificación en "Las Crucitas," Tegucigalpa-Comayagüela, Honduras, Programa Internacional de Población, Universidad de Cornell, Ithaca, Julio, 1969, p. 43. The study sampled 400 heads of family.

⁸⁰ With the added quality of "permeability." "Pure absorbing and reflecting barriers are rare. In most cases, barriers are not absolute but are permeable, allowing part of the energy of diffusion pulse to go through, but generally slowing down the intensity of the process in the local area." Spatial Diffusion, Commission on College Geography (Resource Paper No. 4), Association of American Geographers, Washington, D.C.: 1969, p. 13.



Map 5

however, that directionality is an important characteristic of migration fields.

Decision to Migrate and the
Directionality of Move

As part of the attempt to piece together those forces responsible for shaping the "Sesenta y Uno" migration field, migrant family heads were asked first why they left their home community. Economic conditions and the need for work accounted for 55 per cent of all responses.⁸¹ Family reasons, included in replies from many of those who were children at the time of parental migration, represented 27 per cent of the forty-four responses. Three migrant heads, two from Ocotepeque and one from Lempira, were recent arrivals who were displaced as a result of the war with El Salvador. Both the economic and family (or kinship) themes corroborate fairly closely with similar studies of rural-to-urban migration in Latin America.⁸²

Migrants were next asked why they had moved to San Pedro Sula and not to Tegucigalpa. This is to say that if independent migration fields do in fact distinguish

⁸¹Daily wages of 50 centavos are not uncommon in the rural sectors of the country. See: "Capturan a los asesinos del conocido hacendado Agenor Rodríguez," La Prensa, San Pedro Sula, April 2, 1971.

⁸²José Matos Mar. "The 'Barriadas' of Lima: An Example of Integration into Urban Life," in Philip M. Hauser (ed.), Urbanization in Latin America, UNESCO, Paris, 1961, pp. 170-190.

populations of San Pedro Sula and Tegucigalpa, what conditions account for the spatial selectivity? Is movement a function of a gravity environment (e.g. distance, intervening opportunities, and competition) or the less explored avenue of "place utility," signifying a stable characteristic in migration behavior?⁸³ A similar approach was tried in Ciudad Guayana, Venezuela, a city somewhat comparable in size and growth to San Pedro Sula.⁸⁴ A comparison of grouped responses to both questions is presented in Table 7.

"Sesenta y Uno" migrants appear to conform closely to their Guayana counterparts regarding the site selection process. Both groups moved to their respective cities mainly for reasons of work, family, and urban opportunities. In each case, there was no statistical difference found between reasons for leaving the home community and reasons for moving to the center of choice, indicating a high degree of consistency.

Part B of Table 7 illustrates a wider variety of opinion and fewer areas of conformity between the two populations. "Sesenta y Uno" migrants feel more strongly

⁸³"... refers to the net composite of utilities which are derived from the individual's integration at some position in space." Julian Wolpert, "Behavioral Aspects of the Decision to Migrate," Papers, Regional Science Association, Vol. 15, 1965, p. 162.

⁸⁴MacDonald and MacDonald, op. cit., pp. 332-324.

TABLE 7
DIRECTIONALITY OF MOVE AMONG THE MIGRANT POPULATIONS OF
"SESENTA Y UNO" AND CIUDAD GUAYANA

Questions	% of Total Responses			
	San Pedro Sula*		Ciudad Guayana**	
Part A. Why did you migrate to:				
Reasons of work	41		53.6	
Family considerations	26		20.5	
Better opportunities	19		--	
Schools	--		13.2	
Better environment	12		--	
Other	2		12.7	
	100		100.0	
	(R=42)		(R=151)	
Part B. Why did you not migrate to:				
	Tegucigalpa	Ciudad Bolívar	Caracas	
Family considerations	26	25.8	12.9	
This city is better	26	--	--	
Don't know the city	20	--	9.0	
Distance	17	20.3	18.1	
Lack of work	--	32.0	16.2	
Housing shortage	--	10.9	--	
Lack of funds	6	--	17.2	
Other	5	11.0	26.6	
	100	100.0	100.0	
	(R=35)	(R=128)	(R=116)	

*43 migrant heads of household.

**100 migrant heads of household.

about the absence of family and the superiority of San Pedro Sula over Tegucigalpa. Near-equal deterrants were expressed as distance (especially when combining "lack of funds") and having never known the capital city. Guayana migrants, however, rejected the state capital (Ciudad Bolívar) because of the lack of work, absence of family, and distance of the move. In the case of the Venezuelan national capital, 350 miles to the north, migrants reflected less agreement, as attested by the extensive distribution of responses. For some reason, family considerations decreased from Guayana to Caracas.

Not one "Sesenta y Uno" migrant expressed having been diverted away from Tegucigalpa due to the possible lack of work or housing shortage. Perhaps the response "this city is better" has component parts which could have been probed in greater detail. The fact that 20 per cent of all responses from the same group were "don't know the city" indicates that a substantial proportion of migrants had no idea of choosing for or against the capital.

The conditions which account for spatial selectivity or directionality of internal migration in Honduras offer a wide area of investigation. Underlying the movement of people from western Honduras to San Pedro Sula, however, appears to be the diffusion of ideas regarding work and urban opportunities, an infrastructure of kinship ties, and proximity. The latter may be the more

significant of the three in that the most direct route from the westernmost departments of the country to the capital is via the North Coast.

The Move to the City and
Intra-Urban Mobility

The actual path followed to the city, and subsequent relocation process within, varies among migrants. In Northeast Brazil, for example, the nordestino ". . . comes with no intention of staying and so he frequently makes the journey between his rural community and the city several times before finally settling down in one or the other. He commonly migrates to São Paulo three or four times, each stay lasting from short periods of time to many years."⁸⁵ Still in other areas, "migration seems to take place in a series of steps according to city-size. A flow of migrants from rural areas goes to small or middle-sized cities, and from these cities to the larger urban areas."⁸⁶

For 63 per cent of the migrant family heads in "Sesenta y Uno," the path to the city was direct.⁸⁷ They

⁸⁵ Juarez Rubens Brandão Lopes, "Aspects of the Adjustment of Rural Migrants to Urban-Industrial Conditions in São Paulo Brazil," in Hauser, op. cit., p. 239.

⁸⁶ Arriaga, op. cit., p. 242.

⁸⁷ It was found that ". . . 93 per cent of the migrant family heads living in Guatemala City moved directly to the capital from their place of birth." See Robert N. Thomas, "Internal Migration to Guatemala City, Guatemala, Central America," Unpublished Ph.D. Dissertation, The Pennsylvania State University, 1968, p. 81.

proceeded, or were brought at a young age, to San Pedro Sula from their place of birth.⁸⁸ Twenty-three per cent of the migrants, however, had moved once prior to their arrival, while the remaining 14 per cent had recorded from three to five moves.

Upon their arrival in San Pedro Sula, half of the migrant heads received some form of family assistance. About two out of every five migrants were unaided, while a very small proportion claimed help through friends.

The apparent high incidence of intra-urban mobility among migrants, subsequent to arrival, is a phenomenon common to most large cities.⁸⁹ Of the forty-three migrant family heads in "Sesenta y Uno," only nine had moved from their home community directly to this community, while the remaining thirty-four accounted for a total of ninety-eight intra-city moves, as illustrated in Table 8.

In moving throughout the city, migrants lived in twenty-one of the thirty-eight urban residential zones. Excluding the sample community, zones of greatest attraction, representing ten and eight moves, respectively, included Barrios Medina and Las Acacias, each situated

⁸⁸ More than half of all the migrants sampled were born in small rural centers (aldeas and caserios). A survey of migrants in Barrios Medina, Concepción and Cabañas of San Pedro Sula revealed similar results. Preliminary findings submitted by Charles H. Teller, International Population Program, Cornell University, April, 1971.

⁸⁹ Flinn, op. cit., p. 86.

TABLE 8

INCIDENCE OF INTRA-CITY MOBILITY AMONG
 "SESENTA Y UNO" RESIDENTS
 (HEADS OF HOUSEHOLD)

Total Number of Intra-City Moves	Non-Migrants	Migrants
1 (or direct)	1	9
2	2	14
3	1	11
4	2	8
5	--	1
6	1	--
Total	7 (M=2.5)	43 (M=2.6)

within the circunvalación (beltway) and bordering the national railroad. Three additional zones, Concepción, El Centro and Río de Piedras, ranked next highest, representing six moves each. The latter zone is the only one situated outside of the circunvalación and adjoins it immediately to the west. The process of relocation within the urban environment is, for the large majority, a shared experience.

All family heads who had moved more than once within the city were questioned as to the reasons precipitating each preceding change of residence. Family

considerations, proximity to place of work, and low rents accounted for more than 85 per cent of all intra-urban movements prior to the selection of "Sesenta y Uno." The principal attraction to the latter site was the availability of municipal land.⁹⁰ Twenty-eight migrant heads of family, as well as all of those born in the city, cited the "terrendo donado" and "opportunity for casa propio" (home ownership) motives as causal. In contrast to preceding intra-city moves, only seven migrants came to "Sesenta y Uno" for family considerations while fewer still were motivated by reasons of work and low rents.

Channeling Future Migrations:
Government Housing Projects

The policy of donating municipal land has provided only a temporary solution in the plan to establish a more permanent population. "Sesenta y Uno" residents do not own the land and, like numerous other sectors of the city, the colony lacks sufficient water, electricity, drainage and sanitation facilities, and paved streets. The absence of property ownership and basic urban amenities may prove to be the motivating agents for subsequent migration.

⁹⁰ Family histories indicate that the "Sesenta y Uno" community came into existence during the late 1950's as a result of municipal sponsorship. The municipio even transported three family heads, who had been without housing and living in the streets of another barrio, to the colony.

In relation to planning strategy, the Honduran Institute of Housing (INVA) wanted to know how many heads of family would be willing to move to government housing projects and under what conditions. These housing units would be built in satellite centers outside, and independent of, San Pedro Sula. It is an important concept not only from the perspective of attracting an already disadvantaged sector of the urban community away from the city but also in that it might serve to alter the established "streams" leading from the countryside to the metropolitan area.

Each head of household in "Sesenta y Uno" was asked, "If the Institute of Housing (INVA) were to construct houses in Chamelecón, La Lima, Choloma, Progreso or Puerto Cortés, would you prefer to live in one of these sites rather than in your current place of residence (San Pedro Sula)?" As illustrated in Table 9, the consensus of opinion was to move.

Of the fifty household heads surveyed, thirty-one (62 per cent) were in favor of moving, fifteen were opposed, and four were undecided. The distribution of responses conforms almost exactly to the number of respondents, since there were only two cases in which more than one response was offered. Although more non-migrants preferred to stay rather than leave, the statistical relationship

TABLE 9

"SESENTA Y UNO" COLONY: ATTITUDES
TOWARD GOVERNMENT HOUSING

Total Respondents	
Would Move	31
Would not Move	15
Undecided	4
Total:	50

Distribution of Responses

	Non-Migrants	Migrants	Total Responses
Would Move:			
For better conditions	1	15	16
For legal ownership	0	9	9
If cheaper (or ability to pay)	1	2	3
Don't like it here	0	2	2
Family reasons	1	1	2
Insufficient work here	0	1	1
Opportunity to farm	0	1	1
Total	3	31	34
Would Not Move:			
Own this house	0	5	5
Well adapted here	3	1	4
Family reasons	0	2	2
Reasons of work	1	1	2
Retired	0	1	1
No reason	0	2	2
Total	4	12	16
Undecided:	0	4	4
Total Responses:			54

between the two populations is uncertain due to the small number of non-migrants.

As a group, about 76 per cent of the "would move" responses centered upon the absence of adequate living conditions in "Sesenta y Uno" and the desire for legal ownership. These two conditions may already be responsible for a high rate of population turnover in the community, as evidenced by the fact that the average occupancy period among migrants is less than five years. For INVA purposes, it is useful to know that community concern is not focused on reasons of work and family considerations, two motives found basic to preceding migrations.

"Non-movers" viewed house ownership and adaptation to the colony as among the foremost reasons for staying. Since the average period of residency for non-migrants is slightly more than ten years, it is not surprising to find the largest number of their responses in this category.

Viewed only from the narrow perspective of "Sesenta y Uno," it is difficult to hypothesize the effect of housing projects on urbanward migrants or those currently swelling the disadvantaged sectors of the city. On the basis of observations in this community, however, low-cost housing projects offering adequate living and ownership provisions would have immediate occupants.

Conclusion

High rates of population growth in San Pedro Sula during the past two decades, have distinguished this city as Central America's most rapidly expanding center.⁹¹ Internal migration has been the catalyst for the recent and explosive demographic growth.

In the sample community of "Sesenta y Uno," migrants constituted forty-three of the fifty heads of household sampled. Approximately three-fourths of all migrants came to San Pedro Sula after 1950, almost 90 per cent were less than forty years of age upon arrival, and male migrants outnumbered females by two to one. Nearly 50 per cent of all migrants have never attended school.

Based on this survey, it was found that 88 per cent of all migrants were born in the five departments of Cortés, Santa Barbara, Copán, Ocotepeque and Lempira, in the northwestern and western parts of the country. Distance, and a distinct directional orientation in movement, have produced a well-defined spatial pattern of human migration to San Pedro Sula. A comparison of internal population movements to San Pedro Sula and Tegucigalpa

⁹¹It is projected that the city will contain 370,000 inhabitants, or approximately three times its current population, within the next twenty-nine years. Cervantes Asociados, op. cit., pp. 54-55.

revealed that migration fields for the two cities approximate independence.

"Sesenta y Uno" migrants left their home community mainly for reasons of work and family considerations, conforming closely to their reasons for selecting San Pedro Sula. Migrants rejected moving to the national capital because of kinship ties, the opinion that San Pedro Sula was "better," lack of familiarity with Tegucigalpa, and distance.

Sixty-three per cent of all migrant heads of family moved directly to San Pedro Sula from their place of birth. Half of all migrants received some form of family assistance upon their arrival in the city. Once in the city the migrant may have difficulty making a more permanent adjustment, as evidenced by a high incidence of intra-urban mobility. Family considerations, proximity to work, and low rents represent more than 85 per cent of all responses given for intra-city movement, prior to the selection of "Sesenta y Uno."

The availability of municipal land, or terreno donado, constituted the principal attraction to "Sesenta y Uno." Paradoxically, the presentation of land without the accompanying basic urban amenities and provisions for property ownership underlies the present dissatisfaction with the project. The majority of migrants favor moving

again and consider future INVA housing projects, outside of the city, a possible target for such migration.⁹²

⁹²Contingent upon any success in the plan to channel migrants to INVA housing will be the cost and terms of payment at which the living units are offered.

CHAPTER V

THE MIGRATION SYSTEM OF SAN PEDRO SULA: POPULATION CHARACTERISTICS

The migration system of any rapidly growing metropolis is comprised of component parts having "some common functional connections."⁹³ As illustrated by the small migratory body within the community of "Sesenta y Uno," spatial selectivity among human beings, whether characterized by physical or behavioral traits, is a shared experience. The field investigation, projected at the city-wide level (500 heads of household), examined those spatial relationships incorporated within the San Pedro Sula migration system. Specifically, inquiry focused upon the descriptive characteristics of migrants (Chapter V), the role of distance in migration (Chapter VI), the mobility process (Chapter VII), and the decision-making behavior of the migrant population (Chapter VIII).

The descriptive characteristics of migrants provide an important point of departure for the study in that, collectively, migrants tend to transport certain

⁹³Peter Haggett, Locational Analysis in Human Geography, New York: St. Martin's Press, 1966, p. 17.

identifiable characteristics to the city. Here it is hypothesized that migrant heads to San Pedro Sula are for the most part female, less than thirty years of age, unskilled and primary educated. These relationships are additionally tested between migrants and non-migrant groups.

Sex

In Honduras, there are slightly more females than males in the total population, as indicated by a national sex ratio of approximately 99.2.⁹⁴ With the exception of the department of Lempira, urban sex ratios throughout the republic are uniformly lower than the national average reflecting the strong attraction of urban areas upon the female population. San Pedro Sula, for example, has a sex ratio of 90.4, illustrating the high proportion of females within the population structure (particularly after age nine).

Although there are more women than men in San Pedro Sula, they do not form a majority among migrant heads of households. Of the 417 migrant heads sampled, 255 or about 61 per cent were males. These figures, although not in exact conformance with those of the pilot study, do corroborate the fact that male migrant heads of family appear to outnumber their female counterparts.

⁹⁴Computed from the National Census, 1961.

Of the eighty-three non-migrant heads of household interviewed, sixty-two or approximately 75 per cent were found to be male. The difference in sexes within migrant and non-migrant populations is reflected by sex ratios of approximately 157 and 295, respectively.

Subsequently, both groups were tested for their statistical compatibility. Stated in null hypothesis form, one would not expect to find a significant difference between sex and migratory status. A 2x2 contingency table relating male-female to migrant--non-migrant was constructed and the Chi Square formula, where

$$\chi^2 = \sum \frac{(f_o - f_t)^2}{f_t}$$

(f_o = an observed frequency; f_t = a theoretical, or expected, frequency. Morris Hamburg, Statistical Analysis for Decision Making, New York: Harcourt, Brace and World, Inc., 1970, p. 417).

was applied. A value of 5.500 with one degree of freedom, tested at the .05 level, was significant resulting in the rejection of the null hypothesis.

The principal difference between the two groups is that non-migrant heads of household are comprised of a significantly lower proportion of females. This suggests that females took a more diminutive role in city life during the earlier frontier period of development (before 1955). By comparison, females form a more substantial

part of the migrant population, reflecting their increasing role in urbanward movement.

The possibility that female migrants represent still higher proportions is not unlikely. Many women ultimately find resident occupations within an urban household, a mechanism known to be operable in other cities and masking their numerical superiority.

Age

One of the more discernable characteristics of urban migration is the youthfulness at which people displace to the city. The examination of migrant age structures in San Pedro Sula shows, as hypothesized, that the majority, or 60.9 per cent, were less than thirty years old upon arrival. Perhaps more enlightening, however, is the markedly high frequency of migrants in the working ages of 15-29, as illustrated in Table 10. Compared with national and city levels, migrants to San Pedro Sula are generally older and at more active working ages. The smaller group of migrant heads in the youngest age bracket includes largely those involuntarily displaced to the city by kinship and those exposed to urbanized life at an early age. In addition, the proportion of persons sixty-five years and older is considerably smaller for migrants than for Hondurans generally or the resident urban population of San Pedro Sula.

TABLE 10

AGE STRUCTURES FOR HONDURAS, SAN PEDRO SULA,
AND MIGRANTS TO SAN PEDRO SULA
(IN PER CENT)

Age	Honduras ^a	San Pedro Sula ^b	Migrants to San Pedro Sula (Heads of Household) ^c
0-14	47.7	41.6	22.0
15-29	25.1	29.3	38.9
30-39	11.0	12.0	19.8
40+	16.2	17.1	19.3

^aNational Census, 1961.

^bDirección General de Estadística y Censos, Censo de población y vivienda ciudad de San Pedro Sula, Abril, 1961, Tegucigalpa, Honduras, 1965.

^cAge at time of migration.

Although female migrants tend to be slightly older than their male counterparts, age structures are not statistically different. Mean age at arrival for males is approximately twenty-two, while the average woman migrant enters the city at nearly age twenty-four. The tendency for migrants to form a large economically active group is conspicuous. Of the migrant heads of household arriving in San Pedro Sula, for example, 77.1 per cent are within the most economically productive ages of 15-64. Based on this figure alone, it is not surprising that one

of the most prevalent reasons for migrating is to partake of the economic opportunities available in the city. The high rate of population movement to the city during the past two decades probably reflects, in part, that jobs are readily available or that migrants compete well for employment.

Occupational Skills

The supposition that migrants to San Pedro Sula are occupationally unskilled is based principally upon the fact that some 65-70 per cent of the national population resides in rural areas. As recently as 1961, the percentage of rural population was 76.8 and in the preceding decades undoubtedly attained still higher proportions. The rapid rate of urbanization in Honduras appears to be drawing substantially upon the sizeable rural ranks. If this is the case, it might be anticipated that migrants have less developed urban occupational skills than their city counterparts.

Analysis of the occupational structure of migrants to San Pedro Sula reveals that the ratio of unskilled to skilled migrants is more than three to one. The unskilled include nearly two-thirds of all women (working at home as ama de casa, or housewife), those employed in streetside or ambulatory petty commerce, construction, personal services, and transportation services. Skilled migrants are

predominantly artisans in the shoe and leather, tailoring, carpentry, and masonry industries. Many are also employed in local manufacturing concerns producing pipe and tube casting, electrical installations, paints, plastics, mechanical apparatus, glass and ceramics, textiles, tobacco products, beer, etc. Professions represented include law, medicine, education, accounting, government, and business management.

The occupational structure of non-migrants does not differ significantly from that of migrants. With the exception of a relatively lower proportion of non-migrant household heads in personal services, transportation, and the technical professions, occupational patterns for both groups reflect much conformity. Chi Square values testing migratory status and occupational skills lend confirmation to the similarities within the two groups in that no significant differences were found between the populations.

The results of this examination show that while there are more migrants occupationally unskilled than skilled in the city, there exists a corresponding pattern among non-migrants. That is, migrants appear to be as occupationally equipped as non-migrants for skilled positions.

There may be several reasons why migrants to San Pedro Sula are not occupationally disadvantaged in relation to non-migrants. First, many migrants resided in an urban

setting either at the municipio or departmental level prior to the move to this location. The relatively high proportion of professionals, for example, reflects above-average education levels, training, and urban experiences. Second, many migrants were former employees of the banana companies and probably acquired basic occupational skills that could be applied in the urban environment. Finally, the corresponding large pool of unskilled workers among non-migrants probably reflects the recency of industrial growth within the city, i.e., an absence of skilled employment generations.

Education

The final part of the hypothesis states that urbanward migrants can be expected to be primary educated. It is believed that their educational preparation, though generally less than that received by non-migrants, is higher than rural non-migrants.⁹⁵ The reasons for this are two-fold in that urban educational facilities and opportunities are normally the best available, and urbanward migrants tend to have some educational background even if it includes only grades one through three. Urban-rural

⁹⁵ Dale W. Adams, "Rural Migration and Agricultural Development in Colombia," Economic Development and Cultural Change, Vol. 17, 1969, pp. 527-539.

educational comparisons for all Hondurans age ten and above are illustrated in Table 11.

TABLE 11
EDUCATION LEVELS WITHIN THE URBAN AND RURAL
POPULATION OF HONDURAS, 1961

Education Level	Urban		Rural	
	Absolute	Percentage	Absolute	Percentage
Without Education	72,288	24.2	569,734	61.9
Primary	175,435	58.8	325,863	35.5
Secondary	37,472	12.5	6,730	0.7
University	4,323	1.4	443	*
Unknown	9,377	3.1	17,623	1.9
Total	298,895	100.0	920,393	100.0

*Less than 0.05

Source: National Census, 1961.

In an examination of educational levels recorded for migrants to San Pedro Sula, it was found that only ninety-nine heads of household, or 23.7 per cent of the group, had not received any formal training. In fact, migrants compared well with their urban counterparts nationally in 1961.

Whether or not migrants achieve a similar equity when compared with the educational levels of non-migrants

in the same city is an equally important consideration. The range of educational status for members of both groups is shown in Table 12. Chi Square tests were used to test the null hypothesis that no significant differences existed between education levels and migratory status. A Chi Square value of 27.046 at the .05 level revealed that the groups were significantly different, resulting in rejection of the null hypothesis.

TABLE 12

EDUCATION LEVELS AMONG MIGRANT AND NON-MIGRANT
HEADS OF HOUSEHOLD IN SAN PEDRO SULA

Education Level	Migrants		Non-Migrants	
	Absolute	Percentage	Absolute	Percentage
Without Education	99	23.7	5	6.0
Primary				
Grades 1-3	130	31.1	16	19.2
Grades 4-6	120	28.8	36	43.5
Secondary	61	14.6	24	28.9
University	7	1.8	2	2.4
Total	417	100.0	83	100.0

Major differences between the groups suggest that non-migrants have a greater incidence of schooling and achieve higher levels of education. As suspected, grades one to three represent the leading levels of achievement

for migrants. The fact that 45.2 per cent of all migrant heads placed in levels four and above probably reflects urban backgrounds before entering San Pedro Sula.

Certain general characteristics can be attributed to the migrant population of San Pedro Sula. As a group, they are predominantly male, less than thirty years of age, occupationally unskilled and primary educated.

CHAPTER VI

THE MIGRATION SYSTEM OF SAN PEDRO SULA: DISTANCE AND THE PROPENSITY OF MOVEMENT

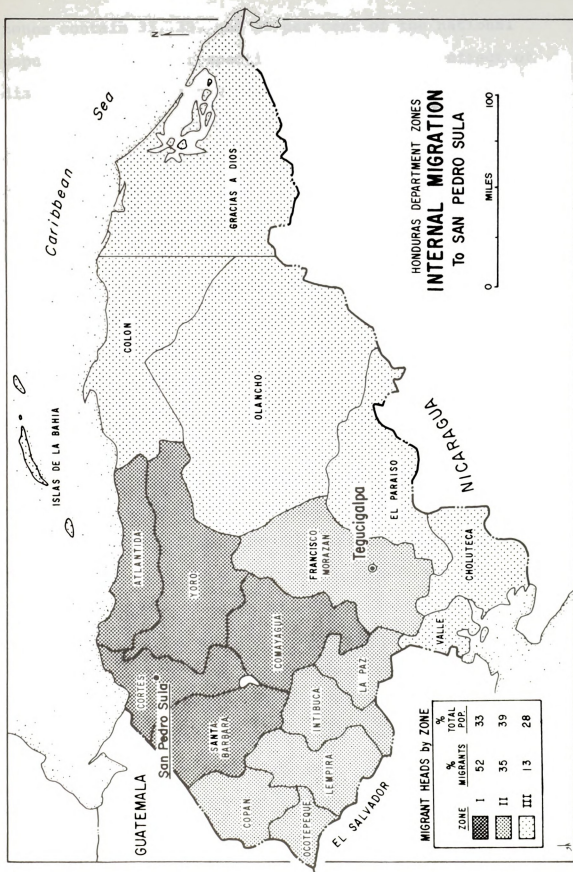
The hypothesis examined in this chapter proposes that the number of migrants to San Pedro Sula is inversely related to distance from that center. That is, the migration field for the city tends to reflect a gravity environment in which the volume of migration decreases as distance from the urban center increases. A comparison of the "Sesenta y Uno" and "Las Crucitas" migration fields (Map 5, p. 67) suggests this type of spatial alignment for migrants of the respective communities in San Pedro Sula and Tegucigalpa.

The role of distance in migration to San Pedro Sula is considered in three component parts. First, it is believed that most of the migrants are from neighboring departments and municipios; second, that some distortion in the distance-decay factor can be accounted for by proximity to transportation facilities; and third, that a small number of well-defined migration "streams" can be identified, due to the paucity of highway infrastructure.

Origins of Migrants

The migration field of San Pedro Sula is represented by heads of family born in each of the eighteen departments of the nation. Individual department contributions range from a high of 19 per cent of all migrants, from Santa Barbara, to a low of less than one per cent from Islas de la Bahía and Gracias a Dios. There are, in addition, international migrants who represent three per cent, or 672, of the total family heads in the city. Of these, 53 per cent come from El Salvador. Other nationalities in the sample include a sizeable group of former Palestinian Arabs and representatives of the United States, Mexico, Guatemala, Italy, Colombia, and India.

Internal migration to San Pedro Sula, by departmental zones, is illustrated in Map 6. The three zones are delimited on the basis of general proximity to the urban center. Since Santa Barbara, Comayagua, Yoro and Atlántida share common departmental boundaries with Cortés, they represent Zone I, which accounts for 52 per cent of all migrant heads. The six departments in Zone II, from Copán to Francisco Morazán, are of fairly equal proximity to the city and generate about 35 per cent of all migrants. Zone III, the most distant, incorporates the remaining seven departments but contributes only 13 per cent of San Pedro Sula's migrants. In view of the fact that these

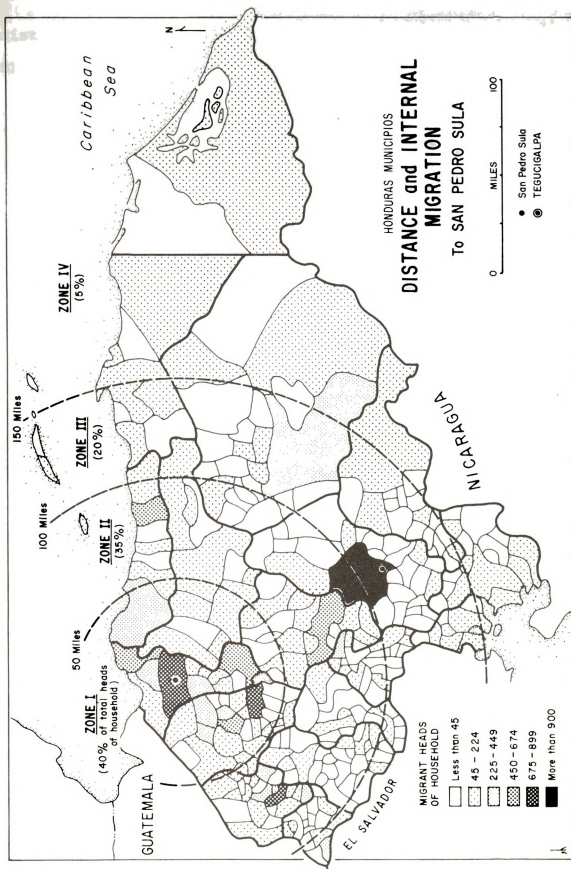


Map 6

zones contain 33, 39, and 28 per cent of the national population (1961), respectively, the proposed effect of distance on migration appears tenable.

Within zones, population movement from individual departments to San Pedro Sula varies considerably. Santa Barbara and outlying areas of Cortés completely dominate within Zone I, providing a combined 72 per cent of zonal migrants. Similarly, Copán and Francisco Morazán provide 39 and 22 per cent, respectively, of Zone II movers. Of Zone III migrants, 70 per cent are fairly evenly distributed among Olancho, Choluteca and Valle. An important disclosure of variation within migration zones is emerging directional alignment, a factor also found operable in the migration field of "Sesenta y Uno."

More precise measurement of the distance-decay mechanism in migration to San Pedro Sula is presented in Map 7. Uniform or straight-line distance surfaces have been superimposed on population origins at the municipio level. Intervals of fifty miles were selected on the basis of accessibility to the city (immediate to remote), and the contribution of all migrant zones were tallied. Migrants from Zones I-IV account for 40, 35, 20, and 5 per cent of all migrants, respectively. The fairly large-scale participation of departmental capitals in the migration field is apparent and may temper the role of



Map 7

distance between Zones I and II (refer to Map 10, Appendix B).

The propensity of migration to San Pedro Sula reflects a distance-decay mechanism at both departmental and municipio levels. In the former, slightly more than one-half of all migrant family heads come from Cortés and contiguous departments. Measurement of municipal out-migration shows that the number of migrants decreases as straight-line distance from the city increases.

Transportation Facilities

Although a distance-decay mechanism is seen to function among distance zones outlying the city, patterns of internal migration, particularly in a rugged topographical setting like Honduras, are influenced largely by accessibility to overland transportation. It is believed that certain distortions in the distance-decay phenomenon are accounted for by proximity to these facilities.

The most obvious distortions occur throughout the western departments and within the Distrito Central. In the former, the sole unifying artery of transportation is the newly-paved highway from Nueva Ocotepeque to San Pedro Sula. This road, along with shorter unpaved extensions to Copán, Santa Barbara, and Gracias, links approximately one-third of the total national population to the north coast. Most important, it has become a principal channel

for migration to San Pedro Sula as a result of the absence of highway outlets to the east and the recent suspension of traffic (1969) at the Salvadoran border.

Although the Distrito Central, and more specifically Tegucigalpa, is now connected to San Pedro Sula by paved highway, the capital's high anomalous contribution of migrants is probably more a function of place-size than transportation. It is not surprising that Tegucigalpa has generated the largest number of migrants to San Pedro Sula, since it is the major population center of the country. The highway, in addition, has facilitated increasingly rapid transportation between the two cities.

In other areas the absence of transportation facilities is reflected in minimum levels of migrant participation. A good illustration is the "block" of seventeen municipios comprising nearly all of southern Lempira department. Isolated to the south by the Cordilleras Celaque and Puca-Opalaca, they form one of the most noticeable enclaves of least contributors in the migration field of San Pedro Sula. Other visible enclaves, such as those closely surrounding the Distrito Central, can be accounted for by their proximity and orientation to the migration field of the capital.⁹⁶

⁹⁶ Stanley D. Brunn and Robert N. Thomas, "The Migration System of Tegucigalpa, Honduras," in Robert N. Thomas (ed.), Population Dynamics of Latin America: A Review and Bibliography, Muncie, Indiana: Ball State University, 1972, pp. 104-118.

In still another instance, a shift in transportation routes within the southern extremity of Cortés Department has resulted in high rates of local out-migration. Since the beginning of the century, the town of Santa Cruz de Yojoa gained a livelihood from its location astride the heavily traveled San Pedro Sula-Tegucigalpa highway. In 1951, the road linking Santa Cruz with Potrerillos was completed, and by the early 1930's, an additional road from Santa Cruz to the aldea of Río Lindo was opened for traffic. Within the past decade another extension of the highway was built from Río Lindo southward (west of Santa Cruz) to Cañaveral and is now linked with the newly paved route along the east side of Lake Yojoa. This has effectively separated Santa Cruz from its economic base, and the result has been a high rate of out-migration (Map 7). Conversely, highway construction, proximity to the Río Blanco, and the hydroelectric works at Cañaveral have stimulated the economy of neighboring San Francisco de Yojoa, resulting in a marked absence of out-migration from that aldea.

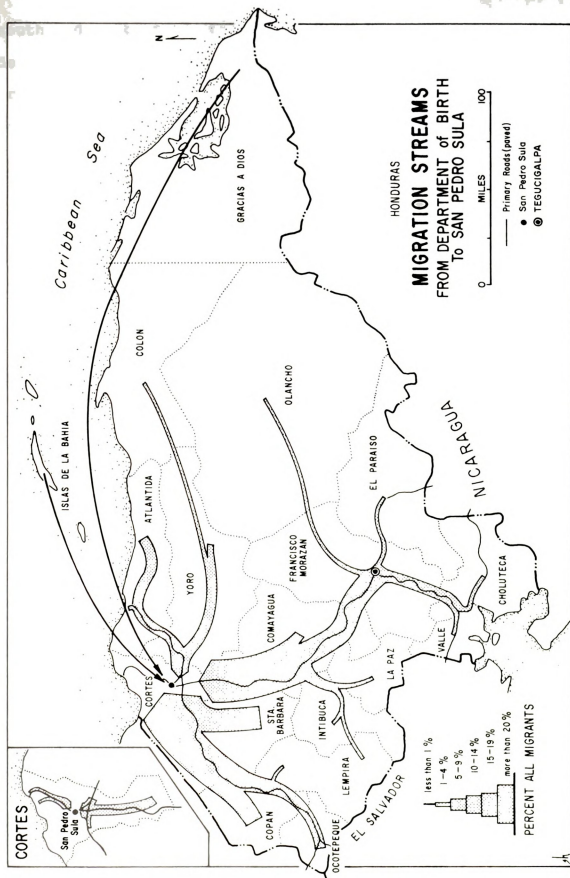
Whether in an area as large as western Honduras or as small as Santa Cruz de Yojoa, some distortion in the distance-decay mechanism can be accounted for by accessibility to transportation facilities. As a result of extensive mountainous relief and limited overland

transportation, highways play a prominent role in the spatial arrangement of the migration network of San Pedro Sula.

Migration "Streams"

The premise that a small number of well-defined migration "streams" can be identified, due to the paucity of highway infrastructure within the country is illustrated in Map 8. Based on highway facilities and migrant origins, spatial participation in the migration field for San Pedro Sula is represented by four distinct "accretional streams." The foremost is that of western Honduras (Santa Barbara, Copán, Ocotepeque, and a small contribution from northern Lempira) which accounts for 39 per cent of total internal migration. The second is south-central Honduras (Francisco Morazán, Comayagua, and lesser volumes from La Paz, Valle, Choluteca, Olancho, Intibucá and eastern Lempira), from which 31 per cent of the migrants originate. The third and fourth, composed of Cortés Department and north-western Honduras (Atlántida, Yoro, and Colón), generate 18 and 11 per cent, respectively, of all migrants. Two minor streams, independent of overland transportation, include Islas de la Bahía and Gracias a Dios.

The tendency for the flow of migrants to decrease with distance from the city is apparent. Migrant participation lessens abruptly south of Copán, west of Comayagua,



Map 8

south and east of Tegucigalpa, and in the far eastern departments. Undoubtedly, the cost of cross-country travel is greater with distance, but cost is only one of several factors. In the case of Ocotepeque, a large number of migrants has consistently been attracted to Tegucigalpa because of the prior convenience of access via El Salvador. Other internal migrants, predominantly from the south-central part of the country, are less attracted to San Pedro Sula because of proximity to, and familiarity with, the capital.

An interesting phenomenon is the comparatively small contribution of Yoro and Atlántida, two departments contiguous to Cortés. Yoro residents, predominantly rural, enjoy many of the economic benefits of the Sula lowland and its fruit plantations. Small urban places are growing at a rapid rate, as evidenced by the recent growth of El Progreso and, to a lesser extent, Olanchito. Bananas, a variety of other lowland products, and manufacturing enterprises at Tela and La Ceiba have provided an important impetus to developing urban economies. It is not surprising, therefore, that both Yoro and Atlántida have become areas of in-migration.

Of all departments in the migration field, Santa Barbara occupies the most conspicuous position. Ironically, the department experienced substantial in-migration during the census period 1950-1961, particularly in the rural

sectors. The attraction was the increase in coffee production that began in the aftermath of World War II.

Although some new plantings were started on the mountain slopes near Lake Yojoa, the Santa Barbara coffee producing region has declined since the late 1950's as a result of shifts in cultivation and recent periods of low world coffee prices. This, coupled with traditionally low agricultural productivity and improvements to the road leading to San Pedro Sula, has stimulated a high rate of out-migration.

Migration streams to San Pedro Sula reflect varying intensities of urbanward movement and the facilitation of movement through the highway infrastructure. The limited highway facilities of Honduras traverse four distinct population regions, which have provided 99 per cent of all internal migration to San Pedro Sula.

CHAPTER VII

THE MIGRATION SYSTEM OF SAN PEDRO SULA: THE MOBILITY PROCESS

High rates of urban growth in a predominantly rural nation are indicative of an ongoing large displacement of people from the countryside. Although the rural population continues to increase, its growth rate is less than the nation as a whole and, in particular, the urban areas.

While it appears that a majority of migrant family heads in San Pedro Sula are from rural areas, the situation may, in fact, be quite different. The sustained growth of small to medium-sized urban places such as Tela, La Lima, La Entrada, El Progreso, and La Ceiba, in view of their emission of migrants to San Pedro Sula, suggests a rural to small-urban to larger-urban migratory process.

The hypothesis examined in this chapter proposes that prior to their move to San Pedro Sula, the majority of migrants were residents of small to medium-sized urban places.⁹⁷ If this is the case, it can be shown that a

⁹⁷Small to medium-sized urban places include all municipio and department cabeceras. Rural places encompass all aldeas and caserios. For a discussion of migrant place-size origins, see: Gino Germani, "Inquiry Into the Social Effects of Urbanization in a Working-Class Sector

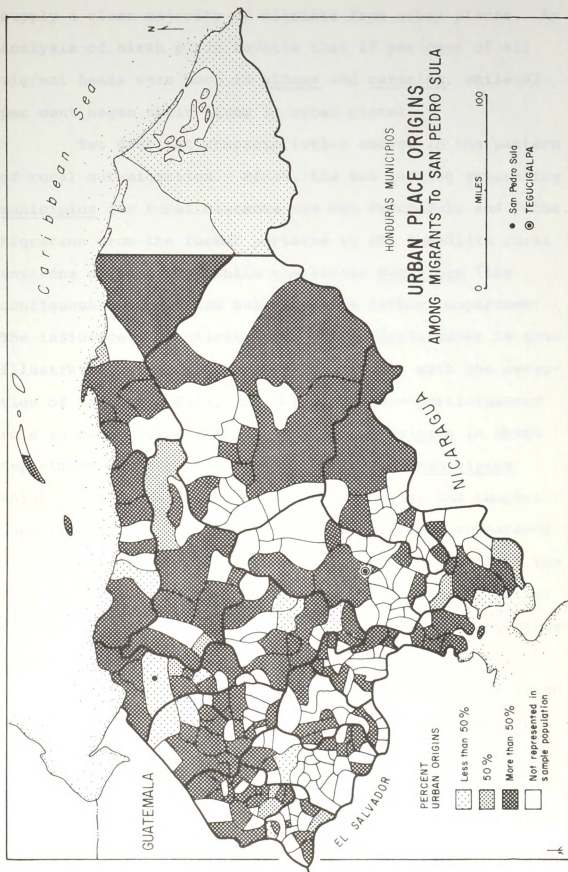
very small proportion of migrants have moved directly from the countryside, or rural places, to San Pedro Sula. It is also believed that the former residency of migrants in urban place environments has facilitated occupational assimilation into metropolitan life.

Urban Place Origins

One of the more conspicuous trends in internal migration is the growing participation of migrants from small to medium-sized urban place origins. They appear to be moving to large urban places in far greater proportions than their rural counterparts. The fact that more than half of all male migrant family heads in San Pedro Sula have occupational skills to help them compete for employment suggests that it is urbanized migrants who are swelling the population ranks of the city.

An analysis of urban-rural origins among migrant family heads reveals that the overwhelming majority were born within some form of urban environment, as illustrated in Map 9. Of the 278 municipios in Honduras, 131 were represented in the sample. Only twelve of the latter contributed a greater number of rural than urban family heads, and only nine supplied an equal proportion from rural and urban places. The remaining 110 municipios

of Greater Buenos Aires," in Hauser, op. cit., pp. 206-233.



Map 9

supply a clear majority of migrants from urban places. An analysis of birth place reveals that 17 per cent of all migrant heads were born in aldeas and caserios, while 83 per cent began their lives in urban places.

Two distinct characteristics emerge in the pattern of rural out-migration. First, the two leading generating municipios for rural migrants are San Pedro Sula and Petoa. Migration from the former pertains to the immediate rural environs of the city, while the latter municipio lies contiguous to San Pedro Sula in Santa Barbara Department. The influence of proximity upon rural displacement is thus illustrated. The other characteristic is, with the exception of San Pedro Sula, the relatively non-participatory role in rural out-migration of those municipios in which department capitals are located. Only the municipios which contain the capitals of Gracias a Dios and Lempira departments fall into this category, and their appearance is not surprising. During the census period 1950-1961 the former had no registered urban population, and the latter recorded fewer people living in urban areas than any other department in the nation.

The role of department-capital municipios in urban out-migration is clearly discernable. Of the 83 per cent of all migrants who have proceeded from urban places, 56 per cent are from municipio cabeceras and the remaining 27 per cent from department capitals. Among the former group,

the largest number came from Colinas, Puerto Cortés, Santa Cruz de Yojoa, Villanueva, and Dulce Nombre.

Urban out-migration from department capitals stems largely from Tegucigalpa and Santa Rosa de Copán. These two cities contributed 23 and 17 per cent, respectively, of all family heads in the sample who were from large urban places. In addition, 13 per cent moved from Santa Barbara, 11 per cent from La Ceiba, 9 per cent from Nueva Ocotepeque, 7 per cent from Comayagua, and 6 per cent from La Paz. Among department capitals only Yuscarán, a center linked closely to the migration field of Tegucigalpa, failed to contribute at least forty-five urban or rural heads of family to San Pedro Sula.

The degree of urbanization experienced by the migrants in many small urban places is difficult to access. Migrants from municipio capitals in predominantly rural areas, such as Candelaria, in Lempira; San Antonio, in Copán; and Manto, in Olancho; may actually be less familiar with the structure of large urban places than rural migrants from Cortés or neighboring Santa Barbara. Generally speaking, however, the municipio capital reflects some facsimile of incipient urban spatial structure (e.g., job diversification, school facilities, post office, telegraph, transportation service, aqueduct, or electricity).



The Move to the City

Rural-urban origins (Map 9) represent static data which do not disclose the complete sequence of human spatial movement to San Pedro Sula.⁹⁸ To more precisely evaluate the supposition that a very small proportion of migrants have moved directly to San Pedro Sula from rural places, it is necessary to examine their paths to the city. Greater proportions of migrants may be acquiring urban place backgrounds prior to residing in San Pedro Sula.

An analysis of migration histories reveals an interesting pattern of spatial mobility among migrant heads of family. Not all of those from rural places move directly to the city. In fact, about 50 per cent of all migrants participate in some form of step-migration. After six moves, for example, all of the migrants born in rural places, 98 per cent of those born in small urban places, and 99 per cent of those born in the largest urban places are accounted for within the city (Table 12).

⁹⁸"Not all migrants come from a completely rural environment to the big city. Many of them come from the small villages. Not much is known, however, about the sequence of moves from the rural area [or small to medium-sized urban areas] to the city." William L. Flinn, "Poverty, Not Progress, Marks the Flight of the Peasant," Land Tenure Center Newsletter, No. 32, University of Wisconsin Press, July, 1970-71, p. 23.



TABLE 13
SEQUENCE OF MIGRATION AMONG HEADS OF HOUSEHOLD
FROM PLACE OF BIRTH TO SAN PEDRO SULA
(IN PER CENT)

111

Move	Destinations								Cell Totals
	Place- Size Origins	San Pedro Sula (per- manent)	Rural places	Municipio capitals	Depart- ment capitals	San Pedro Sula (tem- porary)	Teguci- galpa	Other country road Co.	
1st	(X)*	54	15	18	6	3	-	4	100
	(Y)**	44	12	17	10	2	8	5	100
	(Z)***	60	3	14	6	1	6	7	100
	Cumulative % Totals	50	10	16	8	2	6	2	100
2nd	(X)	79	9	6	3	1.5	1.5	-	100
	(Y)	75	5	10	4	2	.5	.5	100
	(Z)	86	4	6	1	-	1	1	100
	Cumulative % Totals	79	6	8	3	1	.5	.5	100

<u>3rd</u>	(X)	91	3	3	-	-	-	100
	(Y)	89	2.5	3	-	2	.5	100
	(Z)	90	1.5	3	-	-	3	100
	Cumulative	89	3	3	-	1	1	100
	% Totals							
<u>4th</u>	(X)	94	-	3	-	1.5	-	100
	(Y)	93	1	2	1	-	-	100
	(Z)	93	-	2	.5	-	2	100
	Cumulative	93	+	2	1	+	+	100
	% Totals							
<u>5th</u>	(X)	99	-	1	-	-	-	100
	(Y)	96	-	+	+	1	+	100
	(Z)	97	1	-	-	1	-	100
	Cumulative	96	+	+	-	1	+	100
	% Totals							
<u>6th</u>	(X)	100	-	-	-	-	-	100
	(Y)	98	-	1	.5	-	-	100
	(Z)	99	-	-	1	-	-	100
	Cumulative	99	-	+	+	-	+	100
	% Totals							

*Rural; **Small urban; ***Medium-sized urban.

[†]Less than .5 per cent.

Sample number: X = 67; Y = 223; Z = 108; N = 398.

For migrant family heads who did not move directly to San Pedro Sula, a total of seven possible choices at which to locate were coded. In order of appearance within the Table, they include caserios and aldeas or rural places (1), municipio capitals (2), department capitals (3), prior residence in San Pedro Sula (4), Tegucigalpa (5), another country (6), and the Tela Railroad Company complex in and around La Lima and El Progreso (7). Slightly more than 97 per cent of all migrant family heads who took a more circuitous route to the city are traced in six moves.

The data in Table 13 illustrate some significant patterns of human spatial mobility. Foremost is that a substantial proportion of rural migrant family heads did not move directly to San Pedro Sula. Nearly one-half may have resided in some form of urban community before entering the city. In contrast to their urban counterparts, rural migrants had little previous association with Tegucigalpa and no experience living outside of the nation. Although some rural family heads have resided in department capitals and San Pedro Sula at one time or another, most of this group was attracted to municipio capitals and rural places during the first two moves. Migrant heads from small urban places, however, had relatively strong attraction to department capitals and Tegucigalpa. As a group, they were highly mobile during moves one and two

and had the least proportion of migrants in the city prior to move four.

Those born in department capitals were the most direct movers to San Pedro Sula. As might be expected, they were comparatively least attracted to rural places and more exposed to foreign countries. Somewhat of a surprise is the relatively high participation of this group in the Tela Railroad Company complex, particularly in the first move. The explanation may be that their occupational or educational skills were better developed and enabled them to secure the higher paying positions with the company. Their next logical move, in terms of proximity, would have been San Pedro Sula.

The overall mobility pattern suggests that nearly 50 per cent of all migrant heads had moved more than once before arriving in San Pedro Sula. Possibly fewer than three-fifths of those born in the countryside arrive at San Pedro Sula having had no urban experience. The fact that many migrants tend to move toward larger communities from place of birth also suggests that spatial movement and rank-order size of cities are associated.

Occupational Achievement

A most interesting area of inquiry in internal migration concerns the occupational achievement of migrant family heads once within the larger urban setting. The

premise examined here, that the former residency of migrants in urban places had facilitated occupational assimilation into San Pedro Sula, illustrates possibly the most important terminal effect of place-size origins in migration.

As a basis for analysis, income distributions were examined among the following three groups: rural migrants who moved directly to the city, rural migrants who had urban experience prior to San Pedro Sula, and those migrants who arrived directly from urban places. To assure a more balanced representation, all monthly incomes exceeding 200 dollars (400 Lempiras), pertaining to approximately 10 per cent of the migrant population, were discarded. A mean monthly income of forty-seven dollars was subsequently derived for the remaining migrants, with the three groups earning an average of about 38, 43.50, and 49.50 dollars respectively.

Although mean monthly incomes reflect what appear to be significant ranges, the disparity in size of the groups was also substantial as a result of the high number of migrants from urban place origins. To determine the probability of group income differences occurring by chance alone, cross analysis was performed with "t" tests in which,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

(\bar{x}_1 and \bar{x}_2 = means of sample populations: $\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}} = \sigma\bar{x}_1 - \bar{x}_2$
or standard error of the difference between two means.
Hamburg, op. cit., p. 332.)

The resulting t matrix, where rural migrants who moved directly to the city are represented as X, rural migrants with urban experience as Y, and migrants from urban origins as Z, is presented in Table 14. In converting these scores to their appropriate values, it was found that they did not differ statistically at the .05 level to warrant acceptance of the test hypothesis. That is,

TABLE 14
T SCORE MATRIX FOR PLACE-SIZE ORIGINS
AND OCCUPATIONAL ACHIEVEMENT

	Rural Direct (X)	Rural Indirect (Y)	Urban (Z)
Rural Direct (X)	-	.49	1.62
Rural Indirect (Y)	-	-	.64
Urban (Z)	-	-	-
Probabilities (chances in 100) of derived values: XY=62, XZ=11, and YZ=54.			

place-size origins do not appear to distinguish occupational achievement among migrants.⁹⁹

Migrant groups do, however, reflect certain tendencies toward income alignment. The greatest margin of difference occurs between rural direct movers and urban migrants, while the least spread is evidenced between the former group and rural indirect movers. It may be concluded that there is a slight correlation between migrant occupational achievement (income) and size of generating center.

Analysis of urban place origins, the move to the city, and occupational assimilation among migrant heads of household to San Pedro Sula provides some important conclusions. Concerning place of birth, migrants come predominantly from small urban centers. Not all rural migrants move directly to the city. Rather, nearly half acquire some urban experience along the way. Finally, there is a tendency for migrants from urban place origins to earn the highest incomes, once within San Pedro Sula.

⁹⁹These findings conform to the results of a recent study which compares occupational mobility among migrants with place-size origins. "Size of community of birth does not appear, therefore, to discriminate very well between migrants who are more successful occupationally and those who are less successful." Bock and Iutaka, op. cit., p. 349.

CHAPTER VIII

THE MIGRATION SYSTEM OF SAN PEDRO SULA: THE DECISION-MAKING PROCESS

The final area of inquiry focuses upon the decision-making behavior of migrants. It is becoming increasingly apparent that explanation of migration systems can no longer depend solely upon gravity models and push-pull hypotheses. There is also increasing support for the idea that the decision-making process in migration behavior is rational.¹⁰⁰ As an expansion upon this theme, it is hypothesized that the decision to migrate to San Pedro Sula, by the majority of migrant family heads, was rational and well thought out. The examination centers upon the four premises that migrants, prior to moving, were cognizant of the social and economic limitations, and attributes, of 1) their home community, 2) San Pedro Sula, and 3) an alternate destination, and that 4) friends, kinship, or contacts established in San Pedro Sula were important stimuli affecting the migrants' decision to move to the city.

¹⁰⁰ Julian Wolpert, op. cit., p. 159.

Assessing the Home Community

During the interview process, each migrant was asked about his displacement from, and the problems within, his home community. The questions, "Why did you leave your place of birth?" and "What problems existed in that community?" were designed to permit subjective assessment of the pre-migration environment.

In reply to the first question, each of the 402 internal migrant heads of household was permitted a maximum of three reasons, and a total of 561 responses were offered to this question. The distribution of major response patterns, or those items garnering more than 5 per cent of all responses, follows in Table 15.

TABLE 15

MIGRANT HEADS OF HOUSEHOLD: REASON FOR
LEAVING THE HOME COMMUNITY

Reason	% of Total Response
Transported at an early age	32
Lack of work	27
Family considerations	17
Lack of educational facilities	7
Hope to improve one's life	7
Low salary	6
Other	4
Total	100

The responses show, first, that approximately one-third of the migratory force could not have made an assessment of their home community. The decision to migrate, having been made by other family members, was an involuntary one for this group. The majority of responses, however, reflect a variety of motives underlying migration. Not surprisingly, the lack of work and family considerations are the major areas of concern. The former, when coupled with low salaries, emerges as the most important category. Compared with city life, economic conditions in much of the countryside and in many of the small urban places are relatively poor. Kinship ties play a significant role in urbanward migration, probably as a result of fairly extensive and unstructured family relationships among much of the populace. The inclusion of educational opportunities and the desire to improve one's life reflect two specific limitations of many of the home community environments.

Migrant responses to the second question suggest a degree of similarity between reasons for leaving and problems confronting the home community (Table 16). The significance of economic conditions in the home communities once again emerges. A lack of work, no opportunity for improvement, and poverty are three items that account for almost two-thirds of the responses to problems. Many of those who cited that no problems existed in the home area, in actuality, feel that way. This group makes

TABLE 16
PROBLEMS CONFRONTING THE HOME COMMUNITY

Problem	% of Total Responses
Lack of Work	39
None	23
No place to improve	11
Poverty	9
Family	8
Other	10
Total	100

frequent return visits to the home community and family, thereby indicating that they are not alienated from the home community. Family events may perform a dual role in the decision environment. Many migrants have family ties in the city, which often serve as an attraction. On the other hand, the structure of extended families and loose relationships at home appear to generate certain problems resulting in a member's out-migration.

The general impression from both sets of responses is that most migrants do make some meaningful assessment of existing conditions in the home community prior to leaving. Economic constraints and, to a lesser extent,

family concerns are the foremost considerations in the pre-migration environment.

Assessing San Pedro Sula

A second part of the interview process examined the premise that migrants were cognizant of the limitations and attributes of San Pedro Sula, prior to their permanent move to the city. The assumption is that selection of the city was not a random choice but, rather, one based on knowledge of the urban setting. The methodology is similar to that of the first part. Each migrant head was questioned about prior visits to the city and reasons underlying his selection. Specifically, the questions asked were, "How many times did you visit San Pedro Sula before establishing your first residence there?" and "Why did you migrate to San Pedro Sula?" Responses to the former are illustrated in Table 17.

It appears that roughly three-fifths of the migrant population had established some familiarity with the city before establishing permanent residence there. While 8 per cent had at least visited the city on one occasion, 16 per cent had made the trip from two to five times and 34 per cent had been there a minimum of five times. It is interesting that nearly two-fifths or 39 per cent of the migrants came "sight unseen." This group probably includes those migrants who were displaced involuntarily at an early



TABLE 17

VISITS TO SAN PEDRO SULA BY MIGRANT FAMILY
HEADS PRIOR TO RESIDENCE

Number of Visits	% of Migrants
0	39
1	8
2-5 or "a few"	16
>5 or "many"	34
Unrecorded or unknown	3
Total	100

age and numerous others who migrated in response to information disseminated about city life.

Migrants expressed few doubts as to why they had chosen San Pedro Sula. The following distribution of reasons has been tabulated from 681 recorded responses (Table 18). Aside from those who were brought to San Pedro Sula, migrant family heads were overwhelmingly drawn to the city by opportunity and employment. The division between the two is somewhat tenuous as the former conveys the totality of city life and inclusion of the latter. Nevertheless, these items have considerable importance, since they had more than likely been perceived by many on a previous trial basis (visits before residence). Family

TABLE 18
REASON FOR MIGRATING TO
SAN PEDRO SULA

Reason	% of Total Response
Better opportunities	32
Work available	29
Family considerations	16
Brought at an early age	15
Educational facilities	6
Other	2
Total	100

considerations and the availability of educational facilities round-out nearly all of the remaining responses.

In view of the responses given, there appears to exist a high degree of rationality among migrants regarding the decision-making process.

Assessing an Alternate Destination

A third part of the interviews focused on still another dimension of the decision environment. It is proposed that migrant family heads to San Pedro Sula were equally cognizant of the limitations and attributes of an alternate destination. That is, the move to San Pedro Sula resulted in part from an assessment of other sites.

Two populations were distinguished for this portion of the investigation. The first group, migrants who had moved directly to the city from place of birth (50 per cent of the total group), was asked, "Why didn't you move to another center, such as El Progreso, Choloma, or La Lima?" The second group, encompassing all migrants, was presented the question "Why didn't you move to Tegucigalpa?" In responding to the open-ended format of the former, direct movers gave 203 replies or roughly the equivalent of one answer for every person. Patterns of response are shown in Table 19.

TABLE 19

REASONS DIRECT MOVERS CHOSE NOT TO SELECT
AN ALTERNATE SITE (SUCH AS EL PROGRESO,
CHOLOMA, OR LA LIMA)

Reason	% of Total Responses
Better opportunities and perspective in San Pedro Sula	20
Family considerations	19
Lack of work in other sites	17
No reason	16
Brought by others	13
Other	15
Total	100

The responses of group one do not necessarily corroborate the inclusion of a selection procedure among an overwhelming majority of direct movers. Strong family ties in the city may have precluded site assessment for nearly one-fifth of this group. A combination of those attracted by family and transported by others, along with those providing no reasons, implies that approximately one-half of all direct movers did not evaluate other sites. On the other hand, there may have occurred a higher incidence of evaluation than suspected. Responses to the better opportunities in San Pedro Sula and the lack of work in other sites suggests an understanding of the comparative attributes of the city by a substantial number of respondents. If family considerations are also interpreted as being a selective characteristic of sites, as it could appear, alternate site assessments were conducted by the majority of direct movers. In either case, there is no drastic imbalance within this group.

Each migrant family head was subsequently asked to respond to the question of why he chose not to select Tegucigalpa, the national capital, over San Pedro Sula. A total of 496 responses offer insights into the topic of decision behavior and are illustrated by percentile distribution in Table 20.

The position of the capital within the decision environment is fairly discernable. Economic considerations

TABLE 20
REASON FOR NOT MIGRATING
TO TEGUCIGALPA

Reason	% of Total Responses
Too expensive to live there	19
Better opportunities in San Pedro Sula	18
Family considerations	15
Was brought to San Pedro Sula at early age or migrated from Tegucigalpa	15
Don't know Tegucigalpa	11
Distance	10
Don't like Tegucigalpa	8
Other	4
Total	100

account for the largest individual group of responses. The higher cost of living in the capital and greater opportunities in San Pedro Sula account for nearly two-fifths of all responses. Family or kinship ties persist as a secondary concern. These respondents, along with those who expressed dislike for the capital and those who recognized distance as an obstacle, gave an assortment of replies representing slightly less than three-fourths of all responses. By comparison, only about one-fourth of

the responses reflected no basis for selectivity. They include those who moved to San Pedro Sula with parents, those having migrated directly from Tegucigalpa, and those who had no familiarity with the capital.

Based upon all responses, it appears that the majority of migrants to San Pedro Sula were cognizant of the limitations and attributes of alternative destinations and that this information influenced their decision. At least one-half of all direct movers and up to three-fourths of the entire migrant population, expressed some personal assessment of alternative sites.

Stimuli to the Decision Environment

It is believed that friends, kinship, or contacts established in San Pedro Sula were important stimuli affecting the migrants' decision to move to the city. Migrant family heads were asked to respond to the two questions, "At the time of arrival (residence) at San Pedro Sula, where did you live?" and "During the first few months in the city, what help did you receive from family, friends or other sources?" The distribution of responses (N=402) to question one is portrayed in Table 21.

Migrants form two rather distinct groups at time of arrival, namely, those who rent and those who receive lodging from relatives, friends, and other sources. These



TABLE 21

PLACE OF RESIDENCE FOR MIGRANT FAMILY HEADS
AT TIME OF ARRIVAL IN SAN PEDRO SULA

Place	% All Migrants
Rented living quarters	45
With relatives	36
With friends	10
House ownership	5
Other sources	4
Total	100

groups account for 95 per cent of the total migrant population and are fairly evenly divided.

The fact that 45 per cent of the arrivals must rent illustrates the need to provide low-rent housing, as most migrants initially have very limited financial resources. House ownership is characteristic only of the more affluent or a very small proportion of arriving migrants.

Relatives, friends and other sources provide an important service for arriving migrants. Approximately 50 per cent of the latter are accommodated with lodging when entering the city.

Responses to the second question reveal patterns of aid sustained during the first few months of residency. Migrants offered 454 responses to the question, which are presented in Table 22.

TABLE 22
ASSISTANCE RENDERED TO MIGRANT FAMILY HEADS
BY RELATIVES, FRIENDS, AND OTHER SOURCES
DURING FIRST FEW MONTHS OF RESIDENCY
IN SAN PEDRO SULA

Type of Assistance	% of All Responses
None	47
Food and Housing	27
Housing only	9
Monetary	7
Obtaining Work	4
Obtaining housing	3
Other forms	3
Total	100

Slightly more than half of all migrants received some form of assistance, since 47 per cent of the responses were negative. Housing, again, emerges as an integral part of services rendered. A fairly sizeable proportion of family heads may experience a comparatively easy adjustment to the initial rigors of city life, as reflected by the

percentage of responses pertaining to food and housing. There also appear to be certain responsibilities expected of migrants by virtue of the lesser forms of assistance they receive. These include monetary concerns and the acquisition of employment and permanent housing.

For lack of a more disciplined framework to study the complex array of interacting forces in decision-making behavior, conclusions must be weighed carefully. It is clear, however, that among migrants there are varying levels of participation in the decision process.

Somewhere between 50-70 per cent of all migrant heads are cognizant of certain attributes and limitations of their home community, of a desired location (San Pedro Sula), and of alternative sites, prior to migration. Their foremost concerns include the lack of economic perspective in the home environment and the numerous opportunities available in the large city. Family or kinship considerations provide an important secondary focus.

Adjustment to life in San Pedro Sula is facilitated for at least half of the group. Approximately three-fifths of all family heads had first-hand familiarity with the city before moving, while one-half received some form of assistance after arrival.

The majority of migrants do engage in the decision making process. There is an unmistakable tendency for this decision to be rational and well thought out.

CHAPTER IX

PERSPECTIVE ON FUTURE GROWTH OF SAN PEDRO SULA

The demographic outlook for San Pedro Sula appears to be one of continued high population growth. Whereas the banana boom of the early twentieth century set the stage for initial urban expansion, industrial development of the past two decades has provided a solid base for future social and economic activity. It is likely that the San Pedro Sula-Chamelecón-La Lima-Choloma complex will constitute the principal conurbation of Honduras by the year 2000.

The present decade presents an important challenge to city planners in San Pedro Sula. With an anticipated near-tripling of population in the next thirty years, man-land relationships in and around the city can be expected to change radically. Included in this study has been an attempt to identify some of the possible forthcoming alterations and the continuing role of urbanward migration.

Planning Problems

Similar to the situation in many other rapidly growing cities of Latin America, accelerated population



increase in San Pedro Sula has placed a visible strain upon the urban community. Physical as well as human needs are increasing at geometric rates, as evidenced by marked housing shortages and inadequate urban services. As the city braces for an era of continued high population growth, various problems and planning strategies must be explored.

Water

The chief problem within the city is the lack of year-round water availability. Water shortages emanate from 1) the dependency of San Pedro Sula on a vagarious rainfall regime and 2) the low storage capacity of the Santa Ana and Río de Piedras dams. Nearly all sectors of the city experience some sustained discomfort due to water deficiencies, particularly during low rainfall periods.¹⁰¹ Many of the cuarterías (small one-room flats) in the south-east zones of the city, for example, were without water for as much as three months in mid-1971. Patterns of water availability throughout the urban area further reflect the fact that the inhabitants most economically destitute have the least water at their disposal.

¹⁰¹The "lack of water" was a near universal response from the 500 family heads when asked, "What are the foremost problems of your present community (barrio)?"

Current daily water needs of 36,000 cubic meters are expected to nearly quintuple, to approximately 129,500 cubic meters, by the year 2000 due to the demands of a much larger population.¹⁰² Some immediate relief may be forthcoming from an attempt to tap underground sources and improve storage facilities, but the need for long-range planning will become more acute with increasing industrialization.

Housing

Another major urban problem is that of housing shortages. On a national scale, Honduras' 290,000 unit deficit constitutes one of the highest relative housing imbalances in all of Latin America.¹⁰³ In San Pedro Sula there already exists a noticeable paucity of low-cost dwelling units, as reflected by the large number of squatters and those who simply occupy the streets.

For the more than 70 per cent of all migrant household heads who rent, intra-urban moves are primarily a response to the availability of low-cost facilities. The desire among this group to become a propietario (owner) is nearly unanimous, but existing possibilities are minimal.

¹⁰²Cervantes Asociados, op. cit., p. 55.

¹⁰³See article, "Creación de fuentes especializadas de crédito" appearing in La Prensa (San Pedro Sula), February 12, 1971.

An immediate task is to provide low-cost housing which offers basic urban amenities. The current three-year plan of INVA (Instituto de la Vivienda or Housing Institute) to construct 550 units in the city, designed for households with monthly incomes between 61 and 125 dollars, will at best constitute only an approach to the problem.¹⁰⁴

Public Health

The field of public health may present still the greatest challenge to orderly urban development. In terms of physical space in which to expand, San Pedro Sula, unlike Tegucigalpa, has seemingly unlimited territory. However, nearly half of the total population in the city is currently cramped within Zones I and II, creating densities from 52,000 to 104,000 persons per square mile. These are the same areas that generally rank lowest in mean annual incomes and are the least endowed with basic urban services, e.g., water, paved streets, and waste disposal.

The low quality of the municipal drinking water constitutes a major health hazard. Contaminated water is possibly endemic, owing to poor distribution and the

¹⁰⁴The program will receive support from the Inter-American Development Bank, with total value per unit estimated to vary between 1,500-2,750 dollars. See articles "INVA anuncia nuevos programas de viviendas en todo el país" appearing in La Prensa (San Pedro Sula), May 31, 1971 and "INVA extenderá su radio de acción a la zona norte" appearing in Tiempo (San Pedro Sula), August 2, 1971.



consequences of occasional human squatting along the feeder rivers. Five-gallon jars of purified water, selling for twenty-five cents each, are available but are rarely used by the lowest income groups because of the prohibitive cost. Recent evidence from a community in Tegucigalpa reveals that 84 per cent of all children ages 5-14 have parasites.¹⁰⁵

Low incomes, crowded living conditions, and the unreliable availability and quality of municipal water undoubtedly are associated with low nutritional standards among a sizeable part of the citizenry. Although there is little data available for San Pedro Sula, it is known that national per capita consumption of maize, rice and beans, the Honduran staples, has declined within the past decade. Annual per capita incomes have grown at a diminutive 1.5 per cent, a figure well below the 2.5 per cent stipulated as the minimum acceptable rate of growth by the "Programa Alianza para el Progreso de la América Latina en la Carta de Punta del Este."¹⁰⁶ Unfortunately, there loom no immediate solutions for the economically and nutritionally disadvantaged in the city, although initiation of comprehensive family planning would appear to be imperative.

¹⁰⁵Stycos, op. cit., Appendix A.

¹⁰⁶See article, Mario Rietti, "Diagnóstico de la economía de Honduras," appearing in La Prensa (San Pedro Sula), July 30, 1971. Compared with the average for Central America, Honduran per capita incomes have dropped from 89 per cent of the regional average in 1950 to 75 per cent in 1970.

The key issues of water, housing, and public health signify a challenging era ahead for Honduran planners. Fundamental to any planning strategies will be an understanding of the migration component and its anticipated role within the evolving urban community.

Prospectus on Urbanward Migration

Internal migration, particularly during the past two decades, has generated phenomenal rates of population growth for the city of San Pedro Sula. The fact that the city has grown nearly sixfold in twenty-one years, and that 79.9 per cent of all heads of household are nationals born outside of the city, illustrates the profound and sudden impact of population movement upon the urban environment. With increasing industrialization in and around the city, internal population movement to San Pedro Sula could attain unprecedented proportions through the next three decades.

Ensuing internal migration is predicated upon several factors. These include an understanding of regional trends in internal migration, the changes occurring in the intensity of movement through time to San Pedro Sula, and other phenomena which could contribute to the growth potential of future migration.

Regional Trends

The two most salient features characterizing recent demographic processes in Latin America have been world-high rates of population growth and the rapid increase of urbanization. Regional natural increase rates of 2.8 per cent annually suggest a doubling of population about every twenty-five years and are undoubtedly linked to the causes of urbanward migration. The move toward the cities during the current decade may be the largest ever experienced:

Of the 159 million who will be added to the population of Latin America between 1960 and 1980, only 38 million will be added in rural areas, while the urban population will have added 121 million--a gain over 1960 of 127 per cent. This could easily mean a net out-migration from the rural population of 18.5 million in the 1960s and 22 million more in the 1970s--magnitudes that would exceed the massive out-migration of the 1950-1960 decade by some 25 to 50 per cent. Higher rates of out-migration are not improbable.¹⁰⁷

Implications are fairly clear for the Republic of Honduras as the national population is reproducing at an annual rate of 3.4 per cent and the nation is currently experiencing the highest rates of urban growth in all of Latin America. Considering that approximately 65-70 per cent of the Honduran populace still resides in rural areas where per capita incomes are less than 100 dollars for

¹⁰⁷Louis J. Ducoff, "The Role of Migration in the Demographic Development of Latin America," Milbank Memorial Fund Quarterly, Vol. 43, No. 4, Part II, October, 1965, p. 205.

85.6 per cent of all households, it appears likely that urban zones are to be confronted with an unprecedented numerical increase.

Migration Through Time

Of the various indices available for projecting migration, some form of historical trend analysis is probably most useful. The flow of migrants to the city is known to vary through time and is suggestive of certain causal relationships between migrants and the urban center. In its historical perspective, this association can be viewed in a more complete context and serve as a basis for prediction.

The migration of family heads to San Pedro Sula during the past seven decades is illustrated in Table 23. Percentage distributions are based on a total 413 family heads and their arrival in five-year intervals (excepting 1970 to mid-1971). Three general trends are reflected by the low influx of migrants from 1900 to 1929, the discernable increase in the years 1930 to 1949, and the high rates of urbanward migration since 1950. These three periods account for 9, 25, and 66 per cent of the total migrant population, respectively.

It is not surprising to find a close relationship between historical antecedents and the volume of migration through time to San Pedro Sula. Pre-1930 migrants reflect

TABLE 23

ARRIVAL OF MIGRANT FAMILY HEADS IN SAN
PEDRO SULA, 1900 - MID-1971

Date of Arrival	Per Cent	Date of Arrival	Per Cent
1900 - 1904	1	1940 - 1944	5
1905 - 1909	*	1945 - 1949	8
1910 - 1914	*	1950 - 1954	12
1915 - 1919	2	1955 - 1959	13
1920 - 1924	3	1960 - 1964	14
1925 - 1929	3	1965 - 1969	19
1930 - 1934	6	1970 - Mid-1971	8
1935 - 1939	5		
Total			100

*Less than one per cent.

the initial impetus provided by the banana boom, 1930 - 1949 migrants mirror the vagarious nature of subsequent banana developments, while migrants in the contemporary period represent conditions ranging from early banana consolidations to incipient industrial growth. Possibly the signal trend within the latter era is that more than one-fourth of all migrant heads have arrived within the past six and one-half years. In comparison with the preceding decade, 1955 - 1964, time rates for migration have currently been reduced by 35 per cent and could be cut as much as 40 per cent by 1975.

The immediate outlook concerning migration propensity is one of steady increase. Barring unforeseen circumstances, San Pedro Sula will accommodate a record number of migrants in the present decade.

Influential Factors in Migration

One of the most important developments within the Honduran landscape influencing urbanward migration has been an evolving overland transportation system. The once isolated north coast ports of Tela and La Ceiba are now being linked with major arteries of travel, and the western highway from the north coast to Nueva Ocotepeque and on to the Guatemalan border is virtually paved. Whereas the travel time between San Pedro Sula and any one of these sites recently required two or more days of travel, it is only a matter of hours today.

It has been only during the past decade that San Pedro Sula and Tegucigalpa have become closely joined. In 1914 the trip of about 180 miles from San Pedro to the capital took six full days and was reserved almost exclusively to the hardy.¹⁰⁸ The first day consisted of taking the railroad to Pimienta, crossing the Río Ulúa in canoes, and moving on to Santa Cruz de Yojoa by mules. In the

¹⁰⁸ Personal interview with Doña Elena Leiva de Holst, San Pedro Sula, September 12, 1971.

five following days, mules were ridden to Meambar, Siguatepeque, Comayagua, Protección and finally to Tegucigalpa. By the 1940's the trip had been reduced to two days, requiring a ferry crossing at Lake Yojoa and overnight accommodations at Siguatepeque. Now, with the completion of the paved highway, the same journey takes less than four hours.

The emerging highway infrastructure has to be considered an important factor in future migration. By increasing accessibility in remote areas of the country, reducing the costs of travel, and diminishing travel time between places, paved roads will serve to increase the growth potential of internal migration.

While the reasons for migrating to San Pedro Sula range from innundations in Ocotepeque, to family quarrels and to the "Soccer War" of 1969, a consensus of opinion among migrants reflects the strong attraction of the urban economy. Industry in and around the city has provided an expansive dimension for population growth. Newly created jobs and generally the highest average wages in the nation have been possibly the foremost attractions underlying recent record movements to San Pedro Sula. With the continuing trend toward industrial investment, still greater magnitudes of migration will be evidenced.

Based on regional trends, the propensity of movement through time, and the added elements of highway



construction and industrial development, the city of San Pedro Sula will remain a strong attraction to internal migrants. Due also to the existing population imbalance between the large rural and small urban sectors, accentuated by the general poverty of the former, urbanward migration in Honduras may be, as yet, only in an incipient stage.

CHAPTER X

CONCLUSION

The Republic of Honduras has experienced extremely high rates of urbanization during the past two decades. In a nation long characterized by a large rural population and a rural way of life, urban areas have recently assumed a significant role in human activity. One of the principal attractions to the thousands of migrants has been San Pedro Sula, which has emerged as the city with perhaps the highest growth rate in all of Latin America.

The explosive population growth of San Pedro Sula has provided ideal conditions for investigation of one of the regions' most dynamic migration systems. Based on the theme "Spatial Characteristics of Internal Migration to San Pedro Sula, Honduras," the study focuses upon four main areas of inquiry in migration theory: 1) the characteristics of migrants, 2) the role of distance in migration, 3) the mobility process, and 4) the decision-making behavior of migrants.

Characteristics of Migrants

The majority of migrant heads in San Pedro Sula are less than thirty years old upon arrival, three out of

four are unskilled, and approximately three-fourths come with at least some level of primary education. Non-migrants, by comparison, are generally younger, include a similar proportion of unskilled, have attended school in relatively greater numbers, and have attained higher levels of education.

Migrant heads of household, as well as their non-migrant counterparts, are predominantly male. The proportion of female family heads among migrants is significantly higher, however, reflecting the strong role of women in urbanward migration. Since many migrant females seek resident occupations in urban households, their precise numerical presence is difficult to assess. Females could therefore represent a still higher proportion than males within the migrant population.

Distance in Migration

Analysis of migrant origins at both the department and municipio levels reveals a fairly distinct spatial alignment, with the heaviest out-migration coming from areas nearest the city. In ascending order of distance from San Pedro Sula, department zones supply 52, 35, and 13 per cent of all migrant household heads, while measured straight-line municipio zones emit 40, 35, 20, and 5 per cent of the same population.

The most obvious distortions in the distance-decay surface are areas of abnormally heavy out-migration in the western part of the country and the Distrito Central. Isolated due to the absence of feeder roads to the east and the recent closing of the border with El Salvador, the western departments are linked with the rest of the nation by a sole artery of transportation--a highway that passes virtually through San Pedro Sula. Tegucigalpa's high participation in the migration field appears to be mostly a function of place-size, although rapid transport has developed between the two centers and may be another factor.

The role of overland transportation facilities becomes especially well defined with the mapping of migration "streams." Approximately 99 per cent of all migrant family heads depend upon surface transportation, with their movement being facilitated, in large part, by four main highway systems. These include the arteries linking San Pedro Sula with Nueva Ocotepeque, Tegucigalpa, La Ceiba, and Puerto Cortés.

The Mobility Process

Migrant family heads come overwhelmingly from urban places. Based solely on place of birth, some 83 per cent are born in municipio or department capitals as compared to 17 per cent born in aldeas and caserios. In tracing

the movement of all migrant heads (and in particular rural migrants) from place of birth, it was found that 50 per cent do not move directly to the city but participate in some form of step-migration. Possibly as many as 90 per cent of all migrant heads acquire some experience in urban places prior to residence in San Pedro Sula.

Testing for income differences among migrants shows that there is a tendency for persons from larger urban origins to earn the highest incomes, once in the city. That is, migrants born in urban places reflect slightly higher earnings than their rural counterparts with prior urban experience and appreciably more than rural migrants who move directly to the city. In neither case, however, is there a strong statistical distinction.

Decision-Making Behavior

At least half, and possibly as many as 70 per cent, of all migrant heads in San Pedro Sula appear to have made fairly extensive assessment as to "why" and "where," prior to the act of migration. Response patterns define the principal limitations of the home community as "a lack of work and no place for economic improvement" and "family considerations." Conversely, the most important perceived attributes of San Pedro Sula are "available work and opportunity to improve" and, to a lesser extent, "family concerns." Prior to establishing residence, approximately

three-fifths of all family heads visited the city at least once. Migrant responses also suggest that the majority evaluated alternative sites during the selection process. Again, there is strong consistency in economic and kinship considerations.

Finally, it would seem that friends, kinship, and contacts in San Pedro Sula are important stimuli to the migration decision. About half of all migrant heads were provided lodging at the time of arrival, while slightly more received some form of sustained assistance during their first few months in the city.

As suggested by these conclusions, the migration system of San Pedro Sula is comprised of a variety of dimensions and a high degree of connectivity. It is hoped that this examination and interpretation offers utility to Honduran planners and added resources to professional scholars concerned with migration theory.

BIBLIOGRAPHY

148a

BIBLIOGRAPHY

Books

- Adams, Richard N. Cultural indígena de Guatemala: Ensayos de antropología social. Guatemala, C. A.: Editorial del Ministerio de Educación Pública, 1956.
- Aguilar, Carlos Antonio B. Texto de enseñanza de la geografía de Honduras. Tomo Primero. Tegucigalpa, D.F.: Imprenta "La República," 1969.
- Alba, Victor. The Latin Americans. New York: Frederick A. Praeger, 1969.
- Bancroft, Hubert Howe. History of Central America. Vols. 6-8. San Francisco: A. L. Bancroft and Company, 1882-1890.
- Bates, Marston. Where Winter Never Comes. New York: Charles Scribners and Sons, 1952.
- Berry, B. J. L. and Garrison, W. L. "Alternate Explanations of Urban Rank-Size Relationship," in Mayer and Kohn (eds.), Readings in Urban Geography. Chicago: University of Chicago Press, 1959.
- Beyer, Glenn H. (ed.) The Urban Explosion in Latin America. Ithaca: Cornell University Press, 1967.
- Blalock, Hubert M., Jr. Social Statistics. New York: McGraw Hill, 1960.
- Bobadilla, Perfecto H. Monografía del departamento de Cortés. Tegucigalpa, D. F.: Sociedad de Geografía e Historia de Honduras, Talleres Tipográficos Nacionales, 1944.
- Bonilla, Conrado. Honduras en el pasado: Primera parte. San Pedro Sula: Tipografía "La Juventud," 1949.
- Bonilla, Marcelina. Diccionario historio-geográfico de las poblaciones de Honduras. Segunda Edición. Tegucigalpa, D. F.: Imprenta Calderón, 1952.

- Breese, Gerald. Urbanization in Newly Developing Countries. Englewood Cliffs: Prentice-Hall, 1966.
- Brunn, Stanley D. and Thomas, Robert N. "The Migration System of Tegucigalpa, Honduras," in Robert N. Thomas (ed.), Population Dynamics of Latin America: A Review and Bibliography. Muncie: Ball State University, 1972, pp. 104-118.
- Cálix, Ulises Meza. Geografía de Honduras. 2nd ed. San Pedro Sula: Tipografía Pérez Estrada, 1936.
- del Castillo, Bernal Díaz. Verdadera y notable relación del descubrimiento y conquista de la Nueva España y Guatemala. Vol. 73. Tomo III. Guatemala, C. A.: Centro Editorial "José de Pineda Ibarra," 1964.
- Cervantes Asociados. San Pedro Sula: Plan para el año 2000. México, D. F.: Cervantes Asociados, Septiembre, 1964.
- Chamberlain, Robert S. The Conquest and Colonization of Honduras 1502-1550. New York: Octagon Books, 1966.
- Charles, Cecil. Honduras: The Land of Great Depths. Chicago: Rand McNally, 1890.
- Checchi, Vincent and Associates. Honduras--A Problem in Economic Development. New York: The Twentieth Century Fund, 1959.
- Conzemius, Eduard. Ethnographical Survey of the Miskito and Suma Indians of Honduras and Nicaragua. Washington, D. C.: U.S. Government Printing Office, 1932.
- de Fuentes y Guzmán, Francisco A. Recordación florida. Guatemala, C. A.: Ed. de la Sociedad de Geografía y Historia de Guatemala, 1932-1933.
- Germani, Gino. "Inquiry Into the Social Effects of Urbanization in a Working-Class Sector of Greater Buenos Aires," in Philip M. Hauser (ed.), Urbanization in Latin America, Belgium: UNESCO, 1961, pp. 206-233.
- Gourou, Pierre. The Tropical World. London: Longmans, Green and Co., 1953.



- Green, David. The Containment of Latin America. Chicago: Quadrangle Books, Inc., 1971.
- Haggett, Peter. Locational Analysis in Human Geography. New York: St. Martins Press, 1966.
- Hamburg, Morris. Statistical Analysis for Decision Making. New York: Harcourt, Brace and World, Inc., 1970.
- Hanke, Lewis (ed.). History of Latin American Civilization. Vol. 1. Boston: Little, Brown, and Company, 1967.
- Hauser, Philip (ed.). Handbook for Social Research in Urban Areas. Paris: UNESCO, 1965.
- _____. Urbanization in Latin America. Belgium: UNESCO, 1961.
- Huntington, Ellsworth. Civilization and Climate. New Haven: Yale University Press, 1924.
- _____. Mainsprings of Civilization. New York: John Wiley and Sons, 1945.
- James, Preston E. Latin America. 4th ed. Revised. New York: The Odyssey Press, 1969.
- Kepner, Charles David, Jr. and Soothill, Jay Henry. The Banana Empire. New York: Russell and Russell, 1967.
- Lopes, Juarez Ruben Brandão. "Aspects of the Adjustment of Rural Migrants to Urban-Industrial Conditions in São Paulo, Brazil," in Philip M. Hauser (ed.), Urbanization in Latin America. Belgium: UNESCO, 1961, pp. 236-240.
- Lunardi, Federico. Honduras Maya. San Pedro Sula: Compañía Editora de Honduras, 1946.
- _____. La fundación de la ciudad de Gracias a Dios y de las primeras villas y ciudades de Honduras en los documentos y erradas narraciones de los historiadores. Tegucigalpa, D. F.: Biblioteca de la Sociedad de Antropología y Arqueología de Honduras, 1946.
- _____. Los payas: Documentos curiosos y viajes esbozo de un capítulo de la historia de Honduras. Tegucigalpa, D. F.: Talleres Tipográficos Nacionales, 1943.

- Malthus, Thomas Robert. On Population. New York: The Modern Library, 1960.
- May, Stacy and Plaza, Galo. The United Fruit Company in Latin America. Washington, D. C.: National Planning Association, 1958.
- Mehado, Rubio Adolfo, and Morán, Mariano Castro. Geografía general de la República de Honduras. Tegucigalpa, D. F.: Ministerio de Educación, 1953.
- Mendieta, Pedro Aplicano. Introduction to Mayan History. No. 85. Tegucigalpa, D. F.: Imprenta Calderón, 1971.
- Montagu, M. F. A. An Introduction to Physical Anthropology. Springfield: Charles C. Thomas, 1945.
- Morley, Sylvanus G. La civilización Maya. México, D. F.: Fondo de Cultura Económica, 1947.
- Morrill, Richard L. The Spatial Organization of Society. Belmont: Wadsworth Publishing Company, Inc., 1970.
- Mortara, Giorgio. "Factors Affecting Rural-Urban Migration in Latin America: Influence of Economic and Social Conditions in these Two Areas," in Proceedings of the World Population Conference 1965. Vol. IV. New York: United Nations, 1967, pp. 509-512.
- Navarro, Miguel. Nuestro país. Tegucigalpa, D. F.: Publicaciones Navarro, 1964.
- Orozco, Manuel y Berra, Manuel. Historia antigua y de la conquista de Mexico. México, D. F.: Editorial Porrúa, S. A., 1960.
- Otero, Luis Mariñas. Honduras. Madrid: Ediciones Cultura Hispanica, 1963.
- Rodríguez, Mario. Central America. Englewood Cliffs: Prentice-Hall, 1963.
- Sapper, Karl. Mittelamerika: Handbuck der regionalen geologie. Band VII (4a). Heidelberg: Carl Winters Universitäts-buchandlung, 1937.
- Squier, Ephraim G. Honduras: Descriptive, Historical and Statistical. London: Trubner and Company. 1870.

- _____. Notes on Central America; Particularly the States of Honduras and El Salvador: Their Geography, Topography, Climate, Population, Resources, Productions, etc., etc., and the Proposed Honduras Inter-Oceanic Railway. New York: Harper and Brothers, Publishers, 1855.
- _____. Preliminary Notes to a Report on the Proposed Honduras Inter-Oceanic Railway. New York: Office of Company, 1854.
- Stephens, John. Incidents of Travel in Central America, Chiapas and Yucatan. New Brunswick: Rutgers University Press, 1949.
- Stokes, William. Honduras, An Area Study in Government. Madison: University of Wisconsin Press, 1950.
- Stone, Doris (Zemurray). Archeology of the North Coast of Honduras. Cambridge: The Museum, 1941.
- Stycos, J. Mayone, et al. Una evaluación de fecundidad y programas de salud y planificación en "La Crucitas," Tegucigalpa-Comayagüela, Honduras. Ithaca: Cornell University Press, 1969.
- Tax, Sol (ed.). Heritage of Conquest. Glencoe: The Free Press, 1952.
- Vaughan, Denton R. Urbanization in Twentieth Century Latin America: A Working Bibliography. Austin: Institute of Latin American Studies Population Research Center, The University of Texas, 1970.
- de Velasco, Juan López. Geografía y descripción universal de las Indias desde el año 1571 al de 1574. Madrid: Establecimiento Tipográfico de Fortanet, 1894.
- Wells, William. Explorations and Adventures in Honduras, Comprising Sketches of Travel in the Gold Regions of Olancho, and a Review of the History and General Resources of Central America. New York: Harper and Brothers, 1857.
- West, Robert C. and Augelli, John P. Middle America. Englewood Cliffs: Prentice-Hall, 1966.
- White, John Manchip. Cortés and the Downfall of the Aztec Empire. New York: St. Martins Press, 1971.

Wilson, Charles Morrow. Ambassadors in White: The Story of American Tropical Medicine. New York: H. Holt and Company, 1942.

_____. Empire in Green and Gold: The Story of the American Banana Trade. New York: H. Holt and Company, 1947.

Wisdom, Charles. Los Chortis de Guatemala. Guatemala, C. A.: Editorial del Ministerio de Educación Pública "José de Pineda Ibarra," 1961.

Ymeri, Fabian S. Antropología cultura autóctona de Guatemala y civilización Maya. Guatemala, C. A.: Imprenta Hispania, 1955.

Zaldívar, Raúl. Así es mi patria: Conociendo a Honduras. Tegucigalpa, D. F.: Colección "Así Es Mi Patria," 1951.

Articles and Periodicals

Adams, Dale W. "Rural Migration and Agricultural Development in Colombia," Economic Development and Cultural Change. Vol. 17, 1969, 527-539.

Aragón, Mauro Aníbal Mejía. "Migraciones del area rural a la industrial en la ciudad de Guatemala." Instituto de Investigaciones Económicas y Sociales, Guatemala, Universidad de San Carlos, 1970.

Arriaga, Eduardo E. "Components of City Growth in Selected Latin American Countries." The Milbank Memorial Fund Quarterly. Vol. XLVI, No. 2, Part I (April, 1968), 237-252.

Association of American Geographers. Spatial Diffusion. Commission on College Geography Resource Paper No. 4. Washington, D. C.: Association of American Geographers, 1969.

Bengston, Nels A. "Notes on the Physiography of Honduras," Geographical Review. Vol. 16 (1926), 403-413.

Bennett, Hugh H. "Agriculture in Central America." Annals of the Association of American Geographers. Vol. XVI, No. 2 (June, 1926), 63-84.

- Bock, Wilbur E. and Iutaka, Sugiyama. "Rural-Urban Migration and Social Mobility: The Controversy on Latin America." Rural Sociology. Vol. 34, No. 3, 1969, 343-355.
- Borah, Woodrow and Cook, S. F. The Population of Central Mexico in 1548: An Analysis of the 'Suma de visitas de pueblos.' Ibero-Americana, Vol. 43. Berkeley: University of California Press, 1960.
- Browning, Harley L. and Feindt, Waltraut. "Selectivity of Migrants to a Metropolis in a Developing Country: A Mexican Case Study." Demography. Vol. 6, No. 4, November, 1969, 347-358.
- Chamberlain, Robert S. "Castilian Backgrounds of the Repartimiento-Encomienda." Contribution to American Anthropology and History. Vol. V, No. 25, (1939).
- _____. "Fundación de la ciudad de Gracias a Dios." Anales de la Sociedad de Geografía e Historia. No. 1-2 (Marzo-Junio, 1947), 55-68.
- Conzemius, Eduard. "Ethnographical Survey of the Miskito and Suma Indians of Honduras and Nicaragua." U. S. Bureau of American Ethnology Bulletin. No. 106 (1932).
- _____. "The Jicaques of Honduras." International Journal of Linguistics. Vol. II (1923), 163-170.
- Ducoff, Louis J. "The Migrant Population of a Metropolitan Area in a Developing Country." Ekistics. Vol. 13, No. 79 (May, 1962), 330-332.
- _____. "The Role of Migration in the Demographic Development of Latin America." The Milbank Memorial Fund Quarterly. Vol. XLIII, No. 4, Part 2 (October, 1965), 197-218.
- Elizaga, Juan C. "A Study of Migration to Greater Santiago." Demography. Vol. 3, No. 2 (1966), 352-377.
- Evers, Carlos. "Breve reseña histórica del centro de investigaciones científicas tropicales en La Lima." La Prensa. May 20, 1971, 12-13.
- Fischlowitz, E. "Driving Forces in Internal Migration in Brazil." Migration News. Vol. 14, No. 6 (November-December, 1965).

- Flinn, William L. "The Process of Migration to a Shantytown in Bogotá, Colombia." Inter-American Economic Affairs. Vol. 22, No. 2, Autumn, 1968, 77-88.
- Gann, T. W. F. "The Ancient Monuments of Northern Honduras and the Adjacent Parts of Yucatan and Guatemala, the Former Civilization in These Parts and the Chief Characteristics of the Races Now Inhabiting Them with an Account of a Visit to the Rio Grande Ruins." Journal of the Royal Anthropological Institute. Vol. VII (1905), 103-112.
- Herrick, B. H. "Urban Migration and Economic Development in Chile," M.I.T. Monographs in Economics. No. 6 (Cambridge), 1966.
- Hopkins, John A. The Latin American Farmer. Washington, D. C.: U.S. Department of Agriculture, Economic Research Service, 1969.
- Johannessen, Carl L. Savannas of Interior Honduras. Ibero-Americana. No. 46. Berkeley: University of California Press, 1963.
- Kirchhoff, Paul. "The Caribbean Lowland Tribes: The Mosquito, Sumo, Paya, and Jicaque." In Handbook of South American Indians by Julian H. Steward (ed.). "U.S. Bureau American Ethnology Bulletin." No. 143. Washington, D.C., 1948. IV, 219-229.
- Lee, Everett S. "A Theory of Migration." Demography. Vol. 3, No. 1, 1966, 47-57.
- MacDonald, Leatrice and MacDonald, John S. "Motives and Objectives of Migration: Selective Migration and Preferences Toward Rural and Urban Life in Guayana." Ekistics. Vol. 28, No. 168 (1969), 321-327.
- McBryde, F. Webster. Cultural and Historical Geography of Southwest Guatemala. Institute of Social Anthropology Publication No. 4. Washington, D.C. The Smithsonian Institute, 1947.
- Morley, S. G. "Ancient Temples and Cities of the New World. Copán, the Mother City of the Mayas." Bulletin of the Pan American Union. Vol. XXXII (1911), 863-879.



- _____. "The Foremost Intellectual Achievement of Ancient America. The Hieroglyphic Inscriptions on the Monuments in the Ruined Cities of Mexico, Guatemala, and Honduras are yielding the Secrets of the Maya Civilization." National Geographic Magazine. Vol. XLI, No. 2 (1922), 109-130.
- _____. The Inscription at Copán. Carnegie Institute of Washington, No. 219. Washington, D.C.: Carnegie Institute of Washington, 1920.
- Morse, Richard M. "Recent Research on Latin American Urbanization: A Selective Survey." Latin American Review. Vol. I, No. 6 (1965), 35-74.
- _____. "Trends and Issues in Latin American Urban Research, 1965-1970 (Parts I and II)." Latin American Research Review. Vol. VI, Nos. 1 and 2, Spring, 1971, 3-52, 19-76.
- Parsons, James J. "The Miskito Pine Savanna of Nicaragua and Honduras." Annals of the Association of American Geographers. Vol. 45 (1955), 36-63.
- Powers, S. "Notes on the Geology of Eastern Guatemala and Northwestern Spanish Honduras." Journal of Geology. Vol. 26 (1918), 507-523.
- Ramírez, Tulio E. "El proceso de urbanización en Colombia." Revista Geográfica. No. 68 (Junho, 1968), 19-32.
- Ravenstein, E. G. "The Laws of Migration." Journal of the Royal Statistical Society. Vol. 48, 1885, 167-235 and Vol. 52, 1889, 241-305.
- Redfield, Robert. The Culture of the Maya II. The Maya and Modern Civilization. Carnegie Institution of Washington, Supplementary Publication No. 6. Washington: Carnegie Institution of Washington, 1933.
- Robock, Stefan H. "The Rural Push for Urbanization in Latin America: The Case of Northeast Brazil." Latin American Studies Center, Occasional Paper No. 1. East Lansing: Michigan State University, 1968.
- Roys, Ralph L. "The Ethno-Botany of the Maya." Middle American Research Series. No. 2 (Tulane), 1931.



- Schwartz, Carroll J. and Morrison, Paul C. "Origins of Population, Turrialba, Costa Rica, 1948." The Journal of Geography. Vol. LXII, No. 8 (November, 1963), 352-361.
- Spinden, H. J. "The Population of Ancient America." Geographical Review. American Geographical Society. Vol. XVII, No. 4 (1928), 641-660.
- Stromsvik, Gustav. "Substela Caches and Stela Foundations at Copán and Quirigua." Contributions to American Anthropology and History. Vol. VII, No. 37 (1942).
- Strong, W. D. Archeological Investigations in the Bay Islands. Vol. 92, No. 14). Washington D.C.: The Smithsonian Institution, 1935.
- Vallejo, Antonio R. "Minas de Honduras." Revista de la Sociedad de Geografía e Historia de Honduras. Vol. XXXVI, 1935.
- "Vientos alisios influyen en actual clima del país." El Día. May 25, 1971.
- Von Hagen, V. Wolfgang. "The Jicaque (Torrupan) Indians of Honduras." Museum of American Indians, Haye Foundation. Indian Notes and Monographs. No. 53, 1943.
- West, Robert C. "La economía minera de Honduras durante el período colonial." La Prensa. September 14, 1971, 14.
- Wolpert, Julian. "Behavioral Aspects of the Decision to Migrate." Papers of Regional Science Association. Vol. 15 (1965), 162.
- Zelinsky, Wilbur. A Bibliographic Guide to Population Geography. Department of Geography Research Paper, No. 80. Chicago: University of Chicago Press, 1962.

Public Documents

- Tegucigalpa. Consejo Superior de Planificación Económica. Compendio estadístico 1967/68. Tegucigalpa, D. F.: Dirección General de Estadística y Censos, 1968.

Tegucigalpa. Secretaría de Economía y Hacienda. Censo nacional de Honduras: Abril 1961. Tegucigalpa, D. F.: Dirección General de Estadística y Censos, 1964.

Tegucigalpa. Secretaría de Economía y Hacienda. Anuario estadístico: 1967-69. Tegucigalpa, D. F.: Dirección General de Estadística y Censos, 1969.

Tegucigalpa. Secretaría de Economía y Hacienda. Honduras en cifras: 1964. Tegucigalpa, D. F.: Dirección General de Estadística y Censos, 1965.

Reports

de la Borbolla, Daniel F. Rubin, and Rivas, Pedro. Honduras: Monumentos históricos y arqueológicos. Prepared by the Comisión de Historia. Vol. 88, No. 44. México, D. F.: Instituto Pan-Americano de Geografía e Historia, 1953.

Consejo Superior de Planificación Económica. Regionalización I. Tegucigalpa: Consejo Superior de Planificación Económica, Sector de Desarrollo Urbano y Regional, Secretaría Técnica, 1968.

Gann, T. W. F. Mounds in Northern Honduras. Smithsonian Institution Nineteenth Annual Report, 1897-98, Part II. Prepared by the Bureau of American Ethnology. Washington, D.C., 1900.

Gordon, G. B. Prehistoric Ruins of Copán, Honduras. A preliminary report of the explorations by the museum, 1891-1895. Vol. 1, No. 1. Prepared by memoirs of the Peabody Museum of American Archaeology and Ethnology. Cambridge: Harvard University, 1896.

Grupo Oficial de Trabajo Sobre Desarrollo Urbano Visita Gobernador Rockefeller. Informe sobre planeamiento urbano, regional y vivienda. Tegucigalpa, D. F.: Grupo Oficial de Trabajo Sobre Desarrollo Urbano Visita Gobernador Rockefeller, 1969.



Unpublished Materials

- Blom, Frans, and Ricketson, O. G., Jr. "Ruins in the Maya Area." Unpublished map and extension, Carnegie Institution, Washington, D. C., 1924.
- Bushong, Allan D. "Doctoral Research on the Republic of Honduras in United States Universities." Paper prepared for the Seminar of the Committee on Applied Geography, Commission on Geography of the Pan American Institute of Geography and History. Tegucigalpa, Honduras, June, 1968.
- Gibson, Jeffry R. "A Demographic Analysis of Urbanization: Evolution of a System of Cities in Honduras, El Salvador, and Costa Rica." Unpublished Ph.D. Dissertation, Series No. 20, Cornell University, Ithaca, September, 1970.
- Martín, Mario E. "Urban Systems in Central America: A Survey of Factors Influencing Size and Function of Cities." Unpublished Master's thesis, Department of City Planning, Yale University, New Haven, 1966.
- Shirey, Ruth I. "An Analysis of the Location of Manufacturing, Tegucigalpa, and San Pedro Sula, Honduras." Unpublished Ph.D. dissertation, University of Tennessee, Knoxville, 1970.
- Thomas, Robert N. "Internal Migration in Latin America: An Analysis of Recent Literature." Paper read before the National Conference for Latin Americanist Geographers, Muncie, Indiana, May 1-2, 1970.
- _____. "Internal Migration to Guatemala City, Guatemala, Central America." Unpublished Ph.D. dissertation, Indiana University of Pennsylvania, Indiana, 1968.

Other Sources

- La Lima, Honduras. Personal interviews with Dr. George Wilson, Director of Tropical Research, Tela Railroad Company, La Lima, Honduras.

San Pedro Sula, Honduras. Personal interview with Ing. Juan Fernando López, Mayor of San Pedro Sula, May 19, 1971.

San Pedro Sula, Honduras. Personal interview with Doña Elena Leiva de Holtz, September 12, 1971.

APPENDICES

A. INTERVIEW SCHEDULES

B. BASE MAP 10

16/6

APPENDIX A

INTERVIEW SCHEDULES

1610

APPENDIX A

INTERVIEW SCHEDULE FOR "SESENTA Y UNO" COLONY (SAMPLE COMMUNITY)

Dirección de la casa: Barrio _____ Ave. _____ Calle _____ No. _____
Fecha de la entrevista _____

I. Historia Migratoria- Jefe de la familia

1. Lugar de nacimiento:
departamento _____ municipio _____ barrio _____
caserío _____ aldea _____ cabecera _____ otro país _____
2. Información actual, fecha en que emigró de su lugar
de nacimiento: edad _____ estado civil _____
número de hijos _____ años de estudio _____
ingreso por mes _____ año _____
3. Por qué dejó su comunidad natal? _____
4. Cuáles son los problemas enfrentados por Ud. en
su comunidad natal? _____
5. Lugares en donde residió al dejar su pueblo natal
antes de venir a SPS: 1° _____ 2° _____ 3° _____ 4° _____ 5° _____
Lugar _____
Período de residencia _____
ocupación _____
6. Por qué se trasladó a
1° _____ 2° _____
3° _____ 4° _____
5° _____
7. En que año emigró a la ciudad? _____
8. Por qué no emigró de su comunidad natal directa-
mente a SPS? _____
9. Para aquellos quienes se trasladaron de su pueblo
natal directamente a SPS: Por qué Ud. no emigró a
ciudad tal como El Progreso, Choloma, etc.? _____
10. Por qué emigró a SPS? _____
Por qué no a Tegucigalpa? _____
11. Cuántas veces había estado de pasó Ud. en SPS antes
de venir a establecerse por primera vez? _____

12. Al llegar a SPS encontró Ud. empleo?
 Si no, cuánto tiempo después de su llegada obtuvo empleo?
 Dónde residió?: con relativos amistades otro
 Le acompañaron sus familiares al trasladarse a esta ciudad?
13. Durante los primeros meses que pasó Ud. en SPS, que ayuda recibió Ud. de sus familiares, amigos, o del gobierno?
14. Desde su llegada en que secciones de la ciudad ha residido Ud? Barrios y dirección: 1°
 2° 3°
15. Por qué se trasladó a: 1°
 2° 3°
16. Por qué escogió su dirección actual?
17. Por cuanto tiempo ha residido en esta casa?
18. Es Ud. el propietario inquilino residente en plan de compra
19. A que organizaciones culturales, religiosas, deportivas o sociales pertenece Ud. y sus familiares?
20. Se encuentra Ud. mejor instalado y adaptado al medio de vida SPS que en anteriores lugares de residencia?
21. A su juicio cuáles son los mayores problemas en esta comunidad que merecen mayor atención?
22. Si el Instituto de la Vivienda- INVA- construyera casas en Chamelecón, La Lima, Choloma, Progreso o Puerto Cortés: Le gustaría vivir en alguna de dichas colonias en lugar de vivir en SPS? Si
 No Por qué?
23. Ha retornado o visitado Ud. a su pueblo natal?
 cuántas veces
24. Conoce Ud. alguien que haya venido a vivir por algún tiempo en SPS pero haya decidido volver a su pueblo natal?
25. Bajo que condiciones retornaría Ud. a su pueblo natal?
26. Piensa trasladarse próximamente de su actual residencia?

II. Historia Familiar

27. Jefe de la Familia
 sexo edad estado civil
 ocupación
 empleado permanente temporal desempleado
 buscando trabajo

barrio dónde trabaja _____
 distancia al trabajo _____
 modo de transportación _____
 económicamente inactivo _____ estudiante _____

ama de casa _____ retirado _____
 ingreso promedio por mes _____
 o diario si es temporal _____

28. Esposa (dónde un hombre es jefe de la familia)
 edad _____
 ocupación _____
 empleada permanente _____ temporal _____ desempleada _____
 buscando _____
 barrio dónde trabaja _____
 distancia al trabajo _____
 modo de transportación _____
 económicamente inactivo _____ otra _____
 ingreso promedio por mes _____ o diario si es
 temporal _____
 lugar de nacimiento:
 departamento _____ municipio _____ barrio _____
 caserío _____ aldea _____ cabecera _____ otro país _____

29. Familia

	Jefe	Esposa	Hijos	Rela- tivos	Otras Personas
número de personas	_____	_____	_____	_____	_____
en la familia	_____	_____	_____	_____	_____
cuántos viven	_____	_____	_____	_____	_____
actualmente en	_____	_____	_____	_____	_____
su casa	_____	_____	_____	_____	_____
edad y sexo	_____	_____	_____	_____	_____
lugar de nacimiento	_____	_____	_____	_____	_____
años de escuela	_____	_____	_____	_____	_____
ocupación	_____	_____	_____	_____	_____

30. Cuántos hijos ha tenido su esposa? _____
 Cuántos hijos han sobrevivido el primer año? _____

INTERVIEW SCHEDULE FOR CITY-WIDE
STUDY (SAN PEDRO SULA)

Dirección de la casa: Barrio _____ Ave. _____ Calle _____ No. _____
Descripción de la Casa: Agua _____ Electricidad _____ Baño _____
Material de la casa _____ De los pisos _____

I. JEFE DE FAMILIA: Lugar de Nacimiento:

- a) Caserío _____ Aldea _____ Cabecera _____
Barrio _____ b) Municipio _____ Departamento _____
_____ c) Otro país _____

Si nació en San Pedro Sula, comience en la parte III hasta el fin.- Si nació fuera de la ciudad, siga adelante hasta el fin.

II. MIGRACION: Solamente inmigrantes.

1. Cuando emigró usted de su lugar de nacimiento (es decir, condiciones antes de su partida).

a) Año _____ Edad _____ Clase de Trabajo _____
Ingreso por Mes _____ b) Años de Escuela _____
Número de Hijos _____ Estado Civil: _____
Soltero _____ Unión Libre _____ Casado _____
Divorciado _____ Separado _____ Viudo _____

2. Por qué dejó su comunidad natal?

Poco Trabajo 0
Guerra 1
Razones Familiares 2
Razones de Educación 3
Razones de Salud 4
Razones Políticas 5
Lo Trajeron 6
Sueldo Bajo 7
Servicio Militar 8
No Sabe 9
Otra Razón (Textual) _____

3. En general, cuáles son los problemas enfrentados por usted en su comunidad natal?

TEXTUAL: _____

 NA 8
 NS 9

4. Cuáles son los lugares en donde residió al dejar su pueblo natal antes de venir a San Pedro Sula (en orden) TEXTUAL:

	<u>LUGAR</u>	<u>PERIODO RESIDENCIA</u>	<u>CLASE DE TRABAJO</u>	<u>INGRESO</u>
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

Si fué directamente de su lugar natal a SPS, siga con la pregunta No. 6.

NA _____ (equis)

5. Por qué se trasladó a (vea lugares No. 4) TEXTUAL:

1. _____
 2. _____
 3. _____
 4. _____
 5. _____

NA 8 NS 9

6. En que año emigró a SPS? _____ (Año)
 Su edad cuando llegó _____ (Edad)
7. PARA AQUELLOS QUIENES SE TRASLADARON DE SU PUEBLO NATAL DIRECTAMENTE A - SPS. Por qué usted no emigró a otra ciudad tal como el Progreso, Choloma, La Lima, etc.?

TEXTUAL _____

NA 8 NS 9

8. Por qué emigró a SPS?

Razones de Trabajo 0
 Razones Familiares 1
 Razones de Educación 2
 Mejor Oportunidad 3
 Mejor Ambiente 4
 Razones de Salud 5
 Lo Trajeron 6
 Razones Políticas 7
 Servicio Militar 8
 NS 9
 Otra (Textual) _____

Por qué no escogió Tegucigalpa?

Razones de distancia (lejos)	0
No tenía suficiente dinero	1
Poco trabajo allá	2
Razones familiares	3
Problema de vivienda	4
Mejor ambiente en SPS	5
No me gusta Tegucigalpa	6
No conozco Tegucigalpa	7
Allá es más cara la vida	8
NS	9
Otra (Textual)	

9. Cuántas veces había estado de paso usted en SPS antes de venir a establecerse por primera vez?

Una	0
De 2 a 5 o pocas	1
Más de 5 o muchas	2
Ninguna	3
NS	9

10. Con quién o quienes vino usted a radicarse en SPS por primera vez? Es decir, quienes vinieron al mismo tiempo que usted?

Solo	0
Con sus padres	1
Con sus hermanos	2
Con su esposa	3
Con sus hijos	4
Con otros parientes	5
Con amigos	6
Otra (Textual)	

11. Al llegar a SPS encontró usted empleo?

Si	0
No	1
Dependió de otros	2
NA	8
NS	9

(Si) (No) Cuánto tiempo después de su llegada obtuvo empleo?

Menos de 2 semanas	0
dos semanas hasta 1 mes	1
1 - 3 meses	2
4 - 6 meses	3
7 - 11 meses	4
1 Año o más	5
Todavía sin trabajo	6
NA	8
NS	9



12. Al llegar a SPS, donde residió?

Con parientes	0
Con amistades	1
Alquiló	2
Casa propia	3
En las calles	4
NS	9

13. Durante los primeros meses que pasó usted en SPS qué ayuda recibió de sus familiares, amigos, u otras fuentes?

Ayuda en dinero	0
Ayuda para conseguir trabajo. 1	
Ayuda para conseguir vivienda 2	
Le dieron casa y comida . . . 3	
Solamente casa	4
Solamente comida	5
Ninguna ayuda	6
NS	9
Otra (Textual) _____	

14. Cuántas veces ha retornado o visitado usted a su pueblo natal?

Una (1)	0
De 2 a 5 o pocas	1
Mas de 5 o muchas	2
Ninguna	3
NS	9

15. En general, bajo que condiciones retornaría usted a vivir en su pueblo natal?

Trabajo garantizado	0
Garantías propias	1
Educación garantizada	2
Tranquilidad garantizada . . . 3	
Mejores servicios	4
Ninguna	5
NS	9
Otra (Textual) _____	

16. Se encuentra usted mejor, igual o peor instalado y adaptado al medio de vida de SPS que en anteriores lugares de residencia?

Mejor	0
Igual	1
Peor	2
NS	9

III. IMMIGRANTES Y NO MIGRANTES (Todos)

17. Durante su período de residencia en SPS, en que direcciones de la ciudad ha vivido usted?

	<u>Barrio</u>	<u>Tiempo</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

18. Para aquellos que han vivido en dos o más direcciones en la ciudad, Pregunte: Cuáles fueron las razones por las que se trasladó a (veáse No. 17).-Textual:

1.	_____
2.	_____
3.	_____
4.	_____
5.	_____

19. Por qué escogió su dirección actual?

Para comprar terreno	0
Para comprar casa	1
Razones de familia	2
Terreno donado	3
Distancia del trabajo	4
Mayor tranquilidad	5
Por el alquiler bajo	6
Por las facilidades	7
Facilidad económica	8
NS	9
Otra (Textual) _____	

20. Por cuanto tiempo ha residido en ésta casa?

Menos de 1 mes	0
1 a 2 meses	1
3 - 5 meses	2
6 - 12 meses	3
1 - 4 años	4
5 - 10 años	5
Mas de 10 años	6

21. Es usted . . .

Propietario de tierra y casa . . .	0
Propietario solamente de tierra .	1
Propietario solamente de casa . .	2
Inquilino	3
Plan de compra	4
Otra (Textual) _____	

1971

1971

22. A que organizaciones culturales, deportivas o sociales pertenece usted y sus familiares?

Equipo de Boliche 0
 Equipo de Fútbol 1
 Sociedad Religiosa 2
 Asociación de Motoristas 3
 Organización Social Sindicato 4
 Ninguna 5
 NS 9
 Otra (Textual) _____

23. A su juicio cuáles son los principales problemas en esta comunidad que merecen mayor atención?

Escasez de trabajo 0
 Falta de facilidades (agua y luz) . . . 1
 Calles sin pavimento 2
 No es terreno propio 3
 Problemas con vecinos 4
 Muy cara la vida 5
 Escasez de drenaje 6
 Mal ambiente para su salud 7
 NS 9
 Otra (Textual) _____

24. Si el INSTITUTO DE LA VIVIENDA, "INVA," construyera casas en Chamelecón, La Lima, Choloma, Progreso o Puerto Cortés, le gustaría vivir en alguna de dichas colonias en lugar de vivir en SPS?

Si 0
 No 1
 Tal vez 2

Por Qué? Textual _____

25. Conoce usted alguien que haya venido a vivir por algún tiempo en SPS, pero haya decidido volver a su pueblo natal o de procedencia?

Si, muchos 0
 Si, pocos 1
 No 2
 NS 9

26. Piensa trasladarse proximately de su actual residencia?

Si 0
 No 1
 Depende 2

Por Qué?

Textual _____

Si se traslada, adonde? Textual _____



IV. HISTORIA FAMILIAR (Todos)

27. Jefe de Familia:

- a) Sexo: M 1
F 2
- b) Edad: Textual _____ (Años)
- c) Estado Civil: Soltero 0
Casado 1
Unión Libre 2
Divorciado 4
Separado 5
Viudo 6
- d) Años de Escuela: Un Año 0
Dos 1
Tres 2
Cuatro 3
Cinco 4
Seis 5
Enseñanza Secundaria 6
Universidad 7
Ninguna 8
- e) Empleo: Permanente 0
Temporal 1
Desempleado 2
Estudiante 3
Ama de Casa 4
Retirado 5
NS 9
- f) Si Trabaja, Pregunte:
Profesión u Oficio Textual _____
Barrio donde Trabaja Textual _____
Distancia del Trabajo Textual _____
Modo de Transportación Textual _____
- g) Ingreso promedio por mes o diario, si trabaja temporal: Textual _____
- h) Raza: Blanco 0
Indio 1
Negro 2
Mestizo 3
Asiático 4

Qué idiomas además del español habla? _____

28. ESPOSA:

- a) Lugar de nacimiento (Textual)
 1) Caserío _____ Aldea _____ Cabecera _____
 Barrio _____ 2) Municipio _____
 Departamento _____ 3) Otro País _____
- b) Edad: Textual _____ (Años)
- c) Años de Escuela: Un Año 0
 Dos 1
 Tres 2
 Cuatro 3
 Cinco 4
 Seis 5
 Enseñanza Secundaria . . . 6
 Universidad 7
 Ninguna 8
- d) Empleo: Permanente 0
 Temporal 1
 Desempleado 2
 Estudiante 3
 Ama de Casa 4
 Retirado 5
 NS 9
- e) Si Trabaja, Pregunte:
 Profesión u Oficio Textual _____
 Barrio donde trabaja Textual _____
 Distancia del trabajo Textual _____
 Modo de transportación Textual _____
- f) Ingreso promedio por mes o diario, si trabaja temporal Textual _____
- g) Raza: Blanco 0
 Indio 1
 Negro 2
 Mestizo 3
 Asiático 4
- Qué idiomas además del español habla? _____

29. FAMILIA:

- a) Número de miembros de la familia:
 Jefe _____ (equis)
 Esposa _____ (equis)
 Hijos _____ (número)

- b) Cuántos viven actualmente en la casa?

Jefe _____ (equis)
 Esposa _____ (equis)
 Hijos _____ (número)
 Parientes _____ (número)
 Otros _____ (número)

- c) Puede decirme la edad, sexo, lugar de nacimiento, y años de escuela que tienen todos los hijos?
 (Textual)

	<u>EDAD</u>	<u>SEXO</u>	<u>LUGAR DE NACIMIENTO</u>	<u>AÑOS ESCOLARES</u>
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____

- d) Cuántos hijos han nacido en total?

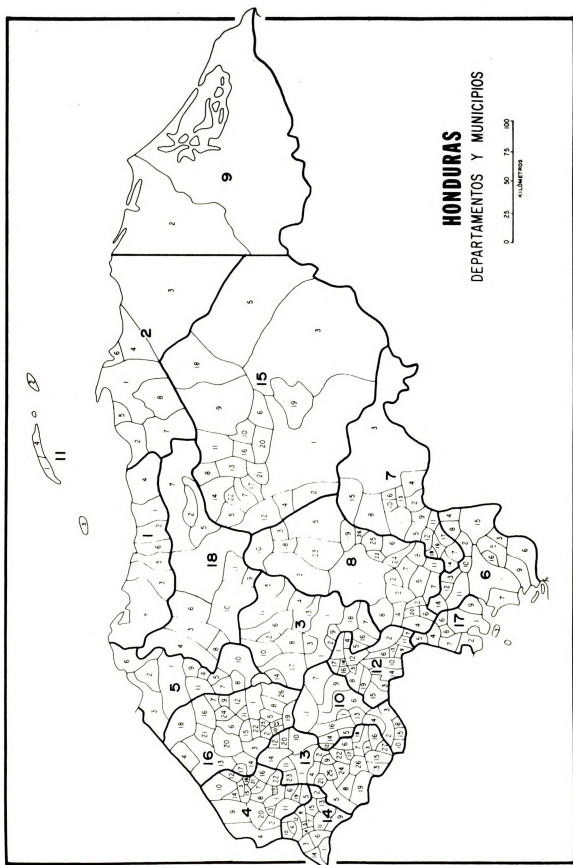
Textual _____ (número)

- e) Cuántos hijos han sobrevivido el primer año?

Textual _____ (número)

APPENDIX B

BASE MAP 10



Map 10



HONDURAS - DEPARTAMENTOS Y
MUNICIPIOS, 1971

- | | | | |
|----|-----------------------|----|------------------------|
| 01 | <u>ATLANTIDA</u> | 8 | Dulce Nombre |
| 1 | La Ceiba | 9 | El Paraíso |
| 2 | El Porvenir | 10 | Florida (La Jigua) |
| 3 | Esparta | 11 | La Unión |
| 4 | Jutiapa | 12 | Nueva Arcadia |
| 5 | La Masica | 13 | San Agustín |
| 6 | San Francisco | 14 | San Antonio |
| 7 | Tela | 15 | San Jerónimo |
| | | 16 | San José |
| 02 | <u>COLON</u> | 17 | San Juan de Opoa |
| 1 | Trujillo | 18 | San Nicolás |
| 2 | Balfate | 19 | San Pedro |
| 3 | Iriona | 20 | Santa Rita |
| 4 | Limón | 21 | Trinidad |
| 5 | Santa Fé | 22 | Veracruz |
| 6 | Santa Rosa de Aguán | | |
| 7 | Sonaguera (Saba) | 05 | <u>CORTES</u> |
| 8 | Tocoa | 1 | San Pedro Sula |
| | | 2 | Choloma |
| 03 | <u>COMAYAGUA</u> | 3 | Omoa |
| 1 | Comayagua | 4 | Pimienta |
| 2 | Ajuterique | 5 | Potrerrillos |
| 3 | El Rosario | 6 | Puerto Cortés |
| 4 | Esquías | 7 | San Antonio de Cortés |
| 5 | Humuya | 8 | San Francisco de Yojoa |
| 6 | La Libertad | 9 | San Manuel |
| 7 | Lamaní | 10 | Santa Cruz de Yojoa |
| 8 | La Trinidad | 11 | Villanueva |
| 9 | Lejamaní | 06 | <u>CHOLUTECA</u> |
| 10 | Meambar | 1 | Choluteca |
| 11 | Minas de Oro | 2 | Apacilagua |
| 12 | Ojos de Agua | 3 | Concepción de María |
| 13 | San Jerónimo | 4 | Duyure |
| 14 | San José de Comayagua | 5 | El Corpus |
| 15 | San José del Potrero | 6 | El Triunfo |
| 16 | San Sebastián | 7 | Marcovia |
| 17 | Siguatopeque | 8 | Morolica |
| 18 | Villa de San Antonio | 9 | Namasigue |
| | | 10 | Orocuina |
| 04 | <u>COPAN</u> | 11 | Pespire |
| 1 | Sta. Rosa de Copán | 12 | San Antonio de Flores |
| 2 | Cabañas | 13 | San Isidro |
| 3 | Concepción | 14 | San José |
| 4 | Copán Ruinas | 15 | San Marcos de Colón |
| 5 | Corquín | 16 | Yusguare |
| 6 | Cucuyagua | | |
| 7 | Dolores | | |

07 EL PARAISO

- 1 Yuscarán
- 2 Alauca
- 3 Danlí
- 4 El Paraíso
- 5 Güinope
- 6 Jacaleapa
- 7 Liure
- 8 Morocelí
- 9 Oropolí
- 10 Potrerillos
- 11 San Antonio de Flores
- 12 San Lucas
- 13 San Matías
- 14 Soledad
- 15 Teupasenti
- 16 Texiguat
- 17 Vado Ancho
- 18 Yauyupe

08 FRANCISCO MORAZAN

- 1 Distrito Central
- 2 Alubaren
- 3 Cedros (El Porvenir)
- 4 Curaren
- 5 Guaimaca
- 6 La Libertad
- 7 La Venta
- 8 Leparterique
- 9 Mariata
- 10 Marale
- 11 Nueva Armenia
- 12 Ojojona
- 13 Orica
- 14 Reitoca
- 15 Sabanagrande
- 16 San Antonio Oriente
- 17 San Buenaventura
- 18 San Ignacio
- 19 San Juan de Flores
- 20 San Miguelito
- 21 Santa Ana
- 22 Santa Lucía
- 23 Talanga
- 24 Tatumbula
- 25 Valle de Angeles
- 26 Villa de San Francisco

09 GRACIAS A DIOS

- 1 Puerto Lempira (Policango Bonilla)

2 Brus Laguna

10 INTIBUCA

- 1 La Esperanza
- 2 Camasca
- 3 Colomoncagua
- 4 Concepción
- 5 Dolores
- 6 Intibucá
- 7 Jesús de Otoro
- 8 Magdalena
- 9 Masaguara
- 10 San Antonio
- 11 San Isidro
- 12 San Juan
- 13 San Marcos de la Sierra
- 14 San Miguelito
- 15 Santa Lucía
- 16 Yamaranguila

11 ISLAS DE LA BAHIA

- 1 Roatán
- 2 Guanaja
- 3 Utila
- 4 José Santos Guardiola

12 LA PAZ

- 1 La Paz
- 2 Aguangueterique
- 3 Cabañas
- 4 Cane
- 5 Chinacla
- 6 Guajiquiro
- 7 Lauterique
- 8 Marcala
- 9 Mercedes de Oriente
- 10 Opatoro
- 11 San Antonio del Norte
- 12 San José
- 13 San Juan
- 14 Santa Ana
- 15 Santa Elena
- 16 Santa María
- 17 Santiago Puringla
- 18 Tutule
- 19 Yarula

STANDARD 10

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

13 LEMPIRA

- 1 Gracias
- 2 Belén
- 3 Candelaria
- 4 Colohete - San Miguel
- 5 Cololaca
- 6 Erandique
- 7 Gualcince
- 8 Guarita
- 9 La Campa
- 10 La Iguala
- 11 Las Flores
- 12 La Unión
- 13 La Virtud
- 14 Lepaera
- 15 Mapulaca
- 16 Piraera
- 17 San Andrés
- 18 San Francisco
- 19 San Juan Guarita
- 20 San Rafael
- 21 San Sebastián
- 22 Santa Cruz
- 23 Talgua
- 24 Tambla
- 25 Tomalá
- 26 Valladolid
- 27 Virginia

14 OCOTEPEQUE

- 1 Nueva Ocotepeque
- 2 Belén Gualcho
- 3 Concepción
- 4 Dolores Merendón
- 5 Fraternidad
- 6 La Encarnación
- 7 La Labor
- 8 Lucerna
- 9 Mercedes
- 10 San Fernando
- 11 San Francisco
- 12 San Jorge
- 13 San Marcos
- 14 Santa Fé
- 15 Sensenti
- 16 Sinuapa

15 OLANCHO

- 1 Juticalpa
- 2 Campamento

- 3 Catacamas
- 4 Concordia
- 5 Dulce Nombre
- 6 El Real - Santa María
- 7 El Rosario
- 8 Esquipulas del Norte
- 9 Gualaco
- 10 Guarizama
- 11 Guata
- 12 Guayape
- 13 Jano
- 14 La Unión
- 15 Mangulile
- 16 Manto
- 17 Salamá
- 18 San Estegan
- 19 San Francisco Becerra
- 20 San Francisco de la Paz
- 21 Silca
- 22 Yocón

16 SANTA BARBARA

- 1 Santa Bárbara
- 2 Arada
- 3 Atima
- 4 Azacualpa
- 5 Ceguaca
- 6 Colinas
- 7 Concepción del Norte
- 8 Concepción del Sur
- 9 Chinda
- 10 El Nispero
- 11 Gualala
- 12 Ilama
- 13 Macuelizo
- 14 Naranjito
- 15 Nueva Celilac
- 16 Petoa
- 17 Protección
- 18 Quimistán
- 19 San Fco. de Ojuela
- 20 San Luis
- 21 San Marcos
- 22 San Nicolás
- 23 Santa Rita
- 24 Trinidad
- 25 San Vicente Centenario
- 26 Zacapa



17 VALLE

- 1 Nacaome
- 2 Alianza
- 3 Amapala
- 4 Aramecina
- 5 Caridad
- 6 Coray
- 7 Goascorán
- 8 Langue
- 9 San Lorenzo

18 YORO

- 1 Yoro
- 2 Arenal
- 3 El Negrito
- 4 El Progreso
- 5 Jocón
- 6 Morazán
- 7 Olanchito
- 8 Santa Rita
- 9 Sulaco
- 10 Victoria
- 11 Yorito

Source: Compiled April, 1971: Department of Geography,
Michigan State University.

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03047 0037