56. ———

Margarita Xirgu y Latinoamérica
Study continues as described in LARR VII:3 (51) with new EDC of 1973.

57. Erminio G. Neglia, University of Toronto (Canada) Guide to the Spanish American Theatrical Production

The aim of this study is to facilitate the search for published and unpublished Spanish American plays of this century. Only works by major playrights will be listed. Begun, 1972. EDC, 1973.

## NATURAL AND APPLIED SCIENCES

### **AGRICULTURE**

58. Herman Felstehausen, University of Wisconsin With: Heliodoro Diaz

The Puebla Project: Institutional Adaptation and the Small Farm Sector A study of the changes in the service and institutional structure of the Puebla Project as a result of high-yielding corn technology. Field work is underway in the State of Puebla to describe the agricultural credit and fertilizer supply institutions. Project will examine institutional adaptations to small farm agriculture. Begun, 1971. EDC, 1973. /CIMMYT and Puebla Project, Rockefeller Foundation, and the University of Wisconsin.

59. — with Burton Swanson

IRRI and CIMMYT: Training Strategies and Performance

A comparative analysis of the training strategies used by the International Rice Research Institute (IRRI) and the International Maize and Wheat Improvement Center (CIMMYT) to determine their effectiveness in meeting the technical skill needs of research and production workers in less developed countries. The study will be based on data gathered through both field interviews and mail questionnaires and will focus on Mexico, the Philippines, and Pakistan. Began, 1972. EDC, 1974. /IRRI, CIMMYT, and the University of Wisconsin.

60. José María Franco, Universidad Católica Andrés Bello (Venezuela) Con: Mireya Caldera y Ricardo Alezones

Futuro de la agricultura venezolana

El objetivo general de la investigación es proporcionar un marco de referencia para un nuevo planteamiento de la cuestión agrícola al objeto de aclarar opciones y tomar decisiones a nivel nacional en defensa del futuro desarrollo de la agricultura venezolana, analizando y evaluando las consecuencias previsibles que las innovaciones e invenciones futuras, o los diversos acontecimientos, tendrán para el sector agrícola en el horizonte prospectivo de la sociedad venezolana de fin de siglo. Se aplicará el método "Delfos" para la elicitación de respuestas sobre el futuro de la agricultura nacional. Iniciada, 1973. FAT, 1974. /Universidad Católica "Andrés Bello."

61. Howard L. Hall, U.S. Department of Agriculture

With: Country Analysts for Canada and Latin America

The Agricultural Situation in the Western Hemisphere

Estimates of production for principal agricultural commodities for ten years are included in the indices of agricultural production for the Western Hemisphere published each year. The annual report: Agricultural Situation in the Western Hemisphere analyzes the significant developments and changes in agriculture and trade as they relate to the outlook for trade. Project is annual. /Economic Research Service of the U.S. Department of Agriculture.

62. — with John E. Link

The Mexican Fats and Oilmeals Situation

An analysis of the trends in demand and production of vegetable oils, animal fats, and oilseed meals in Mexico. Project considers growth trends during the 1960's and projects a sharp rise in potential imports through 1980. Begun, 1971. EDC, 1973. /USDA.

63. Delbert C. Myrick, U.S. Department of Agriculture

Capital Assistance to Beef and Dairy Development in Latin America

The scope of this project is limited to developing an inventory of capital assistance to beef and dairy development projects in the Latin American countries for the Agency for International Development, The World Bank Group, and the Inter-American Development Bank. Project is intended for limited internal use by the USDA but could lead to further study and analysis. Begun, 1972. EDC, 1973. /USDA.

64. Norman Rask, Ohio State University

With: Richard Meyer

Capital Formation Process in Agriculture

Project reported in LARR VII:3 (93), V:2 (457), and IV:2 (571) continues to study the capital formation process at the farm level in Brazil.

#### BIOLOGY

65. Antonio Carlos Magalhães Macedo, Universidade Federal do Rio de Janeiro Micropaleontologia do Cenozoico marinho do Brasil

Análise comparativa de tanatocenoses marinhas holocêfase e terciárias, com ênfase na utilização de ostracodes (Crustacea) como indicadores ambientais e estratigráficos. Presentemente, trabalha-se com microfaunas sub-recentes coletadas em testemunhos de sondagens efetuadas no litoral da Guanabara e com microfósseis do Mioceno da Fm. Pirabas. Iniciado, 1970. /U.F.R.J.

#### BOTANY

66. L. R. Holdridge, Centro Científico Tropical (Costa Rica)

Con: Luis J. Poveda

Manual del campo de los árboles de Costa Rica

No hay mucho cambio de la nota en LARR VII:3 (95). Probablemente se termina la sección de las especies de árboles en 1973.

67. Marshall C. Johnston, University of Texas, with students

Flora of the Chihuahuan Desert

Inventory of the seed plants of the Chihuahuan desert of Mexico continues. Description in LARR VII:3 (96).

68. Irving Knobloch, Michigan State University

With: Joseph McCulloch

Evolution in Southwestern United States and Mexican Ferns

Research is underway on the evolutionary patterns of ferns growing in the southwest and in Mexico. Project is evaluating the data collected from the cytology, anatomy, and morphology of the taxa involved. Begun, 1965. EDC, 1974. /MSU Latin American Study Center.

69. Richard W. Pohl, Iowa State University

Taxonomic Studies on the Grass Flora of Central America

Project described in LARR VI:2 (231) and listed in VII:3 (97) is in advanced preparation. Work is underway on the manuscript on the grass flora of Costa Rica, including keys to genera and species, descriptions, and illustrations. Field research is underway on the grasses of Costa Rica, Honduras, El Salvador, and Nicaragua.

#### **ECOLOGY**

70. W. Frank Blair, University of Texas

With: Otto Solbrig, Harvard, Jorge Morello, Argentina, Ernesto Hajek, Chile, and Harold Mooney, Stanford

Origin and Structure of Ecosystems

Project described in LARR VI:2 (229) and updated in VII:3 (99) will continue active to at least mid-1974.

#### **GEOLOGY**

71. Cândido Simões Ferrerira, Universidade Federal do Rio de Janeiro

Com: Professores e alunos da Universidade do Rio de Janeiro

Projecto Aracruz

Pesquisas estratigráficas-paleontológicas-paleoecológicas de uma área sedimentar costeira de aproximadamente 1000 Km² no Estado do Espirito Santo, visando correlacionamento de novos paleobiótopos descobertos pela Equipe. Com base em fotografias aéreas será feito mapa geológico detalhado da area em pesquisa. Iniciado, 1972. DAC, 1974. /U.F.R.J.

72. Daniel Krummenacher, California State University, San Diego

With: Gordon Gastil, CSUSD

K/Ar Age Dating in Baja California, Sonora (Mexico) and Around the Gulf of California

The K-Ar technique has been used to unravel the cooling history and age of the southern California batholith and the northern territories of Baja California batholiths, and the Tertiary volcanic chronology in northern territories of Baja California and Sonora (Mexico). Begun, 1969. EDC, 1973. /NSF and industry.

#### GEOGRAPHY

## 73. Ward Barrett, University of Minnesota

The Municipal Meat Supply of Colonial Cuernavaca
Work is continuing on project described in LARR VII:3 (105) with new EDC of

74. ——— Geography of the Colonial Sugar Industry of Morelos, Mexico

# See LARR VII:3 (106). EDC is now 1974. 75. Donald D. Brand, University of Texas

The Plátano in New Spain: Origins and Spread

Probable origins of the banana (including the plantain) in Southeastern Asia. Project traces the spread to Spain via India and Egypt, names for the banana in different languages and theory of origin of the Spanish plátano, probable spread of the plátano from Malaga-Granada-Almería via the Canary Islands to the West Indies and to New Spain, and sixteenth century evidence concerning the banana in New Spain, from the probable introduction by Bishop Vasco de Quiroga, through the botanical description by Dr. Francisco Hernandez, to the distribution as indicated by the Relaciones Geográficas. Begun, 1970. EDC, 1973.

## 76. George F. Carter, Texas A & M University

Pre Columbian Discoveries of America and Antiquity of Man in America Research on pre Columbian discoveries of America with the chicken as the current focus of interest. Ceremonial uses in America are being collected for comparison with usages of Southeast Asia. Research is being resumed on the antiquity of America with the re-opening of the interglacial site at San Diego, summer 1973. Papers on the origin of agriculture in the Americas have been prepared for presentation at the International Congress of Ethnologists, Chicago, August 1973.

### 77. Charles H. V. Ebert, SUNY at Buffalo

Time Factor in Volcanic Soil Development

Dated volcanic cinder deposits from Volcan Momotombo, Nicaragua, were examined near León Viejo to determine the influence of the time factor in soil development holding all other soil-forming control factors constant. Begun, 1972. EDC, 1974. /New York State Research Foundation.

## 78. Clinton R. Edwards, University of Wisconsin, Milwaukee

Aboriginal Watercraft of Middle America

Research described in LARR VII:3 (121) continues with a new EDC of 1975 and

additional funding from the Ford Foundation (ACLS) and the National Endowment for the Humanities (ACLS). A related study, "New World Perspective on Pre-European Voyaging in the Pacific," appeared in Noel Bernard, (ed.), Early Chinese Art and its Possible Influence in the Pacific Basin, Intercultural Arts Press, 1972.

## 79. D. K. Erb, University of Waterloo (Canada) Geomorphology of Jamaica

A study of the landforms of Jamaica and the processes active in their development, based on air photo interpretation supplemented by selective field investigation. Begun, 1966. /Ontario Research Foundation. A related study, "Aerial Photograph Interpretation in the Study of the Geomorphology of Jamaica," appeared in *Photogrammetric Engineering*, November 1968.

## 80. J. H. Galloway, University of Toronto (Canada)

Agriculture in 18th Century Northeast Brazil

This research is part of a continuing interest in the historical geography of Northeastern Brazil, 1500–1900.

## 81. Martin Ira Glassner, Southern Connecticut State College Salida al mar: Bolivia's Campaign for an Outlet to the Sea

Research described in LARR VII:3 (139) is now being written up and has a new EDC of 1973.

## 82. Alfonso Gonzalez, University of Calgary (Canada)

Mining in Colonial Mexico

83. -

A study of the history, development, and localization of the mining industry in Mexico during the colonial period. EDC, 1973.

## Recent Decline of Spanish Immigration to Latin America

Continuing project. Research in Spain undertaken in 1972. Work on manuscript has begun. See LARR VII:3 (124).

## 84. Carl L. Johannessen, University of Oregon

The Domestication Process and the Origin of Cultigens

The domestication process has been studied in aboriginal populations that are relatively uninfluenced by scientific knowledge of genetics. A summary of these studies on several crops is presented in the framework of the interrelationships of genetics to the sequence in which crops probably were first brought into cultivation. Study will focus on Central America and Mexico. Begun, 1962. EDC, 1973.

## 85. C. W. Minkel, Michigan State University

The Minerals Industry of Central America

EDC postponed to 1974. See LARR VI:2 (320) and VII:3 (136).

86. Janet D. Momsen, University of Calgary (Canada)

The Inter-relationship of Tourism and Agriculture in the Eastern Caribbean Project focuses on the relationship between tourism and agriculture in terms of demand and supply constraints, competition for land and labor, import substitution, and marketing. Special emphasis is placed on the study of the decision-making processes of both the farmers and the hotel managers. Begun, 1971. EDC, 1975. /Canada Council.

87. James J. Parsons, University of California, Berkeley

Human Occupance of the Seasonally Flooded Lowlands of Northern Colombia Project will treat Magdalena, Cauca, San Jorge, and the Sinú floodplains of Colombia. A related study, "Ancient Ridged Fields of the San Jorge River Floodplain," appeared in *Geographical Review*, July 1966.

88. Bonham C. Richardson, Rutgers University

Carriacouan Migration Patterns: Inter-Island Mobility in the Southern Caribbean Research is directed toward understanding inter-island migration among inhabitants of Carriacou in the Grenadines. Investigation will see if the apparently anomalous mobility of Carriacouans is part of an overall Caribbean livelihood system. Special attention is devoted to water as a diffusion surface. Interviewing of part-time migrants will take place on Carriacou. Supplementary data about Carriacouan migrants to other Caribbean jobs will be obtained by interviewing businessmen and government officials in Aruba, Curacao and St. Croix. Begun, 1972. EDC, 1974. /Rutgers University Research Council.

89. Alfred H. Siemens, University of British Columbia (Canada)

With: Dennis Puleston and John Bradbury, University of Minnesota

Ridged Fields and Related Features along the Candelaria River in Campeche, Mexico, and in Northern Belize

Project continues with the addition of research in Northern Belize. See previous listings in LARR VII:3 (139), VI:3 (453), and IV:3 (1023).

90. Rolf Wesche, University of Ottawa (Canada)

With: Maria Wesche and Marc Andre Jolicoeur

Comparative Study of Colonization Success in Amazonia

Analysis of influence of cultural factors and environment of origin in the adaptation success of rural migrants to amazonic rain forest colonization areas. Comparative study of colonization areas in southeast Colombia, Peru, and Brazil. Begun, 1973. EDC, 1974. /Canada Council. A related study, "Rainforest Colonization as a Partial Solution to Peru's Economic Problems," appeared in Pollock and Ritter (eds.), Latin America in the 1970's: What Kind of Revolutions, Praeger 1973.

## **HEALTH**

91. Héctor Abad-Gómez, Unversidad de Antioquia (Colombia)

94

Con: José de los Ríos, Ana María Orlas y Olga María Vásquez

Epidemiología de la pobreza

En los barrios de tugurios de la ciudad de Medellín, se está investigando los antecedentes de las personas pobres y desempleadas para tratar de encontrar rasgos comunes acerca de las causas remotas y últimas de que hayan caído o estén todavía en condiciones de pobreza, con el fín de encontrar si es posible prevenir esta condición social. Iniciado, 1972. /Ministerio de Salud.

#### ZOOLOGY

92. Rollin H. Baker, Michigan State University, with students

Bioeconomics of Mammals of Western Mexico

Field studies of the distribution and ecology of mammals in western Mexico to determine basic information and how these mammals inter-relate to various land-use practices and the economy of the residents of western Mexico. Of special interest are the rodents and small carnivores. Begun, 1960. /MUCIA grants.

93. Howard W. Campbell, University of Florida With: Roy McDiarmid and William Ingram III

Ecogeographic Variation in *Phyllorhynchus browni*, the Pima leaf-nosed snake Selected morphological characters are being compared with a constellation of environmental factors to analyze the relationships of morphological variation to ecological features over a wide geographic area. Particular interest is focused on aspects of the color and pattern components versus microecological factors throughout the area of interest, the states of Sonora and Sinaloa in Mexico. Begun, 1970. EDC, 1974.

- 94. with F. Wayne King, New York Zoological Society
  Status of Morelet's Crocodile in Mexico, Guatemala, and British Honduras
  A geographic survey of the populations of Morelet's crocodile with emphasis on population density, ecology, and relation to other species of crocodilians in the area.
  Begun, 1972. EDC, 1973. New York Zoological Society.
- 95. Howard W. Campbell, Jack McCormick & Associates

Systematics of Semiaquatic Anolis (Sauria: Iguanidae) in Central America This project on the systematic relationships of several species of the lizard genus Anolis is continuing as part of an earlier project on the ecology and systematics of Anolis in Central and South America described in LARR VII:3 (151). "Ecological Observations on Anolis lionotus and A. poecilopus (Sauria: quanidae) in Panama," will be published in the American Museum Novitates, 1973. Work on the systematics will focus on Costa Rica, Nicaragua, Panama, and Colombia. EDC, 1974. /Center for Biology of Natural Systems, Washington University.

with F. Wayne King, Bronx Zoo
 Ecological and Systematic status of Moreletis Crocodile, Crocodylus Moreleti, in Mexico and Central America

Study described in LARR VII:3 (152) will continue for one more year.

97. ——— with Frederick G. Thompson, Florida State Museum

A Systematic Study of *Anelytropsis papillosus* (Sauria: Dibamidae) Recent acquisition of new material permits a reexamination of the anatomy and variation of the endemic Mexican burrowing lizard. Begun, 1972. EDC, 1974.

98. Cornelius B. Philip, California Academy of Sciences

A Review of the Tabanidae (Diptera) of Mexico Specimens for study continue to accumulate for project described in LARR VI:3 (440) and listed in VII:3 (155). Work continues with several reports in preparation.

## SOCIAL SCIENCES

### **ADMINISTRATION**

99. Gunther S. Boroschek, Universidad de Chile

Con: Profesores, investigadores y ayudantes

Sistemas comparados de participación organizacional en Chile

Mismos datos de la nota en LARR VII:3 (158). Etapa actual: recolección de información, procesamiento de datos, confección de "casos" de participación para ser utilizados en docencia en cursos de administración.

100. Edmundo Borel Chieyssal, Universidad de Chile, con otros

Organización y gestión de los niveles intermedios de dirección de empresas del área social-industrial

Realizar un estudio crítico de la naturaleza, rol y resultados logrados por los Comités de Desarrollo Sectoriales de la Corporación de Fomento a la Producción (CORFO) —durante sus dos primeros años de funcionamiento—creados para promover el desarrollo de las ramas industriales estratégicas, a medida que las empresas han ido constituyendo el área social de la economía. Iniciado, 1972. FAT, 1973. /Universidad de Chile.

#### ANTHROPOLOGY

101. Richard E. W. Adams, University of Texas at San Antonio With: Stoltman, Beals, Mickelson, Denevan, Iwen, Eaton, Ball

Ecological Change and Culture History of the Rio Bec Region, Campeche Project includes a settlement pattern study, a botanical survey, polynological work, and a study of the ancient land use. Begun, 1973. EDC, 1978. /National Geographic Society.

102. Richard N. Adams, University of Texas Structural History of Latin AmericaResearch described in LARR VII:3 (258) continues in final stages.