

NATURAL AND APPLIED SCIENCES

AGRICULTURE

66. Donald E. Farris, Texas A & M

With: James McGrann and James Simpson

The Economics of the International Beef Markets and Competitive Relationships Project examines beef production and export in Argentina, Uruguay, Paraguay, and Brazil in an attempt to explain the lack of significant increase in production in recent years. Alternative production systems were analyzed, and constraints to increase production under current systems were identified. Research will also analyze the contribution of canned beef to the total economy of these selected countries. Begun, 1968. EDC, 1974. /Texas Agricultural Experiment Station, AID Contract Project.

67. Herman Felstehausen, University of Wisconsin

With: Heliodoro Diaz

The Puebla Project: Institutional Adaptation and the Small Farm Sector
Field work is completed on project described in LARR VIII (58). Institutional adaptations to small farm agriculture are now being examined with an outline of the methodology appropriate to rural institutional studies. EDC is now 1974.

68. Robert Lewis Jones, University of Illinois

With: J. A. Omueti

Nature of Red-Colored Soils in Lesser Antilles
Research described in LARR IV:2 (461) and II:2 (457) continues in note stage. EDC is now 1975.

69. James McGrann, Texas A & M

With: Ray Billingsley and Clive Harston

Planning and Programming for Maximum Economic Contribution of the Agricultural Sector to the National Economy
This project is being developed jointly with the official planning departments of the Uruguayan Government. It is an 18-month project wherein a micro-economic model will be developed using the best information available for the generation of coefficients dealing with the alternative input resources available for the most important products. With the micro models, an overall macro model will be developed to bring into focus the relative importance of alternative agricultural production systems in the national development scheme. Begun, 1973. EDC, 1974. /USAID and Government of Uruguay.

70. Norman Rask, Ohio State University

With: Richard L. Meyer and several others

Capital Formation Project in Agriculture
Research continues on project reported in LARR VIII (64), VII (93), V:2 (457), and IV:2 (571). The final report is expected at the end of 1974. The primary focus

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is on Brazil with references to Taiwan and India. A complete bibliography of the theses, dissertations, papers, and reports resulting from this project can be obtained from the researchers. Two recently completed papers, "Technological Change and the Traditional Small Farmer of Rio Grande do Sul—Brazil," ESO No. 85, and "The Differential Impact of Growth Policy on the Small Farmer of Southern Brazil," ESO No. 137, were recently published by the Department of Agricultural Economics and Rural Sociology, Ohio State University.

71. Pedro A. Sanchez, North Carolina State University

With: S. W. Buol, E. J. Kamprath, D. D. Oelsligle, G. Naderman, and students

Agronomic-Economic Research on Tropical Soils

Project listed in LARR VII (94) is on-going. Fifteen publications have already appeared in various journals.

72. Burton E. Swanson, University of Wisconsin

Training Agricultural Research and Extension Workers

This study is based on a follow-up survey of 520 former trainees that have returned to their national rice or wheat improvement programs and focuses on the influence of different training objectives and methodologies on work behavior. See details in LARR VIII (59).

BIOLOGY

73. Rollin H. Baker, Michigan State University

With: staff and students from the University of Illinois and the Universidad Nacional Autónoma de México

Bioeconomics of Mammals of Western Mexico

The summer field season of 1974 will be the third year of this program supported by MUCIA. This is part of a long-range study on the mammals of Mexico. See details in VIII (92).

74. Lauro González-Quintero, Instituto Nacional de Antropología e Historia (México)

Paleoecología de la región de Abasolo, Guanajuato

Se intenta obtener una visión paleoecológica del Holoceno de la región de Abasolo, Estado de Guanajuato, con base en el análisis polínico de los sedimentos que han sido dejados al descubierto por excavaciones arqueológicas. Además, se lleva en mente tratar de correlacionar los cambios que se puedan inferir con otras áreas, en especial con la Cuenca de México así como con el área de Chapala, Jalisco. Iniciada, 1973. FAT, 1974. /I.N.A.H.

75. Ibcia Santibáñez, Universidad de Chile

Con: Arístides Giavelli, y Andrés Scherson

Condicionamiento del sueño en humanos

Durante el período de siesta, un grupo de sujetos ingenuos, normales, jóvenes, son sometidos a registro EEG, EOG, EKG, EMG. Después de un período de control y

acostumbramiento al laboratorio, se da un estímulo condicional auditivo de frecuencia semejante a la cardíaca promedio de reposo de cada sujeto. Son pareados consigo mismo y con otro sujeto sin condicionamiento. Los resultados preliminares parecen indicar un acortamiento significativo del período de conciliación del sueño de siesta espontáneo. Los trazados son analizados en forma tradicional y con un analizador de frecuencias. Iniciada, 1973. FAT, 1974.

76. Shirley Hill Witt, Colorado College

Human Biology in Costa Rica: Genetics and Nutrition

A pilot project of a field survey nature which inquiries into the need for further public health attention to genetic disease and mal- and subnutrition. Begun, 1974. /Associated Colleges of the Midwest.

BOTANY

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

Flora of the Chihuahuan Desert

Project described in LARR VIII (67) and VII (96) is still current and active.

78. Richard W. Pohl, Iowa State University

Taxonomic Studies on the Grass Flora of Costa Rica

Project contemplates publication of a taxonomic treatment of the grasses of Costa Rica, including keys, descriptions, and illustrations of many species. Work is in an advanced state of preparation and completion of project described in LARR VIII (69), VII (97), and VI:2 (231) is expected in two years.

ECOLOGY

79. 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 reported in LARR VIII (70), VII (99), and VI:2 (229) will continue active to at least mid-1975.

80. L. Schuyler Fonaroff, University of Maryland

Urbanization, Birds and Ecological Change in Northwest Trinidad

An hypothesis is presented to account for the ecological source areas for the urban birdlife of Port of Spain. Preliminary study shows neighboring savanna areas to be of prime importance. Research notes relevance of work to colonization theory and conservation activity. Begun, 1965. EDC, 1974. /University of Maryland.

GEOLOGY

81. R. Gordon Gastil, San Diego State University

With: Daniel Krummenacher

Cenozoic History of the Areas Adjacent to the Gulf of California

EDC is now 1974 for project described in LARR VIII (72). /NSF and National Geographical Society.

GEOGRAPHY

82. Gustavo A. Antonini, University of Florida

With: Thomas Boswell, Susan Dixon, John Ewel, Robin Fearn, Jose Hungria, Filipe Manteiga, Domingo Sanchez, Howard Tupper, and Manual Vital

A Computer-Assisted Cartographic Analysis of Population and Agriculture in the Bani Area of the Dominican Republic

From data collected in the 1970 Population Census and the 1971 Agricultural Census in the Dominican Republic, computer maps are being generated to summarize the dominant economic activities in an 800 km² agricultural region located about Bani. There are to be five categories of synagraphic maps: of population, agricultural production, ecological life zones, topography, and the cultural features. Accompanying each map will be an analysis of the spatial relationships with emphasis upon the conditions thought to have an impact upon agricultural plans. Depending upon the success with which such data may be cartographically synthesized, the Bani analysis may become the pilot exercise for such mapping of the entire island nation. Begun, 1973. EDC, 1974. /Center for Latin American Studies, University of Florida, the Tinker Foundation, and the Autonomous University of Santo Domingo.

83. Ward Barrett, University of Minnesota

Geography of the Colonial Sugar Industry of Morelos, Mexico

Research continues on project described in LARR VIII (74) and VII (106).

84. —————

Work is underway on an edited translation of a very rare, printed description of the Marianas Islands, dealing with the period 1669–70, written by a Jesuit in Spanish. FDC, 1974.

85. —————

The Regional Economy of the Jurisdictions of Cuautla and Cuernavaca at the end of the 18th Century

Estimates of the gross regional product and its disposition. Begun, 1973. EDC, 1974.

86. George F. Carter, Texas A & M University

With: Glenn Whitley

The American Lower Paleolithic/Chinese Discoveries of America

Work is continuing on plant and animal evidence for pre 1500 cultural contact with America. Research continues on the American Lower Paleolithic. See previous report in LARR VIII (76). Results will be published in the *Canadian Journal of Anthropology*. /Texas A & M University.

87. William M. Denevan, University of Wisconsin-Madison

With: B. L. Turner

Intensive Agriculture by the Classic Maya

Field research on Mayan relic terraces and raised fields in the Río Bec Region of Campeche-Quintana Roo took place in spring, 1973. EDC for main report, 1974. This is part of a larger project, "Ecological Change and Culture History of the Río Bec Region," directed by R. E. W. Adams. See LARR VII (101).

88. ————— with Alberta Zucchi, IVIC, Venezuela
Aboriginal Agriculture in the Orinoco Llanos of Venezuela: Ecology and Archaeology

Field work was carried out in 1972 and 1973. Preliminary reports are now in press. See LARR VII (116). EDC is now 1975.

89. Clinton R. Edwards, University of Wisconsin—Milwaukee
Relaciones Geográficas of South America

A study of provenience, repositories, coverage, and other characteristics of the 1578–1586 *Relaciones geográficas* for South America. See Also LARR VII (120), V:2 (540), IV:2 (746), and III:2 (743). EDC, 1975. /Latin American Center, University of Wisconsin—Milwaukee.

90. Robert C. Eidt, University of Wisconsin—Milwaukee, with students
Phosphate Mapping on Abandoned Settlement Soils in South America

A combined field and laboratory method based on soil phosphate fractionation will be applied in South America to ascertain its effectiveness on tropical and sub-tropical soils where it is anticipated that aluminum and iron components should still retain settlement phosphate from pre-Colonial and Colonial times; to locate and map by the method an abandoned settlement in South America, and to test the correlation in hilly and level zones between modern settlement failure or success and the presence of phosphate enrichment caused by sizeable prehistoric or old historic settlement activities. Begun, 1972. EDC, 1975. /University of Wisconsin.

91. Chris Field, University of Montana
Hispanic Origins of Andean Irrigation Practices

This attempt to find the sources and account for the development of some of the distinctive agricultural practices that compose the Andean cultural landscape continues as described in LARR IV:3 (956). EDC postponed to 1976.

92. ————— with Alfredo Bolsi
Historical Georgraphy of Northwest Argentina

Environmental and cultural change in the Argentine northwest—pre-historic to present. EDC projected, 1980.

93. Carl L. Johannessen, University of Oregon
The Domestication Process and the Origin of Cultigens

This study which focuses on Central America and Mexico continues as described in LARR VIII (84).

94. John Austin Kerr, Jr., Northern Illinois University
Colonization in Paraná: Lessons from the Frontier

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This project will search out and correlate information in the literature concerning patterns of organized land settlement in the State of Paraná, Brazil, in an attempt to arrive at some conclusions as to the various factors involved in the creation of a viable man-land relationship. Research describes and analyzes recorded attempts at colonization for the period between the mid-1800's and the present, with causes of success or failure noted. The main types of colonization are represented: European, Oriental, and Luso-Brazilian origin. Begun, 1965. EDC, 1974. /Council of Academic Deans, Northern Illinois University.

95. Barry Lentnek, SUNY at Buffalo

With: Lieber, Bruce, and Sheskin

Consumption and Shopping Behavior of Rural Mexicans

Data is drawn from a random, spatially stratified sample of rural residents of the state of Aguascalientes, Mexico, in 1968. Based on household budget accounts, the purpose of the study is to describe and analyze the consumption and shopping behavior of rural farm and non-farm population. Analysis will include income-consumption function study and spatial analysis of shopping trip pattern behavior. Begun, 1973. EDC, 1974. /NSF.

96. Laurence A. Lewis, Clark University

Erosional-Depositional Processes in the Tropics

Research attempts to evaluate current erosional and depositional rates in the tropics in natural and man-influenced environments. Ultimate goal is to develop a predictor to determine the effects of changing land use (development) on geomorphic processes prior to the development of tropical areas. Project focuses upon Puerto Rico. Begun, 1970.

97. Claire Moran, McMaster University (Canada)

Tourism in Ecuador

An attempt is made to establish in Ecuador the relation between national and international tourism, and to identify the factors affecting their seasonal variations. Research is based on hotel registrations and questionnaires. Begun, 1972. EDC, 1974. /McMaster University.

98. Robert E. Nunley, University of Kansas

With: Geoffrey Roper, Richard Linsberg, Mike Fischer, and Dar Daly

Dynamic Color Video Tape Atlas of Central America

Research described in LARR IV:2 (487) will result in an atlas produced by MAPS, a two- and three-dimensional computer system developed at the University of Kansas for this project. EDC postponed to 1975. An article resulting from this study, "Population Densities Using a New Approach: A Preliminary Report," appeared in *Revista Geográfica*, PAIGH, June 1967.

99. Norbert P. Psuty, Rutgers—The State University of New Jersey

With: Annye C. Kennedy and Jeffrey Parsons

Early Man Sites on Lake Shorelines, Central Valley of Mexico

Field work was completed in 1973 on project described in LARR VIII (161). Data analysis preparatory to writing has begun.

100. Peter W. Rees, University of Delaware

Historical Urban Geography of Mexico City

Reconstruction of the morphology and spatial structure of Mexico City from the colonial period. Purpose of the project is to provide a basis of comparison with other North American and Latin American cities, in terms of the contribution of European urbanism. Begun, 1973. EDC, 1976. /University of Delaware.

101. Herbert Siebert, McMaster University (Canada)

Levels of Living in Costa Rica

Using published and unpublished census data, two indices of levels of living are calculated for each of the 335 districts of Costa Rica. An attempt is made to explain the spatial variations in levels of living by taking as independent variables such factors as population density, degree of urbanization, accessibility, and agricultural productivity. Begun, 1968. EDC, 1974. /McMaster University.

102. William J. Smole, University of Pittsburgh

Yanoama Horticulture

The Yanoama are an isolated and essentially unacculturated aboriginal population. The core of their extensive territory is the Parima massif, crossed by the Venezuelan-Brazilian border. Among hte Yanoama horticulture is universal, and musaceous plants constitute the undisputed staple food. The culture and the ecology of this people are explored in a search for evidence relevant to a possible American origin of certain *Musa*. Begun, 1970. /Wenner-Gren Foundation.

103. Hilgard O'Reilly Sternberg, University of California, Berkeley

Frontier Settlements in Northwestern Mato Grosso, Brazil

A study of the many inequalities in the scale and sophistication of settlements, the ethnocultural background of the pioneers, and the changing economic activities of the Mato Grosso frontier. Several frontierscapes, as well as source-areas of settlers, were selected for research. The results of fieldwork will be incorporated into an explanatory fabric that draws upon varied documental materials, e.g. historical, statistical, and legislative. See previous reports in LARR IV:3 (891) and III:3 (834).

104. Milan Sury, McMaster University (Canada)

Average Slope and Agricultural Productivity in Costa Rica

Average slopes are calculated for a sample of 100 districts in Costa Rica, and the value of production of each agricultural commodity has been established. By analytical techniques, an attempt is made to establish the effect of slopes on the production of individual crops and on agricultural productivity in general. Begun, 1968. EDC, 1974.

105. Richard W. Wilkie, University of Massachusetts, Amherst

With: Jane Riblett, University of Connecticut

Perception and Assimilation of Rural Migrants in Urban Argentina

A follow-up case study of out-migrants from a small peasant community in rural Argentina focusing on the causes of out-migration and effects of migration upon origin and destination communities, the problems of assimilation into new environments, and giving special attention to changes in attitudes and behavior. The study also assesses the effect of the interrelationship of psychosocial, spatial, environmental, economic and other factors leading to migration for different population subgroups, and explores the general implications of migration and urban assimilation upon rural and urban development. Begun, 1973. EDC, 1975. /National Institute of Child Health and Human Development. Several related research articles by the Wilkies appeared in 1973 including, "Rural Depopulations: A Case Study of an Argentine Village," in Everett S. Lee (ed.), *Proceedings of the International Biological Programme V General Assembly*, National Academy of Sciences, 1973.

HEALTH

106. Leonardo J. Mata, Instituto de Nutrición de Centro América y Panamá

El impacto que las infecciones asociadas a una mala nutrición tienen sobre el crecimiento de los niños

Se espera que el análisis del estudio reportado en LARR VI:2 (233) termine en 1974 y que los resultados se publiquen en un libro.

107. —————

Fuerzas de infección que actúan sobre la población centroamericana

El proyecto sobre la población centroamericana sigue su curso según fue indicado en LARR VI:2 (234).

108. Miodrag Ristic, University of Illinois

With: C. A. Carson, D. M. Sells, and R. D. Smith

Development of Procedures for Induction and Measurement of Protective Immunity to Transmissible Blood Diseases of Man and Animals

Research concerns the development of procedures; for the induction and measurement of protective immunity to transmissible blood diseases of man and animals. Bovine anaplasmosis, caused by *A. marginale*, will serve as a prototype model. A related project, "Study of an Attenuated *Anaplasma marginale* Vaccine in Mexico: I. Challenge of Immunity by a Virulent Endemic Anaplasma Strain," with B. Miguel Osorno and M. Pedro Solana appeared in the *Proceedings of the 5th National Anaplasmosis Conference*, March 1973.

109. Donald A. Sweeney, Texas A & M University

With: George J. Mann, F. J. Trost, and W. C. Steward

Guidelines for National Health Planning in Developing Countries

A study of the basic obstacles in the development of adequate health care delivery systems in developing countries. Illustrates the general insensitivity on the part of national decision makers to the impact of health on over-all national development,

and offers a statistical forecasting device which can aid planners in anticipating future problems and resources. It suggests the development of regional health care delivery systems in phases appropriate to needs and available resources. Begun, 1971. EDC, 1974. /World Health Organization.

110. Margaret Ethel Denman Urist

Latin America: The Medical Profession and Public Health, Its Role

A review and evaluation of the role of the medical profession and public health programs in Latin America. Special emphasis will be on the Pan American Health Organization and the World Health Organization in their contributions to health planning service, training of personnel, and programming for improved medical facilities and development of public health schools and curriculum. Emphasis on Mexico, Guatemala, and Uruguay. Begun, 1973.

SOCIAL SCIENCES

ADMINISTRATION

111. Julio C. Rodriguez Arias, Universidad Nacional de Cuyo (Argentina)

Con: Fani Sinatra

El recurso humano en el sector salud

Análisis de la problemática de la clasificación de puestos en el sector salud en la región de Cuyo y proposición de bases para la organización de las diversas carreras en dicho sector, con el objeto de elaborar un estatuto de obligaciones y derechos y una política salarial específica. Iniciada, 1973. FAT, 1974. /Universidad y Secretaría de Ciencia y Técnica.

112. Saul M. Katz, University of Pittsburgh

Administrative Reform and Modernization

This study of strategies of modernizing administrative systems continues as described in LARR VII (162). A progress report, "Administrative Capability and Agricultural Development: An Institution Building Approach to Evaluation," appeared in the *American Journal of Agricultural Economics*, December 1970. Several papers dealing with administration in agriculture have been recently presented to meetings.

113. Carlos Michelsen Terry, Instituto Tecnológico y de Estudios Superiores de Monterrey (México)

Con: Asensio Carrion Serna y German Otalora Bay

Veinticinco años de evolución de la estructura organizacional de un gobierno estatal: el caso de Nuevo León en México

Descripción de los procesos de diferenciación vertical y horizontal, tamaño y complejidad de la estructura administrativa de un gobierno estatal en el sistema federal mexicano. Se trata de realizar una contribución al conocimiento del desarrollo de las