

## ***EMILIO F. MORAN***

### **CURRENT POSITIONS:**

Distinguished Professor  
James H. Rudy Professor of Anthropology  
Professor of Environmental Sciences, School of Public & Environmental Affairs  
Adjunct Professor, Department of Geography  
Co-Director, CIPEC, Center for the Study of Institutions, Populations and Global Environmental Change  
Director, ACT, Anthropological Center for Training and Research on Global Environmental Change

<b>OFFICE ADDRESSES:</b>	Department of Anthropology Indiana University Student Building 240 Bloomington, IN 47405 Phone: (812) 855-6181 FAX: (812) 855-3000 E-mail: moran@indiana.edu	ACT Indiana University Student Building 331 Bloomington, IN 47405 Phone: (812) 855-6181 FAX: (812) 855-3000
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### **EDUCATION:**

1968 B.A. with Honors, Spring Hill College, Spanish Literature  
1969 M.A. in Latin American History, University of Florida  
Thesis: Rui Barbosa and the Abolition of Slavery in Brazil.  
1969 Certificate in Latin American Studies, University of Florida, Gainesville  
1970 Certificate in Economics, University of North Carolina, Chapel Hill  
1972 Certificate in Ecology, University of Leiden, The Netherlands  
1975 Certificate in Tropical Agriculture, University of Florida, Gainesville  
1975 Ph.D. in Social Anthropology, University of Florida,  
Thesis: Pioneer Farmers of the Transamazon Highway: Adaptation and Agricultural  
Production in the Lowland Tropics

### **ADMINISTRATIVE EXPERIENCE:**

1977-78 Director, Graduate Studies, Department of Anthropology, Indiana University  
1978-79 Co-Chair, Bloomington Faculty Council Affirmative Action Committee, Indiana University  
1980-81 Acting Chair, Department of Anthropology, Indiana University  
1981-87 Chairman, Department of Anthropology, Indiana University. Elected to two terms.  
1992- Director, ACT, Anthropological Center for Training and Research on Global  
Environmental Change, Indiana University  
1996- Co-Director, CIPEC, Center for the Study of Institutions, Population and Environmental  
Change, Indiana University

### **ELECTED OFFICES HELD:**

1980-82 Bloomington Faculty Council, Indiana University  
1984-86 Coordinator, Anthropological Study Group on Agrarian Systems  
1981-83; 87-89 Steering Committee, Anthropological Study Group on Agrarian Systems  
1986-88 Bloomington Faculty Council, Indiana University  
1987-90 Amer. Assoc. Advanc. of Science, Section H (Anthropology), Nominations Committee  
1990-93 Executive Board, Central States Anthropological Society  
1990-91 President, Society for Economic Anthropology

1995-98 Delegate to the Governing Council of the American Association for the Advancement of Science representing section H (Anthropology)  
 1996-98 Committee on Council Affairs, American Association for the Advancement of Science  
 1995-97 President, Anthropology and Environment Section, American Anthropological Association  
 2003-05 Chair-elect and Chair, Section H (Anthropology), American Association for the Advancement of Science

**APPOINTED OFFICES:**

1987-88 Cultural Anthropology Panel, National Science Foundation  
 1988-96 Board of Directors, Human Relations Area Files, Inc.  
 1988 Chair, Nominations Committee, General Division, American Anthropological Association  
 1988-90 Chair, Panel on Development and Its Difficulties in Pre-Industrial and Industrializing Societies, American Anthropological Association  
 1990 Conservation and Restoration Biology Advisory Panel, National Science Foundation  
 1991-95 Chair, Task Force on Anthropology and the Environment, American Anthropological Association  
 1993-99 Advisory Council for the Committee for the National Council for Science and the Environment  
 1994-96 President's Council on Sustainable Development, Task Force on Sustainable Communities  
 1994-00 Advisory Board, Institute for Advanced Study, Indiana University  
 1995-98 Executive Secretary (1995-98) Commission on Human Dimensions of Global Environmental Change, IUAES  
 1996-02 National Academy of Sciences/National Research Council, Committee on the Human Dimensions of Global Change  
 1999-03 Scientific Steering Committee, Large Scale Biosphere Atmosphere Experiment in Amazônia  
 2000-03 Scientific Steering Committee, U.S. Carbon Cycle Program Science Plan  
 1999-05 Scientific Steering Committee, Land Use/Cover Change (LUCC)  
 1999-08 Board Member, National Museum of Natural History, Smithsonian Institution.  
 2000-04 External Advisory Board, Center for Spatially Integrated Social Science, Univ. of California at Santa Barbara  
 2000- International Advisory Board, IUSSP/IHDP Population and Environment Research Network  
 2002-05 Co-chair, IGBP Phase II, Global Land Project Transition Team  
 2003-04 Panel on New Research on Population and the Environment, National Research Council  
 2003 Committee of Visitors, National Science Foundation, Evaluation of Social and Behavioral Sciences Programs  
 2003-07 Review Panel Member, Study Section on Population, National Institutes of Health  
 2004-07 Committee on Geographical and Spatial Sciences, National Research Council/National Academy of Sciences

**EDITORIAL BOARDS:**

1986-97 *Journal of Forest and Conservation History*  
 1989-02 University of Michigan Press, Editor for *Linking Levels of Analysis* Book Series  
 1991-97 *Journal of Human Ecology* (Madrid, Spain)  
 1993-96 *Encyclopedia of Cultural Anthropology*  
 1993-96 *Indiana Journal of Global Legal Studies*  
 1990- *Latin American Studies*, An International Journal (Japan)  
 1994- *Human Ecology*, An Interdisciplinary Journal (Plenum, USA)  
 1995- *Studies in Environmental Anthropology and Ethnobiology* (Berghahn, UK)  
 1996-05 *Land Degradation and Development*, Regional Editor for the Americas (Wiley, UK)  
 2000- *Journal of Ecological Anthropology* (Florida International University)  
 2003-08 Editor for *Human-Environment Interactions* Book Series (University of Michigan Press)  
 2003- *Human Dimensions Review*  
 2003- *Population and Environment* (Kluwer)

- 2004- *Global Environmental Change: Human and Policy Dimensions* (Elsevier)  
 2005- *Human Organization* (Society for Applied Anthropology)  
 2005- *Journal of Land Use Science* (Taylor and Francis, UK)  
 2008- *Ecological and Environmental Anthropology* (on-line publication)

**TEACHING/RESEARCH APPOINTMENTS:**

- 1975-79 Assistant Professor, Indiana University, Department of Anthropology  
 1979-84 Associate Professor, Indiana University, Department of Anthropology  
 1984 Visiting Professor, North Carolina State University, Department of Soil Science  
 1984-96 Professor, Indiana University, Department of Anthropology and School of Public and Environmental Affairs  
 1997 Professor, University of Arizona, Department of Anthropology  
 1996- James H. Rudy Professor of Anthropology, Indiana University  
 2000- Adjunct Professor, Dept. of Geography, Indiana University  
 2007- Distinguished Professor of Anthropology, Indiana University

**COURSES TAUGHT:**

Peoples of Brazil	Culture and Society	Theory in Social Anthropology
Ethnographic Research Methods	Applied Anthropology	African Agricultural Systems
Seminar on the Amazon	Agricultural Ecosystems	Ecological Anthropology
Seminar on Cultural Ecology	South American Indians	Contemporary Brazil Seminar
Native Amazonians and the Environment		Global Environmental Change
The Amazon in Crisis: Ecology and Development		Human Dimensions of Global Change
Africans' Vulnerability to Environmental Change		Anthropology and Rural Development

**HONORS AND LISTINGS:**

- Phi Beta Kappa; Sigma Xi; Sigma Delta Pi; Phi Alpha Theta; Woodrow Wilson Honorable Mention; Who's Who in the Midwest, 21st edition; Men and Women of Science; Who's Who in Science and Engineering, 3rd edition; Contemporary Authors; Who's Who in the Frontiers of Science and Technology, 2nd and 3rd edition; Who's Who in the World, Millennium edition (2001); Who's Who in America, 5<sup>th</sup> edition (2002); Leading Scientists of the World (2007)  
 1985- Elected Fellow, American Association for the Advancement of Science  
 1989-90 John Simon Guggenheim Memorial Foundation Fellowship  
 1989-90 Fellow, Institute for Advanced Study, Indiana University  
 1996- James H. Rudy Professor of Anthropology, distinguished rank professorship  
 1999 2<sup>nd</sup> Place, Best Scientific Paper, ERDAS 2000, from the Amer. Soc. For Photogrammetry & Remote Sensing  
 1999- Fellow, Linnean Society of London  
 2002 Robert McC. Netting Award, Association of American Geographers  
 2007 Distinguished Professor of Anthropology

**CONSULTING EXPERIENCE:**

- 1978 General Research Corp/Flow General. Agricultural Sector Assessment, Cape Verde Islands, West Africa  
 1979 IVIC/Caracas. Design Research Program on Human Ecological Assessment in the Rio Negro, Venezuela  
 1980 Pan-American Health Organization/WHO. Design and teach human ecological assessment techniques to Costa Rican planners. Two visits  
 1982 Food Crop Research and Extension, Cape Verde Islands, West Africa. Ronco Consulting Corporation/ AID  
 1987 Evaluation Panel, Center for the Analysis of World Food Issues, Cornell University  
 1993 EPAT/MUCIA, Institutional Mechanisms for Implementing Environmental Protection

## **CURRENT RESEARCH AND GRANT SUPPORT:**

- 1997-13 Amazonian Deforestation and the Structure of Households. National Institute of Child Health and Human Development, NIH (#HD35811-08), 3 consecutive phases (PI)
- 2006-09 Human and Physical Dimensions of Land Use/Cover Change in Amazonia: Towards Sustainability. NASA LBA Project (#NNG06GD86A) (PI)
- 2007-09 Dynamics of Reforestation in Coupled Social-Ecological Systems: Modeling Land-Use Decision Making and Policy Impacts, NSF/HSD (#BSC-0624178) (Co-PI)

## **PAST FELLOWSHIPS AND RESEARCH GRANTS:**

- 1968, 71, 72 NDEA Title VI Fellowship (Portuguese)
- 1970 R.J. Reynolds Fellowship in Economics
- 1972, 74 NIMH Grant, MH# 22581-01; MH#58493-01
- 1973, 76, 89 Fulbright-Hays Fellowship to Brazil
- 1973-74 Social Science Research Council Fellowship
- 1984 Tinker Foundation Post-Doctoral Fellowship
- 1989 Wenner-Gren Foundation Research Grant
- 1989 J.S. Guggenheim Memorial Foundation Fellowship
- 1991 NSF Anthropology Program Senior Scholars' Training Grant on Remote Sensing (BNS#9104305)
- 1991-93 NSF Geography and Regional Science and Human Dimensions of Global Environmental Change Program Grant (SES #9100526); NIGEC Grants (2)
- 1994-97 NSF Cultural Anthropology Program, (SBR# 9420727 and #9696231)
- 1993-98 NSF Geography and Regional Science, Cultural Anthropology & Human Dimensions of Global Environmental Change Program (#9310049 and #9896014)
- 1995-98 Tinker Foundation Training Grant on Environmental Monitoring in Latin America
- 1998-03 Human and Physical Dimensions of Land Use/Cover Change in Amazônia: Forest Regeneration and Landscape Structure. NASA LBA-ECO Project (#N005-334)
- 1999-03 Collaborative Research: International Human Dimensions of Global Change Programme (IHDP) Research Activities (LUCC Focus 1 - Land Use Dynamics) NSF (#BCS-9912440)
- 2002-04 An Opportunity to Study Unpredictable Events of Catastrophic Proportions in Temperate Forest Ecosystems. NSF-SGER grant (BCS#0227608)
- 2000-04 Human Strategies for Coping with ENSO and the Growing Flammability of Forests in Amazônia. NOAA Global Change Program (#NA06GP0344)
- 2000-05 Biocomplexity Incubation Activity: Integration of Spatial, Ecological and Environmental Social Science Methods for Study of Biodiversity and Biocomplexity, NSF Biocomplexity program, (BCS#0083546)
- 1996-06 Center for the Study of Institutions, Population and Environmental Change. NSF-funded Center on Human Dimensions of Global Change (SBR #9521918 and #9906826)
- 2003-07 Human and Physical Dimensions of Land Use/Cover Change in Amazonia: Towards a Multiscale Synthesis. NASA LBA-ECO Project (#NCC5-695)

## **LANGUAGES:**

Fluency: Portuguese, Spanish and English

Read: Portuguese, Spanish, French, English

## **PROFESSIONAL MEMBERSHIPS:**

American Association for the Advancement of Science (Fellow)

Linnean Society of London (Fellow)

American Anthropological Association (Fellow)

Society for Applied Anthropology (Fellow)

Society for Economic Anthropology

Sigma Xi

Association of American Geographers

American Society for Photogrammetry

Latin American Studies Association

## PUBLICATIONS:

### Books and Monographs (8)

- 2007 *Human Adaptability: An Introduction to Ecological Anthropology*, 3rd edition. Boulder: Westview Press.
- 2006 *People and Nature: An Introduction to Human Ecological Relations*. Blackwell Publishers: United Kingdom.  
Portuguese Edition, 2008, Editora SENAC, São Paulo, Brazil.
- 2000 *Human Adaptability: An Introduction to Ecological Anthropology*. 2<sup>nd</sup> edition. Boulder: Westview Press.
- 1993 *Through Amazonian Eyes: The Human Ecology of Amazonian Populations*. Iowa City: University of Iowa Press, 1993.  
Spanish edition, 1993, Fondo de Cultura Económica, Mexico City.  
Portuguese edition, 1990, Editôra Vozes, Petrópolis, Rio de Janeiro, Brazil.
- 1981 *Developing the Amazon*. Bloomington: Indiana University Press.
- 1979 *Human Adaptability: An Introduction to Ecological Anthropology*. N. Scituate: Duxbury Press.  
Reissued in 1982 by Westview Press.  
Portuguese revised edition, Editôra da Universidade de São Paulo, 1994.
- 1976 *Agricultural Development in the Transamazon Highway*. Bloomington: Indiana University Latin American Studies Center.
- 1973 *Rui e a Abolição*. Rio de Janeiro: Ministerio da Educação e Cultura.

### Edited Volumes (14)

- 2008 *Geoinformática e Monitoramento Ambiental na America Latina*. São Paulo: Editora SENAC (co-edited with M. Batistella)
- 2008 *Amazônia: Natureza e Sociedade em Transformação*. São Paulo: Editora da Universidade de São Paulo (EDUSP).  
(co-edited with M. Batistella and D. Alves)
- 2005 *Seeing the Forest and the Trees: Human Environment Interactions in Forest Ecosystems*. Cambridge, MA: MIT Press. (co-edited with E. Ostrom).  
Portuguese Edition, Editora da Univ. De São Paulo and Editora SENAC, São Paulo, Brazil, in press
- 2004 *Land Change Science: Observing, Monitoring and Understanding Trajectories of Change on the Earth's Surface*. Dordrecht, the Netherlands: Kluwer.  
(co-edited with G. Gutman; A.C. Janetos; C.O. Justice; J.F. Mustard; R.R. Rindfuss; D. Skole, D.; B.L. Turner II; M.A. Cochrane)
- 2001 *Meeting in the Middle: The Challenge of Meso-Level Integration*. LUCC Report Series No. 5. Focus 1 Office, LUCC (co-edited with W. McConnell)
- 1998 *People and Pixels: Linking Remote Sensing and Social Science*. Washington DC: National Academy Press. (co-edited with D. Liverman, R. Rindfuss and P. Stern)
- 1996 *Transforming Societies, Transforming Anthropology*. Ann Arbor: University of Michigan Press.

- 1995 *The Comparative Analysis of Human Societies: Toward Common Standards for Data Collection and Reporting*. Boulder: L. Rienner Publ.
- 1990 *The Ecosystem Approach in Anthropology: From Concept to Practice*. Ann Arbor: University of Michigan Press.
- 1984a *The Ecosystem Concept in Anthropology*. Washington, DC: American Association for the Advancement of Science. Selected Symposium No. 92.
- 1984b *Human Ecology in the Amazon, Special Issue of Interciencia*. Pergamon Press. Vol. 9, No. 6, pp. 341-424. (co-edited with R. Herrera.)
- 1983 *The Dilemma of Amazonian Development*. Boulder: Westview Press.
- 1979a *Changing Agricultural Systems in Latin America..* Publication Number 7 from Studies in Third World Societies. College of William and Mary.
- 1979b *Changing Agricultural Systems in Africa*. Publication Number 8 from Studies in Third World Societies. College of William and Mary.

#### **Government Publications**

- 1978 *Cape Verde: Assessment of the Agricultural Sector*. Washington, DC: General Research Corporation. 258 pp (with P. Freeman, V. Green, R. Hickok, and M. Whitaker)

#### **Published Articles and Chapters**

##### **2008**

A Comparative Study of Landsat TM and SPOT HRG Images for Vegetation Classification in the Brazilian Amazon. *Photogrammetric Engineering & Remote Sensing* 74(3):311-321.  
(with D. Lu, M. Batistella, and E. E. de Miranda)

Integration of Landsat TM and SPOT HRG Images for Vegetation Change Detection in the Brazilian Amazon. *Photogrammetric Engineering & Remote Sensing* 74(4):421-430.  
(with D. Lu, M. Batistella)

Human Dimensions of Climate Change: The Vulnerability of Small Farmers in the Amazon. Theme issue on Climate Change and the fate of the Amazon. *Philosophical Transactions of the Royal Society B*. 363(1498):1803-1809.  
(with E.S. Brondizio)

A Questão das Dimensões Humanas no Experimento de Grande Escala da Biosfera-Atmosfera na Amazônia – LBA. *Abordagens Interdisciplinares na Ciência Amazônica: A Contribuição do LBA e Outras Perspectivas*. M. Batistella, E.F. Moran, and D. Alves, eds. São Paulo: EDUSP  
(with D.S. Alves, Mateus Batistella)

Trajatórias de Desmatamento e Uso da Terra na Amazonia Brasileira: Uma Análise Multiescalar *Amazonia: Natureza e Sociedade em Transformação*. M. Batistella, E.F. Moran, and D. Alves, eds. São Paulo: EDUSP  
(with E.S. Brondízio and M. Batistella)

Geoinformação e Gestão Ambiental na America Latina e no Caribe em Tempos de Mundaças Globais *Geoinformática e Monitoramento Ambiental na America Latina*. M. Batistella and E.F. Moran (eds.) São Paulo: Editora SENAC.  
(with M. Batistella and E.L. Bolfe)

Uso de Sensoriamento Remoto em Levantamento Rapido Rural: Uma Experiência na Colômbia. *Geoinformática e Monitoramento Ambiental na America Latina*. M.Batistella and E.F.Moran (eds.) São Paulo: Editora SENAC. (with F. de Castro, M.C. Silva-Forsberg, W. Wilson, and E.S. Brondízio)

**2007**

Land Cover Classification in the Brazilian Amazon with the Integration of Landsat ETM+ and RADARSAT Data. *International Journal of Remote Sensing* 28(24), 5447-5459. (with D. Lu and M. Batistella)

A Heterogeneidade das Mudanças de Uso e Cobertura das Terras na Amazônia: Em Busca de um Mapa da Estrada. In *Dimensões Humanas da Biosfera-Atmosfera na Amazônia*. W.M. da Costa, B.K. Becker, and D.S. Alves (orgs.) São Paulo: Editora da Universidade de São Paulo. (with M. Batistella)

Embodied Decisions: Reversible and Irreversible Contraceptive Methods among Rural Women in the Brazilian Amazon. *Human Organization* 66(2), 185-195. (with A.D. Siqueira, A.O. D'Antona, and M.F. D'Antona)

Mapping and Monitoring land Degradation Risks in the Western Brazilian Amazon using Multitemporal Landsat TM/ETM+ Images. *Land Degradation & Development* 18, 41-54. (with D. Lu, M. Batistella, and P. Mause)

Complexity of Coupled Human and Natural Systems. *Science* 314, 1513-1516. (with J. Liu, T. Dietz, S.R. Carpenter, M. Alberti, C. Folke, A.N. Pell, P. Deadman, T. Kratz, J. Lubchenco, E. Ostrom, Z. Ouyang, W. Provencher, C.L. Redman, S.H. Schneider, and W.W. Taylor)

**2006**

The Human-Environment Nexus: Progress in the Past Decade in the Integrated Analysis of Human and Biophysical Factors. In *The World System and the Earth System: Global Socio-Environmental Change and Sustainability Since the Neolithic*. A. Hornborg and C. Crumley (eds.) Walnut Creek, CA: Left Coast Press. Pp. 231-242.

Human Strategies for Coping with El Niño Related Drought in Amazônia. *Climatic Change* 77, 343-361. (with R.T. Adams, B. Bakoyema, S. Fiorini, and B. Boucek.)

**2005**

Human Strategies for Coping with El Niño Related Drought in Amazônia. *Climatic Change* 77, 343-361. (with R.T. Adams, B. Bakoyema, S. Fiorini, and B. Boucek.)

Human-Environment Interactions in Forest Ecosystems: An Introduction. In *Seeing the Forest and the Trees*. E. Moran and E. Ostrom (eds.) Cambridge, MA: MIT Press. Pp. 3-22.

Human-Environment Research, Spatially-Explicit Data Analysis, and Geographic Information Systems. In *Seeing the Forest and the Trees*. E. Moran and E. Ostrom (eds.) Cambridge, MA: MIT Press. Pp. 161-186. (with Evans, T. and L. VanWey)

New Directions in Human-Environment Interactions and Land Use/Land Cover Research. In *Seeing the Forest and the Trees*. In E. Moran and E. Ostrom (eds.) Cambridge, MA: MIT Press. Pp. 357-372.

Forest Transitions: Towards a Global Understanding of Land Use Change. *Global Environmental Change* 15, 23-31. (with T.K. Rudel, O.T. Coomes, F. Achard, A. Angelsen, J. Xu, and E. Lambin)

Land Cover Binary Change Detection Methods for Use in the Most Tropical Forest Region of the Amazon: A Comparative Study. *International Journal of Remote Sensing*. 26(1), 101-114. (with D. Lu, P. Mause and M. Batistella)

Legacy of Fire Slows Carbon Accumulation in Amazonian Forest Regrowth. *Frontiers in Ecology and Environment* 3 (7), 365-369.

(with D. Zarin, E. Davidson, E. Brondizio, I. Vieira, T. Sa, T. Feldpausch, E. Schuur, R. Mesquita, P. Delamonica, M. Ducey, G. Hunt, C. Salimon, and M. Denich)

**2004**

Colonist household decision making and land-use change in the Amazon Rainforest: an agent-based simulation. *Environment and Planning B: Planning and Design* 31, 693-709.

(with P. Deadman, D. Robinson, E.S. Brondizio.)

Application of Spectral Mixture Analysis to Amazonian land-Use and Land-Cover Classification. *International Journal of Remote Sensing* 25 (23), 5345–5358.

(with D. Lu, M. Batistella, P. Mausel)

The Development of the International Land-Use and Land-cover Change (LUCC) Research Program and its Links to NASA's Land Cover and Land Use Change (LCLUC) Initiative. In *Land Change Science: Observing Monitoring, and Understanding Trajectories of Change on the Earth's Surface*. Series: Remote Sensing and Digital Image Processing , Vol. 6. G. Gutman, et al. (eds). New York, NY: Kluwer Academic Publishers. Pp. 1-16.

(with D. Skole, B.L Turner II)

Linking Pixels and People. In *Land Change Science: Observing Monitoring, and Understanding Trajectories of Change on the Earth's Surface*. Series: Remote Sensing and Digital Image Processing , Vol. 6. G. Gutman, et al. (eds.). New York, NY: Kluwer Academic Publishers. Pp. 379-394.

(with R. Rindfuss, S. Walsh, B.L. Turner II, B. Entwisle,)

Land-Use and Land-Cover Change Pathways and Impacts. In *Land Change Science: Observing Monitoring, and Understanding Trajectories of Change on the Earth's Surface*. Series: Remote Sensing and Digital Image Processing , Vol. 6. G. Gutman, et al. (eds.) New York, NY: Kluwer Academic Publishers. Pp. 411-430.

(with J.F. Mustard, R. DeFries, T. Fisher)

Integrated Land-Change Science and its Relevance to the Human Sciences. In *Land Change Science: Observing Monitoring, and Understanding Trajectories of Change on the Earth's Surface*. Series: Remote Sensing and Digital Image Processing , Vol. 6. G.Gutman, et al. (eds.). New York, NY: Kluwer Academic Publishers. Pp. 431-448.

(with B.L. Turner, R. Rindfuss)

Mapping Regional Land Cover with MODIS Data for Biological Conservation: Examples from the Greater Yellowstone Ecosystem, USA and Para State, Brazil. *Remote Sensing of Environment* 92, 67-83.

(with K.J. Wessels, R.S. DeFries, J. Dempewolf, L.O. Anderson, A.J. Hansen, S.L. Powell)

Comparison of Land-Cover Classification Methods in the Brazilian Amazon Basin. *Photogrammetric Engineering and Remote Sensing* 70(6), 723-731.

(with D. Lu, P. Mausel, and M. Batistella)

Change Detection Techniques. *International Journal of Remote Sensing* 25(12), 2365-2407.

(with D. Lu, P. Mausel, and E. Brondizio)

Relationships between Forest Stand Parameters and Landsat Thematic Mapper Spectral Responses in the Brazilian Amazon Basin. *Forest Ecology and Management*, 198 (1-3), 149-167.

(with D. Lu, P. Mausel, E. Brondizio)

The Challenge of Scalability. In; *The Archaeology of Global Change: The Impact of Humans on Their Environment*. C. Redman et.al. (eds.) Washington, DC: Smithsonian Institution Press. Pp. 278-284.

Multitemporal Spectral Mixture Analysis for Amazonian Land-cover Change Detection. *Canadian Journal of Remote Sensing* 30(1), 87-100.

(with D. Lu and M. Batistella)

Inferring the Behavior of Households from Remotely Sensed Changes in Land Cover: Current Methods and Future Directions. In *Spatially Integrated Social Science*. M. Goodchild and D. Janelle (eds.) New York, NY: Oxford University Press. Pp. 23-47.  
(with B. Boucek)

### 2003

Classification of successional forest stages in the Brazilian Amazon Basin. *Forest Ecology and Management* 181, 301-312.  
(with D. Lu, P. Mausel, E. Brondizio)

Household Demographic Structure and its Relationship to Deforestation in the Amazon Basin. In *People and the Environment: Approaches to Linking Household and Community Surveys to Remote Sensing and GIS*. J. Fox, V. Mishra, R. Rindfuss, and S. Walsh (eds.). New York, NY: Kluwer Academic Publishers. Pp. 61-89.  
(with A. Siqueira, and E. S. Brondizio)

Settlement Design, Forest Fragmentation, and Landscape Change in Rondônia, Amazônia. *Photogrammetric Engineering and Remote Sensing* 69(7), 805-812.  
(with M. Batistella, and S. Robeson)

Women and Work in a Brazilian Agricultural Frontier. In *Gender at Work in Economic Life*. Gracia Clark (ed.). New York, NY: Altamira Press. Pp. 243-267.  
(with A. Siqueira, S.D. McCracken, and E.S. Brondizio)

Linear Mixture model applied to Amazonian vegetation classification. *Remote Sensing of Environment* 87(4), 456-469.  
(with D. Lu, M. Batistella)

### 2002

Assessment of atmospheric correction methods for Landsat TM data applicable to Amazon Basin LBA research. *International Journal of Remote Sensing*. 23(13), 2651-2671.  
(with D. Lu, P. Mausel, and E. Brondizio)

The Use of Remotely-sensed Data in Rapid Rural Assessment. *Field Methods*. 14(3), 243-269.  
(with F. de Castro, M. Forsberg, W. Wilson and E. Brondizio)

Linking Amazonian Secondary Succession Forest Growth to Soil Properties. *Land Degradation & Development*. 13, 331-343.  
(with D. Lu and P. Mausel)

Linear Spectral Moisture Analysis of TM Data for Land-use and Land-cover Classification in Rondônia, Brazilian Amazon. *Proceedings of the ISPRS Commission IV Symposium on Geospatial Theory Processing and Applications*. July 8-12, 2002. Ottawa, Canada.  
(with D. Lu and M. Batistella)

Above-ground Biomass Estimation of Successional and Mature Forests using TM Images in the Amazon Basin.  
In *Advances in Spatial Data Handling*. Dianne E. Richardson and Peter van Oosterom (eds.) Berlin, Heidelberg, New York, NY: Springer-Verlag. Pp. 183-196.  
(with E. Lu, P. Mausel, and E. Brondizio)

Change Detection of Successional and Mature Forests based on Forest Stand Characteristics using Multitemporal TM Data in Altamira, Brazil. *Proceedings of the ACSM- ASPR 2002 Annual Conference*. Washington DC.  
(with D. Lu, P. Mausel, and E. Brondizio)

Who is interested in Commercial Agriculture? Subsistence Agriculture and Salaried Work in the City among Yucatec Maya from the State of Yucatan. *Culture & Agriculture* 24(1), 41-47.  
(with Francisco Gurri)

Deforestation Trajectories in a Frontier Region of the Brazilian Amazon. In *Linking People, Place, and Policy: A GIScience Approach*. Boston, MA: Kluwer Academic Publishers. S. Walsh and K. Crews-Meyer (eds.) Pp. 215-234.  
(with S. McCracken and B. Boucek)

Trajectories of Land Use: Soils, Succession, and Crop Choice. In *Deforestation and Land Use in the Amazon*. C. Wood and R. Porro (eds.). Gainesville, FL: University of Florida Press. Pp. 193-217.  
(with E.S. Brondizio and S. McCracken)

The Colonist Footprint: Towards a Conceptual Framework of Deforestation Trajectories among Small Farmers in Frontier Amazônia. In *Deforestation and Land Use in the Amazon*. C. Wood and R. Porro (eds.). Gainesville, FL: University of Florida Press. Pp. 133-161.  
(with E.S. Brondizio, S. McCracken, A. Siqueira, D. Nelson and C. Rodriguez-Pedraza)

Land-use Patterns on an Agricultural Frontier in Brazil: Insights and Examples from a Demographic Perspective. In *Deforestation and Land in the Amazon*. C. Wood and R. Porro (eds.). Gainesville, FL: University of Florida Press. Pp. 162-192.  
(with E. S. Brondizio, S. McCracken and A. Siqueira)

Spatial Integration of Social and Biophysical Factors Related to Land Cover Change. *Population and Development Review*. Supplement to Vol. 28, Pp. 165-186.  
(with T. P. Evans)

Ecological Systems and Multitier Human Organizations. In *Knowledge, Management, Organizational Intelligence and Learning*. L. Douglas Kiel (ed.). *UNESCO/Encyclopedia of Life Support Systems*. Oxford, UK: EOLSS Publishers. <http://www.eolss.net>  
(with E. Ostrom and J. C. Randolph)

Agent-based simulations of household decision making and land use change in Altamira, Brazil. In *Integrating Geographic Information Systems and Agent-based Modeling Techniques for Understanding Social and Ecological Processes*. H. Randy Gimblett (ed.) London, UK: Oxford University Press and the Santa Fe Institute. Pp. 277-310.  
(with K. Lim, P. Deadman, E. Brondizio, S. McCracken)

### 2001

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- 1978b *Economy-Wide Models and Development Planning.* C.R. Blitzer, P.B. Clark, and L. Taylor (eds.). New York, NY: Oxford University Press, 1975. In *AMERICAN ANTHROPOLOGIST* 80(1), 134-135.
- 1978c *Human Ecology in the Tropics.* J.P. Garlick and R.W.J. Keay (eds.). 2<sup>nd</sup> ed. London, UK: Taylor and Francis Ltd., 1977. In *THE QUARTERLY REVIEW OF BIOLOGY.* 53(1), 88-89.
- 1973 *Politics of Social Research* by R. Beals. Chicago, IL: Aldine, 1969. In *AMERICAN ANTHROPOLOGIST* 75(4), 949-950.

#### **OTHER PROFESSIONAL ACTIVITIES:**

##### **1975**

Co-organizer and Chair, Symposium: "Achieving Social Change: The Workings of Social Stratification in Brazil." Annual meeting of the American Anthropological Association, San Francisco, CA. Dec. 2-6.

##### **1976**

Co-organizer and Chair, Symposium: "Changing Agricultural Systems in the Tropics." 75th annual meeting of the American Anthropological Association, Washington, DC. Nov. 15-19.

##### **1977**

Co-organizer and Discussant, Symposium: "Establishing Social Order in Multi-Ethnic and Immigrant Communities." Joint meeting of the African Studies Association and Latin American Studies Association. Houston, TX. Nov. 2-5.

##### **1978**

Co-chair, Local Arrangements Committee, Central States Anthropological Society annual meeting, Bloomington, IN. Mar. 23-25.

##### **1979**

Organizer and Chair, Symposium: "Agriculture and Anthropology--An Applied Perspective." Annual meeting of the Central States Anthropological Society, Milwaukee, WI. Mar. 28-31.

Lecturer, International Conference on Amazonian Colonization in Seven Countries. Cambridge University, Cambridge, UK. Sept. 23-26.

##### **1980**

Chair, Local Arrangements Committee, meeting of the Latin American Studies Association, Bloomington, IN. Oct. 16-19.

Organizer and Chair, Symposium: "Rethinking Operational Assumptions in Human Ecological Research." Central States Anthropological Society annual meeting, Ann Arbor, MI. Apr. 9-12.

##### **1981**

Editor, *Process*, Alumni Newsletter, Department of Anthropology, Indiana University (through 1987).

##### **1982**

Organizer and Chair, Symposium: "The Ecosystem Concept in Anthropology." Annual meeting of the American Association for the Advancement of Science. Washington, DC. Jan. 3-8.

Chair, Panel: "Development Processes and Change in the Amazon Basin." 44th International Congress of Americanists, Manchester, England. Sept. 5-10.

Chair, Symposium: "Agrarian Change: Concepts and Consequences." 81st annual meeting of the American Anthropological Association, Washington, DC. Dec. 5.

Chair, Symposium: "Economic and Political Transformation in Latin America." American Anthropological Association annual meeting, Washington, DC. Dec. 7.

Elected member of Steering Committee, Anthropological Study Group on Agrarian Systems at annual meeting of American Anthropological Association.

**1983**

Organizer, "The Impact of Migration on Society and Culture." William H. Mathers Museum Dedication Conference, Bloomington. Apr. 22.

Member, Dedication Committee, William H. Mathers Museum, Indiana University.

**1984**

Co-organizer and Presider, Symposium: "Agricultural Policy--The Small Farm Sector and Agricultural Research: Approaches to the Integration of Socio-economic Studies in Experimental Agricultural Research." Annual meeting of the American Association for the Advancement of Science. New York, NY. May 24-29.

Elected Coordinator, Anthropological Study Group on Agrarian Systems at annual meeting of the Anthropological Association of America.

**1985**

Organizer and Chair, Symposium: "Social Production and Reproduction." Annual meeting of Society for Economic Anthropology, Washington, DC, April.

Invited Panel Participant, State-of-the-Discipline (Anthropology) at Latin American Studies Association at Albuquerque, NM. Apr. 18-20.

Invited Participant, International Board for Soil Research and Management workshop on Management of Acid Tropical Soils for Improved Agricultural Production to Yurimaguas, Peru, and Manaus/Brasilia, Brazil, Apr. 23-May 3.

**1986**

Scientific Advisor, Tropical Soil Biology and Fertility Programme, International Union of Biological Sciences. Workshop to develop common methods at all research sites, Yurimaguas, Peru. May 25-31.

Editorial Board Member, *Journal of Forest History*.

Advisory Panel Member, National Science Foundation for Cultural Anthropology (1986-88).

**1988**

Chair, Nominations Committee, General Division, American Anthropological Association.

Organizer, Symposium: "The Study of Agricultural Systems--Developing a Common Data Base and Measurement Standards." American Association for the Advancement of Science annual meeting. Boston, MA. Feb. 1988.

Organizer, Symposium: "Common Standards in Measurement of Agrarian Systems." XI International Union of Anthropological and Ethnological Sciences at Zagreb, Yugoslavia. July 1988.

Chair, Panel on "Social Transformation in Pre-Industrial and Industrializing Societies." American Anthropological Association. Phoenix, AZ. Nov. 11-16.

**1989**

Vice-President and President-Elect, Society for Economic Anthropology.

Editor, *Linking Levels of Analysis Book Series*, (University of Michigan Press) 1989-94.

Fellow, Institute for Advanced Study, Indiana University 1989-90.

Organizer and Chair, Panel: "Towards an Anthropology of Social Transformation." Annual meeting of the

American Anthropological Association. Washington, DC. Nov. 15-19.

**1990**

President, Society for Economic Anthropology.

Advisory Panel Member, National Science Foundation on Conservation and Restoration Biology.

Executive Board, Central States Anthropological Society, 1990-93.

Editorial Board Member, *Journal of Latin American Studies* (Japan)

**1991**

Chair, Task Force on Anthropology and the Environment, American Anthropological Association.

Editorial Board Member, *Journal of Human Ecology* (Madrid, Spain) 1991-1996.

**1992**

Director, Anthropological Center for Training and Research on Global Environmental Change (ACT), Indiana University, Bloomington.

Co-organizer, Workshop: "Crisis in Africa: Environment, Population, and Health." Jointly with the African Studies Program and the Population Institute for Research and Training, Indiana University, Bloomington, IN.

**1993**

Organizer, Lecture Series: Human Dimensions of Global Environmental Change. Indiana University, Bloomington, IN.

Editorial Advisory Board Member, *Encyclopedia of Cultural Anthropology* (Henry Holt Publishers).

Editorial Board Member, *Indiana Journal of Global Legal Studies*.

Editorial Board Member, *Human Ecology*, an Interdisciplinary Journal, Plenum Publishers.

**1994**

Member, Working Group on Sustainable Communities of President's Council on Sustainable Development.

Scientific Advisory Council Member, National Council for Science and the Environment.

Co-Chair of the Governing Board, Indiana University Institute for Advanced Study.

**1995**

*Who's Who in Science and Engineering*, Third edition.

Executive Secretary, Committee on Human Dimensions of Global Change, International Union of Anthropological and Ethnological Sciences.

Editorial Board Member, Book Series *Studies in Anthropology and the Environment* (Gordon and Breach, UK).

Editorial Board Member, *Journal of Political Ecology*, (University of Arizona, USA).

Editorial Board Member, Representative for the Americas, *Land Degradation and Development* (Wiley, United Kingdom)

Organizer, Session: "Land Use Intensification in Amazônia." Annual meeting of the American Anthropological Association. Washington, DC. Nov. 11-15.

**1996**

Elected to Committee on Council Affairs, American Association for the Advancement of Science.

Elected President, Anthropology and Environment Section, American Anthropological Association.

Member, Committee on Human Dimensions of Global Change, National Academy of Sciences/National Research Council (three-year term).

Co-Director, Center for the Study of Institutions, Population and Environmental Change (CIPEC), Indiana University, Bloomington, IN.

**1997**

Member, User Working Group, Socioeconomic Data and Applications Center (SEDAC).

Regional Editor for the Americas, *Land Degradation and Development*, John Wiley, United Kingdom.

Chair, Board and Business meeting, as President of Anthropology and Environment Section, American Anthropological Association Annual meeting.

Evaluator, funded project at the MacArthur Foundation Program on Population, Consumption and the Environment. Mar. 6 and 7.

Presenter, National Science Foundation Directors' meeting on progress of CIPEC. Washington, DC. Apr. 18.

Host and chair, International conference: "Environmental Monitoring and Policy Making: Bringing Space Science Down to Earth." Sponsored by the Tinker Foundation. Miami, FL. April 24-27. A volume of the papers from this meeting is being prepared for publication.

**1998**

Presenter, Workshop with Baltimore Urban Long-Term Ecological Research Team. Baltimore, MD. Mar. 26-28.

Presenter, National Science Foundation Directors' meeting. Carnegie Mellon University, Pittsburgh, PA. Apr. 9-11.

Chair, Land Use Cover Change Science Group. NASA LBA-Ecology Science Team meeting. Baltimore, MD. Apr. 27-29.

**1999**

Leader, Focus 1-Land Use/Cover change Project (an International Geosphere Biosphere Programme and International Human Dimensions Program joint project). Indiana University, Bloomington, IN.

Member, Scientific Steering Committee, Land Use Cover Change Core Project (LUCC).

Fellow, Linnean Society of London.

Co-Chair, Symposium: "Using and Shaping the Land. Conference 99: Nature Society History--Long Term Dynamics of Social Metabolism." Vienna, Austria. Sept. 30-Oct. 2.

Board Member, National Museum of Natural History, Smithsonian Institution, Washington, DC.

Member, Scientific Steering Committee, Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA) Ecology Project.

**2000**

Organizer, Section on Human Dimensions of LBA's Land Use and Land Cover Change at the First LBA Scientific Conference. Belem, Para, Brazil. June 26-30.

Member, External Advisory Board, Center for Spatially Integrated Social Science, University of California at Santa Barbara.

Member, Committee on Human Dimensions of Global Change, National Academy of Sciences/National Research Council (2<sup>nd</sup> three-year term), Washington, DC.

Member, Scientific Advisory Committee, U.S. Carbon Cycle Science Program. Washington DC.

Member, International Advisory Board, IUSSP/IHDP Population and Environment Research Network.

Co-organizer, International Workshop: "Meeting in the Middle: The Challenge of Meso-Level Integration".  
Ispra, Italy. Oct. 17-20.

**2001**

Co-chair, The LAND Project -- a scientific committee, overseeing the development of the Science Plan for the second decade of the International Geosphere-Biosphere Programme.

*Who's Who in the World*, Millennium Edition (18<sup>th</sup>)

Co-Organizer. Workshop: "Biocomplexity and Biodiversity in the Environment." Indiana University,  
Bloomington. Sept. 26-28.

**2002**

*Who's Who in America*, 55<sup>th</sup> Edition.

Member and Presenter, "Science Planning for the Terrestrial Human Environment System." Land Use Cover  
Change Scientific Steering Committee meeting. Brussels, Belgium. Apr. 11-14.

Co-Organizer, Workshop: "Ecosystem Responses to Unpredictable Events in Temperate Forests." Indiana  
University, Bloomington, IN. Apr. 19-20.

Organizer, Section: "Powerful GIS Tools to Advance Spatial and Temporal Analysis in Anthropological  
Research." American Anthropological Association annual meeting. New Orleans, LA. Nov. 20-24.

**2003**

Panelist, Population and Environment, National Research Council.

Member, Land Transition Team. Ft. Collins, Co. Apr. 1-4.

Discussant, Session: "Population and Environment: New Approaches and Methodologies." Population  
Association of America. Minneapolis, MN. May 1-4.

Panelist, Center for Scientific Research Study Section on Social Sciences and Population Studies. National  
Institutes of Health.

Board Member, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 2<sup>nd</sup> term.

Member, U.S. National Committee for the International Institute for Applied Systems Analysis (ILASA).

Land Open Science Conference: Global Change and the Terrestrial Human-Environment System, Morelia,  
Mexico. Dec. 2-5.

**2004**

Member, Virtual Collegium for Social Ecology. University of Klagenfurt. Vienna, Austria. Five years.

Workshop on Research on Population, Land Use, and Environment. National Academies. Irvine, CA. Jan. 14-  
16.

Chair-Elect, Section on Anthropology. American Association for the Advancement of Science. Seattle. Feb. 12-  
16.

Scientific Committee of International Geosphere Biosphere Programme. Russian Academy of Sciences,  
Moscow. Mar. 2-5.

Organizer, Session entitled: "Land Use, Land Cover change, and Demographic Processes." 2004 Annual  
Meeting of the Population Association of America. Boston, MA. Apr. 1-3.

**2005**

Member, National Research Council/National Academy of Sciences, Geographical Sciences Committee.

Chair, Section on Anthropology, American Association for the Advancement of Science.

**2006**

Member, Development Committee, Board of the National Museum of Natural History, Smithsonian Institution

Workshop on synthesis of Human Dimensions in LBA Science, Manaus, Brazil, June 10-14

**2007**

Appointed as Distinguished Professor of Anthropology, Indiana University, March 2007.

Workshop on synthesis of Agriculture under LBA Science, Florianopolis, Brazil, April 22-24.

Workshop on synthesis of Human Dimensions in LBA Science, Belem, Brazil, May 29-30.

**2008**

Co-organizer of panel for International Human Dimensions of Global Change meeting, New Delhi, India  
October 16-19

Chair, Admissions and Awards Committee, Dept. of Anthropology, Indiana U.

**INVITED LECTURES:**

**1974**

“The Brazilian Colonization Experience in the Transamazon Highway.” Symposium on Pioneer Colonization in South America. American Anthropological Association. Mexico City, Mexico.

**1975**

“Limiting Factors to Agricultural Production.” Symposium on Food Production in Lowland Latin America. Southern Anthropological Society, Clearwater Beach, FL.

**1976**

“Food, Development and Man in the South American Tropics.” Tropical Studies Program. Texas A & M University, College Station, TX.

“Constraints to Agricultural Production in the Amazon Basin.” Technical Seminar Series. National Amazon Research Institute, Manaus, Brazil.

“Research Strategies in Human Ecology.” Roundtable Seminar in Social Anthropology. National Museum, Rio de Janeiro, Brazil.

**1977**

“Development of the Brazilian Amazon: Implications for the U.S.” Committee on Modernization. Purdue University, West Lafayette, IN.

“Farming in the Brazilian Amazon: Its Potential.” Trade and Development Workshop. Purdue University, West Lafayette, IN.

“Brazil's Mixed Capitalist Strategy and Its Impact at the Regional Level.” Lilly Endowment Conference. Indiana University, Bloomington, IN.

**1979**

“The Human Ecology of Amazonian Populations.” Technical Seminar. Instituto Venezolano de Investigaciones Cientificas, Caracas, Venezuela.

“Mobility and Resource Use in Amazônia.” International Amazon Colonization Conference. University of Cambridge, Cambridge, UK.

**1980**

“The Ecology of the Amazon.” Environmental Studies Series. Stockton State University, Pomona, NJ.

“The Evolution of Cape Verde's Agriculture.” African Studies Seminar Series. Indiana University, Bloomington, IN.

**1981**

“The Limitations of Macrodevelopment Approaches in Heterogeneous Tropical Forest Environments.” Symposium on Macrodevelopment in the Tropical Forests and Arid Zones. American Association for the Advancement of Science. Toronto, Canada.

“Colonization in Amazônia.” Amazon Seminar Series. Center for Latin American Studies, University of Florida, Gainesville, FL.

“The Determinants of Farmer Success.” Center for Brazilian Studies, School of Advanced International Studies, Johns Hopkins University. Baltimore, MD.

“Subsidy and Resource Use in the Rio Negro Basin, Venezuelan Amazon.” Key Symposium, Affluence and Cultural Survival. American Ethnological Society Meeting. Washington, DC.

**1982**

“Human Impacts on Global Resources: Anthropological Approaches.” Symposium on Interdisciplinary Approaches to the Study of Human Impacts on Global Resources. American Association for the Advancement of Science. Washington, DC.

“Colonization in the Transamazon and Rondônia, Brazil.” International Conference on Frontier Expansion in Amazônia . Center for Latin American Studies, University of Florida, Gainesville, FL.

“A Decade of Colonization in the Brazilian Amazon.” 44th International Congress of Americanists. Manchester, England.

“Cultural Ecology of the Rio Negro Basin.” International Symposium on the Structure and Function of Amazon Forest Ecosystems in the Upper Rio Negro, Caracas, Venezuela.

“Colonialism and Drought-Risk: The Plight of the Republic of Cape Verde.” Department of Anthropology, College of William and Mary, Williamsburg, VA.

**1983**

“Brazil in an Interdisciplinary Context--Policy Issues in Amazon Basin Development” Lecture Series. Indiana Chapter of the Society for International Development. “The Dilemma of Amazônia Development.” Indiana University, Bloomington, IN.

“The Problem of Amazon Development Policy: Neither Growth nor Human Development.” Latin American Studies Center, University of California, Berkeley, CA.

“Anthropology and Amazon Basin Colonization.” International Congress of Anthropological and Ethnological Sciences, Quebec City, Canada.

**1984**

“Who Benefits? Early Frontier Development in the U.S. and the Amazon Basin.” Department of Anthropology, University of North Carolina, Chapel Hill, NC.

“Soils in Carajas Colonization Project.” Department of Soil Science, North Carolina State University, Raleigh, NC.

**1985**

“Production and Reproduction in Frontier Agroecosystems.” Society for Economic Anthropology. Warrenton, VA.

“Early Frontier Development in the U.S. and the Amazon Basin.” Department of Anthropology, University of Arizona, Tucson. AZ.

“State-of-the-Discipline: Anthropology.” Latin American Studies Association. Albuquerque, NM.

“Socio-economic Considerations in Acid Tropical Soils Research.” Inaugural Workshop of IBSRAM's Acid Soils of the Tropics Network Conference. Brasilia, Brazil.

“A Comparative Analysis of the U.S. and the Amazonian Frontiers.” College of Agriculture, Cornell University, Ithaca, NY.

“The Amazon Basin and Brazil's Natural Resources.” Alfred J. Hanna Distinguished Lecture in Latin American Studies. Rollins College, Winter Park, FL.

**1986**

“Socioeconomic Considerations in Managing Soil Biology and Fertility.” III Workshop of the Tropical Soil Biology and Fertility Programme. International University of Biological Sciences. Yurimaguas, Peru.

“Adaptation of Maladaptation in Newly Settled Areas.” Visiting Scholar, Western Michigan University, Kalamazoo, MI.

**1987**

“Socio-economic and Physico-Chemical Factors in Soil Fertility Degradation in the Amazon Basin.” Distinguished Lecture in Ecology. Colorado State University, Fort Collins, CO.

“Human Populations in Tropical Forests.” Indianapolis Zoo/World Wildlife Fund Conference, La Selva.

“Adaptation of Maladaptation in Newly Settled Areas of Amazônia.” Program in Tropical Studies. University of Wisconsin, Madison, WI.

“The Human Ecology of Amazonian Populations.” Anthropology Department, University of Wisconsin, Madison, WI.

“Disaggregating Amazônia.” Symposium on “Amazonian Ecology: Future Research and Trends.” American Anthropological Association annual meeting. Chicago, IL

**1988**

“The Transamazon Highway 20 Years Later.” Keynote speaker, Southeastern Conference on Latin American Studies. Knoxville, TN.

“Human and Cultural Ecology.” Kalman Silvert Prize Panelist. Latin American Studies Association. New Orleans, LA.

“A Framework for the Study of Human Adaptations to the Environmental Constraints of Amazonian Ecosystems.” International Workshop on the Origins, Adaptations, and Biological Diversity of Native Amazonians. Belem, Brasil.

“From Slavery to Food Insecurity: A Historical Analysis of Cape Verde's Agricultural Development.” XII International Union of Anthropological and Ethnological Sciences. Zagreb, Yugoslavia.

**1989**

“Amazonian Soils: Distribution and Agricultural Alternatives under Indigenous and Contemporary Management.” Wenner-Gren Conference: Amazonian Synthesis: An Integration of Disciplines, Paradigms, and Methodologies. Novo Friburgo, Brazil.

“A Heterogeneidade da Amazonia: Ecosistemas Ricos e Ecosistemas Pobres” Ciencia as Quintas Lectures Series. Conselho Nacional de Pesquisas. Brasilia, Brazil.

**1990**

“Rivers of Hunger: Human Adaptive Strategies in Amazonian Black-water Rivers.” Lecture Series. Institute for Advanced Study, Indiana University, Bloomington, IN.

“Amazonian Deforestation: Are Peasants Responsible?” Center for Latin American Studies, University of Minnesota, Minneapolis, MN. Mar. 18.

“Rich and Poor Ecosystems of Amazônia: Approaches to their Sustainable Management.” International Symposium on the Fragile Tropics of Latin America. University of Tsukuba, Japan. May 29-31.

“Human Ecology, Colonization and Environmental Management.” International Symposium on the Ecological Disorder of Amazônia. Belem, Para, Brasil. Oct. 28-31.

“Deforestation in the Brazilian Amazon.” Symposium on Tropical Forest Ecology. 89th Annual Meeting of the American Anthropological Association. New Orleans, LA. Nov. 30.

**1991**

“Endangered Tropical Rain Forests: Human Impacts in the Amazonian Rain Forests.” Conference on Towards a Healthy Global Environment. Davidson College, Davidson, NC. Mar. 5-7.

“Indigenous Strategies of Soil Management in Amazônia.” Invited Speaker. Purdue University, West Lafayette, IN. Apr. 11.

“Deforestation in the Amazon: Are smallholders responsible?” Center for Latin American Studies, University of Kentucky, Lexington, KY. Apr. 18.

“Amazonian Deforestation: Local Causes, Global Consequences.” International Conference on Human Ecology. Goteborg, Sweden. June 9-14.

“Ecological Anthropology”. Invited paper for panel on “The Fragmentation of Anthropology.” American Anthropological Association annual meeting. Chicago, IL. Dec.

**1992**

“Nurturing the Forest: Strategies of Native Amazonians.” International conference on Beyond Nature and Culture: Cognition, Ecology and Domestication. National Museum of Ethnology, Kyoto, Osaka, Japan. Mar. 16-24.

“Amazonian Deforestation Landsat TM Spectral Analysis.” Invited lecture. Institute for Environmental Studies, University of Wisconsin, Madison, WI. Apr. 14.

“Deforestation in Amazônia and Land use Change: Socio-ecological Data and Landsat TM Image Analysis.” Symposium on Land Use and Global Environmental Change. Ecological Society of America. Honolulu, HI. Aug. 11-13.

“Land Use Changes in the Amazon Estuary.” Symposium on Regional Land Use Change. American Anthropological Association annual meeting. San Francisco, CA. Dec. 2-5.

**1993**

“The Law, Politics, and Economics of Amazonian Deforestation.” Interdisciplinary Conference, The Globalization of Law, Politics, and Markets: Implications for Domestic Law Reform. Indiana University Law School. Mar. 4-7.

“Socio-economic Aspects of Acid Soil Management.” Keynote speaker. Third International Symposium on Plant-Soil Interactions at Low pH. Brisbane, Queensland, Australia. Sept. 12-16.

**1994**

“Vegetation Characteristics of Successional Forests in Altamira, Para.” Symposium on Landscape Change in the Santarem Triangle of the Eastern Amazon. Association of American Geographers annual meeting. San Francisco, CA. Mar. 28-Apr. 2.

“Studying Human Impact on Tropical Moist Forests by linking Field-level surveys with Landsat Satellite Digital Data.” Institute of Latin American Studies, Population Center and Department of Anthropology. University of Texas. Austin, TX. Apr. 22.

“Deforestation and Regrowth in the Amazon Basin.” Keynote lecture, Conference on the Human Dimensions of Global Ecological Change. University of Georgia, Athens, GA. Apr. 15.

**1995**

“Succession after Deforestation in the Eastern Amazon.” Department of Anthropology and Environmental Studies, University of Nebraska, Lincoln, NE. Feb. 2.

“Deforestation and Secondary Growth in the Brazilian Amazon.” Center for Latin American and Caribbean Studies, Michigan State University. East Lansing, MI. Apr. 19.

“Studying Global Environmental Change.” Department of Anthropology, Catholic University of America, Washington, DC. Sept. 28.

**1996**

“Land use and Land Cover Change in Amazônia: Combining Anthropological and Physical Sciences’ Methodologies.” University of Arizona, Department of Anthropology, Tucson, AZ. Feb. 19.

“Amazonian Land Use Change.” American Association for the Advancement of Science annual meeting, Baltimore, MD. Feb. 8-13.

“The Legacy of Robert Netting.” Society for Applied Anthropology meetings, Baltimore, MD. Mar. 29.

“The Impact of Globalization on the Amazon.” III Workshop of the Ajusco, Colegio de Mexico and UNEP. Mexico City, Mexico. Sept. 2-4.

“Secondary Succession in the Amazon.” Workshop on Global Climate Change: Scientific Uncertainties and Environmental Implications. Indiana University, Bloomington, IN. Oct. 3-4.

“Amazonian Deforestation and the Structure of Households.” Workshop on Population and Environment, National Institutes of Health Campus, Washington, DC. Oct. 28-29.

**1997**

“Amazonian Deforestation: Rates and Processes.” At: Contemporary Latin America: A Social Science Perspective. University of Arizona, Tucson, AZ. Jan. 27.

“Studies of Secondary Succession in Amazônia Colloquium Series on Global Change in the Americas.” University of Arizona, Tucson, AZ. Feb.

“On-going Studies of Deforestation, Land Use and Secondary Succession in the Brazilian Amazon.” Latin American Colloquium Series, Graduate Seminar. University of Arizona, Tucson, AZ. Feb. 10.

“Studying the Human Dimensions of Forest Ecosystems in the Western Hemisphere.” Distinguished Speaker Series. Center for Integrated Study of the Human Dimension of Global Change, Carnegie Mellon University, Pittsburgh, PA. Apr. 14.

“Strategies for Strengthening Environmental Monitoring in Latin America.” Tinker Foundation sponsored conference: Environmental Monitoring in Latin America, Miami, FL. Apr. 24-27.

“Amazonian Deforestation and the Structure of Households.” CIPEC Colloquium. Indiana University. Bloomington, IN. Sept. 29.

“Development and the Anthropological Encounter in the 21<sup>st</sup> Century.” Invited Session. American Anthropological Association annual meeting. Washington, DC. Nov. 20.

**1998**

“A Multilevel Approach to Studying Global Environmental Change.” The Earth’s Changing Land. GCTE-LUCC Open Science Conference in Global Change. Barcelona, Spain. Mar. 14-18.

“A Multilevel Approach to Studying Global Environmental Change” and “The Development Encounter and Academic Anthropology.” 14<sup>th</sup> International Congress of Anthropological and Ethnological Sciences. Chair, Commission on Anthropological Aspects of Global Environmental Change. Williamsburg, VA. July 26-Aug. 1.

“Deforestation in the Amazon: Landscape and Household Levels of Analysis.” Distinguished Speaker Series. Dept. of Anthropology and Center for Environmental Studies, Arizona State University, Tempe, AZ. Oct. 30.

“Strategies for Amazonian Forest Restoration” International Conference on Amazonia 2000. University of London, London, England. June 25-26.

“Succession at Five Amazônia Sites.” CPTEC/LBA. Cachoeira Paulista, Sao Paulo, Brazil. Aug. 17.

#### **1999**

“A Multilevel Approach to Studying Global Environmental Change in Forest Ecosystems.” Symposium on Understanding the Human Dimensions of Global Environmental Change. American Association for the Advancement of Science annual meeting. Washington, DC. Feb. 17-22.

“Trajectories of Land Use: Soils, Succession, and Crop Choice.” Patterns and Processes of Land Use and Forest Change in the Amazon, International Conference. University of Florida, Gainesville, FL. Mar. 23-26.

“Environmental and Demographic Dimensions of Deforestation and Land Use in the Brazilian Amazon.” Carolina Population Center, Population Research Seminar, University of North Carolina, Chapel Hill, NC. Dec.3.

#### **2000**

“Human Ecosystems: Linking Biophysical and Social Processes.” LTER presentation. Arizona State University, Tempe, AZ. Jan. 19.

“The Dynamics of Land Use/Land Cover Change—The Need for a Historical Perspective.” BIOME 300. Bern, Switzerland. Mar. 5-7.

“Change in Forest Ecosystems: A Case Study at Multiple Scales,” Population and Environmental Change in the Americas: Cross-site Comparisons,” and “Population and Environmental Change in the Americas.” IGBP Land-Use and Land Cover Change Workshop on Human modification of the biosphere: Key Drivers of Land-use/cover Change Processes. Stockholm, Sweden. Mar. 13-15.

“Results of Studies on Tropical Moist and Tropical Dry Forests of the Americas.” Michigan State University, East Lansing, MI. Mar. 29-30.

“Advances in Property-Level Analysis of Land use and Land Cover Change Seminar Series.” Pattern to Process: Global International Dimensions of Land Use and Cover Change. Michigan State University, East Lansing, MI. Mar. 29-30.

“Human and Physical Dimensions of Land Use/Cover Change in Amazônia: Forest Regeneration and Landscape Structure.” 4<sup>th</sup> NASA Land Cover Land Use Change Science Team Meeting, Reston, VA. Apr. 3-5.

“Exploring tropical deforestation and land use.” Association of American Geographers annual meeting. Pittsburgh, PA. Apr. 4-8.

“Land Use and Land Cover Change in Amazônia: Biophysical, Demographic, and Social Drivers.” National Center Geographic Information and Analysis and Department of Geography, University of California. Santa Barbara, CA. May 3.

“Mudanças no uso da Terra e na Cobertura Vegetal na Amazônia.” IPAM. Belem, Para, Brazil. June 28.

## 2001

“The Developmental Cycle of Domestic Groups and Amazonian Deforestation” presented at the Population Association of American annual meeting held March 29-31, and at the Large-scale Biosphere-Atmosphere Experiment in Amazonia conference. Atlanta, GA. Feb. 12-14.

“What’s Driving Land Use and Land Cover Change? Myths and Realities.” Presented at the American Association for the Advancement of Science annual meeting, session on Earth System Science. San Francisco, CA. Feb. 15-20.

“Population and the Environment in the Amazon Basin.” Princeton University, Environmental Research Institute. Princeton, NJ. Oct. 12.

“Household Demographic Structure and its Impact on the Trajectories of Deforestation in the Amazon.” Brown University. Providence, RI. Oct. 25.

“Land use and Land Cover Change and the Carbon Cycle.” National Research Council meeting, Washington DC. Nov. 5.

“LUCC Progress 2001.” Land Cover and Land Use Change, Tropical and Subtropical Workshop. NASA Science Team. Washington, DC. Nov. 19.

“Human and Physical Dimensions of Land Use/Cover Change in Amazônia Forest Regeneration and Landscape Structure.” Land Cover and Land Use Change, Tropical and Subtropical Workshop. NASA Science Team. Washington, DC. Nov. 20.

“Global Environmental Change and the Ecosystem Perspective.” Invited session. American Anthropological Association annual meeting. Washington, DC. Nov. 29.

## 2002

“Deforestation Trajectories in a Frontier Region of the Brazilian Amazon”. Invited session: “Remote Sensing and GIS Applications for Linking People, Place, and Policy.” Association of American Geographers annual meeting. Los Angeles, CA. Mar. 19-24.

“People and Pixels: Advances in Linking Social Sciences and Spatial Data through Remote Sensing.” Invited lecture. Ohio State University, Columbus, OH. June 4.

“Population and Environment Surprises in the Amazon Basin: Deforestation, Land Cover Change and the Structure of Households.” Environmental Policy Initiative seminar. Ohio State University, Columbus, OH. June 4.

“Deforestation Trajectories in a Frontier Region of the Brazilian Amazon.” 2<sup>nd</sup> LBA Open Science conference, Manaus, Brazil. July 7-10.

“Dimensoes Humanas das Mudancas na Cobertura Vegetal e Uso da Terra.” Embrapa Satellite Monitoring seminar. Campinas, Sao Paulo, Brazil. Aug. 6.

“CIPEC: A center of excellence on human dimensions of global change.” INPE. Seminar. Sao Jose dos Campos, Sao Paulo, Brazil. Aug. 7.

“Ecologia Humana e o Uso da Terra.” SENAC seminar, Sao Paulo, Brazil. Aug. 9.

“Dimensoes Humanas da Mudanca Ambiental Global: A proxima decada.” SENAC seminar. Sao Paulo, Brazil. Aug. 10.

### 2003

"Human Strategies for Coping with ENSO and Growing Flammability of Forests in Amazonia." Association of American Geographers annual meeting. New Orleans, LA. Mar. 7.

"Science Planning or the Terrestrial Human Environment System." Land Use Cover Change Scientific Steering Committee meeting. Banff, Canada. June 17-26.

"Land Science Plan. Challenges Ahead." International Geosphere-Biosphere Programme Congress, Banff, Canada. June 18-25.

"The Human-Environment Nexus: Progress in the Past Decade in the Integrated Analysis of Human and Biophysical Factors." Keynote lecture at the World System History and Global Environmental Change Congress. Lund, Sweden, Sept. 19.

"Social Science Perspectives on Resilience." Resiliency and Change in Ecological Systems. Santa Fe Institute. Santa Fe, NM. Oct. 24-26.

### 2004

"The Global Land Project" at International Human Dimensions Programme Scientific Planning Meeting. Bonn, Germany. Mar. 22.

"Deforestation and the Structure of Households." Seminar presented at the Center for the Study of Population (NEPO) at the University of Campinas, Campinas, Brazil. June 4.

"Human Dimensions of Global Environmental Change: New Directions." Seminar presented to the Post-graduate Program in Environmental Science (PROCAM) at the University of São Paulo, SP, Brazil. June 1.

"32 Years of Research along the Transamazon Highway: A Retrospective". Seminar presented at EMBRAPA/CPATU, Center for Agroforestry of Eastern Amazon, Belem, PA, Brazil. July 7.

"Human Dimensions of LBA: Building on International Efforts" III LBA Open Science Meeting, Brasilia, DF, Brazil. July 26.

### 2005

"The Global Land Project". Invited presentation for the Meeting of Scientific Steering Committee, International Human Dimensions Programme, Bonn, Germany. March 21.

"Pesquisa sobre Populacao e Meio Ambiente na Amazonia". Invited lecture at Center for Advanced Study (NAEA), Universidade Federal do Para, Belem, Brazil. June 24.

"32 Anos de Pesquisa na Transamazonica". Invited lecture at Universidade Federal do Para, Altamira Campus, Brazil. June 30.

"Dimensoes Humanas de Mudancas Globais: A Parceria com a EMBAPA" EMBRAPA Satellite Monitoring Unit, Campinas, SP, Brazil. Aug. 9.

"Dinâmica da Ocupação da Amazônia." Center for the Study of Population (NEPO). University of Campinas (UNICAMP). Campinas, Brazil. Aug. 10.

"Dimensões Humanas das Mudanças Globais Ambientais: Novas Direções." National Commercial Training Service (SENAC), São Paulo, Brazil. Aug. 11.

"Population and Environment in the Amazon Basin." 2005-2006 Provost and University Distinguished Lecture Series, Kansas State University, Manhattan, KS. Sept. 29.

“Dimensoes Humanas da Biodiversidade”, Keynote Closing Lecture at the V Symposium of the BIOTA/FAPESP Program, Aguas de Lindoia, SP, Brazil. Nov. 17.

“Human Ecology’s changing theories and Methods in the past 25 Years”. Invited Keynote Lecture upon the celebration of 25 years of the Human Ecology Program at the Center for Advanced Studies (CINVESTAV), Merida, Yucatan, Mexico. Nov. 30.

### **2006**

"Population and Environment in the Brazilian Amazon: Social and Environmental Interactions". University of Miami, Center for Ecosystem Science and Policy, Dept. of Geography and Regional Studies, Miami, FL. Feb. 22.

"Ecology and Society: A Lifelong Research Program". Center of Ecology, Unversidad Nacional Autónoma de Mexico (UNAM), Morelia, Mexico. March 28.

"Environmental Sustainability: Research Directions". University of Michigan, Graham Environmental Sustainability Institute, Ann Arbor, MI. May 24.

"Human dimensions of the Environmental Global Changes: Human Adaptability". LBA Workshop and Course, Manaus, Brazil. May 31.

"Human Dimensions of Climatic Change." Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) Inaugural Lecture for new climate program. Sao Paulo, Brazil. June 8.

"Human Dimensons of Climate Change". Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV), Merida, Mexico. Aug. 10.

“Myths and Perspectives on Land-Use and Land-Cover Change in the Amazon.” 10th Meeting of the LBA-ECO Science Team, Brasilia. DF, Brazil. Oct. 5.

### **2007**

“Human Dimensions of Climate Change.” XII National Meeting of Urban Planning Association, Brazil. Belem. May 24.

“Scale-Dependence in Understanding Deforestation in Amazônia.” Plenary paper. 11<sup>th</sup> LBA-ECO Science Meeting, Salvador, Bahia, Brazil. Sept. 27.

“Dynamics and Trajectories of Land Use and Land Cover Change.” Keynote Lecture, XV International meeting of the Society for Human Ecology, Rio de Janeiro, Brazil. Oct. 5.

“Mitos and Contra-mitos da Amazônia.” International Workshop on Population Dynamics and Global Environmental Change in Amazônia. Center for Population Studies, University of Campinas, Brazil. Oct. 22.

“Global Environmental Changes and Its Human Dimensions: Impacts of Human Interaction with Land Cover.” 58<sup>th</sup> National Botanical Congress, São Paulo, Brazil. Nov. 1.

### **2008**

“Population and Environment in the Amazon Basin.” Presented at Session entitled New Directions in Land Change Science at the Association of American Geographers annual meeting. Boston, MA. April 16.

“An Integrative Approach to Land Change Science.” Invited lecture at Macaulay Institute, Aberdeen, Scotland. May 19.

“Como Ter Mais com Menos: valorizando relacionamentos mais que o consumismo.” Livraria Cultura, São Paulo, SP. June 23.

Expansão Internacional da Antropologia Ambiental: Experiencias na Amazonia.” Invited lecture by FAPESP, Série Revolução Genômica, Parque Ibirapuera, São Paulo, SP. June 21.  
“Population and Environment in the Amazon Basin”. Invited lecture at Michigan State University, East Lansing, MI. Sept. 18

“Household Demographic Structure and Its Impact on the Trajectories of Deforestation in the Amazon”. Invited Lecture at Brown University, sponsored by Environmental Change Initiative. Oct. 23.

Distinguished Speaker and Keynote Lecture, Invited by West Lakes Association of American Geographers.  
“Land Change Science and Amazonian Deforestation”. Nov. 14.