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-- Finding the Appropriate Spatial and Temporal Resolution -- Linking People to Pixels -- INSTITUTIONAL ISSUES: MAKING IT HAPPEN -- Building a Community of Scholars -- Training Future Scholars -- Providing Necessary Data -- PLAN OF THE VOLUME -- ACKNOWLEDGMENT -- NOTES -- REFERENCES -- 2 A Brief History of Remote Sensing Applications, with Emphasis on Landsat -- GROWTH OF THE REMOTE SENSING COMMUNITY -- STIMULI FOR AN ORBITING RESOURCES SATELLITE -- FORCES MOTIVATING THE DEVELOPMENT OF REMOTE SENSING -- Need For Better Information -- National Security -- Commercial Opportunities -- International Cooperation -- International Law -- THE EVOLUTION OF LANDSAT -- The Landsat Concept -- THE LANDSAT SYSTEM -- Landsats-1, -2, and -3 -- Landsats-4 and -5 -- Landsat-6 -- ASSESSING THE IMPACT -- A New Paradigm -- Privatization/Commercialization -- The Legacy -- Landsat-7 -- Beyond Landsat-7 -- CONCLUSIONS -- NOTES -- REFERENCES -- 3 "Socializing the Pixel" and "Pixelizing the Social" in Land-Use and Land-Cover Change. SOCIALIZING THE PIXEL -- PIXELIZING THE SOCIAL -- SCALAR DYNAMICS AND PATH DEPENDENCE -- CONCLUSION -- ACKNOWLEDGMENTS -- NOTES -- REFERENCES -- 4 Linking Satellite, Census, and Survey Data to Study Deforestation in the Brazilian Amazon -- THE BRAZILIAN AMAZON -- Defining the Region -- Development Policy, Land Settlement, and Deforestation -- RATIONALE FOR THE RESEARCH DESIGN -- DATA AND DESIGN -- Satellite Estimates of Deforestation -- Census Estimates of Demographic and Economic Structure -- SPATIAL SCALES AND SPATIAL CORRESPONDENCE -- PRELIMINARY FINDINGS -- FINDING ANSWERS IN THE ERRORS -- ACKNOWLEDGMENT -- NOTES -- REFERENCES -- ANNEX 4-1 -- 5 Land-Use Change After Deforestation in Amazonia -- THE VALUE ADDED OF SOCIAL SCIENTISTS' INTEREST IN REMOTE SENSING ANALYSIS -- METHODS -- Levels of Analysis and Site Selection -- Study Areas -- Distribution of Research Locations -- Vegetation and Soil Inventory and Processing -- PATTERNS OF SECONDARY SUCCESSION IN AMAZONIA -- Soil Physical and Chemical Patterns in the Study Regions -- Variation in Rates of Regrowth -- Basin-Wide Patterns of Rates of Regrowth: Defining Stages of Regrowth in Amazonia -- IMPLICATIONS FOR TRAINING AND RESEARCH -- CONCLUSIONS -- ACKNOWLEDGMENTS -- NOTES -- REFERENCES -- 6 Land-Use/Land-Cover and Population Dynamics, Nang Rong, Thailand -- NANG RONG, THAILAND: LABORATORY FOR STUDY -- PROJECT HISTORY -- DATA -- Social Survey Data -- Remotely Sensed Data -- RESEARCH ISSUES -- Linking People and Pixels -- Availability of Exogenous Variables -- Scale of Analysis -- CONCLUSIONS -- NOTES -- REFERENCES -- 7 Validating Prehistoric and Current Social Phenomena upon the Landscape of the Peten, Guatemala -- BACKGROUND -- ARCHEOLOGICAL RESEARCH -- DEFORESTATION -- RESEARCH CHALLENGES: COLLECTING GROUND-TRUTH INFORMATION -- SUMMARY AND CONCLUSIONS -- REFERENCES. 8 Extraction and Modeling of Urban Attributes Using Remote Sensing Technology -- REMOTE SENSING OF URBAN/SUBURBAN ATTRIBUTES -- Land Use/Land Cover -- Building and Cadastral (Property Line) Infrastructure -- Transportation Infrastructure -- Utility Infrastructure -- Creation of a Digital Elevation Model -- Socioeconomic Characteristics -- Energy Demand and Conservation -- Meteorological Data -- Critical Environmental Area Assessment -- Disaster Emergency Response -- USE OF REMOTE SENSING FOR FORECASTING URBAN RESIDENTIAL EXPANSION -- CONCLUSIONS -- REFERENCES -- 9 Social Science and Remote Sensing in Famine Early Warning -- PRACTICAL

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#### Sommario/riassunto

Space-based sensors are giving us an ever-closer and more comprehensive look at the earth's surface; they also have the potential to tell us about human activity. This volume examines the possibilities for using remote sensing technology to improve understanding of social processes and human-environment interactions. Examples include deforestation and regrowth in Brazil, population-environment interactions in Thailand, ancient and modern rural development in Guatemala, and urbanization in the United States, as well as early warnings of famine and disease outbreaks. The book also provides information on current sources of remotely sensed data and metadata and discusses what is involved in establishing effective collaborative efforts between scientists working with remote sensing technology and those working on social and environmental issues.

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