

Implementation of e-Science tools for complex analysis of human-environmental interaction

Stephen Lyon, Paul Sillitoe & Robin
Wilson

Anthropology In Development
University of Durham

The Context



- The Was Valley, PNG
 - Southern Highlands
 - Politically isolated from the PNG State
 - Physically isolated (and getting more so)
 - Part of the largest contiguous rainforest in SE Asia
- Monitoring is highly problematic *yet vital to sound policy formation*

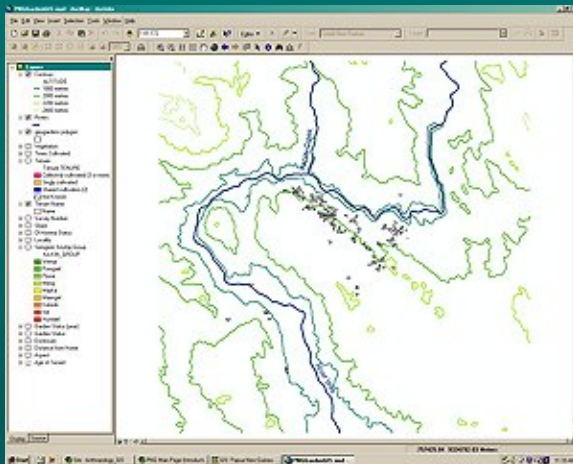
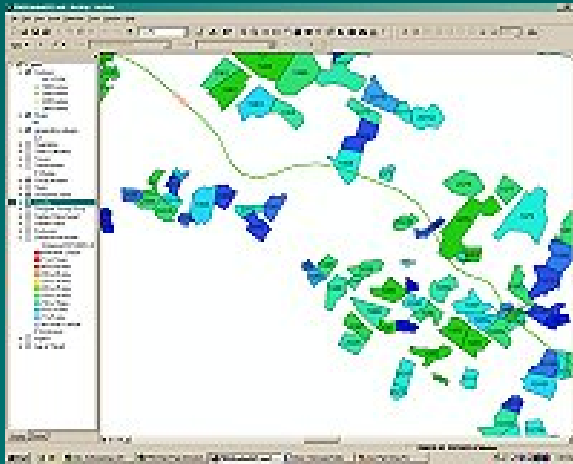
Photo courtesy of Perry Castenada Map Collection, U. of Texas at Austin
http://www.lib.utexas.edu/maps/cia04/papua_new_guinea_sm04.gif

Integrating Data for Multiple User Groups

- Land resource management tools for local people
- Land use monitoring for climatologists and regional forest conservation policy makers
- Socioeconomic datasets for development agencies and social scientists



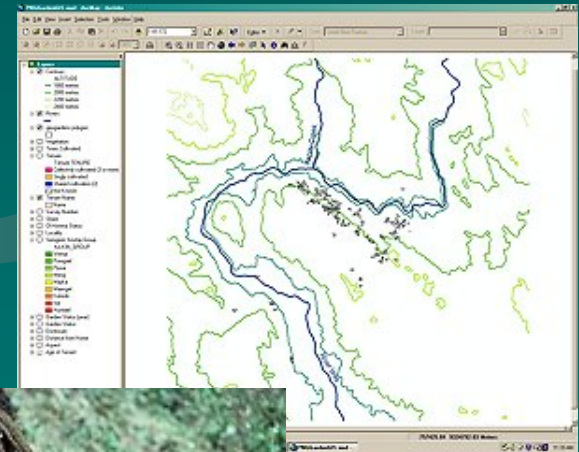
GIS Data



- Digital model of garden surveys and associated ethnographic baseline data collected in 1973-4 and 1976-7 by Sillitoe in Papua New Guinea's Was Valley

The Project

- Handheld computers (periodic data transfer) + Satellite imagery + GIS Data + Baseline Ethnographic Data
 - Extrapolation from macro to micro and vice versa
 - Adaptation to climate change models and simulations
 - Informed policy decisions based on how people *are* using forest resources
 - Examination of indigenous knowledge manipulation & implementation in changing conditions



E-Science Support



- Globus 4 Toolkit
- Handheld computers running Linux (Simputer)
- The Anthropology Grid:
 - Durham-Kent



*The Centre for
Social Anthropology
and Computing*

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