

Multiple Models in Human Space

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Multiple Models for Management in the
Chesapeake Bay (M3.2)

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Humans already use Multiple Models: Social and Cognitive Sciences

- Human understandings of environment stored as cognitive schemas and models
- Schemas and models based on suppositions of human and natural world
- Rapid and dynamic computation between external environment and internal cognitive
- Multiple cognitive environmental will be used



Humans already use Multiple Models: An Example

Figure 1: Farmer Cultural Model of Land Conservation



Implementation and Contestation of Multiple Models

- Organizations and Institutions (e.g., CBP, STAC, ANPC, Limnotech, CBF)
- Work, Markets and Institutions (e.g, unions, trade associations, financial entities, government agencies)
- Laws, legal institutions, regulatory agencies and public discourse

Advancing Understanding and Implementation of Multiple Models

- Conceptualize Modeling as Integrated, Multiple Human-Environment
- Begin with Human Stakeholders and their models (i.e, scientists, resource users, environmentalists, politicians and public)
- Abstract lessons learned from case studies (e.g, Limnotech, Neuse River, climate) for next generation design of multiple human-environment models
- Contextualize within broader cultural environmental research (e.g., uncertainty, nature, sustainability)
- Institutionalize (CBP, STAC, UMD, etc.)

“The Train has left the Station” and “Houston, we have a Problem”

- Intellectual and organizational change begins with individuals seeing a problem
- Ideal if those individuals are diverse in views and responsibilities
- Drive for knowledge and understanding
- Rapport and collegial collaboration
- Willingness to be critical: professional self and institution
- A workshop is a good place to start