



Towards Geodesign:

Building New Education Programs and Audiences






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Geodesign Europe Summit
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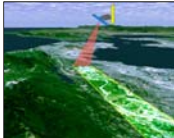

Outline

- Guiding Principles
 - Small- and Big-D design
 - Six Stages of Geodesign
 - Role of Scale and Complexity
 - Role of the Web
- Geodesign examples
 - Early Projects
 - TPL | Greenprinting
 - UCSB | SeaSketch
 - PPS | Placemaking
- Education Opportunities
- Final Thoughts

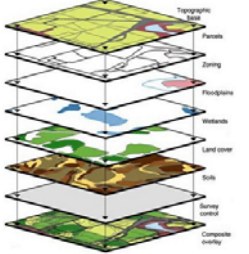
What is Geodesign?

- Focus on spatial thinking
 - New field built on spatial sciences base
- Leverages geospatial technologies
 - Sketching
 - Computation
- Focus on the future
- Focus on design as a force for good and precursor to action
- Focus on collaboration
 - Multi-disciplinary
 - Stakeholders and general public
 - Special role for Web






Small- and Big-D Design

- Small D (design)
 - Simple optimization problem
- Large D (design)
 - Varying goals among stakeholders
 - Feedback loops that modify objectives
 - Inclusion of new constraints and data as the process proceeds
 - Uncertainties about implementation
 - Messy!

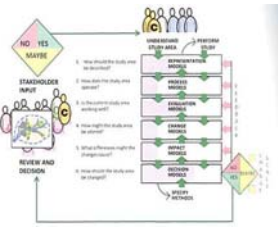


McHarg's Constraining Design Approach




Six Stages of Geodesign

- Simple | Complex Models
- Key Participants
 - The people of the place
 - Experts (i.e. technically competent people)
 - All will need to take more active roles
- Drivers of change
 - Political attitudes
 - Information technologies






Steinitz (2012)



Role of scale and complexity

- Additional problems may arise because the strategies, processes, methods and ideas that work at one scale may not work at other scales
- Possible examples ...
 - Best Management Practices (to manage runoff and water quality)
 - Green Building Design (support life)
 - Transit Oriented Development (to reduce congestion and vehicle emissions)
 - Smart Growth ...

Role of the Web

TYPOGRAPHY
WEB DEVELOPMENT
STANDARD
CONTENT
SERVER
SOFTWARE
LAYOUT
MOBILITY
INDUSTRY
LIBRARY
HTML5
GEOGRAPHIC
INTERNAL
INTERNET
MOBILE
LAYOUT
MOBILITY
INDUSTRY
LIBRARY

Social Media

ArcGIS Online
Maps and Apps for Everyone

USC spatial sciences

Multiple Platforms

- Provides multiple entry and exit points for users
- Bundles software with data
- Supports geo-processing workflows and services
- New emphasis on Web maps and storytelling
- Rapid growth in demand for people with spatial skills

Esri
What's New
Esri gets a lift.

USC spatial sciences

Olmsted | Bartholomew Plan (1930)

EDEN

USC spatial sciences

Reality Check LA (2002)

Reality Check LA
Luis Alvarez
UCLA Los Angeles USC

USC spatial sciences <http://www.youtube.com/watch?v=aHqih6m3ns>

Green Visions Plan (2009)

USC spatial sciences

TPL | Greenprinting Service

- What a greenprint is:
 - A map of land conservation
 - Community-based goals
 - Identification of opportunities to meet multiple goals
 - Proposed market-based conservation
- What a greenprint is not:
 - Not a map of land use prohibitions
 - Not determined by one or a few perspectives
 - Not limited to protecting critters
 - Not for condemning or taking land

- Preserve natural habitat
- Target restorable habitats
- Protect water quality
- Protect | restore natural drainage
- Maintain rural character
- Create more public access for nature-based recreation

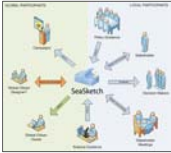

Chambers County, TX Greenprint
Overall Conservation Framework


Strategy Exchange Week

USC spatial sciences

UCSB | Marine Science Lab


- SeaSketch
 - Specify geographic area of interest
 - Upload map services from ArcGIS Online
 - Create and invite users and groups to participate in projects
 - Define sketch classes for marine management zones
 - Create map-based discussion forums
 - Create simple surveys to collect data on human uses of ocean
- MarineMap






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PPS | Placemaking for Communities

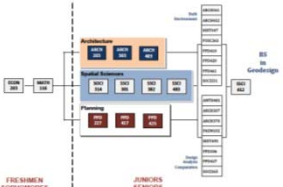

- Guiding principles
 - The community is the expert
 - Create a place, not a design
 - Look for partners
 - You can see a lot just by observing
 - Have a vision
 - Start with the petunias: lighter, quicker, cheaper
 - Triangulate
 - They always say "It can't be done"
 - Form supports function
 - Money is not the issue
 - You are never finished
- All Placemaking is Creative: How a Shared Focus on Place Builds Vibrant Destinations
- Stronger Citizens, Stronger Cities: Changing Governance Through a Focus on Place
- How to Be a Citizen Placemaker: Think Lighter, Quicker, Cheaper





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Geodesign Education

- USC model
 - B.S. in GeoDesign
 - Spatial | Design | Planning
 - Fieldwork | Studios
 - Teamwork | Collaboration
 - Real Clients | Real Projects
 - Focus on Placemaking
 - Messy by design
- Graduate degrees
- Conductors | Soloists


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Questions ...

Project for Public Spaces

- Placemaking plans
- City-wide strategic plans
- Capacity building and cultural change



Placemaking 101
Lighter
Quicker
Cheaper

<http://www.pps.org/>

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