GEODESIGN AS A MULTISCALE GLOBAL ENTERPRISE

John P. Wilson
Outline

- Spatial as an enabling discipline
- Geodesign Summit 2012
- B.S. in Geodesign
  - SSCI 350: International Geodesign
  - SSCI 412: Geodesign Practicum
- Student response
- Millennials
- Global challenges | Opportunities
  - California
  - The Netherlands
  - China
- Geodesign as a global enterprise
- Close | Questions
Spatial ... as an enabling science

Agronomy
Archaeology
Architecture
Civil Engineering
Data Science
Economics
Environmental Science
Epidemiology

Geodesign
Geography
Geology
Hydrology

Use Cases

... 
... 
Landscape Architecture
Oceanography
Political Science
Soil Science
Zoology

Wicked Problems

Poverty
Food & Water Security
Obesity
Social Justice Issues
Cancer
Sustainability & Climate Change
Terrorism
Cyber Security
Aging
Dementia

USC Dornsife
Dana and David Dornsife
College of Letters, Arts and Sciences

SPATIAL SCIENCE | 3
Spatial Sciences Institute
Geodesign Summit – 2012

- 2010 – USC Spatial Sciences Institute established
- 2010 – M.S. & GC in Geographic Information Science & Technology
- 2013 – Minor in Spatial Studies

**2013 – B.S. in Geodesign**

- 2014 – GC in Geospatial Intelligence
- 2015 – GC in Geospatial Leadership
- 2016 – M.S. in Spatial Informatics
- 2016 – Ph.D. in Population, Health & Place
- 2016 – Minor in Human Security & Geospatial Intelligence
B.S. in Geodesign – Curriculum

Microeconomics | Mathematics | Social Statistics

Design

Spatial Sciences

Planning

Built Environment
- Architecture
- History
- Political Science
- Policy, Planning & Development
- Sociology
- Spatial Sciences

Design, Analysis & Computation
- Anthropology
- Architecture
- Fine Arts & Design
- History
- Policy, Planning & Development
- Sociology

Geodesign Practicum

Credits:
- Design: 12
- Spatial Sciences: 36
- Planning: 28
- Geodesign Practicum: 4
SSCI 350: International Geodesign

USC Problems Without Passports (PWP) Program
Developing a plan and project ideas for recovery of endangered Palos Verdes blue butterfly for an external client, the Disney Conservation Fund
Student Response

- 14 first majors
- 27 students changed majors
- 4 double majors
- 1 Trustee, 5 Presidential, & 2 Dean’s Scholars
- 21 students made Dean’s List in Spring 2016
Self Assessment

- Geodesign principles
- Practice of Geodesign
- Urban applications in U.S.

New Class
Self Assessment

- Geodesign principles
- Practice of Geodesign
- Urban applications in U.S.

The People of the Place | Top-Down vs. Bottom-Up
Self Assessment

- Geodesign principles
- Practice of Geodesign
- Urban applications in U.S.

China (3)
Myanmar (2)
Spain
Taiwan

____________________________

California (23)
Illinois (3)
Missouri (2)
Washington (2)
+8 other states
Millennials …
Central Valley, California
Silicon Valley, California
Los Angeles County

12.8 million
4,850 mi²
Los Angeles County ...

61 stations
8 lines
Bend, Oregon
The Netherlands …
The Netherlands | Trains

16.8 million
16,040 mi²
404 stations
The Netherlands | Bicycles
The Netherlands  |  Life Style

The Netherlands is known for its cycling culture, where cycling is a popular means of transportation and recreation.
### China | Shanghai

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai</td>
<td>24.1 million</td>
</tr>
<tr>
<td>Beijing</td>
<td>21.5 million</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>20.8 million</td>
</tr>
<tr>
<td>Chongqing</td>
<td>18.3 million</td>
</tr>
<tr>
<td>Chengdu</td>
<td>17.7 million</td>
</tr>
<tr>
<td>Tianjin</td>
<td>15.5 million</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>12.4 million</td>
</tr>
<tr>
<td>Harbin</td>
<td>12.0 million</td>
</tr>
<tr>
<td>Wuhan</td>
<td>10.7 million</td>
</tr>
<tr>
<td>Suzhou</td>
<td>10.3 million</td>
</tr>
</tbody>
</table>

145 cities > 1 million
690 million urban dwellers
China | Beijing
China still has 625 million rural residents
Geodesign as a Global Enterprise

• New opportunities to tackle serious & enduring global challenges
  • Biological conservation
  • Climate change
  • Sustainability

• New opportunities for learning
  • From one another
  • How to connect individual & collective action across multiple scales, cultures, & settings
  • How to train global thinkers, & actors (as well as global citizens)
SSCI 350: International Geodesign

John Wilson
jpwilson@usc.edu
http://spatial.usc.edu