Brendan Harmon

http://tangible-landscape.github.io/
http://baharmon.github.io/
brendan.harmon@gmail.com | 919.622.8414

EDUCATION

NORTH CAROLINA STATE UNIVERSITY | PhD in Design
2013 - present | Raleigh, NC

Co-major: Forestry and Environmental Science

UNIVERSITY OF OXFORD | MPhil in Geography
2010 - 2012 | Oxford, UK

Focus: Biodiversity, Conservation, and Management

HARVARD GRADUATE SCHOOL OF DESIGN | MLA
2005 - 2008 | Cambridge, MA

SEWANEE: THE UNIVERSITY OF THE SOUTH | BA
2001 - 2005 | Sewanee, TN

Study Abroad: Syracuse University in Florence, Italy
Major: Art History

TEACHING AND RESEARCH

NCSU DEPARTMENT OF LANDSCAPE ARCHITECTURE
2013 - present | Raleigh, NC
Instructor
LAR 582 GIS for Designers & LAR 582 3D Digital Design

NCSU CENTER FOR GEOSPATIAL ANALYTICS
2013 - present | Raleigh, NC
Research Assistant
Geovisualization

REDLANDS INSTITUTE
2010 | Redlands, CA
Research Assistant
Spatial decision support systems

HARVARD GRADUATE SCHOOL OF DESIGN
2007 - 2008 | Cambridge, MA
3D Teaching Assistant
Rapid Prototyping Group in the Fabrication Lab

PROFESSIONAL PRACTICE

EDAW|AECOM | Landscape Designer
2008 - 2010 | Guangzhou, PRC

Lead designer for projects including streetscapes, urban plazas, and parks

MEMBERSHIP

NCSU GEOFORALL LAB | Member — 2013 - present | Raleigh, NC

NCSU CENTER FOR GEOSPATIAL ANALYTICS | Member — 2013 - present | Raleigh, NC

ROYAL GEOGRAPHIC SOCIETY | Post-graduate fellow — 2011 - present | Raleigh, NC

DOCTORAL DISSERATION

TANGIBLE LANDSCAPE

Committee: Gene Bressler, Ross Meentemeyer, Helena Mitasova, & Art Rice

Tangible Landscape – an open source tangible interface powered by GRASS GIS – enables users to hold GIS in their hands, feeling the shape of the earth, sculpting its topography, and directing the flow of water. Tangible Landscape uses a near real-time feedback cycle of interaction, 3D scanning, point cloud processing, geospatial computation, and projection to physically, interactively manifest geospatial data so that users can naturally feel it, see it, and shape it.

RESEARCH INTERESTS

LANDSCAPE DYNAMICS

landscape ecology • biogeomorphology • process-form interaction • landscape evolution

GEOSPATIAL ANALYTICS

3D GIS • multidimensional modeling • geovisualization • scientific rapid prototyping

HUMAN-COMPUTER INTERACTION

tangible user interfaces • embodied cognition • serious gaming

SKILLS

PROGRAMMING

Python • HTML/CSS • LaTeX

GIS

GRASS GIS • ArcGIS • QGIS

REMOTE SENSING

lidar • UAV

CAD

Rhino • AutoCAD • Blender • etc.

CAM

CNC fabrication • 3D printing

FABRICATION

woodworking • metal casting • thermoforming • etc.

GRAPHICS

Adobe CC • Inkscape • etc.

ARTS

drawing • sculpture

LINKS

Website: http://baharmon.github.io/

GitHub: https://github.com/baharmon

Google+: NCSU GeoForAll Lab

Academia: https://ncsu.academia.edu/BrendanHarmon