



# 2015 Symposium by the Sea: Cartography

September 25, 2015 8:30am – 4:30pm  
Community Room, Oregon Coast Community College  
400 SE College Way Newport, OR 97366

---

8:30 am – 9:00 am	<b>Registration</b>
9:00 am – 9:15 am	<b>Welcome, Introductions, Instructions</b> CCGISUG Organizing Committee
9:15 am – 9:30 am	<b>Cartography Overview</b> Laura Stimely, Coastal Field Ecologist, Oregon Department of Geology and Mineral Industries
9:30 am – 10:15 am	<b>Keeping Blunders at Bay and Off Your Map</b> James E. Meacham, Executive Director, InfoGraphics Lab, Department of Geography, University of Oregon
10:15am – 10:35 am	<b>Building and Sharing Historical Map Collections</b> Aileen Buckley, Ph.D., Cartographic Researcher, ESRI, Inc.
10:35 am – 11:00 am	<b>Break/Map Critiques</b>
11:00 am – 11:30 am	<b>Creative Cartographies</b> Matthew Hampton, Chief Cartographer, Metro Regional Services, Portland, Oregon
11:30 am – 11:50 am	<b>The Zebra Mussel Invasion: A Case Study for Visualizing Space-Time Data</b> Aileen Buckley, Ph.D., Cartographic Researcher, ESRI, Inc.
11:50 am – 1:15 pm	<b>Lunch</b>
1:15 pm – 2:15 pm	<b>Make Up Your Mind: Cutting through the Clutter to Cleaner Map Design</b> Stuart Allan, Raven Maps
2:15 pm – 2:45 pm	<b>Do You See What I See? Cartography for the Color Blind</b> Liz Cruz, Geographer, U.S. Fish and Wildlife Service
2:45 pm – 3:15 pm	<b>Break/Map Critiques</b>
3:15 pm – 4:15 pm	<b>Panel Discussion: Cartographic Design, Ethics, and Education</b> Stuart Allan, Raven Maps Aileen Buckley, Ph.D., Cartographic Researcher, ESRI, Inc. Liz Cruz, Geographer, U.S. Fish and Wildlife Service Matthew Hampton, Chief Cartographer, Metro Regional Services, Portland, Oregon Khem So (Moderator), Conservation Planner, U.S. Fish and Wildlife Service
4:15 pm – 4:30 pm	<b>Closing</b>
4:30 pm	<b>Evening Socializing</b> Rogue Ales Bayfront Public House, 748 SW Bay Blvd, Newport, OR 97365

---

# Presentations

## Keeping Blunders at Bay and Off Your Map

9:30 am – 10:15 am

James E. Meacham

### Abstract:

Nothing takes the wind out of your sails more quickly than watching a map you have toiled long hours on come rolling off the press or being presented at a meeting, and notice a major glaring error that was missed. This talk will discuss ways to avoid those types of problems, and other broader design blunders that can make your map difficult or impossible to use. Several cartographic design principles, production strategies, and hard lessons will be presented.

### About the Presenter:

James E. Meacham is a Senior Research Associate and Executive Director and co-founder of the InfoGraphics Lab in the University of Oregon's Department of Geography. He received his MA in Geography at the UO in 1992. Jim is a past president of NACIS and a Past President of the ASPRS Columbia River Region. His interests include map and atlas design, and data visualization. He is a co-author on the *Atlas of Yellowstone* (2012), *Archaeology and Landscape in the Mongolian Altai: An Atlas* (2010) and the *Atlas of Oregon* (2001) publications. He teaches cartography courses at the UO. Jim is currently working as cartographic editor on the creation of the *Atlas of Wildlife Migration: Wyoming's Ungulates*.

## Building and Sharing Historical Map Collections

10:15 am – 10:35 am

Dr. Aileen Buckley

### Abstract:

A rich store of information often sits untapped in unexplored library map drawers, inaccessible stores of map publishers, under-utilized archives in museums, and even unknown private collections. The maps in these collections could be invaluable in providing views into the past. The web offers the most beneficial opportunity for making these collections available to wider audiences. In this Workshop, we demonstrate a solution for converting map collections to a format that can be shared online. We explain the processes for scanning, georeferencing, and building metadata for the maps. Then we explain how the map images are organized into services accessible from the web. Finally, we demonstrate a template that can be used to produce the user interface in an explorer app.

### About the Presenter:

Dr. Aileen Buckley is a Professional Cartographer and has been making maps for over 30 years. Her PhD is from Oregon State University, she was on the faculty at University of Oregon, and she is currently an adjunct professor at University of Redlands. Dr. Buckley has published and lectured widely on topics relating to cartography and GIS. She is an author of the "Atlas of Oregon" (2001) and the sixth and seventh editions of "Map Use" (2009 and 2012). She publishes regularly in 30Esri's ArcWatch and ArcUser. She is a past president of the Cartography and Geographic Information Society, and she is currently chair of the U.S. National Committee to the International Cartographic Association and a U.S. Delegate to the ICA

# Presentations

**Creative Cartography**  
Matthew Hampton

11:00 am – 11:30 am

**Abstract:**

Creativity is an essential component to the field of cartography. Designing a map involves determining colors, textures, patterns, shapes, sizes, etc. while designing a harmonious layout that leverages the design relationships and reduces the mental cost of understanding. Creativity is the source of action that pulls these cartographic elements into place, but what if we apply creativity not only the process of map making but to the cartographic product itself. We will explore several different creative approaches within the field of cartography with the hopes of stimulating more.

**About the Presenter:**

Matthew Hampton has been making maps since 4th grade and was born and raised on the edge of the Columbia River Watershed in Missoula, Montana. After earning a degree in social and cultural Anthropology at Lewis & Clark College in Portland, Oregon, he worked as a wilderness guide in and around the greater Pacific Northwest. This taught him a love for the local landscape and directed him to Master's degree in Geography from Portland State University, putting him on track to a fulfilling career in design cartography and geospatial analysis at Oregon Metro for the last 18 years.

**The Zebra Mussel Invasion: A Case Study for Visualizing Space-Time Data**  
Dr. Aileen Buckley

11:30 am – 11:50 am

**Abstract:**

*Dreissena polymorpha*, commonly known as the zebra mussel, has earned a well-deserved reputation as an international dilemma and a national threat. This presentation explores the invasive nature of this extremely detrimental species through visual and analytical analysis of its related space-time data. I used ArcGIS to visually explore the spread of zebra mussels. Then I performed analyzed and visualized patterns of spread over time. Standard deviational ellipses and mean center points gave clues to the extent and direction of spread. Grouping analysis helped determine in which years the patterns of spread were similar. Hex mapping and density mapping provided insights into hot spots with concentrations of sightings. With a more complete understanding of this devastating invasive species, I created story maps to educate the public about the havoc these mussels can wreak and how people can help to stop the invasion by taking precautionary measures

# Presentations

## Make Up Your Mind: Cutting through the Clutter to Cleaner Map Design

1:15 pm – 2:15 pm

Stuart Allan

### Abstract:

The Cartographer's challenge is defining the essential and getting rid of the rest. The age of super-abundant data sets makes this more significant than ever. Examples of design pitfalls and alternative graphic solutions are presented.

### About the Presenter:

Stuart Allan Born in Berkeley 1942; Reed College 1960-62; BA (Latin American History) UC Berkeley 1964; worked in Public Health 1963-73; Graduate studies in Geography University of Oregon, 1973-1976; Associate Editor, Atlas of Oregon 1976; established Allan Cartography in Medford in 1977; Co-Author, Atlas of California (Academic Book Center) 1979; Co-founder & Partner, Raven Maps, 1981 - present; Co-Owner Benchmark Maps (1994-2013); Co-Author and Cartographic Editor, Atlas of Oregon, 2nd Edition, 2001.

## Do You See What I See? Cartography for the Color Blind

2:15 pm - 2:45 pm

Liz Cruz

### Abstract:

Approximately 8% of men are color blind (and some women too!). Rather than completely ignore this fact, you can apply a few simple techniques and effectively communicate with a wider audience. This fun presentation will give you all the tips and tricks you need to make maps for our viewers who see things just a little differently.

### About the Presenter:

Liz Cruz is a Geographer with the U.S. Fish and Wildlife Service and specializes in GIS analysis and cartographic design. Her lifelong interests in nature, ecology and sustainability have guided her career path. After graduating from Southern Oregon University in 1999, she has held positions that use geo-technologies to support precision agriculture, fisheries, environmental mitigation, wildfire management, and habitat conservation. She loves her profession because it is the marriage of science (analysis) and art (cartography). She especially enjoys the challenge of working through the analytical process and then coming up with creative and aesthetically pleasing ways to communicate results.