Great Lakes Circle Tour
Coastal Access Guide
Using Web Mapping to Support Coastal Cultural Tourism

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Overview of the Presentation

- Introduce the Great Lakes Circle Tour
- Discuss interactive web sites that promote cultural tourism and exploration of the coast
- Demonstrate an interactive web mapping site that supports Great Lakes cultural tourism
- Next Steps
Great Lakes Circle Tour

The Circle Tour site on GLIN has lots of info, but only schematic maps.
Mapquest is one of many route finding web sites. Others include Yahoo Maps (maps.yahoo.com); Google Maps (maps.google.com); and Microsoft Mappoint (mappoint.msn.com)
Mapquest as a Route Finding Tool

What options did Mapquest miss for this trip?
Green Maps (greenmap.org)

Green Maps are locally created maps that chart the natural and cultural environment. Green Maps utilize universal icons and cultivate citizen participation and community sustainability.
Green Maps in the Great Lakes
Wouldn’t it be nice to have a Green Map for the entire Great Lakes?
Degree Confluence Project (confluence.org)

A web site for the serious map geek! An organized sampling of the world.
Degree Confluence Project (confluence.org)

Degree Confluence promotes exploration and sharing discoveries!
American Mile Markers

Photos were taken every mile on a trip from New York to San Francisco.
Re-thinking the Great Lakes Circle Tour

Motorists have no problem finding the Lake Erie Circle Tour, which is marked with dozens of easily identifiable green and white signs.

But they can't always find Lake Erie!!!

Lake Erie Coastal Ohio wants to replace the 14-year-old circle tour with an Ohio Scenic Byway designation.

Rather than have motorists drive along federal and state roads, the trail will direct them to downtown streets and other byways that hug the lake.
You thought you knew Lake Erie…
Glacial Grooves State Memorial, Kelleys Island

Street: Division Street
Town: Kelleys Island
Region: Islands
Phone: (419) 797-4530
Email: catawba.parks@dnr.state.oh.us
URL: www.ohiohistory.org/places/glacial

Description:
Imagine taking a piece of sandpaper and scratching it across a tabletop with all your might. Can you almost see the striations formed? This is very similar to what happened 12,000 years ago to the limestone bedrock of the islands. Only, instead of sandpaper, the striations were caused by mile-high glaciers.

The Wisconsinan Glacier was one of several which visited North America; because it was the last to appear, its footprints are what we see today. The Wisconsinan entered North America approximately 75,000 years ago, and it stayed in the neighborhood for about 10,000 years. It advanced and retreated several times during its visit. As it moved across the Canadian Shield and other northern landforms, heat from the earth’s internal temperatures and the weight of the ice itself melted the bottom layer of ice closest to the planet. Pieces of rock were bumped free and frozen to the bottom of the glacier as it spread. As the glacier moved, it dragged the rocks across the land, gouging, leveling and scarring surfaces along the way.

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**Geotourism** is tourism that supports the geographical character of a place—its environment, culture, heritage, aesthetics, and the well-being of its citizens.

**NG MapGuides** for Sonoran Desert, Appalachia, Vermont
Oregon Coastal Atlas

The Oregon Coastal Atlas has become an indispensable tool for state agencies and promotes data sharing among coastal managers. – Bob Bailey, Oregon Ocean and Coastal Management Program
My Circle Tour Trip

Summer 1996
Great Lakes Circle Tour – Map Features

• Land
  – Circle Tour route
  – Parks
• Shore
  – Beaches
  – Lighthouses
• Water
  – Shipwrecks
• Viewing
  – Panorama photos
  – Webcams

Use the map as a means to link to existing web content
Map Viewer Interfaces

Web Mapping Interface
- OpenLayers
- MapServer/Chameleon
- GeoServer
- ESRI ArcIMS

Virtual Globe
- Google Earth
- NASA World Wind

Map Search/Directions
- Google Map API
- Yahoo Maps/Pipes
GLCT Coastal Access Guide - Demo

- Panorama Photos
- Beaches
- Lighthouses
- Parks
- Shipwrecks
- Boat Access
- Webcams
- Google Earth Combo
- Oblique Photos
- Other Features
Next Steps – Additional Map Features

- **Just Completed**: Oblique Photos, Boat Access
- **Coming Soon**: Historical Sites: “Around the Shores of Lake Superior”
- **Planning**: Events – Portal Wisconsin, Nature Centers, Museums, Marinas, Trails, Rustic Roads…
Next Steps – Enhance Panorama Photos

- Fill the gaps (Islands, bad/missing photos)
- Improve the quality of the panorama photos
- Display multiple photos for a site (change, seasons)
- Complete parcel/orthophoto vicinity maps
- Link photos to activities (park maps, …)
- Classify public access (parking, facilities, etc.)
Next Steps – Sharing Our Methods

• “How-To” Guides
  – Taking Panorama Photos
  – Linking Photos and Vicinity Maps
  – Working with Web Mapping Software

• Great Lakes Observing System/GLIN
  – Submit LS/LM Circle Tour Route to GLIN GIS
  – HarborView project

• Coastal Atlas Interoperability
  – Trans-Atlantic Workshop in Coastal Atlases and Coastal/Ocean Informatics
Next Steps – Geocaching

- Wisconsin Tourism has awarded grants to two communities to promote geocaching.
- About 90,000 people in Wisconsin currently engage in geocaching on state lands. – Wisconsin DNR Magazine, October 2006
Next Steps – Place-Based Learning

• Augmented Reality Games on Handhelds
  – South Shore Beach: Students role-play as water chemists, public health doctors, or wildlife ecologists who have been called upon to investigate a series of illnesses that are linked to the beach.
  – Dow Day
  – The Lake Wingra Game

Encourage development of augmented reality games that students in Great Lakes communities can play to help understand and solve coastal issues.
Next Steps – Preserving Natural Areas

New development on campus may encroach on the Lakeshore Nature Preserve and threatens its aesthetics.

Does this idea transfer to the Great Lakes? Imagine a site that links oral histories, essays, and sounds to communicate what’s special about Great Lakes natural areas.
Questions?

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http://www.seagrant.wisc.edu/gis/
UW-Madison, LICGF
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http://coastal.lic.wisc.edu
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