America's Geoheritage II: Identifying, Developing, and Preserving America's Natural Legacy

Group 3: Geoheritage "Toolkit": How to Identify and Develop a Local Geoheritage Site

"Toolkit and Local GH Sites"

Monday 10th

4 – 6 PM

Thursday 14th

2 – 4 PM

Big Ideas – Site Identification and Development Processes

- Proposal Process
  - Identify appropriate area (and sites within the area)
  - Document the site
  - Assess availability/accessibility
  - Identify stakeholders
  - Identify and document benefits and concerns
  - Develop a draft plan
  - Seek support

- Area/Site Development
  - construction
  - educational guidance
  - funding
  - publicizing the site (or not)
  - site use policies
  - long-term oversight responsibility

- full checklist https://docs.google.com/document/d/1XIAm38gN2OORPEalA02mtAw2F3LCP6pQJZ-gXopRJcM/edit?usp=sharing

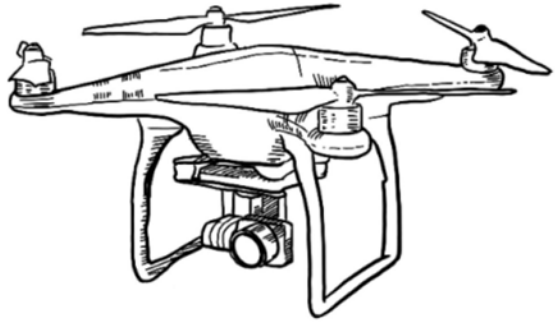
Big Ideas – Site Identification and Development Processes

- Additional considerations
  - https://www.nps.gov/articles/what-is-a-national-heritage-area.htm and national landmarks program
  - https://geology.utah.gov/apps/geosights/index.htm
  - Tools and guidance for someone who is interested, but not yet initiated
  - American Association of State Geologists – coordination role?
- Site Identification & prioritization
  - https://www.nps.gov/subjects/geology/geoheritage-registry-submittal.htm
  - https://www.nps.gov/subjects/geology/unofficial-register.htm
  - Ranking by tiers of vulnerability, opportunity, value
- Documentation and development
  - Out-of-the-box approach: student interns, citizen volunteers, etc.
- Maintenance and on-going support
- Consensus building
  - National Policy Consensus Center: https://www.pdx.edu/policy-consensus-center/
  - www.oregonskitchentable.com
  - Consensus Building Institute: https://www.cbi.org/

Big Ideas – Monitoring sites through time

- https://docs.google.com/document/d/1jwTb_Y-eO4VapuFacX8VKrhWLE5A8Fg6ithR1RflKY4/edit
- Monitoring sites allow managers to evaluate site degradation that may warrant mitigation measures
- Vulnerability assessment
- Documentation and monitoring of change: damage or encroachment
  - Visitor use/damage
  - Natural hazards
  - Construction/development
  - Invasive species
  - 3D and other “capture” of Geoheritage sites

Big Ideas – Virtual Visits

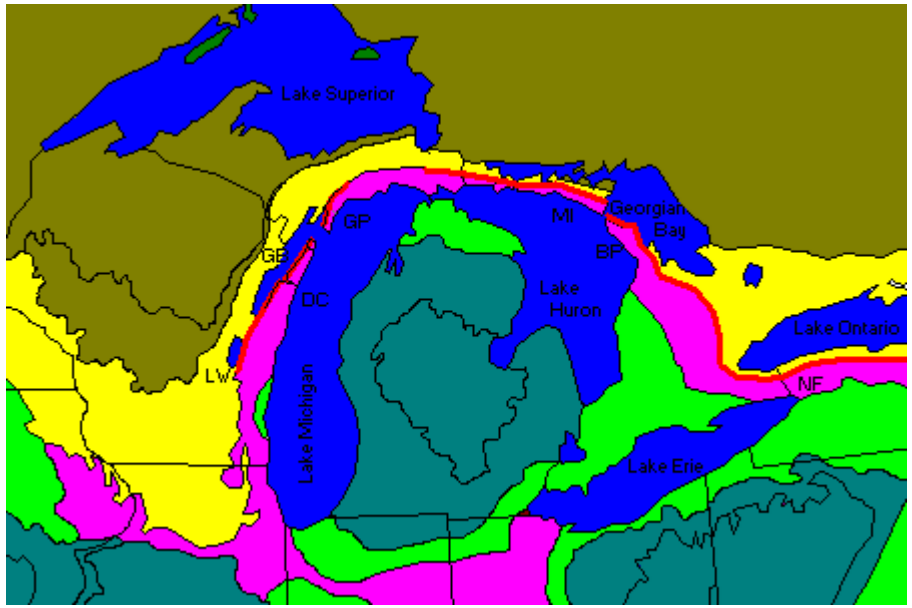


New 3D capture technology permits generation of virtual interactions with sites

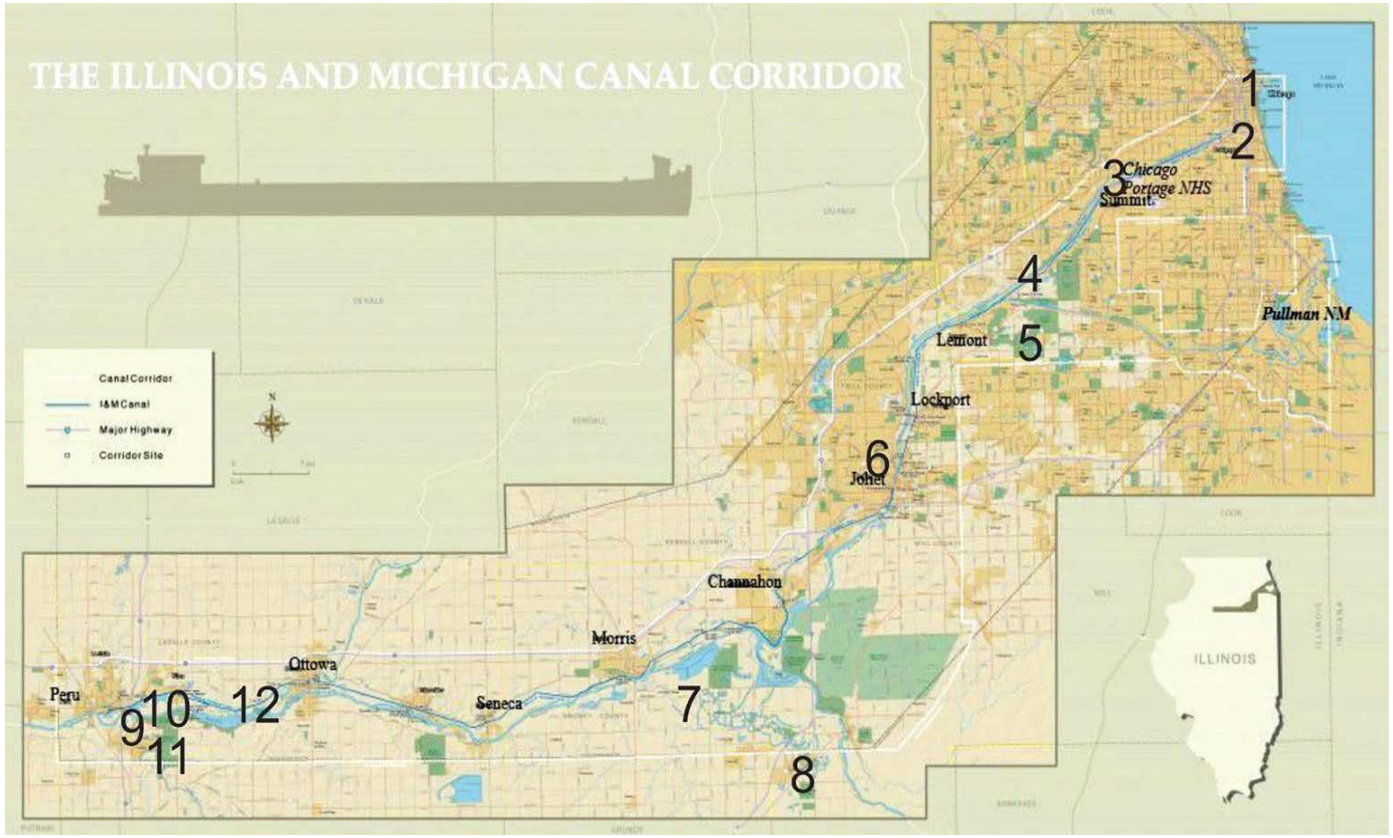
- Compliments in-situ experiences
- Provides remote access to site
  - Inclusive to people with physical limitations
  - Overcomes geographic restrictions
    - no travel cost for user
    - no private-land issues after 3D capture
- Preserves site from anthropic degradation

- What kinds of interactions are desirable?
- Not just a movie: more interactive, less passive

Big Ideas – Specific examples



- I&M Canal National Heritage Area
- Niagaran/Silurian Escarpment
- One key idea is that these projects will really need good maps to move forward
- Alignment with existing larger heritage or geoheritage context
- Integration of geology/soils with human history/geography



1. Downtown Chicago: Water Tower – built of Silurian “Joliet limestone”
2. Palmisano Park; originally Bridgeport (Stearns) Quarry in Silurian dolomite, opened 1833-1970; highwall still visible
3. Chicago Portage National Historic Site – low spot between Great Lakes and Mississippi watersheds; used by Native Americans to portage between them
4. Chicago Outlet – outlet of post-glacial Great Lakes; remnant one-mile wide valley
5. Tinley Moraine – major lake border moraine (Wisconsin)
6. Joliet – historic source of local building stones
7. Mazon Creek – original site of terrestrial Braidwood biota
8. Mazonia-Braidwood State Fish and Wildlife area – former site of Pit 11, site for Mazon Creek marine Essex biota
9. Former Lonestar (Buzzi-Unicem) Quarry. – planned site for fossil park in Pennsylvanian limestones, nose of LaSalle monocline
10. Starved Rock State Park – deep canyons in Ordovician St. Peter ss.; important Native American site
11. Matthiessen State Park – Ordovician-Pennsylvanian unconformity; steeply dipping Ord. marine rocks; deep canyons in St. Peter ss.
12. Buffalo Rock State Park – Ordovician-Pennsylvanian unconformity; trace fossils in Ordovician St. Peter ss.