ENVIRONMENTAL GEOLOGY: EAST EMPACTS FINAL PROJECT

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Paul Lowrey, Instructor
Types of Climbing

- **TRAD**: Trad routes consist of using specialized gear which is placed in cracks to put the rope through to protect the climber.

- **BOULDERING**: Boulder routes consist of unprotected (except crashpad), closer to the ground, usually harder routes made for building strength.

- **BOLTED**: Bolted routes are ones with pre-drilled bolts already in the rock. These bolts are made for top rope and lead climbing.
The Natural State is home to many types of rock climbing, whether bolted, trad, or bouldering, you can find it all here in Arkansas pretty much right in your backyard. With all this climbing but so much forest, how are you to find these amazing climbs? There are rock climbing guide books that provide climbers with maps to climbing destinations in Arkansas but can be expensive and misleading. Our goal is to conserve paper and provide climbers with a free easy way to find climbing spots by GPS navigation. We are also trying to advocate the importance of keeping these sites clean by reminders on our site. By accomplishing these things we will help out the environment and the large climbing community of Arkansas.
Our GPS project helped reinforce teamwork and technology skills through a service learning curriculum benefiting the climbing community and the environment, by reducing the impact on the land where climbing takes place.
This project helped the community by informing and navigating climbers to local climbing spots by using our site. Therefore helping to conserve paper from printed guidebooks and advocating the community to keep the outdoors clean.
Our objective through this project was to help out the climbing community and the environment by making this website. Which will in return be helping out the communities surrounding these amazing climbing spots by using less paper and keeping their run off water sources clean.
TECHNOLOGY

- Magellan Explorist 500 GPS
- Google Earth
- Yola Site Builder
- Topo! Topography Mapping Program
- Apple Photo Booth
- Cannon Digital Camera
Topography (Lincoln)
GPS Longitude & Latitude for select Arkansas rock climbing.

Our goal is using Global Positioning Satellite Coordinates is to reduce environmental impacts, namely paper production that printed maps require. Along with this notion we urge anyone seeking these and any other outdoor destination to help preserve the wilderness. Keeping trash and nature separate will preserve our wilderness for generations to come. "PACK IT IN, PACK IT OUT."

Lake Lincoln Area: Lots of great rock here. User I, Fran, climbing.

BAMR Boulders: 36.00087N, 94.41736W

Download and GOOGLE EARTH KML that show different crags at Lincoln.
SKILLZ!

- Navigation skills.
- Understanding of GPS technology.
- CLIMBING SKILLZ!
- Understanding of Yola Site Builder.
- How to better read topography maps.
PROCESS

- Drive to locations (BOTH)
- Use guidebook to find spots (BOTH)
- Collect GPS waypoint coordinates (BG)
- Take photos (BOTH)
- Convert UTM coordinates to longitude and latitude (BG)
- Plot converted coordinates to Google Earth (BG)
- Create Website (add photos, crag description, and .kmz link for plotted points) (BOTH)
- PowerPoint (NC)
- Drive to class to give presentation (BOTH)
Results

- NEW WEBSITE CHECK IT OUT, (OzarkGPS.yolasite.com)
- GPS Navigation to routes at Springdale Boulder Fields, Horseshoe Canyon Ranch, and Lake Lincoln.
- Cleaner climbing spots and so far a small reduction in paper use, which will hopefully continue to decrease as the site gets advertised more and gains more viewers.
- Lots of outdoor exposure and fun!
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- Paul Lowrey, Instructor
- C. D. Phillips, EAST/EMPACTS Facilitator