Introduction:

Purpose of Presentation

During the course of the class ES 567 Gemstones & Gemology I began to look around in my state for places to hunt for raw gemstones. I found the resources available to be scattered and fragmented regarding suitable locations for rockhounding. For my final project I decided to begin a compilation of sites that have been known for good access to gemstone mining for the serious and recreational treasure hunter. In an effort to bring the data more life, I have employed the use of a web-based service called giscloud.com which will act as my online viewer for the final presentation. Using the provided login and password, individuals will be able to review mining locations by state and identify the name, location, gemstones and web address of each point on the map. Ideally, this can become a resources that could be updated by other users and grow to encompass sites with photos and commentary from the various locations. Below I have outlined my process and included photos and briefs on the most commonly mined gemstones that I encountered in my research.

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* Web Directions
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web directions:

visit www.giscloud.com for an interactive web-based mapping presentation
in the news:

oldest mine in americas

chili:

In May of 2011 Archaeologists uncovered the oldest known mine in the Americas located in Taltal, Chili. This 12,000 year old mine produced iron-oxide and was dug by the Huentelauquen people of the region. The iron-oxide was utilized “for painted stone and bone instruments, and probably also for clothing and body paint” (2).

Brief History on US Mining

Mining, personal/commercial, became encouraged in the US after the passing of the General Mining Act of 1872. At that time the westward expansion took off and many individuals staked their claim to locations rich in gold and other gems. Mining towns both large and small popped up across the west to accommodate the large influx of miners. One of the oldest mines in North America is found in New Mexico. In the “Cerillos Mining District in New Mexico, estimates are that about 15,000 tons of rock had been removed from Mt. Chalchihuitl using stone tools before 1700 (1).”

Tools of the Trade

<table>
<thead>
<tr>
<th>Tool</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold Pan</td>
<td>(3)</td>
</tr>
<tr>
<td>Sluice Box</td>
<td>(6)</td>
</tr>
<tr>
<td>Rock Pick Axe</td>
<td>(4)</td>
</tr>
<tr>
<td>Metal Detector</td>
<td>(5)</td>
</tr>
</tbody>
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fact

many state parks across the us allow for certain areas of recreational mining. each state has different allowable techniques for extracting materials.
goal

PROJECT: a web-based interactive gis map, open to the public, where families and individuals can look for information and web resources on recreational mining locations.

issues

1. Where can I go to mine gemstones in my state? Where are recreational mines located?

2. No compendium of recreational mining sites available with a complete interactive map index.

research

1. Web research for fee based/ privately owned & operated recreational mining locations.

2. Web research for state parks with access to recreational mining.

process

1. Create a compendium of locations for recreational mining.

2. Enter locations into ESRI with associated information & metadata.

3. Present information via the web by uploading and composing a public map on giscloud.com

details

for this project I spent the majority of my time locating web resources for recreational mining locations and entering the point data into the mapping program. My first resource prospectordetector.com had a compilation of various web links for a few states and some other countries as well. I began by using this list as a starting point for my research. Along the way numerous other sites referenced the prospectordetector.com as well. This list was in no way comprehensive and mostly geared towards gold panning. I followed the trail of links off additional sites and conducted a state by state inquiry for other areas. My goal was to find at least one area in each state and include a variety of gemstones- not just gold- in the site selection. Typically I found three varieties of information: 1. a commercial/ fee based site with a catchy mine name, 2. a list of generic sites by state/county/gemstone, and 3. state park locations on government websites. Within these groups were varying degrees of location information ranging from a county name, poorly drawn map (inset A) or a more effective but generic spot on a google widget. I cross referenced the nearest town or landmark in Google Earth to spot in the site as best as possible within the ESRI ArcGIS program. This file was then package to upload onto the giscloud.com site. Next I set up the background data and symbology for giscloud.com and made sure the table data came across into the mapper. I had some projection issues but I now feel the points came in at the right locations.

conclusions

A compendium resources would be useful based on the vast number of sites and the fact that the data is unconsolidated and fragmented at best. The web is a wealth of data but it is more effective when compiled into fewer but more robust websites knowing where to go is half the battle
examples of the most common recreationally mined gemstones in the us:

visit the RECREATIONAL MINING LOCATIONS at www.giscloud.com

Crystal & Amethyst are found in a variety of locations across the US. Geodes are a popular way to look for Quartz and Smokey Quartz specimens.

Turquoise is found in New Mexico. It is extremely popular in jewelry and accessories. As we learned in class, turquoise was championed by Millicent Rogers in the 1940’s.

Gold is by far the most common gemstone that is mined in the US for recreational purposes. The vast majority of sites from Alaska to Iowa are dedicated to gold panning.

Sapphire, Ruby and Emerald are found in North Carolina along the states western boundary. Many of the mines are located near the small town of Franklin.

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Final Project:

Recreational Mining Locations in the US with Interactive Web Based GIS Mapping at www.giscloud.com

ES 567, Gemstones & Gemology

Emporia State University