

Meteorites on the Road: Taking Meteorite Science to Rural Communities

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In 2007, the Cascadia Meteorite Laboratory (CML) received NASA E/PO funding for a traveling road show involving a hands-on display of meteorite samples and lectures at schools, libraries, and community centers (town halls, grange halls, etc.) in rural areas focused on eastern Oregon.

Eastern Oregon was chosen as the focus area of this project because:

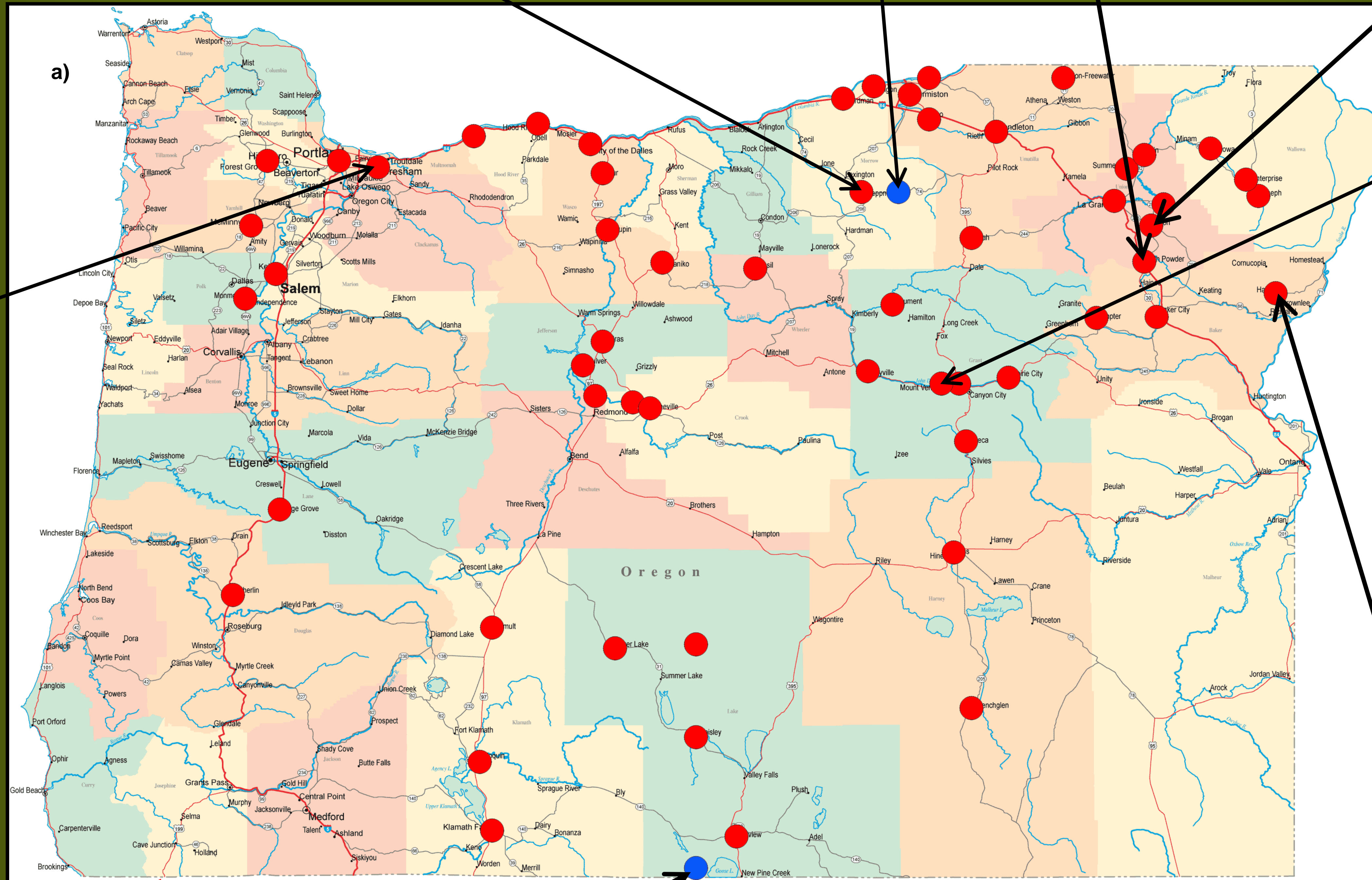
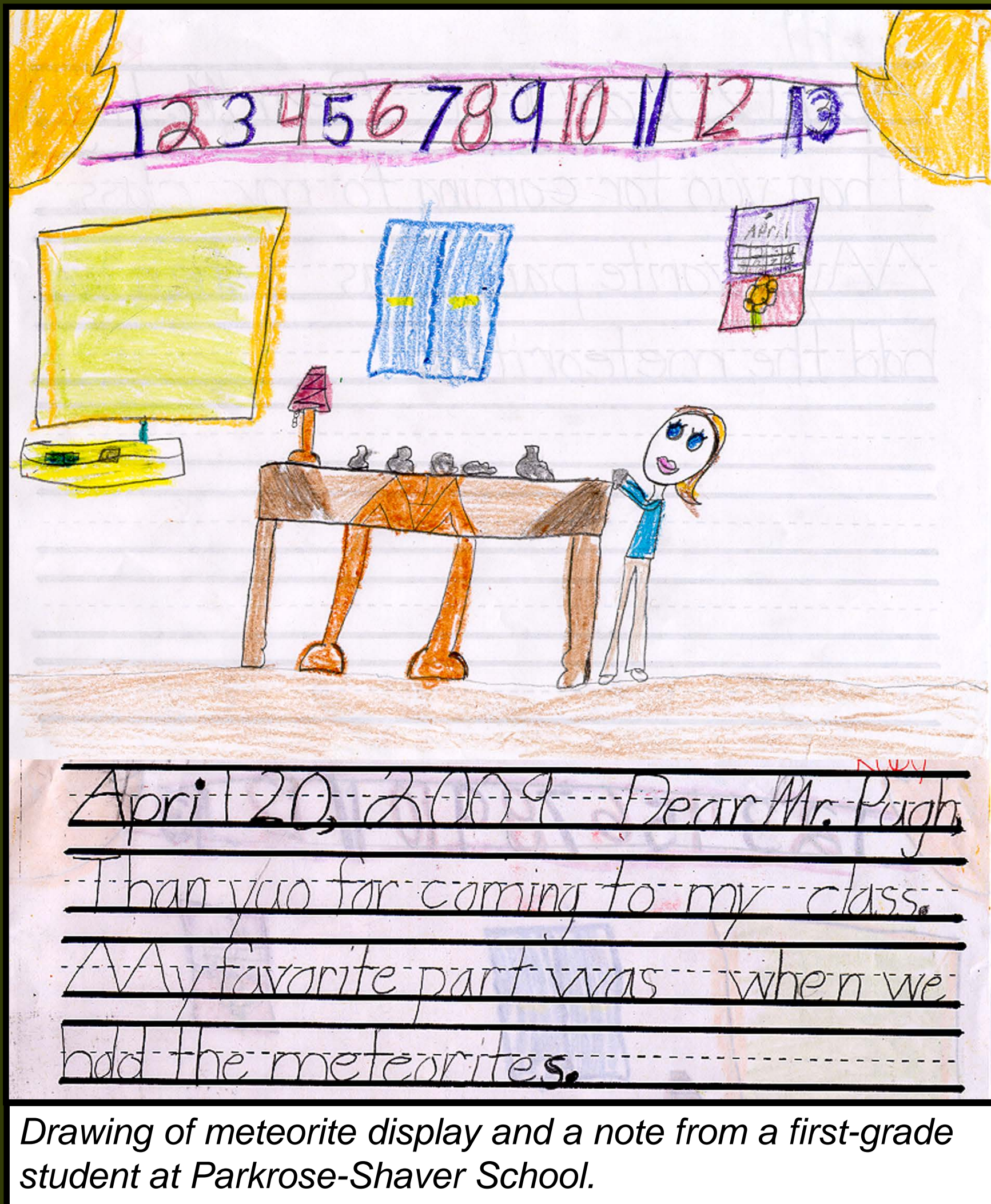
- residents have some of the lowest per capita income in the United States
- the area has some of the highest unemployment levels in Oregon
- the region is characterized by extreme distances between small communities, making access to scientific lectures very limited.



We visited a wide variety of venues, including libraries (left – Heppner, Oregon in October 2007) and grange halls (right – North Powder, Oregon in May 2007). The publicity surrounding the lectures led to the classification of two new Oregon meteorites, including the ~ 40 lb. Morrow County L6 chondrite (shown below with finder Donald Wesson, who picked up the meteorite on a drive in 1999).



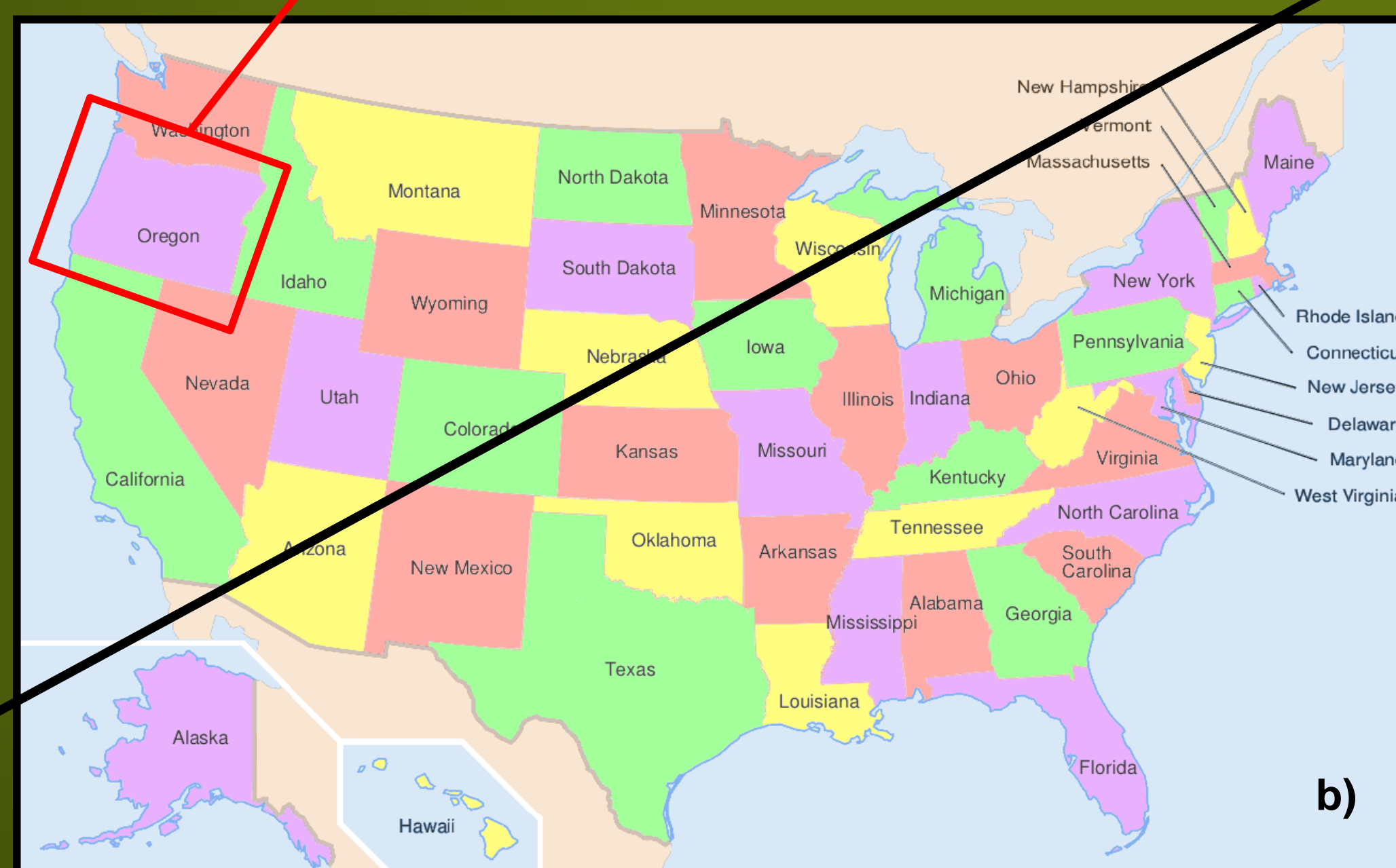
Because of an exceptionally large turnout, the presentation at Union, Oregon had to be moved from the local library (a gift from Andrew Carnegie) to the town hall, where the crowd still overflowed out the door.



Students in Mount Vernon, Oregon examine meteorite samples and discuss how they differ from terrestrial rocks.



Above: Paul Albertson who found Fitzwater Pass (IIIF) decades ago and stored it in a coffee can that eventually came to rest on his hot water heater; two hand specimen views of the meteorite; reflected light photograph of an etched surface. Mr. Albertson brought his "rock" to our road show in Lakeview in 2007, and showed us the find site (below) later that year.




a) Map of Oregon, showing the locations where presentations were made (map adapted from State of Oregon web site);
b) Map of United States showing the location of Oregon relative to the other states (Map available from several web sites, this version obtained from statetravelmaps.com).

We have created several presentations for this project.

The presentation given most often (*Meteorites on the Road* – see opening slide to upper right) provides general information about meteors, meteoroids, meteorites and fireballs, with an emphasis on local meteorites and fireballs and how to identify meteorites.

Additional presentations focus on related topics, including the Willamette meteorite, using a large number of historical images (see a slide from the presentation to the lower right).




Cascadia Meteorite Laboratory
Portland State University

Meteorites on the Road

Dick Pugh

NASA E/PO grant supplement to NNG06GE17G
and
Libraries of Eastern Oregon




Children and adults examining meteorites and listening to Dick's presentation at the public library in Halfway, Oregon.

During the life of the grant, we:

- visited 66 rural communities in Oregon
- talked to 3500 people (ranging from children to senior citizens)
- drove 13,000 miles
- looked at 2500 rocks (roughly two dozen were known meteorites)
- discovered two new Oregon meteorites (both classified in 2010 by CML personnel)

Audience sizes ranged from 4 to 400 people, with an average size of ~62. As an evaluator from the Silver Lake Library wrote of the 9 attendees: "9 which is a lot for this town".

We have been told that people have driven 60 or 70 miles to attend one of our events (≥100 km).