



## Departmental Seminar: March 20, 2012 2 pm Dow 610

### **Beauty and the Beast: Using EarthScope, Sense of Place and the Landscapes of Our National Parks to Engage the Public on the Scenery and Geological Hazards of the United States**

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#### Summary:

The same forces that threaten our lives with earthquakes, volcanic eruptions and tsunamis also nourish our spirits by creating the magnificent mountains, valleys, and coastlines of our National Parks, Monuments, and Seashores. This talk presents our nation's scenic beauty and its relation to geological hazards. The United States has a wealth of dramatic landscapes—Crater Lake, Mt. St. Helens, Yellowstone, Death Valley, the Great Smoky Mountains, and the Keweenaw Peninsula, to name just a few—that are preserved and showcased as parks, monuments, and other special places. Such beauty was formed, and is continually modified, by geological processes that also unleash the beast of earthquakes, tsunamis, landslides and volcanic eruptions. Scientific investigations, such as the EarthScope Program of the National Science Foundation, examine the dynamic landscape and internal architecture of the North American continent. Educational programs and exhibits that incorporate these large-scale geological features and processes are vital to help the public appreciate our country's scenic destinations, appreciate how geology relates to our natural and cultural history, and understand how individuals and communities might mitigate the impact of geological hazards.

#### Biography:

Dr. Robert J. Lillie was a Professor of Geosciences at Oregon State University from 1984 to 2011, where he taught courses in physical geology, oceanography, tectonics, geophysics, geological writing, and public interpretation. He is author of "Parks and Plates: The Geology of Our National Parks, Monuments, and Seashores" (W. W. Norton and Company, 2005) and is a Certified Interpretive Trainer (CIT) through the National Association for Interpretation (NAI). From 2007 to 2011 he was the Manager of Education and Outreach for EarthScope, a nationwide program of the National Science Foundation ([www.earthscope.org](http://www.earthscope.org)). Bob was born and raised in the Cajun Country of Louisiana. He has a B.S. in geology from the University of Louisiana–Lafayette, and an M.S. in geophysics from Oregon State University. He worked three years in oil exploration in the Rocky Mountains before earning a Ph.D. in geophysics from Cornell University. Bob's research is focused on the geological evolution of mountain ranges formed by the collision of continents, including the Himalayas in India and Pakistan and the Carpathians in Central Europe. He is also author of "Whole Earth Geophysics: An Introductory Textbook for Geologists and Geophysicists" (Prentice Hall, 1999), used in college courses in the U. S. and other countries. Since 1994 Bob has collaborated with the National Park Service (NPS) on educating the public in geology. He served as a seasonal interpretive ranger at Crater Lake and Yellowstone national parks and John Day Fossil Beds National Monument, and he and his graduate students have written and illustrated geology-training manuals for NPS sites across the country. Bob was presented the 2005 NPS Geological Resources Division award for "outstanding contributions in engaging the National Parks staff and visitors in geoscience." He has done numerous bicycle tours of the U.S., Ireland, the Alps, Central Europe, and Scandinavia, and he is an accomplished photographer and Cajun cook. Bob and his wife Barb live in the Oregon Coast Range west of Philomath, and devote their time to engaging the public in natural and cultural history. (<http://geo.oregonstate.edu/~lillier>)