

From Canyons to Mountain Tops – La Jolla, CA

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<http://schwehr.org/LaJolla/NSF04>

2. Give a clear, definitive description of the entry as it would appear in a magazine:

The La Jolla scene provides a synthesis of a wide range of data types including USGS DEM, MuliBeam Sonar Bathymetry, Chirp Seismics, geologic maps, and photos from helicopters, SCUBA, Sealab II, and the Delta submersible. This model is in memory of R. Dill; three of the SCUBA pictures from his Ph.D. thesis in 1964 are featured in the scene.

3. What is the purpose of the entry?

The purpose of this model is to show how important it is to collect all possible datatypes together into one correlated view such that even a non-specialist can understand the basic “lay of the land.” The Rose Canyon fault cuts right through the La Jolla Canyon and is under active research. This model helps to support a wide range of critical research projects in the La Jolla area including earthquake recurrence intervals, tsunami hazard prediction, sand transport, cliff erosion rates, and kelp forest habitats.

4. For what audience was the entry created?

The 3D model was produced primarily for day-to-day use by researchers from a number of universities. However, it has seen much use in public education and outreach. For example, it has been shown at the Birch Aquarium at a public lecture on tsunami hazards for local beach property.

5. Explain how your entry fulfills each criterion:

Accuracy: Each data set has been produced using accepted scientific methods. Photos are placed approximately based on descriptions given by the photographers.

Innovation: This is just the beginning of a project to provide research publications and data with a strong special infrastructure to show the relationships of research in the immediate vicinity of Scripps Institution of Oceanography (SIO). A large volume of research has occurred in the first 100 years of SIO’s operation in this small geographic region. By bringing as much of the data together, we are working to provide the foundation for an even more productive second century of research.

Visual Impact: See the answers to 2 and 3. There is a large range of data types to be explored in this scene, from black and white photos, to lab data, to spectacular bathymetry.

Data notes: Helicopter oblique photos - permission granted for use by Susan Jordan (sjordan@coastaladvocates.com). Copyright © 2002-2004 Kenneth Adelman, California Coastal Records Project, www.Californiacoastline.org