

# THE NORTHERN SAN ANDREAS FAULT: LOCATION, PALEOSEISMICITY AND GEOMETRY

## FACULTY

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## STUDENTS

Thea DePetris, Franklin and Marshall College  
Nathan English, The Colorado College  
Erin Gorman, Smith College  
Ronald Griffiths, Whitman College  
James Heyes, Williams College  
Jordan Muller, Franklin and Marshall College  
Scott Pease, Washington and Lee University  
Allison Schill, Franklin and Marshall College  
Greg S. Schorr, The Colorado College  
Alan P. Troup, The College of Wooster

## VISITORS

Paul Bodin, University of Memphis/Center for Earthquake Research and Information  
Carol Prentice, U.S. Geological Survey, Menlo Park

# Workshop on the Northern San Andreas fault: location, paleoseismicity and geometry

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The results from the summer, 1995 Keck project on the northern San Andreas fault were the subject of a workshop at Franklin and Marshall College in Lancaster, PA on January 26 - 28. Participants included:

**Students:**

Thea Depetris - Franklin and Marshall College  
Nathan Brooks-English - Colorado College  
Erin Gorman - Smith College  
Ron Griffiths - Whitman College  
Jim Heyes - Williams College  
Jordan Muller - Franklin and Marshall College (NSF-supported)  
Scott Pease - Washington and Lee University  
Allison Schill - Franklin and Marshall College  
Greg Schorr - Colorado College

**Faculty:**

Ed Beutner - Franklin and Marshall College  
Dorothy Merritts - Franklin and Marshall College

**Visitors:**

Paul Bodin - University of Memphis/Center for Earthquake Research and Information (NSF-supported)  
Carol Prentice - USGS Menlo Park

The goals of this workshop were several-fold. First, we wanted to give all of the students involved in the project an opportunity to present a progress report on their project to the rest of the group on an informal basis. Second, we wished them to be able to meet with all of the professionals involved in the summer study and with each other to compare notes and ideas and to assure consistency across geographic and conceptual boundaries. Because this was a project for which expert help is not available at all of the Keck Consortium campuses on the particular subject of each student's project, we felt that this get-together would provide needed support to the students.

We began by viewing the two posters (one by Muller, Merritts, Bodin, Griffiths, Pease and Heyes and the other by Schill, Muller, Merritts, Beutner, Bodin and Prentice) which had been prepared at Franklin and Marshall College for presentation at the GSA National Meeting in New Orleans. Each student then presented a 10 minute talk on his/her project to the entire group. As expected, there were projects which were almost completed and others which were definitely works-in-progress.

Focus then went to one-on-one work with the students. Much time was spent in trying to iron out problems with the surveying data. Work-arounds were developed by Dorothy Merritts, Paul Bodin and students to solve several problems. The surveys, which are essential to demonstrate the sequence and deformation of coastal terrace surfaces and the tectonic topography created by fault movement, will now form a more secure basis for interpretation in the individual student projects.

Thin section study occupied several students and Ed Beutner for much of one day, and seemed to be useful for all. The difficulty of working with oriented sections when it was not clear that orientations had been preserved when making the sections led to several interesting problems. Ed and Greg also worked on structural data for the northern area, in the process sorting out some errors in location in Ed's old field notes from the area.

Carol Prentice focused her work with Allison Schill; they now have a consistent, highly defensible analysis of the walls of the trench which was successful in demonstrating recent faulting.

Taking the work of the group as a whole, we can now make a strong statement as to where the northernmost segment of the San Andreas fault is in Northern California. We expect to have an engaging, coherent series of presentations at the meeting at Williams.

Perhaps most remarkably, given the winter we have had, no blizzard arrived to maroon people at airports across the country, and it is reported that wheelchair races are now an Olympic event with the Colorado Harrisburg Airport team seeded first.