

Reading list for Earth and Planetary Science 101/271:

**Reading List EPS 101/271 Field Geology and Digital mapping**

**Tectonic Development of California and Its Western Margin:**

1. Dickinson, W. R., 1981, Plate tectonics and the continental margin of California, in Ernst, W. G. ed, Rubey Volume I, The Geotectonic Development of California, p. 2-73.

**Neogene Basin Development and Strike-slip Faulting:**

2. Crowell, J. C., 1974, Origin of Late Cenozoic basins in southern California: Soc. Econ. Paleontologists and Minerl. Spec. Publ. 22, p. 190-204.
3. Blake, M. C., Campbell, R. H., Dibblee, T. W., Howell, D. G., Nilsen, T. H., Norkark, W. R., Vedder, J. C. and Silver, E. A., 1978, Neogene basin formation in relation to plate-tectonic evolution of San Andreas fault system, California: Amer. Assoc. of Petrol. Geologists Bull., v. 62, p. 344-372.
- 3A. Woodcock, N., 2004, Life span and fate of basins: Geol. Soc. Amer., v. 32, p. 685-688.

**Depositional Environment of Monterey Formation:**

4. Pisciotto, K. A. and Garrison, R. E., 1981, Lithofacies and depositional environments of the Monterey Formation, California: in The Monterey Formation and related siliceous rocks of California, Soc. of Econ. Paleontologists and Mineralogists, p. 97-122.
5. Ingle, J. C., 1981, Origin of Neogene diatomite's around the north Pacific Rim in The Monterey Formation and related siliceous rocks of California, Soc. of Econ. Paleontologists and Mineralogists, p. 159-179.
6. Barron, J. A., 1986, Paleooceanographic and tectonic controls on deposition of the Monterey Formation and related siliceous rocks in California: Paleogeography, Palaeoclimatology, and Palaeocology: v. 53, p. 27-45.
7. Garrison, R. E., et al. 1981, "Lithofacies and depositional environments of Monterey Shale, California: Amer. Assoc. Petrol. Geologists Bull; Vol. 65, No. 5, p. 929.
8. Butler, Thomas H., et al. 1989, "Paleogeographic and paleoecologic model as a predictive tool for late Miocene accumulation of biosiliceous sediments in the Monterey Formation of the San Joaquin Basin, California: Amer. Assoc. Petrol. Geologists Bull., v. 75, p. 548.

9. Ingle, J. C., Paleo-Oceanographic controls on lithofacies and biofacies patterns in Neogene basins of California- abstract

### **Monterey Formation deposition, Global Climate Change and Sequence Stratigraphy:**

10. Flower, B. P. and Kennett, J. P., 1993, Relations between Monterey Formation deposition and middle Miocene global cooling: Naples Beach section, California: *Geology*, v. 21, p. 877-880.
11. Bohacs, K. and Schwalbach, J., 1992, Sequence stratigraphy of fine-grained rocks with special reference to the Monterey Formation, in Schwalbach, J. and Bohacs, K., eds., *Sequence Stratigraphy in Fine-Grained Rocks: Examples from the Monterey Formation*, Soc. Econ. Paleontol. Pacific Section Vol., 70.
- 11A. Zachos, J., Pagani, M., Sloan, L., Thomas, E. and Billups, K., 2001, Trends, Rhythms, and Abberations in Global Climate 65 Ma to Present: *Science*, v. 292, p. 686-693.

### **Chemical and Isotopic Patterns in Monterey Formation:**

12. Brueckner, H. K., Snyder, W. S., 1985, Chemical and Sr-isotopic variations during diagenesis of Miocene siliceous sediments of the Monterey Formation, California: *Jour. Sed. Petrol.*, v. 55, p. 553- 568.
13. DePaolo, D. J. and Finger, K. L., 1988, Applications of strontium isotopes in correlating Monterey Formation, California: *Amer. Assoc. Petrol. Geologists Bull.* v. 72, p. 379.

### **Miocene Non-marine Rocks of the California Coast Ranges:**

14. Creely, S., Savage, D. E. and Ogle, B. A., 1982, Stratigraphy of upper Tertiary non-marine rocks of central Contra Costa Basin, California: in *Cenozoic Nonmarine Deposits of California and Arizona*, Ingersoll, R. V., ed., Soc. Econ. Paleontologists and Mineralogists, p. 11-22.

### **Miocene Age Volcanic Rocks of the Coast Ranges of California:**

15. Edwards, S. W., 1983, Ancient volcanic features of the Berkeley Hills: *Calif. Geology*, April, p. 83-87.
16. Fox, K., Fleck, R., Curtis, G. H. and Meyer, C., 1985, Implications of the

northwestwardly younger age of the volcanic rocks of west-central California: Geol. Soc. Amer. Bull., v. 96, p. 647-654.

17. Cole, R. B. and Basu, A. R., 1992, Middle Tertiary volcanism during ridge-trench interactions in western California: Science, v. 258, p. 793-796.
18. Sharma, B., Basu, A. R., Cole, R. B. and DeCelles, P. G., 1991, Basalt-rhyolite volcanism by MORB-continental crust interaction: Nd, Sr-isotopic and geochemical evidence from southern San Joaquin Basin, California: Contr. Min. Petrol., v. 109, p. 159-172.
19. Johnson, C. M. and O'Neil, J. R., Systematics in Neogene volcanic rocks from the California Coast Ranges: Implications for magma genesis and plate tectonic models:
20. Cole, R. B., et al. 1990, Tectonic implications of early Miocene volcanic rocks, San Joaquin Basin: Amer. Assoc. Petrol. Geologists Bull. v. 74, p. 631.
21. Stanley, Richard G., 1988, Late Oligocene-early Miocene volcanism, faulting, and sedimentation in west-central California: Amer. Assoc. Petrol. Geologists Bull. v. 72, p. 396.

### **Structure and Crustal Recycling Processes in the Coast Ranges, California:**

22. Jones, D. L. and Curtis, G. H., Guide to the geology of the Berkeley Hills, Central Coast ranges, California:
23. Jayko, A. S., Blake, M. C. and Harms, T., 1987, Attenuation of the Coast range Ophiolite by extensional faulting, and nature of the Coast Range "Thrust," California: Tectonics, v. 6, p. 475-488.
24. Krueger, S. W. and Jones, D. L., 1989, Extensional fault uplift of regional Franciscan blueschists due to subduction shallowing during the Laramide orogeny: Geology, v. 17, p. 1157-1159.

Digital Mapping System using Pen Tablet PC's with GPD and Laser Input:

25. Brimhall, G. H and Vanegas, A., 2001, Removing Science Workflow Barriers to Adoption of Digital Geological Mapping by Using the GeoMapper Universal Program and Visual User Interface: in D. R. Soller ed., Digital Mapping Techniques'01- Workshop proceedings: U. S. Geological Survey Open File Report 01-223, p. 103-114, <<http://pubs.usgs.gov/of/2001/of01-223/brimhall.html>>
26. Brimhall, G. H, Vanegas and Derek Lerch, A., 2002, GeoMapper Program for paperless field mapping with seamless map production in ESRI ArcMap and GeoLogger for drill-hole

data capture: Applications in geology, astronomy, environmental remediation and raised relief models in D. R. Soller ed., Digital Mapping Techniques'02- Workshop Proceedings: U. S. Geological Survey Open File Report 02-370, p 141- 151.  
<<http://pubs.usgs.gov/of/2002/of02-370/brimhall.html>>

### **Thermal Evolution of Coastal California:**

27. Heasler, H.P. and Surdam, R. C., 1985, Thermal evolution of coastal California with application to hydrocarbon Maturation: Amer. Assoc. Petrol. Geologists Bull. v. 69, p. 1386-1400.
28. Furlong, K. and Schwartz, S., 2004, Influence of the Mendocino Triple Junction of the Tecotnics of Coastal California: Annu. Rev. earth Planet. Sci, v. 32, p. 403-433.
29. Dickinson, W., 2004, Evolution of the North American Cordillera: Annu. Rev. earth Planet. Sci, v. 32, p. 13-45.

### **Sierra Nevada and Regional erosion:**

30. Ague, J. and Brimhall, G., 1988, Magmatic arc asymmetry and distribution of anomalous plutonic belts in the batholiths of California: Effects of assimilation, crustal thickness, and depth of crystallization: Geol. Soc. Amer., v. 100, p. 912-927.