associated cross-bedding, laminations, and other "turbidite" features, indicate that much of the basin fill comes from the insular shelves surrounding the basin.

WILLIAM F. EDMONDSON, Consulting Geologist, Bakersfield, Calif.

GEOLOGIC EFFECTS PRODUCED BY COMPACTION OF MEGANOS GORGE FILL, CALIFORNIA

The Meganos gorge is a large fossil channel of late Paleocene age in the subsurface of the southern Sacramento Valley, California. The gorge fill is predominantly shale whose original volume has been reduced 30–50 percent by compaction. Elongation of overlying units indicates that compaction began immediately after burial. Where the gorge fill is entirely sandstone, there has been no measurable compaction.

If the presence and amount of compaction are not recognized, incorrect interpretations of structure are easy to make. Often nonexistent faults are used to explain anomalously low structural positions for units overlying compacted areas of gorge fill.

At River Break field, several wells show entrapment of gas on an anticlinal structure created by compaction of the gorge fill.

SEPM TECHNICAL PROGRAM

THURSDAY AFTERNOON, MARCH 27

1. ROBERT A. HARMAN: Processes affecting distribution of Foraminifera and other biogenic sediment components off coast of Washington and Oregon
2. RONALD J. ECHOLS, SARAH S. BARNES, ROBERT A. HARMAN: Sediment-foraminiferal relations within inner sublittoral zone off coast of Washington
3. WILLARD A. MCCRACKEN: Sedimentary structures and paleocurrent analysis of Sespe Formation, Ventura basin, California
4. JAMES C. KELLEY, DEAN A. MCMANUS: Hierarchical analysis of variance of shelf-sediment texture
5. K. VENKATARATHNAM, DEAN A. MCMANUS: Heavy minerals on continental shelf of northern Bering Sea
6. T. J. CONOMOS: Processes affecting distribution and dispersal of suspended matter in Columbia River effluent system
7. DAVID O. COOK: Sand transport in region of shoaling waves
8. GRAEME F. BONHAM-CARTER: Computer simulation of nearshore sediment transport

THURSDAY EVENING, MARCH 27

SEPM Dinner Meeting

9. ROBERT M. KLEINPELL: A "semipro" revisits middle Tertiary foraminiferal sequence of California Coast Ranges

FRIDAY MORNING, MARCH 28

1. P. LEWIS STEINECK: Lineage-genera classification of lower Paleogene planktonic Foraminifera
2. ORVILLE L. BANDY, MEEI-MEEI YEN, RAMIL C. WRIGHT: Planktonic foraminiferal indices common to lower Pliocene of southern California and Italy
3. FRITZ THEYER: Size-depth variation in foraminifer *Cyclammina cancellata* Brady from Peru-Chile Trench area
4. ROBERT L. FLEISHER: Secondary calcification in *Globorotalia menardii* (Foraminiferida)
5. ROBERT A. HARMAN, SUSAN C. COOPER: Distribution of Foraminifera on Alaskan and Siberian continental shelves
6. RICHARD S. BOETTCHER, GERALD A. FOWLER: Foraminiferal trends in Oregon sublittoral
7. GERALD A. FOWLER, GARY E. MUEHLBERG: Tertiary foraminiferal paleoecology and biostratigraphy of part of Oregon continental margin
8. RICHARD P. STAPLETON: Ultrastructure studies of selected benthic Foraminifera

FRIDAY AFTERNOON, MARCH 28

Santa Barbara Channel Day—part 2

1. ORVILLE L. BANDY, RICHARD E. CASEY, RAMIL C. WRIGHT: Geologic significance of *Prunopyle titan* Campbell and Clark
2. ORVILLE L. BANDY, JAMES WILCOXON: Correlation of marine middle Tertiary stages of California with tropical planktonic zones
3. ANDREW SOUTAR: Sedimentation in Santa Barbara basin, California
4. WOLFGANG H. BERGER: Anaerobic basin sedimentation and differential preservation of planktonic Foraminifera
5. FRED AVILA: Middle Tertiary stratigraphy of Santa Rosa Island, California
6. DAVID DOERNER: Paleogene sequence in northern Channel Islands, California
7. ROBERT BERESKIN: Miocene biostratigraphy of southwestern Santa Cruz Island, California

Panel Discussion of Santa Barbara Channel, led by DONALD W. WEAVER

ABSTRACTS OF PAPERS

(in order of presentation)

ROBERT A. HARMAN, Shoreline Community College, Seattle, Wash.

PROCESSES AFFECTING DISTRIBUTION OF FORAMINIFERA AND OTHER BIOGENIC SEDIMENT COMPONENTS OFF COAST OF WASHINGTON AND OREGON

Three biozones based on the microbiogenic components of sediment are recognized on the continental shelf off the coast of Oregon and Washington. Boundaries of these zones seem to be influenced by the limiting surface-wave and internal-wave turbulence and sediment substrate. The winter plume of the Columbia River transports biogenic particles northward.

The inner zone is influenced by wave turbulence and has a sandy substrate. Living *Eggerella advena* and *Buliminella elegantissima* are confined mainly to this zone, but their empty tests also are common in the middle zone. Below the depth influenced by wave turbulence, fine sediments from the Columbia River are deposited; therefore the middle zone has a muddy substrate. It is characterized by dominance of the foraminifers *Recurvoides turbinatus, Spiroplectammina biformis,* and *Nonionella* spp., and the planktonic diatom *Coscinodiscus* spp. In the outer zone which is below the regional halocline, little sediment accumulates—possibly because of turbulence created by internal waves. The substrate therefore generally is sandy, and is characterized by dominance of the foraminifers *Angulogerina angulosa, Eilohedra levicula, Epistominella ex-*