quences, grouped in four supersequences, have been recognized in the Pelotas, Santos, Campos, Espírito Santo, Cumuruxatiba, Sergipe-Alagoas, Potiguar, Barreirinhas, and Foz do Amazonas basins along the Brazilian continental margin.

In general, the sequences are bound by sharp breaks on seismic sections separating distinct seismic-stratigraphic patterns. The most common breaks include: the top of Albian-Cenomanian post-rift carbonate rocks; the top of lower Eocene or Paleocene, coincident with a change in the subsidence regime of the margin; the boundary between lower and upper Oligocene; the base of lower Miocene that marks the beginning of a well-developed progradational episode; the base of middle Miocene, and an upper Miocene top, both indicating major transgressions along the continental margin.

The sequences were analyzed and correlated along the basins by their main seismic and geologic parameters, being recognized by different depositional styles.

BRAY, E. E., Mobil Research & Development Co., Dallas, Tex., and W. R. FOSTER

Process for Primary Migration of Petroleum in Sedimentary Basins

No abstract available.

BREINER, SHELDON, GeoMetrics, Sunnyvale, Calif.

Exploration Geophysics in People's Republic of China

Details of exploration geophysics instruments and techniques in the People's Republic of China are relatively unknown to those outside the country. The People's Republic, a country the size of the United States, with relatively large mineral and petroleum resources, since its founding in 1949, has conducted more or less continuous geophysical exploration by vast teams of geologic and geophysical personnel.

In 1974 and 1977, the writer visited exploration geophysical personnel in the People's Republic of China; the latter visit was at the invitation and expense of the State Bureau of Geology. During each 3-week visit, various laboratories, institutions, geophysical instrument factories, computer centers, and other technical installations were visited. Included in these facilities were the large Ta Ching oil field in Manchuria; the geophysical instrument factories in Peking, Shanghai, and Changchung; the Geological College in Changchung; and various State Bureau of Geology personnel in other cities. During these visits the writer compared the state of exploration geophysics, associated technology, and current activites with present geophysical practice in the United States and other Western countries.

BROKAW, RICHARD S., JR., Skidaway Inst. Oceanog., Savannah, Ga., and JAMES D. HOWARD, Skidaway Inst. Oceanog., Savannah, Ga., and Univ. Georgia Marine Inst., Sapelo Island, Ga.

Role of Bioerosion in Mass-Wasting of Pleistocene Outcrops on Georgia Coast

Outcrops of semiconsolidated Pleistocene sands, exposed by meandering tidal rivers and creeks in the Georgia estuaries, are undergoing rapid disaggregation by a variety of plants and animals. Bioeroders include large and small mammals, wasps, crabs, isopods, and pelecypods. In this area, bioerosion is responsible for retreat of bluffs as high as 15 m and contributes significantly to mass-wasting and subsequent erosion by currents and waves.

Blocks initially break away from the bluffs along fractures created by plant roots. As the blocks move downslope they serve as substrates for numerous supralittoral, littoral, and sublittoral invertebrate organisms which burrow, bore, and scrape the blocks as well as the bluff itself. Different organisms are restricted to distinct vertical zones and the degree of bioerosion increases to a maximum at the low-water line where boulders are riddled with borings, mainly by the isopod *Sphaeroma destructor*. Multiple isopod borings are in turn further eroded to form large burrows and galleries occupied by crabs. Rates of excavation and colonization of exposed surfaces are rapid, and obvious changes occur in periods of less than 2 weeks.

BROWN, ALISTAIR R., Geophysical Service Inc., Dallas, Tex.

Three-Dimensional Seismic Interpretation Methods

A 3-D seismic survey provides a volume of closely spaced accurate three-dimensionally migrated data. From this data volume, the seismic interpreter has a wide variety of display options available: two-dimensional slices, both vertical and horizontal, and three-dimensional displays of the data volume itself. Thus the interpreter can study a subsurface feature on a two-dimensional section of chosen orientation or in three dimensions. He has, however, a very large quantity of data to examine before arriving at a final interpretation of the prospect.

Interpretation of Seiscrop (trademark of Geophysical Service, Inc.) horizontal sections provides a fast, convenient, and effective way of interpreting the data volume. Seiscrop sections displayed every 2 or 4 msec and made into a motion picture are used in conjunction with the Seiscrop Interpretation Table to build horizon contour maps directly. Seiscrop sections are an easy and successful means of delineating flat spots or small structures. In "flat" spots which are not quite flat because of lateral velocity gradients, composite Seiscrop sections from more than one record time are used. Seiscrop sections are also used for stratigraphic interpretation.

Seismodel (trademark) Display Unit is a means of viewing many vertical slices through the data volume simultaneously. This permits the interpreter to see structural and stratigraphic features in three dimensions. Each vertical section is on a separate demountable transparent plate. The interpreter removes and marks each plate in turn to develop his interpretation in three dimensions.

Reflection holography is also used to display a 3-D data volume. Many vertical seismic sections are stored on a single holographic plate. The data are then recon-