

ly to the opening of the lower Cook Inlet by the Federal government for leasing, probably sometime in 1968. The areas of prime interest in Alaska today, and probably for the next few years, are lower Cook Inlet, Arctic North Slope, Bristol Bay, and Gulf of Alaska. It is interesting to note that 21 companies participated in a geophysical survey of Bristol Bay in 1966 and 20 companies participated in another survey in the Gulf of Alaska also in 1966. More and more, industry is finding that it behooves companies to join, where possible, to reduce the extremely high costs of operating in these areas. Alaska should continue for many years to be one of the important oil exploration areas in the United States.

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#### RELATIONSHIPS BETWEEN GEOLOGISTS AND GEOPHYSICISTS

The treatment of this subject is best developed by one who has been on both sides and in the middle. The problem (briefly stated) is the general feeling that the two disciplines are not mutually appreciative of each other and are, therefore, less effective as an exploration team than would otherwise be the case.

One must understand that, as long as exploration continues to change, to foster the introduction of new methods, and to use men trained in a wide variety of specialties, complete mutual appreciation should not be expected. Complete appreciation will be possible only when the exploration industry is stagnant. It is management's business to optimize the situation by vigorous use and continuous training of earth scientists, and it is everybody's business to avoid unreasonable attitudes and statements.

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#### EDUCATIONAL PROGRAMS OF AMERICAN GEOLOGICAL INSTITUTE

The American Geological Institute sponsors more than a dozen educational programs which are aimed at everyone from grade-school children to professional geologists. Among these are the Encyclopaedia Britannica Film project, a program which is developing an extensive set of films and film strips on aspects of geology and the other earth sciences; the Geology and Earth Science Sourcebook, designed as an aid to teachers on earth science; the Earth Science Curriculum Project for secondary school students, A.G.I.'s most extensive educational project; the Visiting Geological Scientist Program which has sent between 45 and 65 visitors to an average of 100 college departments every year since 1959; the International Field Institute which provides opportunities for college geology teachers to visit foreign areas of classic or unusual interest under the guidance of distinguished geologists; 3-day short courses held just before national meetings of the G.S.A. and designed to update professional geologists in some specific area of competence; and the Council on Education in the Geological Sciences whose purpose is to help improve geological education in American colleges and universities through publications, materials development, and by other means.

In addition to these major projects, A.G.I. publishes two career books—one for high school and one for college students; answers more than 3,000 letters a year on careers; provides a job-placement service for those seeking jobs of a temporary nature; and is put-

ting out a basic bibliography of books, maps, and references essential for an undergraduate geology library.

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#### SHELF TO DEEP-SEA SEDIMENT TRANSPORTATION IN THE GULLY SUBMARINE CANYON OFF NOVA SCOTIA

Submarine canyons on the Atlantic continental margin off northeastern North America received large amounts of fluvial and fluvio-glacial sediment from emerged shelves during glacial stages. It has been stated that the supply of sediment to canyon heads, especially to those located far from coast lines, was virtually cut off after the Holocene sea-level rise, and that at the present time there is little sediment movement down these canyons. An examination of numerous piston cores collected in The Gully, the largest canyon on the highly dissected continental slope off Nova Scotia, Canada, indicates that the above generalizations do not apply to all canyons of this region.

The Gully heads on the outer Scotian shelf between Sable Island and Banquereau Banks, more than 100 nautical miles from the mainland. The Gully trends downslope southeastward in sinuous fashion for a distance of 35 miles to a depth of about 1,400 fathoms. The canyon is V-shaped and the walls are steep with gradients of 1 on 2. The longitudinal gradient ranges from 1 on 9 to 1 on 18. Small, precipitous tributary canyons enter the main canyon, especially along the west wall.

Long cores collected at the base of the slope show an upward change in coloration from red (reworked till origin) to gray and olive (post-glacial). The number of coarse strata increases with depth, indicating that sediment rates decreased after the last rise in sea-level. However, the sediment sequence along the canyon length is proof of modern active sedimentation. Lenses of relatively clean sand in the upper reaches and near the steep walls of lateral tributary canyons are clearly derived from adjacent banks on the basis of mineralogy and faunal composition. Normal bottom currents, slumps, and sand flows probably moved these materials. In the same areas, contorted lenses of silty and sandy clay abound; localized slumping toward the canyon axis is the most important downslope transportation process. Pockets of sand and gravel, lying above mud in the canyon axis, and scour structures indicate that coarse clastics presently are being funneled downslope along the axis. Graded layers, 1-10 centimeters thick, are uncovered within the canyon and correlation is not possible between adjacent cores. Turbidity currents presumably are active in moving some material to the deep sea but, in this area, are of lesser importance than either slumps or bottom currents.

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**UNIQUE PLAYA SCRAPER AND FURROW NEAR MCKITTRICK, CALIFORNIA**

An unusual occurrence of a well-defined playa scraper and furrow in a small playa-like area was observed near McKittrick, California. A 20-foot fill, made during construction of California Highway 30, blocked a broad drainage channel in the low hills