

Editor's Page

In our final number of Volume 6, we have presented a series of reports dealing with environmental factors. Our first two reports are submitted as companion articles on the use of research submersibles applied to sedimentological studies. In the paper by Drapeau, the author relies heavily on photography and underwater television to support his visual observations. In the paper by Pelletier, emphasis is placed on closely controlled sampling methods by means of substantial horizontal and vertical control, by visual observations and by hand-sampling with Scuba-diver assistance using the diver lock-out facility in the submersible. The results of both investigations demonstrate the exceptional utility of the submarine in sedimentological research on the sea floor. In the case of Drapeau, primary sedimentary structures was the target of the investigation, and with Pelletier, it was sedimentary textures. Both authors related their studies to hydrodynamic vigour.

Another study on physical processes of the environment is dealt with in the report by Dionne. This one stresses sediment deposition by means of drift-ice in the river, and is an interesting analogue to ice-rafted deposits in marine areas.

The reports by Hobbs, and by McCann and Bryant are companion studies in that they deal directly with coastal processes. With much attention focussed today on the erosion of the coastline and the immediate threat to recreational areas, not to mention habitable regions or zones designated for commercial construction, these studies are most timely. Again on environment we have a timely submission by Schafer who uses foraminiferal ecology as a tool in understanding environmental processes. Notwithstanding this approach, Schafer's work is another fine contribution to scientific enquiry in this area of research and we expect to see it followed and complemented by additional contributions in the near future.

A second part to the study of the Bermuda Platform by Gees and Medioli is also included in this issue. The study draws upon seismic reflection profiling and radio dating in order to establish the geological history of this interesting area. Not only does it offer evidence of geologically young carbonate deposition, but it offers more facts to assist in solving the puzzling phenomena associated with the continental margin off the eastern North American seaboard.

Some time ago we reported on the need for regional symposia on the earth sciences to be held as a single event without dilution brought about such as in the instance of larger conventions in which many theme programs are run concurrently. With the recent earth science symposium on the eastern Canadian offshore, we are presented with an exemplary model for future exercises of this nature. Faunal studies in the watermass and depositional interface were discussed and further related to similar studies in recent and ancient sediments. The surficial sediments were reviewed with theories on their dispersal and distribution. Seismic reflection profiling was shown to be the most valuable tool to the marine geoscience investigator for gathering meaningful data rapidly and efficiently. Probing further the geophysical surveys involving earth's magnetism and gravity gave critical information on the origin and structure of the continental margin as well as the related problems of continental drift, sea-floor spreading and plate tectonics. Because of our present state of knowledge it was not possible to carry out this integrated approach to the earth sciences in every region under review at the symposium, but the objective does set the pattern for future intensive surveys of this kind. For this reason we have included all available abstracts of papers submitted to the symposium, which we expect to see published in late 1971 or early 1972. The chairman, Dr. Peter Hood of the Geological Survey of Canada, deserves special praise for the overall success of this venture.

Our contributions on environmental geology are collectively demonstrating the immediate utility of these studies to man. With recreational areas, wildlife, real estate, cultural edifices and even certain industries threatened by the growing menace of pollution, every scrap of new information is being seized almost at the point of discovery. The knowledge banks are not nearly full enough to give us a secure path to follow through the bewildering array of known dangers and unknown processes. Therefore we await in some anxiety for more contributions to man's knowledge in this imminently perilous area.

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B. R. PELLETIER, Editor.