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Editor's Page

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Editor's Page

In this volume of MARITIME SEDIMENTS we are combining Numbers 1, 2 and 3 to make it a single book. Our lead paper is an interesting description and useful manual on a one-man beach profiler adapted by Edward Bryant. Most helpful to the beach worker will be the Fortran program designed to handle the data. The second paper is by our colleagues Frances Wagner and Charles Schafer. Their work on the foraminifera of the Miramichi Estuary has important implications for the twin sciences of paleoecology and paleo-oceanography. In the third paper, three authors - F.J. Barber, E.H. Grainger, and B.R. Pelletier - have pooled their efforts and cruise experience in Hudson Bay to give a short scientific background to support descriptions of sea-floor photographs of Hudson Bay. Many of these maps and illustrations were on display at the Hudson/James Bay Symposium held at Guelph University in April 1981. Our final paper for this volume is one by B.R. Pelletier and is written as a study for students. In this work the author has attempted to show that a natural law of sedimentation involving the exponential decrease in grain size with linear distance of sediment transport, the development of sedimentary anisotropy in the deposition and growth of sediment bodies, and the phenomenon of progradation all operate as a continuum from the watershed to the depositional site, and from a given temporal plane through ages, epochs, and periods of geologic time.

It is now time to transmit our closing message from the Editors Page. Many years ago, Francis Pettijohn gave a ringing address entitled: In defense of field geology. Today we would like to borrow the sentiment and entitle our address: In defense of sedimentology. This is not downgrading the efforts of our teachers and professionals engaged in this classic vocation, but rather to reveal the sad fact that the subject is not more widespread, nor does it occupy a sufficient portion of university curricula. In a recent study undertaken by the Canadian Geoscience Council, the editors (E.R.W. Neale and J.E. Armstrong) stated that petroleum and mining companies found that most graduate geologists were insufficiently trained in sedimentology, stratigraphy, and sedimentary rocks. This is hard for our journal to digest but it is true, and this despite the fact that these subjects play such a dominant role in economic geology. One has only to glimpse this aspect to realize the enormity of this deficiency caused by a lack of practical and theoretical training in sediments. Among the more prominent aspects are: lead-zinc stratiform deposits, sedimentary iron formations, sediment-associated uranium deposits such as marine beds and fluvial conglomerates, drift-prospecting for ores in Pleistocene tills, placer deposits such as gold and diamonds, and many non-metallic deposits associated almost exclusively with sediments. These latter include: salt, sulphur, potash, coal, petroleum and natural gas, construction aggregates, building stones, and refractory materials.

Besides the urgency of economic needs, sediments are studied to understand earth processes of both the physical and chemical variety, and this includes fields as far-ranging as organic geochemistry, tectonism, and plate tectonics. The study of sediments provides insight into earth history, which is the unique contribution the geosciences give to the philosophy of mankind. Again we see the need for a solid foundation in sedimentology when we consider problems and disasters related to environmental and engineering projects – activities that are being undertaken on the surface of our earth.

We must also examine the peculiar dichotomy in sedimentology: megasedimentology versus microsedimentology. On the one hand the sedimentologist works virtually on a global scale, dealing with geosynclinal basins, platform deposition, oceanic repositories, and crustal tectonics. He is the megasedimentologist, and certainly his problems and projects are heroic in proportion. On the other hand we have the microsedimentologist. He deals with thermodynamics, hydrodynamics, cascading sand grains over foreset beds, grain-tograin relationships, molecular structure and both organic and inorganic interactions, and recently statisticostratigraphy (forgive us). In this research he is correlating even finer phi fractions than before $(\frac{1}{15}$ phi), so that moment measures may be correlated on a sedimentation unit and related directly to the hydrodynamic environment successively through time. Well that is a lot, and perhaps the work of one obscures the vision of the other; perhaps it obscures the vision of the non-sedimentologist as well but that need not be the case. Henry Clifton Sorby many years ago (ca. 1880) wrote that a fact is a fact whether it is an observation on a mountain or a feature under the microscope. Therefore we need both viewpoints ~ not only of the sedimentologist, but of his colleagues in other branches of geology.

It is important that this latter group of geologists observe the surficial deposits. For example, the marine geologist concentrating on bedrock investigations may overlook the glacial features occurring on his seismic records. By so doing, he is foregoing the opportunity to explore one of the most fascinating periods in earth history - continental glaciation. On land, the structural geologist in his zeal to reconstruct fragments of crustal plates, may not see the paleodynamism annealed in rocks a billion years old and a continent in breadth. The history of life on our planet is buried in the sediments, and the threads of evolutionary trends are recorded there for at least three billions of years. The list of sedimentologically related fields is endless but, regrettably, the time allotted to its defense is limited.

MARITIME SEDIMENTS, though, is dedicated not to defence, but to demonstration. Therefore, we hope this simple theme will continue in the generations of sedimentologists that lie ahead.

Now it is time to say our farewells. To those many unpaid, poorly paid, and underpaid helpers we can only extend our heartfelt gratitude. For your present editor, it has truly been a magnificent experience. The past 14 years have provided, with shuddering reality, many vistas of the publishing business. Our staunch patron, the National Research Council of Canada has never failed us in our calls for financial aid. But most of our help came from our subscribers, and top-drawer copy material that originated with our authors and other contributors. The intellectual and spiritual support was provided by our Board, whose names are printed on our masthead for the last time. And all of us, authors and Board members, have enjoyed working together over the years. For this last expression of sentiment we are going to break with editorial tradition, and speak like a character stepping off stage to deliver a personal line. I thank Carolyn Frost and Ferne McCoombs, the only two ladies who typed all the manuscripts over the past 14 years. And there was a variety of ladies who helped with the clerical work: Jane Latremouille, Florrie MacAusland, Dana Younger, and two of my own daughters, Margaret and Marianne. Some years of this work were given generously by Franco Medioli, Michael McMullen, Georges Drapeau and me. I stayed with my same, very understanding, and fine printer, J. Oliver Woods, throughout. And I shall always thank two excellent organizations, the Geological Survey of Canada and the Bedford Institute of Oceanography for the very real material aid and services rendered - gratis. No doubt there will be others to remind me that they were forgotten; they are not. They are too numerous to list and 14 years is a lot of friends and contacts. But it has been a great time and I only wish that many more of you could have enjoyed it with me.

So long and good luck.

Bernard Pelletier, Editor MARITIME SEDIMENTS