Editorial

"CHEMICAL GEOLOGY", CONTROVERSIAL IDEAS AND THE PROGRESS OF SCIENCE

When a scientific journal publishes material which is outside the bounds of currently accepted theory, there is often reproach, if not outright wrath, from the dissenting members of the scientific community. As this issue launches *Chemical Geology* into a subject from which we may anticipate some degree of disgruntled reader reaction, we wish to clarify our position on the value of (and therefore our disapproval of boycotting) minority opinion, as well as on the administration of a scientific journal.

The printed word is a most important means of human communication. This implies that one should never read or write without keeping one's fellowman in mind. He who writes only because he finds self-importance in seeing his own thoughts in print lacks interest in his fellowman. The same is true of an individual who judges a printed text on the benefit which he alone derives from it.

It is of essential importance then, that one who intends to commence writing an article or book first determines whether he has something worth saying and that he questions himself as to why his writing should be read. He must think of those who will later take up his text and work with it.

After completing a manuscript an author should not try to have it printed as soon as possible (special cases of establishing priority excluded, of course), but rather should have it read first by other persons. This serves as a practical test of the extent to which the result of his writing corresponds with his aim to communicate his thoughts with a maximum degree of clarity.

Human communication continues as next the manuscript reaches a publisher or the editors of a journal. Their reviewers have a double function. Not only must they ascertain that the method and medium of presentation chosen by the author is the best possible and that the scientific data on which the paper is based are correct, but they must also see that the paper is presented in such a way that it will be of value to the greatest number of readers. They serve as a catalytic agent in the relationship between the author and the reader. Moreover, the power which they exercise greatly affects the communication and development of thought, and especially of scientific thought.

The selection of scientific articles to be published in a journal presupposes an objective decision by the reviewers of that journal. To assure such impartiality of judgement, it is the responsibility of the creators of the publication to choose their Editorial Board from among the most outstanding scientists in pertinent fields. Scientific journals are greatly indebted to these scientists for devoting part of their valuable time to the editing of these journals; indeed, the lack of such assistance virtually precludes the publication of a good periodical. Although it is natural to assume that a scientist's personal convictions and experiences will slightly influence his decisions, it is not valid to depreciate the system of selecting manuscripts by overemphasizing a reviewer's personal orientation. Ideally, a paper should be judged on the basis of its literary presentation, scientific standard and importance of content. Whether or not the editor agrees with the conclusion drawn therein should not be an issue for determining publication. Indeed,

a reviewer may be exceeding the limits of his function when he rejects the publication of new ideas. This is often the case with respect to controversial articles which are frequently barred from more conservative journals. This author feels, however, that science is not served by printing only those articles which strictly conform with current scientific theory, and that progress can be achieved only by new discoveries and the formulation of new hypotheses, despite the fact that the latter might be progressive or imply new versions of old and abandoned theories.

As can be deduced from the above discussion, it is not the intention of *Chemical Geology* to follow a conformistic editorial policy. The ideal is a high level, most useful, scientific periodical with a fresh and open-minded approach to old and new views. The fact that this issue includes an article by George Rudakov entitled "Recent developments in the theory of the non-biogenic origin of petroleum" serves to illustrate this principle.

It is quite possible to dismiss Dr. Rudakov as being unrealistic and as being simply a representative of an errant group which is trying to revive the long-discarded idea of the inorganic origin of oil when modern evidence is assumed to point with increasing clarity to a simply biogenic origin. For example, the presence of isoprenoid hydrocarbons in petroleum, which are clear-out derivatives of biogenic hydrocarbons, is not mentioned in his paper. Yet, Dr. Rudakov has brought together a limited body of recent thought on the cosmic and catalytic origin of terrestrial hydrocarbons. His paper certainly offers a fresh look at an old problem. Moreover, the article also contains a list of references which alone merits its publication.

Although Dr. Rudakov's scientific hypothesis may be judged unacceptable by several readers in the Western world, we are publishing his paper in the belief that its controversiality will stimulate discussion which, in turn, may provoke deeper investigation. Such debate often leads to new discoveries. We believe the stimulation of this process to be a valid contribution to scientific progress.

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