ANN. INST. GEOL. PUBL. HUNG. | vol. LXX. | Budapestini, 1987

Proceedings of the VIIIth RCMNS Congress

RCMNS RESEARCH ACTIVITIES

by

J. E. MEULENKAMP

Research goals of the RCMNS, set during the 7th International Congress on the Mediterranean Neogene, Athens, 1979, have become firmly established now. This may be concluded from the success of four interim-colloquia which were held in the time-span between the Athens' and Budapest' Congresses, as well as from the number and contents of contributions presented at the Budapest Congress. The interim-colloquia were meant to serve as preparatory meetings where specialists discussed problems pertinent to the three major topics the Executive Council and the Organizing Committee selected for the scientific programme of the Congress. These topics included Relative and Numerical Time scales, Geohistory of the Mediterranean and the Paratethys, and Paleoecology—Ecostratigraphy.

From the discussions during the interim-colloquia and the Congress we learned that further refinement of biostratigraphic and chronostratigraphic scales and the precise and accurate calibration of these scales with numerical time should remain the prime target of future RCMNS research activities. Irrespective of the progress made during the last decades through the joint efforts of the RCMNS and various IGCP projects, we must admit that we still face major problems as soon as we try to perform high-resolution correlations with a satisfactory degree of accuracy and precision between marine, as well as between marine and continental sequences for parts of the Neogene record. Other problems concern the definition of some stage-boundaries in connection with the designation of boundary-stratotypes.

The increased interest members of our committee show in problems pertinent to paleogeography and geodynamics is reflected by the high number of contributions to the topic Geohistory of the Mediterranean and the Paratethys and by their active participation in the IGCP Project 25 "Correlation Tethys—Paratethys Neogene", the IUGS Research Development Programme "Neogene Paleogeographic Map Series of Central and Eastern Europe" and the project "Neogene Sedimentological Map Series" of the Carpatho—Balkan Geological Association. The results of these multidisciplinary projects unambiguously demonstrate the crucial role pure stratigraphic research plays in any attempt to unravel the complex histories of the Neogene basins in the Mediterranean—Paratethyan realm. On the other hand, models accounting for the time and space-bound character of specific sediment successions as a function of the geodynamic evolution of the area may contribute to the understanding of the processes which control the distribution of time and environment-diagnostic faunal and floral elements. This, in turn, could lead to the further development of ecostratigraphic concepts.

Ecostratigraphy has become the central theme of RCMNS activities over the last years, which confirms the research trends we expected in response to the results of the Athens' Congress. Substantial progress has been achieved with respect to the

effects of climatic changes on the distribution and the composition of fauna and flora in marine as well as in continental environments. The signals inferred from the biorecord, however, are not always consistent and interpretations from different sources cannot possibly be reconciled without a critical reevaluation of the methods applied. Improved methods to discriminate between the effects of local. Mediterranean-wide and global signals will no doubt enhance the reliability of correlations based on paleoclimatic criteria. This not only holds for the biorecord, it is equally true for stable isotopes and clay minerals. It is self evident that climatic changes alone do not account for the major and recurrent environmental changes we can infer from the Neogene record. Regional changes in basinal settings, which are as a rule tectonically-controlled, may provoke environmental changes, the visible effects of which on biomasses and on abiotic parameters can serve as a tool for time stratigraphic correlations on a Mediterranean-wide, or even a still larger scale. This is, for instance, also illustrated by the results of the SNS Working Group on Benthic Foraminifera, which results reveal parallel morphological trends in the development of Uvigerinids in the Mediterranean proper, the Paratethys and the North Sea Basin/Northern Atlantic.

The present state of knowledge on the Neogene seems an excellent starting point to initiate pioneer studies aiming at the establishment of models for the origin, accumulation and distribution of mineral resources as a function of the effects of geodynamic and environmental processes. With this in mind a special colloquium on European Late Cenozoic Mineral resources was organized. The large number of contributions presented during the plenary sessions and in workshops reflected the interest of both the scientific and the industrial world in this field of research. Tentative models on the origin and distribution of sedimentary resources, metallic ore deposits and hydrothermal energy were proposed, which may be considered highly promising for the planned continuation of this type of integrated research. Unfortunately, however, only a small number of papers on this topic could be included in the Congress Proceedings, since many authors felt that their ideas needed further elaboration before beeing published.

JOHAN E. MEULENKAMP
Dept. Stratigraphy and Micropaleontology
Institute of Earth Sciences
State University of Utrecht, The Netherlands
3508 TA UTRECHT