ILIA MERIDIONALE 1-5 aprile 1978 ISTITUTO

GRUPPO SPELEOLOGICO DEL

NAPOLI

1978

foreword

Excursions following the Seminar on Paleo- and Neokarstic Processes in Southern Italy had the aim to complete in the field the matter debated in Naples.

As the geological and geomorphological problems concerned by the debate are often beyond the different scientific interests and regional knowledges of the excursionists, we try here to provide a simple picture of them.

The guidebook comprises three sections:

- a brief description of the geological and geomorphological distinctive features of the Apennines between Liri and Sangro valleys in the north and Noce and Agri valleys in the south;
- a geomorphological picture of the region covered by the trip ("window geology");
- an introduction to the problems to be debated during the stops few but of a some length.

Such a book naturally can only give an outline which - we hope - will be accepted as an opportunity for debating. In the same time it is useful for seeking the elements of unity of the karstic phenomena - even if they are so different and often seemingly contradictory - and to obtain an answer to the dynamic ineraction between tectonics and climate.

By such a way we can try to draw the pattern of the evolution of the evenements.

introduction

We wish to emphasize that we do not intend either to propose a new approach to the study of the karstic phenomena, or to urge for new formal nomenclature of the various and complex morphogenetic processes generally covered by the item "Karst".

Both excursion and previous seminar offer the opportunity to debate ideas on geological features and objects. In such a way we may order the succession of processes before interpretate them, analysing connection between processes happened under different tectonic and climatic conditions, as well as in different times.

Accordingly we shall try, as much as possible, to avoid discussion on nomenclature, only clarifying the reasons of the choice of terms as "paleokarstic" and "neokarstic". used in titling the seminar. The choice is based on the analysis of the paleogeographic evolution of Southern Italy.

This section of the alpidic orogene formed during the Neogene shows the marks of many, variously widespread, geomorphic cycles, which had unlike length, intensity and development; and where all characterized by the weathering of carbonate rocks submitted to the karstic process.

The above cycles present a various evolution according to their development before or after deformation of the ancient continental margin of Apennines from which the main part of Southern Italy derives.

Genesis, of cavities, their form and reletionship with the topographic surface, the way of fossilization are often different. Therefore, the first distinction concerns the age when karst developed: the mophogenesis related to paleotectonic processes are scheduled as paleokarst, whatever is the way and degree of fossilization. Subsequent morphogenesis, related to uplift of the chain (neotectonics) are scheduled as neokarst. Consequently, paleo- and neokarst represent two moments in the general evolution of sedimentary carbonate bodies since their sedimentation, passing by the stages of early (synsedimentary) and late diagenesis - with all the related modifications (even chemical and mineralogical) - until the more or less marked deformation and epigenesis.

On this ground, paleo- and neokarst do not involve the effects of different processes, but rather some prevailing phenomena in the various moments above mentioned. They are then processes which operated almost continously during the last 200 m.y., when the great carbonate bodies of Sourhern Italy (carbonate platforms and partly internal basins) formed and were deformed and eroded.