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## EVOLUTION OF THE NORTHERN MARGIN OF TETHYS: The Results of IGCP Project 198

Volume II

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## The Tisza Superunit Debate: Introduction

by

M. Mišík and H. Kázmér

It became very clear from the early meetings of the Slovakian and Hungarian Working Groups that there was a major divergence of opinion concerning the original positions of units that form part of what may be called the "Tisza Superunit." This debate extended to the bordering countries and, at the plenary meetings, there were useful contributions from other groups, particularly the Austrian Working Group.

There are two principal sources of divergence, the lack of data and the differences in importance placed on some of the available data. It was felt that the most profitable manner of proceeding was to fully develop the contrasting interpretations, which are presented in the two articles that follow. From these interpretations of Tisza, an attempt was made to isolate the areas of general agreement and the major points of disagreement as a basis for establishing clear-cut research objectives.

At the final meeting in Pezenska Baba, agreement was reached on the following points.

- During Jurassic and Early Cretaceous times, the Tisza Superunit (including Mecsek and Villány) was adjacent to the northern margin of Tethys.
- The Zemplén sliver was an integral part of Tisza during Mesozoic time.
- The Tisza-Alföld Zone of the Tisza Superunit displays considerable similarities with both the East Carpathians and the South Carpathians (Supragetic Zone); see alternative #2 in Kovács et al. (this volume, p. 71).
- The sedimentation areas of the High Tatric and North Apuseni domains were at least 700 km apart.
- The above statements indicate that the Tisza unit was not a direct continuation of the West Carpathians.

Differences in opinion centered on the following points.

• The Hungarian Working Group expressed its opinion that the Tisza Superunit was adjacent to the European Platform during the Triassic ,based on relationships of facies zones. The Slovakian Working Group stressed the importance of micro-

fossils characteristic of the southern domain in the same unit.

The working groups disagree over some correlations of the Tisza zones with those of the Tatricum and the Pieniny Klippen Belt, and with the substratum of the West Carpathian flysch belt.

To resolve these differences, the following future activities have been proposed:

- 1. Paleontological description and analysis of Triassic formations (especially sporomorphs, ostracods, conodonts, and holothurian sclerites).
- 2. Detailed study of some selected Lower Jurassic faunas and paleobiogeography of Jurassic faunas.
- 3. Comparative facies studies of selected Triassic, Jurassic, and Lower Cretaceous formations in the West Carpathians, Tisza, and East and South Carpathians. These studies should be performed in close cooperation with Romanian specialists.

## REFERENCES

Balla, Z., 1984. The Carpathian loop and the Pannonian basin: A kinematic analysis. *Geophys. Trans.*, 30 (4), 313-353.

Balla, Z., 1986. Palaeotectonic reconstruction of the central Alpine-Mediterranean belt for the Neogene. In: *Tectonics of the Eurasian Fold Belts* (edited by L. P. Zonenshain). *Tectonophysics*, 127 (3/4), 213-243.

Balla, Z., 1987. Tertiary palaeomagnetic data for the Carpatho-Pannonian region in the light of the Miocene rotation kinematics. In: *Laurasian Pal*aeomagnetism and Tectonics (edited by D. V. Kent, and M. Krs). Tectonophysics, 139, 67-98.

Heller, F., 1980. Palaeomagnetic evidence for Late Alpine rotation of the Lepontine area. *Eclogae Geol. Helv.*, 73 (2), 607-618.

Kázmér, M., and Kovács, S., 1985. Permian-Palaeogene palaeogeography along the eastern part of the Insubric-Periadriatic lineament system: Evidence for continental escape of the Bakony-Drauzug unit. *Acta Geol. Hung.*, 28 (1-2), 71-84.

Kovács, S., 1983. Az Alpok nagyszerkezeti áttekintése [in Hungarian with English summary: Major tectonic outline of the Alps]. Általános Földtani Szemle, 18, 77-155.

Márton, E., 1987. Palaeomagnetism and tectonics in the Mediterranean region. J. Geodyn., 7 (1), 33-57.

Scharbert, S., and Schönlaub, H. P., 1980. Das Prevariszikum (Die geologische Entwicklung vom Beginn der Überlieferung durch das Paläozoikum bis zum Ende der variszischen Zeit im Oberkarbon). In: Der Geologische Aufbau Österreichs (edited by R. Oberhauser). Springer-Verlag, Vienna, 3-20.

Westphal, M., Bazhenov, M. L., Lauer, J.-P., Pechersky, D. M., and Sibuet, J.-C., 1986. Paleomagnetic implications on the evolution of the Tethys belt from the Atlantic Ocean to the Pamirs since the Triassic. In: *Evolution of the Tethys* (edited by J. Aubouin, X. LePichon, and A. S. Monin). *Tectonophysics*, 123, 37-82.