

## TERRANE MAP OF THE ALPINE-HIMALAYAN BELT, WESTERN PART

F. Ebner\*, F. Neubauer\*\*

\* Inst. of Geosciences, Mining Univ. Leoben, Austria

\*\* Geol. Inst. Univ. Graz, Austria

A terrane map of the western Mesozoic/Tertiary Alpine-Himalayan Belt (AHB), Betic cordillera to Iran, is in an advanced stage of preparation. The map displays age and nature of basement units which are included in the Alpine belt and time of successive accretion and amalgamation of these units which now forms the Alpine belt. Basement units of adjacent cratons are included to get information where intra-Alpine basement terranes come from. The following conclusions may be drawn from the preliminary draft of the map:

Cadomian/Baikalian/Panfrican basement units are widespread in the Alpine-Himalayan belt. These units include ophiolites and island arc sequences which indicate an apparently continuous late Proterozoic mobile belt which is also obvious from increasing thickness by Rhiphaean deposits along southern and southwestern margin of Laurussia. The late Proterozoic basement of the AHB apparently links Panfrican units of Arabia/Africa with Cadomia of western Europe and Baikafides of Siberia. This belt has been later dispersed by Variscan/Alpine displacement.

Terranes from the southern margin of the AHB include in part passive continental margin sequences of Cambrian, in part such of Silurian/Devonian age. Both sequences often postdate Cadomian basement.

Terranes which are situated in the northern part of the AHB have been accreted during successive stages of Ordovician and middle Devonian. All together, these terranes may indicate a middle Palaeozoic passive continental margin system south of the later Laurussian margin. Often occurring Ordovician magmatic and metamorphic complexes suggest a widespread collision-type event which happened during this time.

All these terranes have been accreted in western part of the AHB by continent-continent plate collision during Variscan times. The Variscan tectonothermal overprint loses the importance from west to east, combined with domains which remained open until Mesozoic times. The entire AHB is overprinted by effects of oblique opening and closure of the Mesozoic Tethys which led to dispersion of previously accreted terranes.

All data indicate that the western part of the AHB has been a Pacific-type mobile belt since late Proterozoic times.