Preface

On the occasion of the Second International Maar Conference held in Hungary in September 2004, the Geologica Hungarica, series Geologica *presents this monograph on the Mio/Pliocene (8-2 My) small volume intraplate alkaline volcanism in the western Pannonian Basin. The volcanic activity occurred in the Bakony – Balaton Highland Volcanic Field (BBHVF) just north of Lake Balaton, in the smaller Little Hungarian Plain Volcanic Field (LHPVF) just to the north, and in the Styrian Basin Volcanic Field barely reaching into westernmost Hungary. The western Pannonian Basin is underlain by Neogene siliciclastic sediments which overlie Mesozoic karstic limestones which in turn overlie crystalline basement rocks. As volcanism was active during and after deposition of the Neogene siliciclastic sediments, volcanicity was largely synsedimentary and consequently effected, more or less, by the unconsolidated water saturated sediments. The volcanic fields of the western Pannonian Basin will be visited during two identical volcanological field trips run prior and after the conference.*

In this monograph the present state of physical volcanological research (over the last 10 years) on the volcanism of the western Pannonian Basin is presented. The authors of the several papers present the relevant details and interpretations of the regional geology, of the volcanic fields and also of the many individual volcanoes and their various phreatomagmatic and magmatic eruption styles. In addition, the authors compare the western Pannonian volcanic fields with other volcanic fields in the world many of which they know from personal aquaintance and studies. The list of references contains not only very informative Hungarian publications but also a wealth of international publications relevant to the understanding of volcanological processes generating maars, tuff-rings, diatremes, scoria cones, lava lakes and their tephra and volcanic rocks, but also relevant to the understanding of volcanic fields.

The overview publications and detailed descriptions of the individual volcanoes of the three volcanic fields provide the reader with a state of the art view on the volcanicity of the Neogene volcanism of the western Pannonian Basin which for many decades has been almost unknown to volcanologists from many countries. The monograph has been organized in such a way that it contains both the overview publications but also the publications of the individual volcanoes and their outcrops so that the publications can easily be used as field guides for volcanological field trips of groups but also for individuals. The various levels of erosion of the many individual volcanoes make the volcanic fields of the western Pannonian Basin very informative in respect to research of maars, diatremes and lava lakes, and complimentary to other volcanic fields displaying monogenetic volcanoes exposed at different levels of erosion, as, e.g. the maar volcanoes visited on the occasion of the First International Maar Conference in the West Eifel Volcanic Field in 2000. This monograph is also complimentary to the field guide published on the volcanic field in southern Slovakia, also visited prior and after the Second International Maar Conference.

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