

deposit. In Korkora-1 samples the common minerals are: magnetite ($\text{Fe}_{2.92}\text{O}_4$), hematite (Fe_2O_3), goethite ($\text{Fe}^{+3}\text{O}(\text{OH})$), clinochlore ($(\text{Mg,Fe,Al})_6(\text{Fe,Cr})_4\text{O}_{10}(\text{OH})_8$), and hydrohematite ($\text{Fe}_2\text{O}_3 \cdot x\text{H}_2\text{O}$). Ore microscopy studies: in these studies we found magnetite in Hamehkasy-1 deposit which consists of high exsolution but in Korkora-1 exsolution in magnetite is rare. Magnetites in samples of each deposit were characterized by (EPMA) studies.

Camptonites from the Ditrău Alkaline Massif, Romania: Geochemistry and petrogenesis

Batki A. and Pál-Molnár E.

Department of Mineralogy, Geochemistry and Petrology, University of Szeged, H-6701, POBox 651., Szeged, Hungary, batki@geo.u-szeged.hu, palm@geo.u-szeged.hu

Camptonite dykes, 20 cm to 2 m wide, occur at the northern part of the Ditrău Alkaline Massif [DAM] (Eastern Carpathians, Romania), intersecting granitoids, syenitoids and hornblendites. Based on their low SiO_2 and high alkali, TiO_2 , LILE and LREE content, high Yb/Nb, Ti/V, (La/Yb)N ratios, Zr/TiO₂ vs. Nb/Y distribution, nepheline and olivine normative composition they are defined as silica- and alumina-undersaturated, alkaline basic rocks and basanitic in composition. The Mg#, Cr, Ni, Co and Sc concentration, and low S.I. and high D.I. values of the DAM camptonites indicate that they could be fractionates of primary melts. Based on strongly incompatible trace element composition the DAM camptonites derive from an OIB mantle source containing HIMU and EM I mantle components. The high LREE and low HREE content of the DAM camptonites (La/Yb=15-24) may indicate both a metasomatised mantle source for the magma generation and a garnet lherzolite source by very low degrees (~1-2 %) of partial melting. The latter mean that the camptonite magma must have originated at a great depth, around 60-80 km.

Ophiolites in the Dinarides and Hellenides: the contribution of radiolarian biochronology to the understanding of their formation and emplacement

Baumgartner P.O.¹, Gorican S.² and Chiari M.³

¹*Institut de Géologie et Paléontologie, Université de Lausanne, 1015 Lausanne, Switzerland*

²*Institute of Paleontology, ZRC SAZU, Novi trg 2, SI-1000 Ljubljana, Slovenia, spela@zrc-sazu.si*

³*CNR - Istituto di Geoscienze e Georisorse, Via G. La Pira 4, 50121 Firenze, Italy*

Mesozoic radiolarian biochronology has been essential in the understanding of the timing of formation and emplacement of remnants of ancient ocean basins in the Alpine-Mediterranean orogens. The first descriptions and biochronologic assessments of radiolarian faunas of the late 1970ies in the Helledides and Dinarides depended on biostratigraphic calibrations from Deep Sea Drilling Sites and on the first zonations established in Western North America, that were not adequate for the area. In the early 1980's, as the first European Jurassic-Cretaceous radiolarian zonations were established, the dating of radiolarian-bearing sediments associated with basalts and ophiolitic mélanges became possible. The age assignments have been continuously refined since. The discovery of Triassic radiolarites associated with MORB-like basalts in the late 1980's considerably changed the interpretations. Now, a wealth of biochronologic work has been published in the last 3 decades. For this report we have revised data from NW-Croatia, Serbia, Albania, Northern Greece, Othris, Evvia, Argolis, in an attempt to produce a coherent picture of all this data.

Radiolarian biochronology established in oceanic sediments associated with ophiolite belts in the Dinarides and Hellenides reveal 3 age clusters: Middle to Late Triassic, Middle Jurassic and Late Middle to Late Jurassic. Early Jurassic ages are extremely rare. Triassic ages have been found in oceanic sediments, chiefly radiolarites, associated with MORB-like

and within-plate basalts, while the majority of Middle Jurassic ages have been found in sediments associated with basalts that geochemically are related to an intraoceanic convergent margin setting. Middle Jurassic radiolarites and radiolarian mudstones are also associated with ophiolite mélanges that are allochthonous with respect to the continental margins. Late Middle to Late Jurassic ages are found in synorogenic deepwater pelagic and ophiolite-bearing detrital sediments that stratigraphically overly marginal series. These deposits formed during the obduction of the ophiolites onto the adjacent continental margin. Exposure/erosion and emplacement of the ophiolites is largely diachronous along the Pelagonian-Korab-Durmitor margin and in part synchronous with an ongoing formation of Vardar (suprasubduction) oceanic crust. Westward younging of ophiolite detritus on the Pelagonian margin implies an eastern (Vardar) origin of the ophiolites in Eastern Greece.

In our simplest geodynamic scenario the Triassic ophiolite components are interpreted as remnants of the Maliac-Meliata Ocean that formed NE of the Pelagonian microcontinent, during the detachment of the latter from Eurasia. During the Middle Jurassic an intra-oceanic subduction zone developed in the Maliac-Meliata Ocean outboard of the Pelagonian-Korab-Durmitor-Drina-Ivanjica margin. Pieces of Triassic Maliac-Meliata ocean floor and seamounts became ripped off the lower plate and accreted in this subduction zone together with very young (0-10 my, supra-subduction) oceanic basalts of the upper plate attributed to the Vardar (backarc) Ocean. When the subduction zone reached the Pelagonian- Korab-Durmitor-Kuci margin, the latter became the lowermost unit of the accretionary wedge. The intraoceanic arc collided with the trench and was overthrust by the young back-arc Vardar crust just before subduction ceased. Further westward thrusting (mostly during Late Cretaceous-Early Tertiary) emplaced this composite ophiolite unit onto the more external Pindos-Cukali zones.

OneGeology-Europe – a general overview, data specification, and an example of a contribution from Slovenia

Bavec M.¹, Asch K.², Šinigoj J.¹ and Jackson I.³

¹*Geological Survey of Slovenia, Dimičeva ulica 14, 1000 Ljubljana, Slovenia, milos.bavec@geo-zs.si, jasna.sinigoj@geo-zs.si*

²*Federal Institute for Geosciences and Natural Resources, Stilleweg 2, 30655 Hannover, Germany, kristine.asch@bgr.de*

³*British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham NG12 5GG, ij@bgs.ac.uk*

OneGeology-Europe is a project which originated in the global initiative OneGeology. It started in September 2008 and will conclude in October 2010. It is a truly multilateral and multinational project with 29 partners from 20 European countries. The aim of this EC-funded project is to make geological spatial data held by surveys and national geological institutes discoverable and accessible. It will do this through a uniform data model, and create dynamic digital geological map data of Europe. The results of the project will allow researchers, consultants, environmentalists, construction and water industries, planners and local, regional and central governments, to make more informed decisions about the resources and hazards in Europe. It will also provide a means of seeing just what lies beneath your feet!

Major objectives and achievements for OneGeology-Europe include:

- A web-accessible, interoperable, geological spatial dataset for the whole of Europe at 1:1 million scale.
- Accelerating the development and deployment of the emerging international interchange standard language for geological information (GeoSciML).
- Removing barriers and making it easier for a wide range of both public and private sector organizations to use geological data through codes of practice on licensing.
- Creating a common language that helps to acquire geological knowledge and move it closer to end-users for a greater public impact.
- Making substantial progress in the implementation of the INSPIRE European Directive in the geoscience domain.