material useful in the nuclear technology (radioactive etc.). The existing information concerning these materials in the above areas is yet insufficient.

The prospects of localizing exploitable quantities of conventional resources seems to be hectic, since the ancients were very able in exploring and exploiting - during some millenia - the available resources, known in the Antiquity.

MIDDLE JURASSIC - EARLY CRETACEOUS RADIOLARIAN BIOCHRONOLOGY OF TETHYS: IMPLICATIONS FOR THE AGE OF RADIOLARITES IN THE HELLENIDES (CREECE)

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The Working Group has held three meetings (Lausanne 1989, Munich 1990, Paris 1991). We have agreed on the systematics of about 600 taxa to be used for the creation of a Middle Jurassic to Lower Cretaceous radiolarian biozonation. Taxa difficult to identify in poorly preserved materiel heve preferantially been placed at subspecies level, whereas our species represent a more broadly defined group of morphotypes determinable even in poorly preserved samples. The resulting zonation is based on, and can be epplied to a wide range of preservational stages, typical for Mesozoic radiolarians.

The publication of a Radiolarian Atlas illustrating all taxa, including the holotype, with original and subsequent definitions and up-to-date synonymy, as well as chepters detailing the biostratigraphy from each region (authored by each contributor) is planned for lata 1992.

Our data base consists of radiolarian occurrence data from over 1100 samples from 130 measured sections of the Middle Jurassic to Early Cretaceous time interval, recovered from the Tethyan - Circumpacific low paleolatitude realm. Sample localities include the Alpine Mediterranean area, Central and Eastern Europe, Oman, Japan,

parts of Western North America, Central America and low paleolatitude DSDP - ODP sites in the Oceans.

The contributors agreed on using the Unitary Associations method to integrate individual data sets into a common zonation. Unitary Associations (U.A.) are calculated with the program BIOGRAPH (J. Savary and J. Guex, Institut de Géologie, University of Lausanne). The U.A. method creates a synthesis of the coccurrences of taxa observed in all samples from all sections. The program BIOGRAPH produces a co-occurrence chart of chronologically ordered U.A., in which the maximum range of each species is displayed with respect to the maximum ranges of all other species. In general, several U.A. are grouped to define a biochronozone, to insure the optimum of lateral reproducibility, and superpositional control of zones in as many sections as possible.

The large number of included taxa and sections results in a good temporal resolution (about 80 U.A. for the Middle to Upper Jurassic and 35 U.A. for the Lower Cretaceous). We will create about 20 zones for the Aalenian - Aptian interval. Chronostratigraphic calibration was obtained by correlation to ammonite zones, calpionellids, nannofossils and magnetic polarity zones.

The increased number of taxa and better calibration to ammonites, especially in sections located in the Subbetic Realm (Spain) and the Southern Alps (Italy) allow to precise the age of radiolarites in the Ionian and Pelagonian Zones of the Hellenides.

In the Ionian Zone the Upper Posidonia Beds represent the radiolarites of other areas. The oldest beds of this formation are dated in basinal sections as latest Bajocian (Skandhalon section) or early to middle Bathonian (Tsibouriki section). Sedimentation of the basinal "Posidonia" Beds is continuous up to the lower Thithonian. The first beds of the overlying Vigla Formation contain calpionellids of the latest Tithonian - early Berriasian. In "seamount" sections, important hiatuses can now be documented: At Kato Kouklessi, the few meters of Upper Posidonia Beds are dated as middle to late Oxfordian, whereas the entire Kimmeridgian and Tithonian is lacking.

In the Argolis Peninsula, belonging to the Pelagonian realm, radiolarite sedimentation started as early as middle Bajocian in the basinal sequences of the Asklipion Nappe, and on Hydra Island. Radiolarites on Ophiolites (Migdhalitsa Ophiolite Unit) can now be dated as middle Bathonian or younger. In the Basal Sequences of the Argolis peninsula, radiolarites started as late as early to middle Oxfordian, which is typical for Tethyan "seamount" sequences (like the Trento Plateaou in Northern Italy). The earliest ophiolitic detritus occurs in radiolarites dated as middle to late Bathonian on Hydra Island. In the Argolis peninsula ophiolite detritus first occurs in lower-middle Oxfordian siliceous mudstones in all units. These new calibrations imply that the Eohellenic orogenic phase emplacing Ophiolites of the Vardar Ocean was recorded by the arrival of ophiolitic detritus as early as middle to late Bathonian in the internalmost Pelagonian units, while ocean floor was still forming.