this study are by far lower than those of the imported granitic rocks in Greece. Therefore, at least from radiological point of view and for the investigated rocks, the granites from the Atticocycladic Zone can be used as building materials rather than the majority of the imported granites.

Tectonostratigraphic models of the Alpine tectonostratigraphic terranes of the Hellenides

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The tectonostratigraphic terrane analysis of the Hellenides has resulted in the distinction of nine terranes, representing five continental crustal blocks with pre-Alpine basement overlain by Alpine carbonate platfroms and four Tethyan oceanic terranes with ophiolites and pelagic sediments. The tectonostratigraphy of the above terranes is related to their paleogeodynamic and paleogeographic evolution, which can be distinguished in three major stages: (i) A first stage of continental rifting in the northern margin of Gondwana, which is characterised by volcanosedimentary successions of Late Palaeozoic – Triassic. (ii) A second stage of continental drifting and of oceanic opening of Tethyan basins in between the continental terranes. This stage is characterised by the development of shallow-water carbonate platforms on the continental terranes and by ophiolite suites interlayered with pelagic sediments within the tethyan basins. The duration of this stage is Triassic – Paleogene. (iii) A third stage of docking of the tectonostratigraphic terranes along the active European margin, which is characterised by flysch sedimentation along the trenches developed in front of the evolving arc and trench systems. The duration of this stage is from late Triassic to Neogene. The timing of the transition from one period to the other for each terrane is shown by the different tectonostratigraphic formations observed in each case with distinction of two models: one for the continental terranes and carbonate platforms and another for the oceanic basins. In both cases the duration of each geodynamic stage for each terrane is obtained from the chronology of the tectonostratigraphic facies change. Thus, the rifting stage comprises the ages of the successive volcanosedimentary formations, the drifting and oceanic opening stage comprises the ages of the carbonate platforms and of the ophiolites and associated pelagic sequences respectively and the docking stage comprises the ages of the flysch formations. The general trend is younger ages observed in the southern terranes and older ages towards the northern terranes. The two alternative tectonostratigraphic models are applied in the two groups of terranes with indication of the different timing of each formation, corresponding to the different geodynamic-paleogeographic stages. The period of drifting of each terrane can be used as a dimensional indicator of the Tethyan width that was covered by the terrane motion across the ocean (e.g. 190 Ma for the Tripolis platform but only 110 Ma for the Pelagonian platform).

Tectonostratigraphic observations in the western Thrace Basin in Greece and correlations with the eastern part in Turkey

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New observations on the Tertiary tectonostratigraphy of the western part of the Thrace Basin in Greece enabled the distinction of several tectonostratigraphic formations ranging between Middle Eocene and Late Oligocene. The first major conclusion was that two NE-SW trending dextral strike-slip fault zones – the Soufli FZ in the south and the Ardas FZ in the north- dissect the western part of Thrace Basin into three sub-basins: the Alexandroupolis SB in the south, the Orestias SB in the middle and the Petrota SB in the north.

The Alexandroupolis SB consists of two stratigraphic sequences separated by an angular unconformity. The lower sequence comprises the Kirki Formation, made of sandstones, shales and conglomerates of reddish colour, overlain by a 30 m thick sandstone member and by the Chorafaki Formation made of alternations of sandstones and pelites. The age has been determined as Middle Eocene (nannofossil biozone NP17, 39.8-36.8 Ma). The upper sequence comprises the Avas Formation, made of neritic limestones followed by the Pylaea Formation, made of marls, sandstones and some limestone interbeds. The age has been determined as Late Eocene-Early Oligocene (NP19/20-NP23, 36.2-30.0 Ma). At the area around Feres the Pylaea Formation contains thick volcanic rocks and pyroclastics.

The Orestias SB is featured only by the upper sequence, comprising the Metaxades Formation which is equivalent to the Avas Formation of Alexandroupolis SB and the Pythion Formation, which is equivalent to the Pylaea Formation of Alexandroupolis SB. A characteristic stratigraphic member is the *Congeria*-bearing limestone of Early Oligocene age. Volcanic rocks are practically absent from Orestias SB.

The Petrota SB has a basal clastic formation of sandstones and conglomerates of Late Eocene age, overlain by marls of Oligocene age.

The pre-Tertiary basement is different in the three sub-basins of western Thrace. The low-grade metamorphic Makri unit (part of the Circum Rhodope Unit) is observed below the western margin of Alexandroupolis SB, whereas the Melia not metamorphosed diabases and flysch are observed below the central part of the sub-basin. On the contrary, medium-high grade metamorphic rocks are observed below the southern margin of Orestias SB and also below the western margin of Petrota SB.

The above tectonostratigraphy can be correlated to that of the southern part of Eastern Thrace in Turkey around Tekirdag- Keşan - Kallipolis. Thus, Kirki Fm is equivalent to Fiçitepe Formation, Chorafaki Formation is equivalent to Keşan Formation, Avas Formation is equivalent to Soğucak Fm, Pylaea Formation is equivalent to Ceylan and Mezardere Formations. The *Congeria*-bearing sediments are indicating the northern margin of the Thrace basin both in the western part (e.g. Didimoticho, Pythion Fm) and the eastern part (e.g. Pinarhisar).

Fault geometry, surface ruptures, damage pattern and deformation field of the 2009 L'Aquila earthquake in Italy. Findings and implications

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The 6th of April 2009 Mw=6.3 earthquake in L'Aquila, central Italy, provides a broad range of useful outcomes and points for consideration in relation to all disciplines involved in seismic hazard assessment. Despite its moderate magnitude, the L'Aquila event resulted in the highest earthquake death toll in the EU since the 1980 Irpinia (Italy) quake. This event provides an important case-study, most notably because moderate magnitude earthquakes in areas of high population density, such as this, present a high risk in extensional settings due both to their high rate of occurrence and proximity to human habitation, forming a typical case study scenario. This event ruptured a small fault segment of the fault system and not one of the major postglacial fault scarps that outcrop in the area. This explains the minor primary surface ruptures that have been reported so that the 2009 L'Aquila event can be characterized