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THE APENNINES, THE DINARIDES, AND THE ADRIATIC SEA: IS THE ADRIATIC MICROPLATE A REALITY?

ABSTRACT: OLLIER C.D. & PAIN C.F., *The Apennines, the Dinarides, and the Adriatic Sea: is the Adriatic Microplate a reality?*. (IT ISSN 0391-9838, 2009).

The Apennines and the Dinarides consist of nappes thrust towards the Adriatic Sea, which is underlain by largely undisturbed rocks. Plate tectonic reconstructions are very varied, with supposed subduction in many different directions. Besides this there is an over-ruling concept that a plate called the Adriatic (or Adria) Plate moved north from Africa to Europe where its collision helped to create the Alps. Some think the plate is still moving. The total tectonic setting, together with palaeontological and seismic data, suggests that the older model of two converging nappe belts meeting a common foreland best fits the observed facts.

KEY WORDS: Adriatic, Apennines, Dinarides, Plates, Arcs.

RIASSUNTO: OLLIER C.D. & PAIN C.F., *Gli Appennini, le Dinaridi e il mare Adriatico: la Microplacca Adriatica è una realtà?*. (IT ISSN 0391-9838, 2009).

Gli Appennini, le Dinaridi sono costituiti da thrusts vergenti verso il mare Adriatico che è costituito da vaste estensioni di rocce indisturbate. Le ricostruzioni secondo la tettonica a placche sono state molteplici con supposti piani di subduzione in diverse differenti direzioni. Tra esse quella più accettata è l'ipotesi di una placca chiamata Adriatica o semplicemente Adria che si sarebbe mossa dall'Africa verso l'Europa dove la sua collisione avrebbe permesso la creazione delle Alpi. Alcuni pensano che la placca si stia ancora muovendo. Il quadro tettonico globale, insieme con i dati paleontologici e sismici, suggerisce che il più vecchio modello di due corpi a falde convergenti verso un comune avampaese meglio rispecchiano i dati osservati.

TERMINI CHIAVE: Adriatici, Appennini, Dinaridi, Placche, Archi.

INTRODUCTION

The long Adriatic Sea is bounded by the Italian Peninsula (with the Apennine Mountains) and a mountain range

here called the Dinaride Mountains (which is sometimes split into different ranges in different countries, such as the Albanides in Albania) as shown in fig. 1. Structurally both the Apennines and the Dinarides are thrust towards the Adriatic. The tectonic position of this area is problematic.

In plate tectonic terms the Dinaride Mountains are usually explained as a result of subduction of a plate under the Dinarides. Similarly the Apennines are commonly ex-

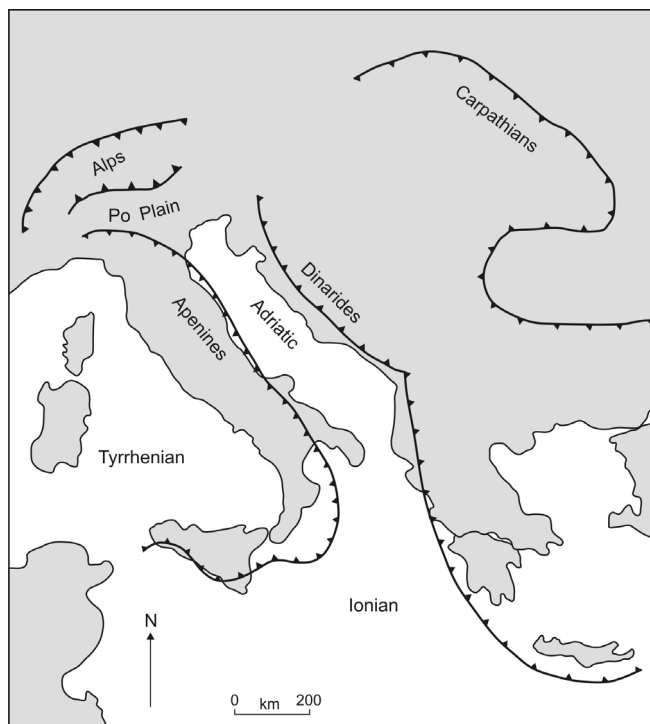


FIG. 1 - Geography of the Adriatic and its surroundings, showing postulated arcs.

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