

# Geological development of the Sicilian-Tunisian Platform

Proceedings of the  
International Scientific Meeting  
held at the University of Urbino,  
Italy, 4-6 November 1992



UNESCO 1993

## CONTENTS

### 1. Introduction: The Sicilian-Tunisian Platform: Its geodynamic position and geoenvironmental data bases.

	Page
Geomorphological position and geology of the Sicilian-Tunisian Platform: Summary of contributions from the Urbino meeting. M. D.Max & P. Colantoni . . . . .	1
Acquisition and computerized utilization of hydro-oceanographic data from field trials to cartographic use. A. Camaiora, R. Di Bona, P. Lusiani, A. Sfregola & F. Spanio . . . . .	3
Main aspects of marine geology in the "C.A.R.G. Project" of the National Geological Survey of Italy. A. Todisco, V. Catenacci, P. Lembo, N.A. Pantaleone & L. Sacchi . . . . .	7
Development of a geological-geophysical database for the Strait of Sicily: southwestern offshore Sicily.P. Fleischer, W. Sawyer & F.A. Bowles . . . . .	11

### 2. Geological Setting & Tectonics

Sicily mainland and its offshore: A structural comparison. R. Catalano, P. Di Stefano, F. Nigro & F.P. Vitale . . . . .	19
Structural evolution of the northern Sicily continental margin during the Plio-Pleistocene. M. Agate, R. Catalano, S. Infuso, M. Lucido, L. Mirabile & A. Sulli . . . . .	25
Evidence for accretionary prisms in the southeastern part of the Caltanissetta area. N. Biebow, A. Hamich, A. Schiebel, E. Söding, H. Bäcker, W. Brenner & J. Thiede . . . . .	31
The Pelagian foreland and its northward foredeep. Plio-Pleistocene structural evolution. R. Catalano, S. Infuso & A. Sulli . . . . .	37
The submerged Sicilian-Maghrebian chain along the Sardinia Channel-Sicily straits belt. R. Catalano,S. Infuso, A. Milia & A. Sulli . . . . .	43
Pleistocene structures at the Ionian Side of the Hyblean Plateau (SE Sicily): Implications for the tectonic evolution of the Malta Escarpment. M. Grasso . . . . .	49
Neogene tectonics of the Strait of Sicily. A. Argnani . . . . .	55
Seismostratigraphic analysis of the Neogene basins superposed on the Maghrebian orogen west of the Egadi Islands: Preliminary results. F. Gamberi & A. Argnani . . . . .	61
Structural and stratigraphic framework of the Tunisian shelf surrounding the islands of Lampione and Lampedusa (Pelagian Sea). M. Grasso, G. Mazzoldi & L. Torelli . . . . .	65
Structure and Neogene dynamics of the northern Tunisia margin. P. Tricart, L. Torelli, J.-P. Bouillin, F. Rekhiss, A. Argnani, G. Brancolini, L. De Santis, D. Peis & N. Zitellini . . . . .	71

Tectonic zonation of the Tunisian - Sardinia margin based on study of the magmatic rocks. F. Rekhiss, M. Ayadi & L. Bouhlel	77
---	----

Mesozoic structuring and volcanics along the Pelagian-Ionian boundary: A prelude to foundering of the Ionian Basin. M. Pedley, G. Debono & M. Yeaman	81
--	----

### 3. Plio-Quaternary and Recent Sediments

Morpho-lithological map (1:50,000) of the Egadi Islands shelf (western Sicily). P. Colantoni, P. Lembo, N.A. Pantaleone, L. Sacchi & F. Spanio	87
Morphology and Recent sedimentary evolution of the western Sicilian Continental Shelf. P. Colantoni, M. Ligi, P. Morsiani, P. & D. Penitenti	93
Basin analysis and sequence stratigraphy of the Plio-Pleistocene of Sicily. R. Catalano, E. Di Stefano, G. Lo Cicero, S. Infuso, P.R. Vail & F.P. Vitale	99
Plio-Pleistocene sequence stratigraphy of south western off-shore Sicily from well logs and seismic sections in a high resolution calcareous plankton biostratigraphic framework. E. Di Stefano, S. Infuso & S. Scarantino	105
Plio-Pleistocene stratigraphy and fault movement of the Malta Platform. W. Gardiner, M. Grasso & D. Sedgeley	111
Small-scale Plio-Quaternary sequence stratigraphy, and shallow geology of the west-central Malta Plateau. M.D. Max, Å Kristensen & E. Michelozzi	117
Shallow sediment composition at four localities on the Sicilian-Tunisian Platform. B. Tonarelli, F. Turgutcan, M.D. Max & T. Akal	123
Sediment patterns within the trough separating the Tunisian and Sicilian Platforms. F.A. Bowles, D.N. Lambert & M.D. Richardson	129
Outcropping pre-Pliocene strata in the Strait of Sicily. F.A. Bowles & P. Fleischer	135
Shallow sediment shear structure at three sites in the Sicilian-Tunisian Platform. A. Caiti, S. Fiori, G. Guidi, E. Michelozzi & W.X. Zimmer	141
Some notes on recent turbiditic sedimentation in the Pantelleria Basin (Sicily Channel). P. Colantoni, M. Tramontana & C. Alberini	147
Geomorphological observations of the sea bed between Cape Bon and Cape Feto (Straits of Sicily), P. Orrù, G. Melegari & M. Badalini	153