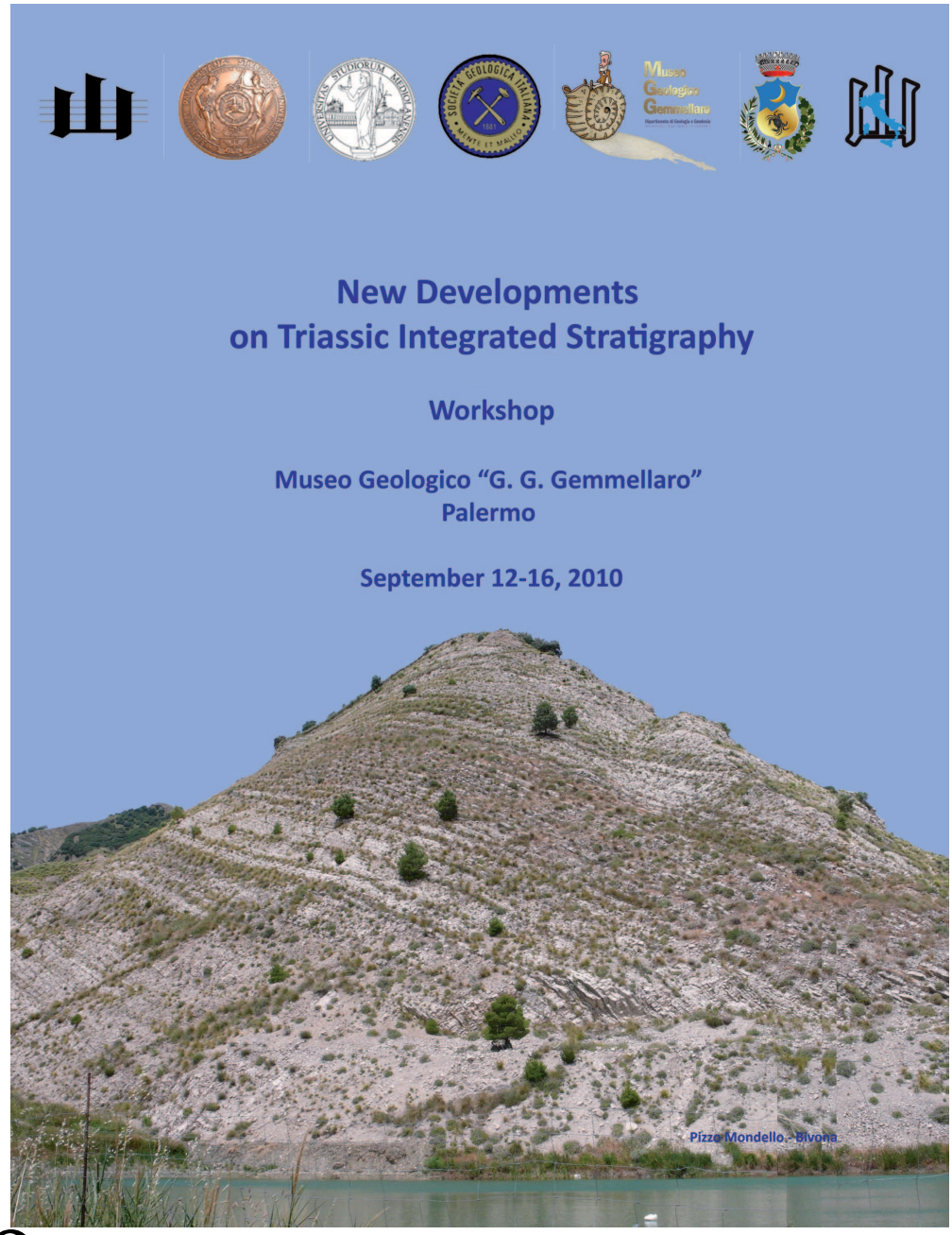
ALBERTIANA

Excursion Field Guide and Abstract Volume



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The primary aim of ALBERTIANA is to promote the interdisciplinary collaboration and understanding among members of the I.U.G.S. Subcommission on Triassic stratigraphy. Within this scope ALBERTIANA serves as the newsletter for the announcement of general information and as a platform for discussion of developments in the field of Triassic stratigraphy. ALBERTIANA is available as PDF at the STS website. Please send your manuscript to albertiana2010@gmail.com .

Cover: The Pizzo Mondello section.

"New Developments on Triassic Integrated Stratigraphy "

Organizing Committee

Marco Balini, Carolina D'Arpa, Carolina Di Patti, Pietro Di Stefano,
Alda Nicora, Simona Cacciatore, Antonio Cusumano, Marco Levera, Michele Mazza, Manuel Rigo, Angelo Tripodo, Giuseppe Zarcone.

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Maurizio Gaetani, Piero Gianolla, Leo Krystyn, Chris McRoberts, Paolo Mietto, Giovanni Muttoni, Mike Orchard.

Patronage

Società Geologica Italiana
Società Paleontologica Italiana
Commissione Italiana di Stratigrafia.

Co-sponsors

Subcommission on Triassic Stratigraphy (ICS)
Università degli Studi di Milano
Università degli Studi di Palermo
Università degli Studi di Palermo, Dipartimento di Geologia e Geodesia
Museo Geologico "G.G. Gemmellaro"
MIUR-PRIN 2008 Project "Upper Triassic integrated stratigraphy: GSSP and auxiliary sections in Italy"
Comune di Bivona.

Workshop Program

September 12, Sunday

from 19,00 registration.

19,30 Ice Breaker party.

September 13, Monday

9,00-9,20, Opening ceremony

Session 1. ***Western Tethys stratigraphy, dedicated to the memory of the late Giovanni Viel (1944-2009)*** .

9,20-9,30 Farabegoli E. — Dedication to Giovanni Viel.

9,30-9,50 Farabegoli E. — Anisian lithostratigraphy of the Dolomites: a 40-years-long debate.

9,55-10,15 Binda M., Berra F. and Jadoul F. — Calcare Rosso: key witness of the Ladinian carbonate platform exposure (Pegherolo Massif, Southern Alps).

10,20-10,40 Balini M., Nicora A. & Larghi C. — Biochronostratigraphic revision of the Wengen Formation (Ladinian-earliest Carnian) in the central Southern Alps.

10,45-11,05 Gianolla P., Mietto P., Rigo M., Roghi G. & De Zanche V. — Carnian-Norian paleogeography in the eastern Southern Alps.

11,10-11,30 *Coffee break*

11,30-11,50 Martin-Rojas I., Somma R., Delgado F., Estévez A., Iannace A., Perrone V. & Zamparelli V. — Sequence stratigraphy analysis of Triassic carbonate platform. An example from the Betic Cordillera Internal Zone (Spain).

11,55-12,15 Somma R., Martin-Rojas I., Zamparelli V., Delgado F., Estévez A., Iannace A., & Perrone V.— Significance of Ladinian foraminifer-rich guide levels in the Betic Internal Zone (Spain).

12,30-14,30 *Lunch*

14,30-14,50 Gale L. — Upper Triassic sedimentation of the Slovenian Basin (eastern Southern Alps, Slovenia) and its foraminiferal assemblage.

14,55-15,15 Cacciatore M. S., Di Stefano P., Zarcone G.— Carbonate Platform-Basin Transition in SW Sicily. Implications for the paleogeographic reconstruction of the Central Mediterranean area.

Session 2. ***Biostratigraphy, integrated stratigraphy and Triassic scales***

15,20-15,40 Bachmann G. H. & SPBA Triassic Working Group—Triassic Stratigraphy and Facies of the Southern Permian Basin Area (England to Poland).

15,45-16,10 Farabegoli E. & Perri M.C. — The end-Permian mass extinction.

16,15-16,30 *Coffee break*

16,30-18,00 *Poster session*

Balini M., Krystyn L., Levera M. & Tripodo A.— Late Carnian-Early Norian ammonoids from the GSSP candidate section Pizzo Mondello (Sicani mountain, Sicily).

Bertinelli A. & Giordano N. — Radiolarian assemblages from the Norian GSSP candidate Pizzo Mondello section (Sicani Mountains, Sicily).

Cacciatore M.S., Todaro S., Zarcone G. & Di Stefano P. — *Triasina hantkeni* limestones from Sicily.

Golding M.L., Zonneveld J.-P., Orchard M.J., Mortensen J.K. & Ferri F.— Lower and Middle Triassic Stratigraphy of the Western Canada Basin and Implications for Timing of Terrane Accretion.

Levera M. & McRoberts C.A. — *Halobiid* bivalves as a tool for high resolution correlation between Carnian-Norian successions in Tethys and Panthalassa: a potential datum for a base-Norian GSSP.

Preto N., Rigo M., , Agnini C., Guaiumi C. , Borello S. & Westphal H. — Triassic and Jurassic calcareous nannofossils of the Pizzo Mondello section: potential for biostratigraphy.

Rigo M., Preto N., Boscaini N., Cognolato A., Franceschi M., Guaiumi C. & Osti G. — Stratigraphy of the Carnian – Norian Carcari con Selce in the Lagonegro Basin (Southern Apennines) and correlation with the Sicani Basin.

Tripodo A., Balini M. & D'Arpa C. — The revision of *Pinacoceras* (Ammonoidea, Upper triassic) of the Gemmellaro Collection.

Zarcone G. Cacciatore M.S., Todaro S., & Di Stefano P. — End Triassic karstification of a south Tethyan carbonate platform: the genesis of the "Libeccio Antico" a famous Baroque dimension stone.

September 14, Tuesday

Session 2. Biostratigraphy, integrated stratigraphy and Triassic scales.

9,00-9,20 Kozur H.W. & Bachmann G.H. — Correlation of the predominantly continental Upper Triassic of the Germanic Basin with the Tethyan scale.

9,25-9,45 McRoberts C. — Paleoecological controls on Triassic flat clam biochronology.

9,50-10,10 Kozur H.W. & Weems R.E — The conchostracan zonation of the Upper Triassic and basal Jurassic. Age of the CAMP volcanics in the Newark Supergroup.

10,15-10,40 *Coffee break*

Session 3. Towards the definition of the GSSP of the Norian stage.

10,40-11,00 Guaiumi C., Preto N. & Westphal H. — Origin of Upper Triassic deep water carbonate at Pizzo Mondello (Sicily).

11,05-11,25 Levera M.— An overview of the Sicilian halobiids from the Carnian-Norian boundary interval through the Pizzo Mondello fauna: useful proxies for the Norian GSSP.

11,30-11,50 Balini M., Bertinelli M.A., Di Stefano P., Guaiumi C. , Levera M., Mazza M., Muttoni G., Nicora A., Preto N., Rigo M., Krystyn L. & McRoberts C. — Bio-chronostratigraphic calibration of the Upper Carnian-Lower Norian magnetostratigraphic scale at Pizzo Mondello (Sicani Mountains, Sicily).

11,55-12,15 Mazza M., Cau A. & Rigo M.— Application of numerical cladistic analyses to the Carnian-Norian conodonts: a new approach for phylogenetic interpretations.

12,30-14,30 *Lunch*

14,30-14,50 Krystyn L.— Long distance marine biotic correlation events around the Carnian-Norian boundary: choice of Halobia austriaca as the defining boundary marker

14,55-15,15 Zonneveld J.P., Orchard M.J. , Beatty T.W., McRoberts C.A. & Williford K.H. — Stratigraphic architecture of Upper Triassic strata in the Williston Lake area, northeastern British Columbia: Implications for the Carnian-Norian GSSP.

15,20-15,40 Orchard M.J. — An exceptional conodont succession from the Carnian-Norian boundary of the Western Canada Sedimentary Basin, northeastern British Columbia.

15,45-16,05 Orchard M.J. & Carter E. S. —The Carnian-Norian boundary in Haida Gwaii: preliminary observations on the conodont faunas and their calibration with radiolarians.

16,10-16,30 *Coffee break*

16,30-18,00 Business Meeting of the STS

Evening: Social Dinner (Please contact the workshop desk for information).

Field excursion
The Triassic of western Sicily

September 15, Wednesday, Day 1 of the excursion

8,30 Meeting point Museo Gemmellaro.

8.45 Departure by bus.

Carnian to Lower Jurassic successions from the Panormide Platform and Imerese Basin (Palermo Mountains). The following outcrops will be visited:

- Cozzo di Lupo, the Late Triassic shelf-edge of the Panormide Carbonate Platform;

- Billiemi quarry, synsedimentary tectonics along the

Panormide Carbonate Platform margins;

- Cozzo Paparina, Carnian deposits (Mufara Formation) with megabreccia intercalations;

Monte Genuardo, tectonic retreat of a segment of the Triassic paleomargin of the Saccense carbonate platform around the T/J boundary.

Field leaders: Di Stefano P., Cacciatore M. S., Scopelliti G. and Zarcone G.

Dinner and overnight: Convento dei Cappuccini (Bivona).

September 16, Thursday, Day 2 of the excursion

Carnian to Rhaetian succession of the Sicanian Basin at Pizzo Mondello.

Four intervals will be visited: the Late Carnian-Early Norian, that is of great interest for the definition of the C/N boundary, the Middle Norian, the Late Norian and the Rheatian.

On the way to Palermo, panoramic views of some other successions of the "cherty limestone" will be observed.

Field leaders: Balini M., Bertinelli A., Guaiumi C., Levera M., Mazza M., Muttoni G., Nicora A. , Preto N. and Rigo M.

Arrival in Palermo in mid-late afternoon (approximately 18.00).

The revision of *Pinacoceras* (Ammonoidea, Upper Triassic) of the Gemmellaro Collection

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The Triassic ammonoids described by G.G. Gemmellaro constitute one of the most important collections housed in the homonymous museum of Palermo University. This collection is composed of 780 specimens attributed to 49 genera that are further divided in 230 taxa of which 166 have been erected by Gemmellaro. The collection was done between the end of 1800 and the first years of 1900 by Gemmellaro or his co-workers. All the ammonoids of this collection have been described in the monograph "*I cefalopodi del Trias Superiore della regione occidentale della Sicilia*" (Gemmellaro, 1904). This monograph provides the final report of the taxonomic and stratigraphic studies performed by Gemmellaro on the Triassic cephalopoda.

Since the beginning of the XX no studies on Upper Triassic ammonoids from Sicily have been carried out, while the taxonomy and biostratigraphy of coeval faunas have been notably improved in other Tethyan areas and North America. As a consequence the original taxonomy by Gemmellaro was no more up to date, and his collection needs a deep systematic revision. Two years ago we started a project aiming at this revision and we present here a first contribution on the genus *Pinacoceras*.

The type species of this genus is *Pinacoceras metternichi* (Hauer, 1846). It was established by Mojsisovics, 1873 on specimens from Hallstatt (Northern Alps, Austria), and it includes 34 species divided into 6 groups. For a long time *Pinacoceras* has been considered a "basket" containing a wide variety of species. Some authors have tried to provide a more refined taxonomy of the genus, by separating some groups as independent genera like *Eupinacoceras*, *Parapinacoceras*, *Placites* (see Arkell et al. 1957).

Gemmellaro originally described 4 species of *Pinacoceras*, but actually only 3 of them are documented in the Gemmellaro collection: *P. zitteli* Gemmellaro, 1904, *P. suessi* Gemmellaro, 1904, *P. haueri* Gemmellaro, 1904.

The type specimens of these 3 species have been re-described and, as a result, we suggest to include *Pinacoceras suessi* into *Eupinacoceras* Spath, 1951 for the characteristic sutural line.

The remaining Sicilian species show some different features from *Pinacoceras* s.s. (i.e., the group of *P. metternichi*), such as the Uw/D parameter and the more simple sutural line. The cronostratigraphic distribution is different too, in fact *P. metternichi* (Krystyn, 2008) is referred to the Upper Norian-Lower Rhaetian stage while the Gemmellaro species probably came from Carnian beds. For all of these reasons most probably *P. zitteli* and *P. haueri*, represent a separate group of *Pinacoceras*.

References

Arkell W.J. *et al* 1957. Part L, Mollusca 4, Cephalopoda Ammonoidea. In Treatise on invertebratepaleontology.

Gemmellaro G.G. 1904. I cefalopodi del Trias superiore della regione occidentale della Sicilia. *Giorn. di Scienze Naturali ed Ec*., v. 24, p. 1-319, pl. 30.

Hauer F. von 1846. Die cephalopoden des Salzkammergutes aus der Sammlung seiner Durchlaucht des Fursten von Metternich. iv + 48 p., 11 pl.

Krystyn L. 2008. The Hallstatt pelagic – Norian and Rhaetian Fossilagerstatten of Hallstatt. InUpper Triassic subdivision, zonations and events. *Berichte Geol. B.-A*., 76: p. 81-98.

Mojsisovics E.M. von 1873. Das Gebirge um Hallstatt, Theil I, Die mollusken-faunen derZlambach – und Hallstatter Schichten. *Abhandlungen der geologischen Reichsanstalt*, V. 6(1): 1-174, Pl. 70.

End Triassic karstification of a south Tethyan carbonate platform: the genesis of the "Libeccio Antico" a famous Baroque dimension stone

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The S.Vito Lo Capo Peninsula is the most important area for the extraction of dimension and ornamental stones in Sicily (Bellanca and La Farina, 1962). This area is known as the Custonaci (marble) district. At present the most quarried stone is the "Perlato di Sicilia" a rudist limestone breccia of Cretaceous age. Triassic and Jurassic limestones were also quarried and a famous polichrome limestone known as the *Libeccio Antico* was appreciated mostly during the Baroque age (Montana and Gagliardo, 1998). This ornamental stone offers a good example to discuss the evolution of the Panormide Carbonate Platform around the Triassic/Jurassic boundary. The old quarries of *Libeccio Antico* are located along the northern slope of Monte