

7th International Triassic Field Workshop (Pan-European Correlation of the Triassic)

Dolomites Field trip to the World Heritage Site of the Tethian Triassic

September 5–10, 2010, Dolomites, Southern Alps, Italy

1st Circular

PIERO GIANOLLA¹ (COORDINATOR)
MARCO AVANZINI²,
EVELYN KUSTATSCHER³ (SEGRETARIAT)
NEREO PRETO^{4,5}
GUIDO ROGHI⁵,

¹ Dipartimento di Scienze della Terra, Università di Ferrara; ² Museo Tridentino di Scienze Naturali, ³ Naturmuseum Bozen, ⁴ Dipartimento di Geoscienze – Università di Padova; ⁵ CNR – Institute of Geosciences and Georesources Padova,

"The nine components of The Dolomites World Heritage property protect a series of highly distinctive mountain landscapes that are of exceptional natural beauty. Their dramatic vertical and pale colored peaks in a variety of distinctive sculptural forms is extraordinary in a global context. This property also contains an internationally important combination of earth science values. The quantity and concentration of highly varied limestone formations is extraordinary in a global context, whilst the superbly exposed geology provides an insight into the recovery of marine life in the Triassic period, after the greatest extinction event recorded in the history of life on Earth. The sublime, monumental and colorful landscapes of the Dolomites have also long attracted hosts of travellers and a history of scientific and artistic interpretations of its values."

(Declaration of outstanding universal value, World Heritage Committee, Seville 26.06.2009)



The 7th International Triassic Field Workshop is dedicated to visit the classical localities of the Triassic of the Dolomites, after their inscription in the World Heritage List as serial natural property. On June 26th, 2009 the Dolomites have been inscribed in the WHL because of their exceptional beauty and unique landscape, but also for their scientific importance from the geological and geomorphological point of views (criteria vii and viii). In particular, the criterion viii (*to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features*), is strictly related to the geological importance of the Dolomites for the Triassic as summarized by the motivation given by the World Heritage Committee in Seville (Spain):

“The Dolomites are of international significance for geomorphology, as the classic site for the development of mountains in dolomitic limestone. The area presents a wide range of landforms related to erosion, tectonism and glaciation. The quantity and concentration of extremely varied limestone formations is extraordinary in a global context, including peaks, towers, pinnacles and some of the highest vertical rock walls in the world. The geological values are also of international significance, notably the evidence of Mesozoic carbonate platforms, or “fossilized atolls”, particularly in terms of the evidence they provide of the evolution of the bio-constructors after the Permian/Triassic boundary, and the preservation of the relationships between the reefs they constructed and their surrounding basins. The Dolomites also include several internationally important type sections for the stratigraphy of the Triassic Period. The scientific values of the property are also supported by the evidence of a long history of study and recognition at the international level. Taken together, the combination of geomorphological and geological values creates a property of global significance.”

(Declaration of outstanding universal value, World Heritage Committee, Seville 26.06.2009)

Therefore this workshop is the opportunity to touch in the field the exceptional exposure of depositional geometries and interactions between landscape and geology that make the Dolomites unique for Triassic students and so important for all humanity.

This workshop is in ideal continuity with earlier international Triassic workshops held in England (2004), Central Germany (2005), Eastern France (2006), Western Poland (2007), Hungary (2008) and South Germany (2009).



Program

September 5th: arrival in Bozen/Bolzano, registration and welcome party at the Museum of Nature South Tyrol. The welcome party includes a tasting of local wines; a local producer will give some description of the geographical, pedological and geological characters of the vineyards. Three key lectures about the stratigraphy, the paleontological and historical importance of the Dolomites for the Earth Science will be also given.

September 6-10: Field trip to Permian/Triassic outcrops of the Dolomites: (see below).

Field Trips

Monday, September 6th, 2009

The Bletterbach gorge (Late Permian – Early Triassic)

Guides: M. AVANZINI, E. KUSTATSCHER, P. GIANOLLA

Visit to one of the best exposed section of continental to marginal marine succession for the Upper Permian and Lowermost Triassic of the Southern Alps.

Main topics of the day:

- Upper Permian footprints and plant fossils of the Val Gardena Sandstone;
- Sequence stratigraphy in a continental – marginal marine setting;
- The Late Permian Transgression and the Bellerophon Formation;
- The Permian - Triassic boundary and the Werfen Formation;

4.00 p.m. Visit to the Museum of the Geoparc Bletterbach

Overnight in Campitello di Fassa

Tuesday, September 7th, 2010

Passo Feudo, Mt. Agnello and Latemar (Middle Triassic)

Guides: N. PRETO, M. AVANZINI, P. MIETTO, P. GIANOLLA, G. ROGHI

The day is dedicated to the visit of one of the historical areas for the Triassic of the Dolomites where the relations between volcanism, tectonism and carbonate sedimentation are clearly visible.

Main topics of the day:

- Prevolcanic carbonate platforms and related basinal units: the Anisian platforms and ramps and the high relieve carbonate platforms;
- The demise of Mt. Agnello by volcanics and volcanoclastics;
- The slope at Mt. Cavignon and the startup of the Latemar carbonate platform;
- Discussion on Triassic synsedimentary tectonics

5.00 p.m. Visit to the Predazzo Museum, hosted by dott Elio Dellantonio and key lecture about the Latemar carbonate platform by Nereo Preto.

Overnight in Campitello di Fassa

Wednesday, September 8th, 2010

Col Rodella and P.ta Grohmann (Upper Ladinian – Lower Carnian)

Guides: P. GIANOLLA, P. MIETTO, E. KUSTATSCHER N. PRETO, G. ROGHI

The day is dedicated to the visit of a complete basinal succession starting from submarine volcanics (pillow lava, pillow breccia and hyaloclastites), recording the phases of dismantling and erosion of the volcanic area (Wengen Fm) and the re-establishment of the carbonate production (San Cassiano Fms and Cassian Dolomite).

Main topics of the day:

- Triassic volcano-tectonics and associated deposits;
- Sequence stratigraphy in a deep water setting and organisation of a depositional sequence;
- The Ladinian-Carnian boundary in its type area.

Overnight in Campitello di Fassa

Thursday, September 9th, 2010

Sella Group Ronda (Middle and Upper Triassic)

Guides: P. GIANOLLA, M. AVANZINI, P. MIETTO, N. PRETO, G. ROGHI

The day is dedicated to the isolated Carnian atoll of the Sella Group and to the discussion about different generations of post volcanic carbonate platforms and related basinal deposits.

Main topics of the day:

- Large scale geometry of a carbonate platform;
- Toe of slope carbonate deposits and models of carbonate exportation;
- Syn-volcanic and post volcanic carbonate platforms.

Overnight in San Cassiano (BZ)

Thursday, September 10th, 2010

Lagazuoi, Col dei Bos and Tofana di Rozes (Upper Triassic)

Guides: N. PRETO, G. ROGHI, P. GIANOLLA, M. AVANZINI,

The day is dedicated to the stratigraphic organisation of the Carnian interval with the progressive closure of the basins related to the progradation of the carbonate and the terrigenous shoreline and the definitive flattening of the paleotopography (Dolomia Cassiana, S. Cassiano, Heiligkreuz, Travenanzes Fms, and Dolomia Principale). Also the sedimentary evidence of a tropical humid climate shift in the Carnian will be discussed in the superb outcrops of the Tofane area.

Main topics of the day:

- Large scale geometry of a carbonate platform;
- The “Carnian Pluvial Event”;
- Rimmed and ramp geometries in carbonate setting.

The end of the field trip is close to Cortina d'Ampezzo (BL), where we will organise on the last evening a special dinner in order to stay together and also for discussions. The general idea is to stay one more night at San Cassiano (BZ) or to come back to Bolzano/Bozen or reach Venice or other localities on Friday, September 11th, 2010 **(more information will be given with the second circular)**

All excursions only require basic walking skills, however, most localities are on high mountain environments (up to 2400 m altitude), thus warm/waterproof coating and walking boots are recommended.

Transport will be arranged by private cars and possibly some mini-buses.

For those who will arrive by plane and/or by train, we will help to arrange their transport during the field trip. Please use the attached form for registration.

Accommodation

Only for the first night in Bolzano/Bozen is request your reservation for the hotels, the accommodation for the other 4/5 nights will be organized by us.

The city of Bozen/Bolzano offers a wide range of accommodation opportunities close to the historical center, where the Museum of Nature South Tyrol is also located.

Hotel accommodation (always including breakfast):

Hotel ****, single room 80-100 Euro, double room 100-150 Euro

Hotel ***, single room 50-70 Euro, double room 80-140 Euro

Hotel **, single room 30-60 Euro, double room 50-100 Euro

Hotel * and Pensions, single room 25-30 Euro, double room 45-70 Euro

(for further information: <http://www.bolzano-bozen.it>)

We will however try to have special rates for the workshop in some of the most nearby Hotels.

Price list (per day, including breakfast): Please remember to indicate the conference and/or the Museum to get this special prices:

address	Single room	Double room
HOTEL MONDSCHNEIN **** Tel: +39 0471 975642 e-mail. info@hotel-luna.it www.hotel-luna.it	91 Euro	147,50 Euro
HOTEL STIEGL **** Tel: +39 0471 976222 e-mail. info@scalahot.com www.scalahot.com	72 Euro	104-134 Euro
HOTEL CITTÀ *** Tel: +39 0471 975221 e-mail. info@hotelcitta.info www.hotel-luna.it	94-110 Euro	136-180 Euro
HOTEL FIGL *** Tel: +39 0471 978412 e-mail. info@figl.net www.figl.net	85-95 Euro	112-122 Euro
HOTEL REGINA A. *** Tel. +39 0471 972195 e-mail. info@hotelreginabz.it www.hotelreginabz.it	55-65 Euro	85-100 Euro
HOTEL FEICHTER ** Tel. +39 0471 978768 e-mail. info@hotelfeichter.it www.hotelfeichter.it	60 Euro	90 Euro
Youth Hotel Bolzano/Bozen tel.+ fax 0471 / 300865 e-mail: bozen@jugendherberge.it http://bozen.jugendherberge.it	25 Euro	22 Euro (shared room of 3-4 persons)

Travel information

Bolzano / Bozen city, at the western margin of the Dolomites, is the capital of the province of South Tyrol, one of the northernmost provinces of Italy.

The small airport of the city permits only flights to Munich (D) and Rome (I), better served airports, however, are located in nearby localities, to the North (Munich, Innsbruck) and South (Verona, Venice, Treviso, Bergamo). Bolzano is easily reached by train, from all of these cities.

The museum is located in the center of Bolzano/Bozen. A map is available [here](#)

AIRPORT:



[Airport Bolzano Dolomiti](#)



[Airport Innsbruck](#)



[Airport Verona Villafranca](#)

CAR:



[Road conditions](#)



[Brennero A22 motorway](#)



[Route](#)

RAILWAY:

Information on train connections:



[Fs on-line](#)



[Deutsche Bahn](#)



[Oebb on-line](#)

BUS

Information on bus connections:



[Bus time schedule in South Tyrol](#)



[Holiday Shuttle](#)

Registration Fee

There will be no registration fee for the field trip. The accommodation in the hotels (we prefer to organise them for everybody in order to archive better prices) will cost, however, € 280,00 (including overnights in double room, dinners, breakfast and packed lunch). For those of you that require a single room the price will be slightly higher (about €325,00).

Deadlines

Response to the first circular: **15 April 2010**

Final registration for the field trip: **15 June 2010**

Pre-Registration Form

Please return the enclosed Pre-Registration Form before **15 April 2010** to Evelyn Kustatscher (e-mail: Evelyn.Kustatscher@naturmuseum.it) or register on the homepage:

<http://trias.geodolomiti.net/>
