SECOND CIRCULAR AND REGISTRATION FIELD SEMINAR MAIELLA MOUNTAINS, ITALY

EXPLORING A CRETACEOUS CARBONATE DELTA DRIFT

JULY 14-19, 2019

Field trip leader: Gregor P. Eberli



Rationale

A new coarse-grained carbonate contourite drift has been discovered in the Maldives at the mouths of channels that open into the Inner Sea. The coarse-grained nature of these delta drifts makes them unique current-controlled systems. The bioclastic wedge of the Upper Cretaceous Orfento Formation in the Maiella Mountains, Italy, is such a carbonate delta drift deposit, forming a delta-shaped sedimentary body of ~350 km² with a thickness of 360 m (Fig. 1). The coarse-grained delta drift



Fig. 1: Schematic display of the Maiella delta drift with the key sections and locations. 150 km² of the delta drift are exposed in the Maiella anticline and constitute about a third of the entire sedimentary body. The Rotondo Channel is the feeder channel for the delta drift.

has excellent reservoir potential as documented by the high permeability of the deposits during an infiltration experiment in the Madonna Della Mazza guarry. The fieldtrip aims to introduce the participants the dimensions, geometry of this coarsedelta drift, grained and the sedimentary processes that alternate from bedload to suspended flow.

The field seminar will focus on the coarse bioclastic Upper Cretaceous delta drift but the results of the GPR survey in Madonna Della Mazza quarry, the Maiella platform margin architecture and large-scale mass gravity flow deposits in the basin adjacent to the escarpment-like margin will also be examined.

Who should attend?

Geoscientists who explore in coarse-grained carbonates and redeposited deepwater carbonates. The seminar will help discriminating between coarse-grained mass-gravity flow and current deposits.

ITINERARY	
Saturday July 13:	Participants arrive in Rome and go to hotel near the airport. As soon as we have the number of participants we will make reservations and let you know the hotel and how to get there.
Sunday July 14:	Meet for breakfast and drive to the Maiella Mountains Introduction to the fieldtrip. Overnight: Mamma Rosa, Tel: +39 087 1896142
Monday July 15:	Overview of regional geology and platform margin architecture Blockhaus, Focalone and Pesco Falcone. Examining the strata in feeder channel at Monte Rotondo. Overnight: Mamma Rosa, Tel: +39 087 1896142
Tuesday July 16:	Monte Focalone: Mouth of feeder channel and first prograding lobe Slope Channels at Monte Cavallo.
Wednesday July 17:	Valley at Pennapiedimonte: Transition from deep water deposits with breccias and turbidites to the delta drift deposits and section through the delta drift into overlying Cenozoic deep water deposits.
Thursday July 18:	Madonna della Mazza: Distal portion of the delta drift and presentation of GPR study of stratigraphy and infiltration experiment. Valley of Santo Spirito: Prograding clinoforms of the delta drift. Drive to Rome and overnight in Rome near airport.
Friday July 19:	Individual departure from Rome

Cost

\$4,700.-, includes all transportation in Italy, accommodation (including the night of the 13th), meals and course notes.

REGISTRATION

Please contact: Karen Neher (305) 421-4684 <u>kneher@rsmas.miami.edu</u> or Gregor P. Eberli (305) 421-4678 <u>geberli@rsmas.miami.edu</u>

before May 31, 2019