



Second Circular, September 14th 2018

**4th MEDSALT Management Committee Meeting,
WG 3 - Deep Biosphere Workshop,
General WGs workshop,
and Dissemination Meeting**

9-10-11 October 2018

Venue:

University of Belgrade
Faculty of Mechanical Engineering
Kraljice Marije 16, Beograd

<http://www.mas.bg.ac.rs/eng/start>
http://alumni.mas.bg.ac.rs/index_eng.html

Local Host: Milenko Burazer, milenko.burazer@gmail.com



4th MEDSALT Management Committee Meeting

Room number will be displayed at the entrance of the Faculty of Mechanical Engineering

Open to MC Members, MC Substitutes, and invited MC Observers

The agenda will be circulated at a later stage

Tuesday Oct 9 2018

08:30 Arrival of MC members and registration

09:00 Introduction by the Host (Milenko Burazer): logistics and practicalities

09:10 MC meeting starts (Angelo Camerlenghi and Johanna Lofi lead. Minutes taken by Giorgia Rivoira)

10:30 coffee break

11:00 MC meeting resumes

13:00 MC meeting ends

13:00 - 14:30 lunch in the Faculty Restaurant (5th floor)



Working Group 3 - Deep Biosphere Workshop

The biogeochemical sulphur cycle in Messinian marginal basins: did microbes contribute to gypsum formation?

Conveners and organizers: Vanni Aloisi, Francesco Dela Pierre, Jörn Peckmann

Room number will be displayed at the entrance of the Faculty of Mechanical Engineering

Open to all invited participants and local observers

General objective: The aim of this workshop is to bring together geologists, geochemists and microbiologists to tackle the problem of the formation of *evaporitic gypsum* at low salinities.

Description: Large deposits of gypsum accumulated in the marginal basins of the Mediterranean Sea during the Messinian Salinity Crisis. These form the marginal portions of the Mediterranean Salt Giant (MSG) that also occupies the deep, central Mediterranean basins. Although the marine, evaporitic origin of the MSG is undisputed, geochemical signatures suggest that the marginal basin gypsum deposits formed from water masses less saline (average salinity: 18 ‰) than waters from which gypsum precipitates during the evaporation of marine water (> 90 ‰). The formation of this *low-salinity evaporitic gypsum* poses a fundamental geochemical problem: how can gypsum saturation conditions be met in marginal basins if evaporation does not concentrate marine water to high salinity? In other words, can gypsum saturation be attained by adding Ca^{2+} and/or SO_4^{2-} ions rather than by extracting water? One hypothesis, namely that of a non-steady state addition of SO_4^{2-} via the microbial oxidation of hydrogen sulfide, seems to be supported by the observation of transient dissolved SO_4^{2-} peaks in the pore waters of modern, organic-rich marine sediments that harbor large populations of sulfide-oxidising bacteria. This, as well as other hypotheses, need to be evaluated and integrated to address the formation *low-salinity evaporitic gypsum*.

Detailed goals: The detailed goals of the workshop are: (i) to collect, present and re-evaluate (if necessary) published data, (ii) to communicate the results of ongoing research on Messinian gypsum formation, (iii) to better define working hypotheses to explain gypsum formation at low salinities; (iv) to plan future investigations.

Targeted participants: This workshop is open to all members of the COST MEDSALT community, in particular working groups 1 ("Messinian Salinity Crisis") and 3 ("Deep Biosphere"), and to scientists participating in scientific initiatives related to the MEDSALT COST Action: the SALTGIANT ETN and the IODP Mediterranean drilling projects.



Agenda

Tuesday Oct 9 2018

14:30 Workshop starts

16:00 Coffee Break

16:30 Workshop resumes

18:30 End of first part of the workshop

20:00 Dinner at Skadarlija (historical center of Belgrade). Directions will be provided

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Wednesday Oct 10 2018

08:30 Working Group 3 - Deep Biosphere Workshop resumes

10:30 coffee break

11:00 Workshop resumes. Discussion and summary of main conclusions

13:00 Workshop ends

13:00 - 14:30 lunch in the Faculty Restaurant (5th floor)

General MEDSALT WG workshop (all topics)

General objective: The aim of this workshop is to jointly summarize the scientific highlight achieved until now and to invite experts to stimulate new research on relevant topics of the MSC.

Target participants: This workshop is open to all members of the COST MEDSALT community, and to scientists participating in scientific initiatives related to the MEDSALT COST Action: the SALTGIANT ETN and the IODP Mediterranean drilling projects.

Scientific highlights:

- Introduction (Angelo Camerlenghi – Johanna Lofi)
- Valentina Yanko. **UNESCO - IUGS - IGCP 610 From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary;**
- Johanna Lofi. **ATLAS and ATLAS BSGF paper** (Lofi et al. in press);
- Agnes Maillard. **Terrestrial colonization of the Balearic Islands: New evidence for the Mediterranean sea-level drawdown during the Messinian Salinity Crisis** (Mas et al., 2018, *Geology*);
- Angelo Camerlenghi. **Evidence of the Zanclean megaflood in the eastern Mediterranean Basin** (Micallef et al., 2018. *Scientific Reports*);
- Claudia Bertoni, Angelo Camerlenghi, Johanna Lofi. **Update on the IODP drilling proposals ;**
- Domenico Cosentino. **Sedimentary evidence for late Messinian uplift of the SE margin of the Central Anatolian Plateau: Adana Basin, southern Turkey** (Radeff et al., 2015. *Basin Research*);
- Christian Huebscher. **The METEOR Cruise in the IONIAN Sea**

To be confirmed:

- Johanna Lofi. **The Western Tyrrhenian Sea revisited: New evidence for a rifted basin during the Messinian Salinity Crisis** (Lymer et al., 2018. *Marine Geology*)
- Bertoni/Lofi. **Lebanon Margin lago Mare.** (Claudia/Johanna only of review results are known by then) (Madof et al., 2018, submitted)

Issues for discussion

- Outcomes from industrial borehole and seismic data
 - a. Gvirtzman et al., 2018. **Intra-Messinian truncation surface in the Levant Basin explained by subaqueous dissolution.** *Geology*.
 - b. The dichotomy: Two different interpretations of similar data:
 - i. Meilijson et al., 2018. **Deep-basin evidence resolves a 50-year-old debate and demonstrates synchronous onset of Messinian evaporite deposition in a non-desiccated Mediterranean.** *Geology*.
 - ii. Manzi et al., 2018. **The onset of the Messinian salinity crisis in the deep Eastern Mediterranean basin.** *Terra Nova*.



- important issues on Tectonics, fluids and hazards (including the Scientific reports paper published a few days ago: **The Alboran volcanic-arc modulated the Messinian faunal exchange and salinity crisis** by Booth-Rea et al., 2018)

Agenda

14:30 Workshop starts

16:00 Coffee Break

16:30 Workshop resumes

18:30 Workshop ends

Participants not attending the Dissemination meeting on Thursday Oct 11 morning leave



Dissemination Meeting

MEDSALT Cost Action, an overview

Open to students and staff of the University of Belgrade, and to all MEDSALT participants who wish to be present. The Workshop will be composed of a series of short talks offered by MEDSALT members for a geologically educated audience with the purpose to spread the information about the MEDSALT and SALTGIANT networks and the IODP Drilling initiatives, with the purpose to attract new young scientists, students and staff to the research on the Mediterranean Salt Giant.

Thursday Oct 11 2018

University of Belgrade, Faculty of Mechanical Engineering

Kraljice Marije 16, Beograd

Room 513, 5th Floor

Program:

09:30 Registration

10:00 Welcome by the Host Milenko Burazer and local authorities

10:20 Angelo Camerlenghi: introduction and overview on the MSC Controversy

10:40 Christian Huebscher: Salt deformation and fluids across the Salt Giant

11:00 Vanni Aloisi: The deep biosphere and the Mediterranean Salt Giant

11:20 Judy McKenzie: The massive dolomite deposits capping the Mediterranean Salt Giant

11:40 – 12:00 Coffee Break

12:00 Angelo Camerlenghi: COST Action MEDSALT

12:10 Vanni Aloisi: ETN SALT GIANT

12:20 Johanna Lofi: IODP and Scientific Drilling in the Mediterranean Salt Giant

12:30 Open questions and discussion

12:45 Meeting ends

REGISTERED PARTICIPANTS AS OF MONDAY SEPT 14 2018 (*in Italics not yet confirmed*)

	Name	Category	Country
1	Dr Konstantina Agiadi	MC Member	Greece
2	Mr Giovanni Aloisi	MC Member	France
3	Dr Claudia Bertoni	MC Member	United Kingdom
4	Dr Milenko Burazer	MC Member	Serbia
5	Prof Michael E. Böttcher	WG Member	Germany
6	Dr Angelo Camerlenghi	MC Chair	Italy
7	Prof Antonio Caruso	WG Member	Italy
8	Prof Domenico Cosentino	WG Member	Italy
9	Dr Anna Del Ben	MC Member	Italy
10	Prof Francesco Dela Pierre	MC Member	Italy
	<i>Dr Hajar El Talibi</i>	<i>COST Near Neighbour Country</i>	<i>Morocco</i>
	<i>Dr Suzan El-Gharabawy</i>	<i>COST Near Neighbour Country</i>	<i>Egypt</i>
	<i>Dr Rachel Flecker</i>	<i>MC Member</i>	<i>United Kingdom</i>
11	Dr Carl Fredrik Forsberg	MC Member	Norway
12	Dr Javier Garcia Veiga	WG Member	Spain
13	Dr Daniel Garcia-Castellanos	MC Member	Spain
	<i>Prof Virginie Gaullier</i>	<i>MC Substitute</i>	<i>France</i>
14	Dr Luis Gibert	WG Member	Spain
	<i>Prof Branislav Glavatovic</i>	<i>MC Member</i>	<i>Montenegro</i>
15	Dr Patrick Grunert	MC Member	Austria
16	Dr Laetitia Guibourdenche	Trainee	France
17	Dr Nikolaus Gussone	WG Member	Germany
18	Prof María J Herrero	WG Member	Spain
19	Prof Christian Huebscher	MC Member	Germany
20	Ms Romana Kacic	MC Member	Slovenia
	<i>Dr Deniz Karaca</i>	<i>Action Science Officer</i>	<i>Belgium</i>
21	Dr Judith Klatt	WG Member	Germany
22	Prof Snezana Komatina	MC Member	Bosnia and Herzegovina
23	Dr Piotr Krzywicz	WG Member	Poland
	<i>Dr Mark Alexander Lever</i>	<i>MC Substitute</i>	<i>Switzerland</i>
24	Dr Johanna Lofi	MC Vice-Chair	France
25	Dr Agnes Maillard Lenoir	MC Substitute	France
	<i>Dr Yizhaq Makovsky</i>	<i>MC Substitute</i>	<i>Israel</i>
26	Prof Judith Mckenzie	MC Member	Switzerland
27	Dr Marcello Natalicchio	WG Member	Germany
28	Prof Jörn Peckmann	MC Substitute	Germany
29	Dr Carlos Ribeiro	MC Member	Portugal



30	Dr Simon Evan Rouwendaal <i>Mr Christian Schembri</i>	Trainee <i>MC Member</i>	Netherlands <i>Malta</i>
31	Prof Hrustem Smailhodzic <i>Dr Pedro Terrinha</i> <i>Ms Ljiljana Vucic</i>	MC Member <i>MC Member</i> <i>MC Member</i>	Bosnia and Herzegovina <i>Portugal</i> <i>Montenegro</i>
32	Prof Valentina Yanko	COST Near Neighbour Country	Ukraine
33	Dr Zomenia Zomeni	MC Member	Cyprus

LOGISTICS

All participants will be reimbursed a flat rate of 80 Eur per night

Proposed hotels in this price range:

- Hotel Metropol (99 Eu)
- Holiday Inn Express Belgrade – City (51 Eu)
- Hotel Constantine The Great (70 Eu)
- Belgrade Art Hotel (80 Eu)
- Capital Hotel Garni (70 Eu)

Other hotels can be chosen independently by each participant



Images of the Venue:

