



## SALTGIANT ETN – Early Stage Researcher in History of Geological Research in the Mediterranean – ESR 15

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| <b>Title</b>                 | <b>Salt, Vessels and Maps: the Discovery of the Mediterranean Salt Giant (MSG)</b> |
| <b>Duration</b>              | 36 months  |
| <b>Expected start date</b>   | October 2018   |
| <b>Host Institution</b>      | Sorbonne Université, Paris (France) - <a href="http://www.upmc.fr">www.upmc.fr</a> |
| <b>Primary Supervisor(s)</b> | Nestor Herran & David Aubin  |

The Messinian salt giant is a geological structure formed six million years ago by the deposit of salt in the Mediterranean basin. Early evidence of this stratum was obtained in the late 19th century by Swiss geologist and palaeontologist Karl Mayer-Eymar after studying fossils in gypsum sediment layers of the late Miocene Epoch. In 1961, seismic surveying in the Mediterranean basin revealed an acoustic reflector 100 to 200 meters beneath the seafloor, the so-called M reflector, which was related to salt deposition. In 1968, the scientific drilling vessel Glomar Challenger launched a deep sea drilling campaign under the supervision of William B.F. Ryan and Kenneth J. Hsu. They found layers of evaporite minerals alternating with layers containing marine fossils, indicating a series of drying and flooding events. These deposits were interpreted as products of the Messinian Salinity Crisis.

**Objectives** This project aims to describe the early geological debates about the Messinian salt giant and provide a detailed case study of the campaigns that led to its discovery. This involves the identification and retrieval of key primary sources by the inspection of relevant archives and the establishment of an oral history project to collect testimony of the main actors participating in 1960s drilling campaigns. This account will contextualize these researches in relation to post-WW2 changes in the material culture of oceanography and geology, the development of prospecting campaigns, and the expansion of international cooperation during the Cold War. Indeed, the study will highlight the connections between key actors and research projects and technological, industrial and diplomatic concerns. An additional outcome of this project is to provide historically-grounded resources and perspectives, which can enrich discussion and meta-scientific analysis, for the whole SALTGIANT ETN project.

**Expected results** A PhD dissertation -to be subsequently published as a monograph- on the development of the Messinian Salinity Crisis hypothesis and the discovery of the Messinian Salt Giant, framed in the context of the history of salt research and Cold War oceanographic research.

**Planned secondments** **S1** (months 14-16): Royal Institute of Technology (Stockholm, Sweden) (P. Roberts for the history of oceanography during the Cold War); **S2** (months 22-24): University of Barcelona (CEHIC, Barcelona, Spain) (L. Camprubi for the history of oceanography during the Cold War).

Provided by SALTGIANT partners to ESRs; duration 1-3 month each

**Specific requirements** Completed MSc or Diploma degree in history of science and technology, social studies of science or related fields; basic knowledge of earth sciences; the candidate must be fluent in English (written and spoken), as research and publication will be conducted in English; knowledge of French language will be considered as an advantage.

**Keywords** History of science, history of sciences in the cold war, history of geology, geophysics and environmental sciences, history of oceanography

**Application**

Send application via : [www.ipgp.fr/saltgiant](http://www.ipgp.fr/saltgiant)

**For further  
information**

Contact primary supervisor: [nestor.herran@upmc.fr](mailto:nestor.herran@upmc.fr)