Deep Stratigraphic Drilling in the Mediterranean

A. Camerlenghi, E. Erba



4°W

2°W

2°E

4°E

6°E

8°E

10°E

12°E

14°E

W0°E

Granado et al., 2016

18°E

20°E

22°E

24°E

26°E

28°E

16°E

46°N

44°N

42°N

40°N

38°N

36°N

34°N

32°N

30°N

A **Complementary Project Proposal (CPP)** is a proposal with a commitment from a thirdparty source for a substantial amount of financial support.

CPP proponents should contact the Chair of the appropriate Facility Board to enquire about the amount of outside funding required.

For example, in the case of the JOIDES Resolution, an unrestricted donation of at least US\$ 6 million to the U.S. National Science Foundation is required to implement a CPP.

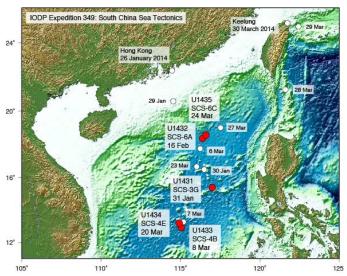
Because of the specialized nature of these CPP programs, it is highly advisable to discuss potential plans for developing a CPP with the SSO and the IODP Science Operator before a CPP proposal is written and submitted.

CPPs can receive fast-track consideration by the SEP if so required by the funding entity, operational plans, etc.

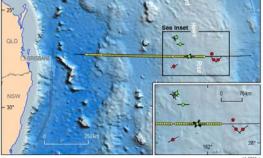


Complementary Project Proposal (CPP)

Expedition 349 - South China Sea



Southwest Pacific: tectonics, climate and ancient life on the Lord Howe Rise continental ribbon (2019?)







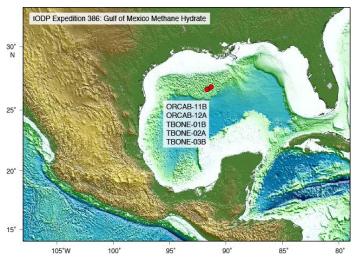
Multi-channel seismic reflection line
Ocean-bottom seismometer site

Site options for IODP drilling

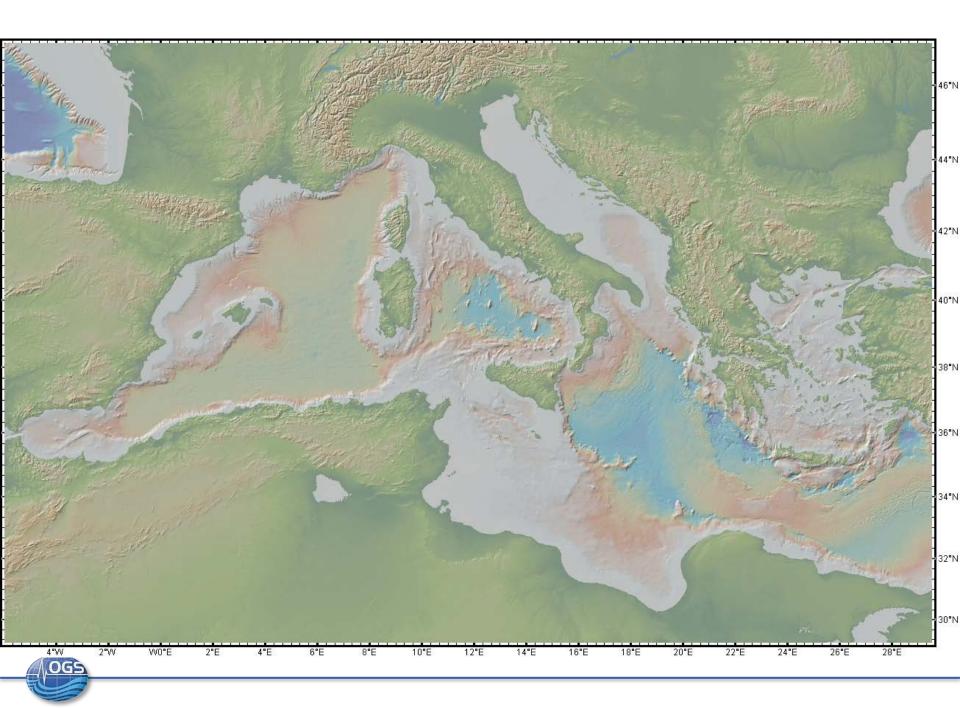
Deep riser hole (one to be selected)
Shallow basement hole

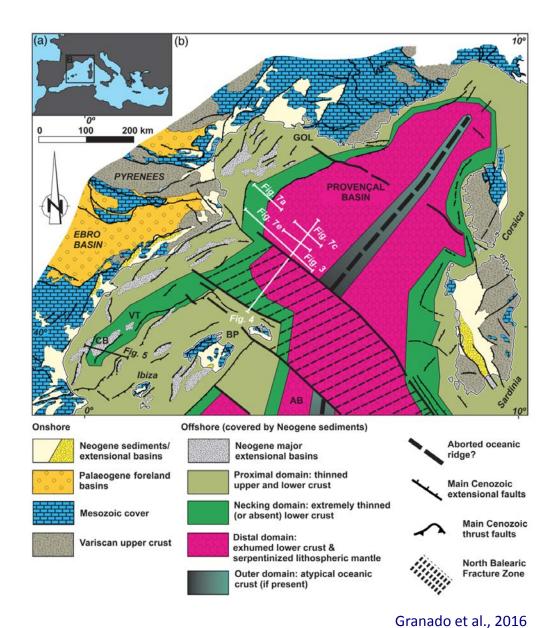
 Shallow basement hole (two to be selected)

Gulf of Mexico Methane Hydrate (2020)



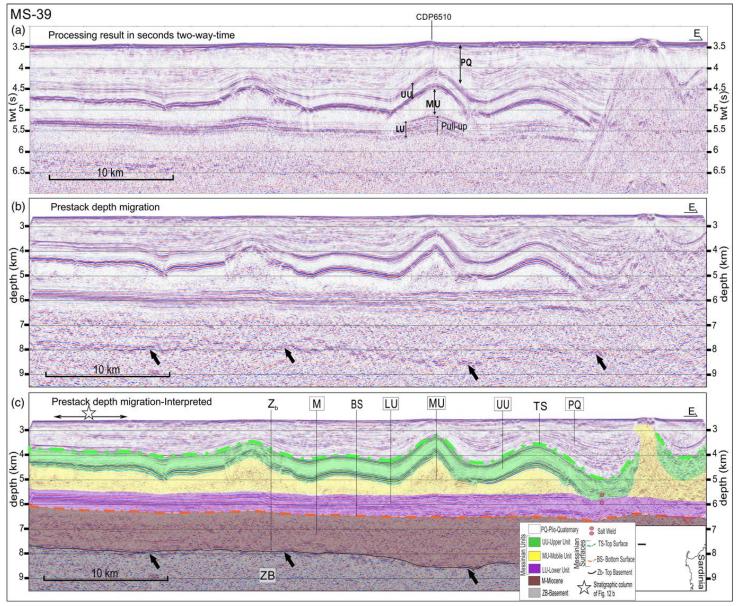






OGS

ATTENZIONE: ESPERIENZA PROGETTO GOLD INSEGNA



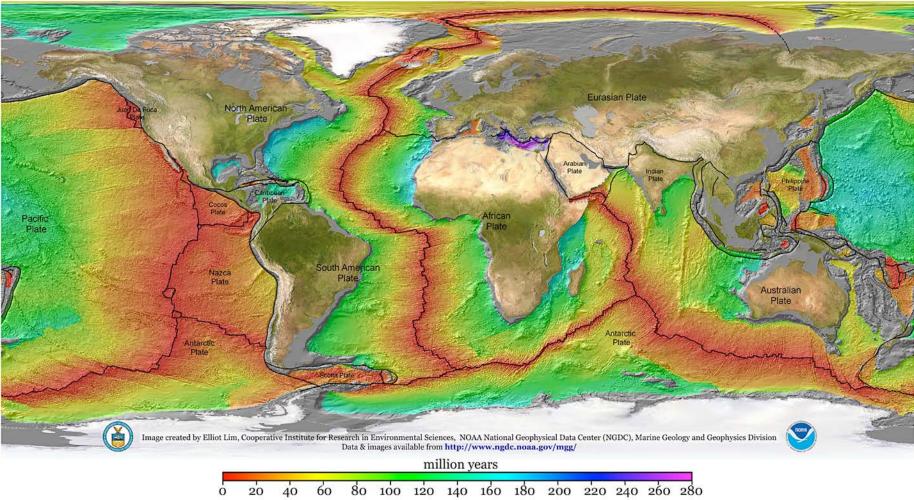


DalCin et al., 2016

Age of Oceanic Lithosphere (m.y.)

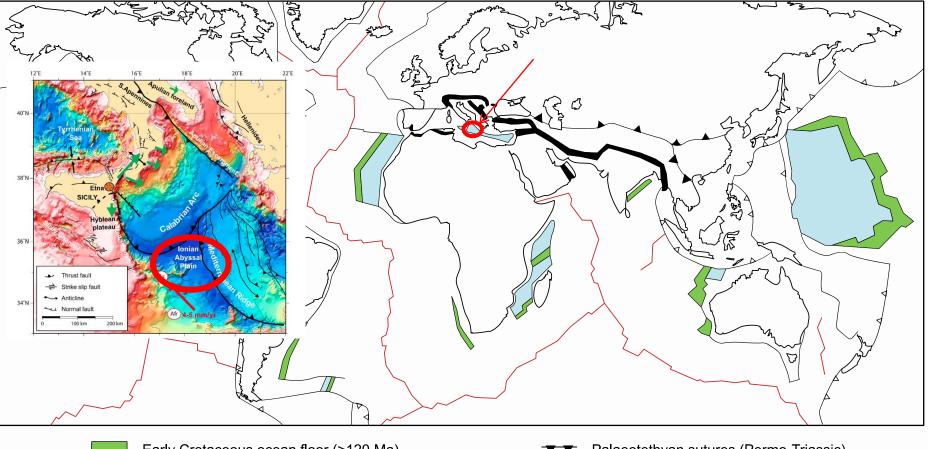
Data source:

Muller, R.D., M. Sdrolias, C. Gaina, and W.R. Roest 2008. Age, spreading rates and spreading symmetry of the world's ocean crust, Geochem. Geophys. Geosyst., 9, Q04006, doi:10.1029/2007GC001743.



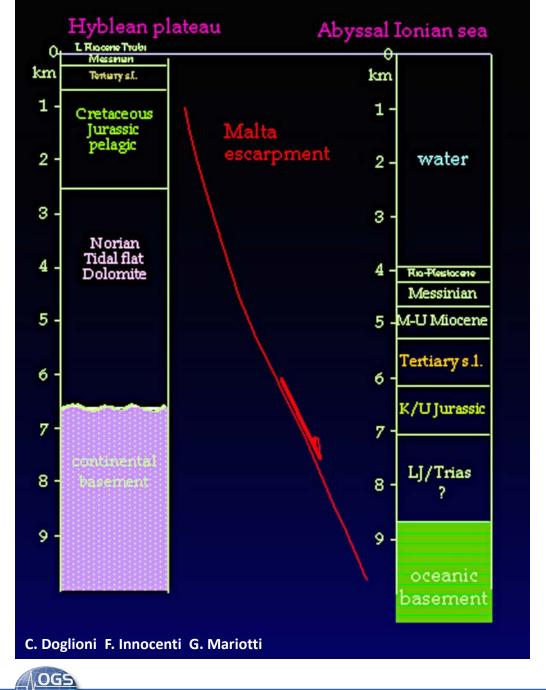
The Ionian Sea: The oldest in situ ocean fragment of the world?

Fabio Speranza,¹ Liliana Minelli,¹ Alessandro Pignatelli,¹ and Massimo Chiappini¹



- Early Cretaceous ocean floor (>120 Ma)
- Jurassic ocean floor
- Mesozoic ophiolites (sutures of the Mesozoic Tethys)

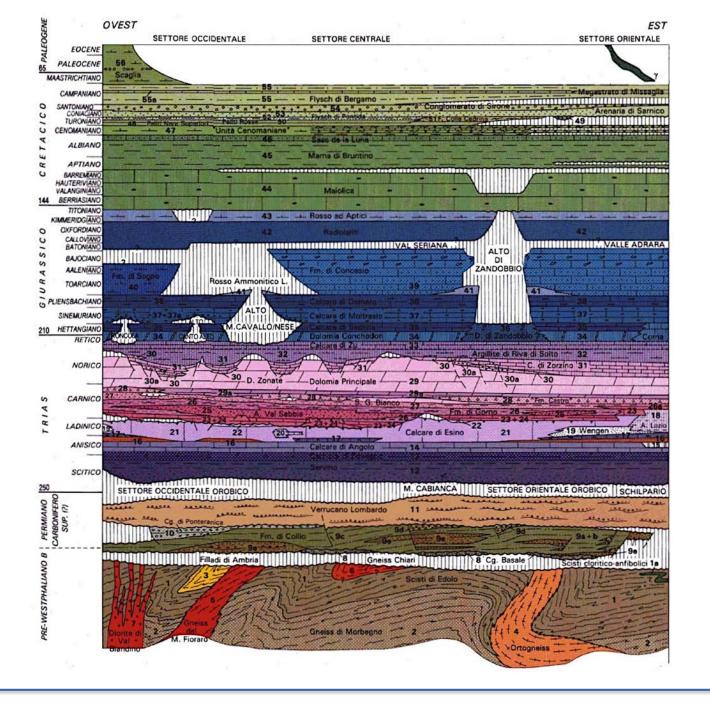
- ► Palaeotethyan sutures (Permo-Triassic)



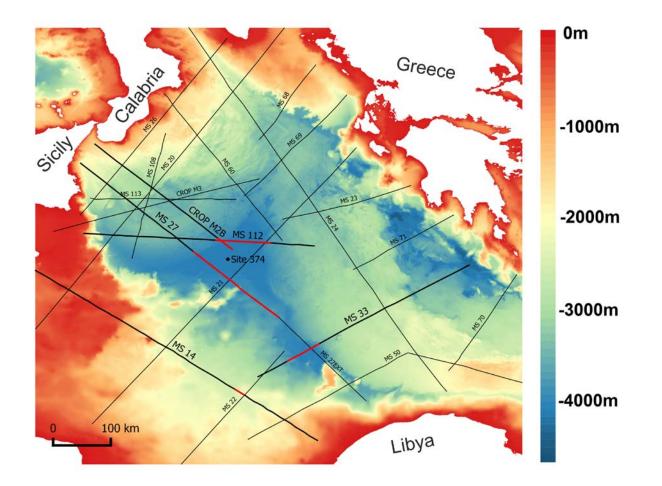
The Ionian Abyssal Plain of the Eastern Mediterranean might be **the oldest in situ ocean fragment of the world, with ocean crust of Late Triassic age.**

The current water depth of the Ionian Abyssal Plain is ~4000 m, and the sedimentary section is estimated to be ~ 7000-8000 m thick.

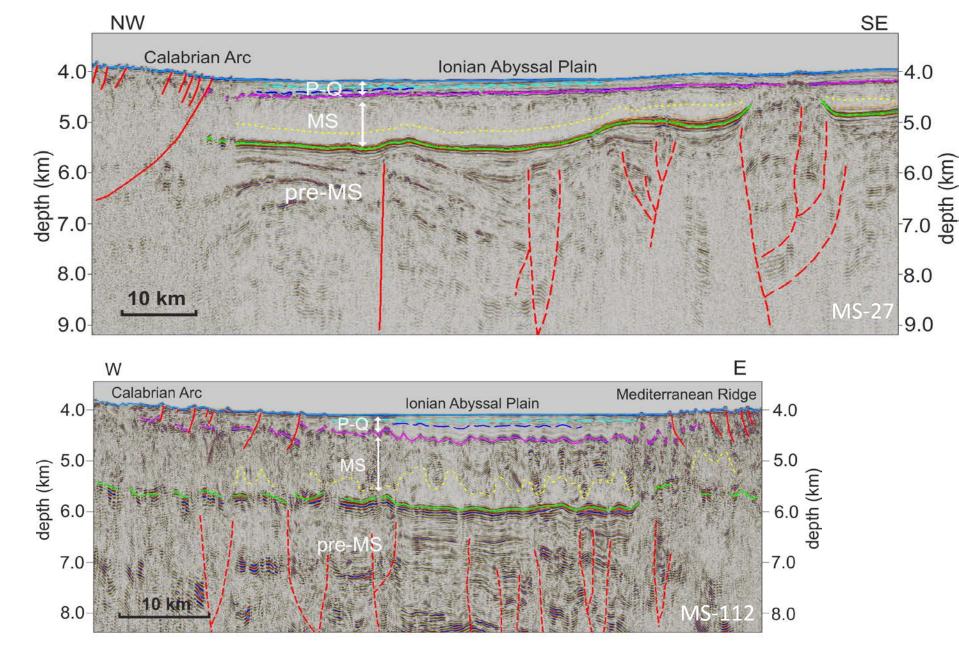
Need of IODP drilling













Deep stratigraphic drilling

- Targets: OK
- Chikyu vs JODES Resolution
- Technical feasibility (water depth, target depth, temperature)
- Salt in between
- Co-funding (government, companies)
- GOLD experience

