

## Curriculum Vitae

### Maayan Yehudai

Date of Birth: July 28, 1983

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### Relevant educational History

- 2014-present      **PhD, Geochemistry and paleoclimate**
- Columbia University, department of Earth and Environmental science, under the supervision of Profs Jerry McManus and Steven Goldstein.
- 2011-2014      **M.Sc. , Oceanography**
- Institute of Earth Sciences, The Hebrew University of Jerusalem. **Thesis:** Calcitic corals from the northern red sea as paleohydrological monitors, under the supervision of prof. Moti Stein and Boaz Lazar
- 2007-2010      **B.Sc. in Geology and environmental Sciences**
- Ben Gurion University in the Negev, Be'er Sheva. **Senior thesis:** Distribution of magmatic and serpentine filled fractures in Troodos ophiolite, Cyprus.

### Research experience

- 2014-present      *PhD studies: Thesis: Chapters 1+2:* reconstruction of paleoceanographic circulation using Nd isotopes. *Chapters 3+4:* reconstruction of dust supply and dust sources to the nutrient poor Bahamas carbonate platform since the Miocene till the present. **Lab:** Foraminifera sample processing (picking, crushing), clean lab procedures and maintenance (cleaning, dissolution, column chemistry) and mass spectrometry (Atom ICP-MS, multi collector ICP MS).
- 2011-2014      *Msc. studies: Thesis:* I developed a quantitative model to date the timing of uplifted coral terraces' alteration to calcite through interaction with freshwater, and the original reef deposition age. The novel contribution of this study is the ability to identify and date the time of alteration and thus the presence of a freshwater aquifer in a presently hyper-arid region of the Gulf of Aqaba. The alteration ages calculated match the timing of sapropels S5 and S4, when increased wetness in this region was induced by the African monsoon system. The original-deposition ages match high-stand peaks during MIS5. **Field work:** field excursions to Jordan, northeastern Gulf of Aqaba, Eilat and Barbados. **Lab:** Sample processing, column chemistry, mass spectrometry (multi collector ICP-MS), XRD.
- 2010      *B.Sc. studies: Senior Thesis:* I looked into peridotite hosted fractures filled with primary igneous minerals and secondary hydrous minerals were petrographically and studied them structurally to trace the evolution of the ophiolite. **Field work:** field excursion to Troodos ophiolite, Cyprus, which included fracture system mapping and measurements. **Lab:** sample processing and thin section analysis.

### Professional Experience

- 2014-present **Columbia University, department of Earth and Environmental science:** Geochmistry seminar oraganizer.
- Teaching assistant for the following courses: Oceanography, Climate system, The carbon cycle, Barbados geology field trip.
- 2011-2014 **Institute of Earth Sciences, The Hebrew University of Jerusalem:** Teaching assistant for following courses: Minerals and rocks, Magmatic and metamorphic petrology, Petrology lab, Stratigraphy, Geology and geophysics of the marine environment (at the Inter-University institute in Eilat).
- 2011 **Geo-prospect Ltd.:** Drill project geologist
- Israel Geological Society (IGS) annual conference:** Assistance with organization of the IGS annual meeting.

### Fellowships scholarships and awards

- 2012 Baster scholarship for students in the oceanography department, The Hebrew University of Jerusalem.
- 2016 Outstanding Student Paper Award, American Geophysical Union Fall Meeting
- 2017 National Science Foundation fellowship, Urbino Summer School for Paleoclimatology Scholarship
- Mark Pagani Student Poster Award, Urbino Summer School for Paleoclimatology
- Chevron Student Initiative Fund, Lamont Doherty Earth Observatory

### Society memberships

- 2014-present American Geophysical Union
- 2010-present Israel Geological society

### Talks

- 2015 **Lamont Doherty Earth Observatory,** U-Th dating of calcitic corals and their application for paleo-hydrology

### Publications

- 2016 **Yehudai M.,** Lazar B., Kohn-Bar N., Shaked Y., Agnon A. and Stein M. (2016), U-Th dating of calcitic corals from the Gulf of Aqaba, *Geochimica et Cosmochimica Acta* (DOI: 10.1016/j.gca.2016.11.005)
- Pending submission
- 2018 Yehudai M., Kim J., Jaume-Seguí M., Goldstein S. L., Pena L. D., and Bickert T., Northern Hemispheric trigger for The Mid-Pleistocene Transition, *Science*

(pending submission), link to news article in Science: <http://www.sciencemag.org/news/2018/08/seafloor-cores-suggest-sticky-thick-glaciers-caused-mysterious-shift-ice-age-rhythms>

### **Selected conferences Abstracts and presentations**

- 2018 **Yehudai, M.**, Kim, J., Jaume-Seguí, M., Goldstein, S. L., Pena, & Bickert, T., Northern Hemispheric trigger for The Mid-Pleistocene Transition, Goldschmidt geochemical conference, Boston, 2018
- 2017 **Yehudai, M.**, Kim, J., Jaume-Seguí, M., Goldstein, S. L., Pena, L. D., Haynes, L., Hönisch, B., Farmer, J., Ford, H., Raymo, M.E., & Bickert, T., The Equatorial Atlantic Ocean Thermohaline Circulation Across the Mid-Pleistocene Transition, **Past Global Changes Open Science Meeting**, abstract ID-02357
- 2016 **Yehudai, M.**, Kim, J., Jaume-Seguí, M., Goldstein, S. L., Pena, L. D., Haynes, L., Hönisch, B., Farmer, J., Ford, H., Raymo, M.E., & Bickert, T., Changes in Atlantic Ocean Thermohaline Circulation Across the Mid-Pleistocene Transition, **American Geological Union Fall Meeting**, abstract ID-197873
- Yehudai, M.**, Kim, J., Jaume-Seguí, M., Goldstein, S. L., Pena, L. D., Haynes, L., Hönisch, B., Farmer, J., Ford, H., Raymo, M.E., Ferretti, P. & Bickert, T., Changes in North to Equatorial Atlantic Ocean Thermohaline Circulation Across the Mid-Pleistocene Transition, **International Conference of Paleoceanography**, abstract #596
- 2014 **Yehudai M.**, Lazar B., Kohn N., Shaked Y., Agnon A. & Stein M., U-Th dating of calcitic corals from the Gulf of Aqaba indicates freshwater activity during sapropels S5 and S4, **American Geophysical Union Fall Meeting**, abstract #PP33D-1270
- 2013 **Yehudai M.**, Lazar B., Kohn N., Shaked Y., Agnon A. & Stein M., Calcitic Corals from the Northern Red Sea as Paleohydrological Monitors, Mineralogical Magazine, **Goldschmidt conference**, Abstract ID- 77(5) 2557
- 2011 **Yehudai M.**, Abelson M., Katzir Y., Distribution of magmatic and serpentine filled fractures in Troodos ophiolite, Cyprus, **Israel Geological Society annual meeting**