

BIOGRAPHICAL SKETCH

Ivano W. Aiello
Moss Landing Marine Laboratories

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Professional Preparation

University of Florence, Florence, Italy	Earth Sciences	M.S., 1992
University of Bologna, Bologna, Italy	Sedimentology	Ph.D., 1997
University of California Santa Cruz	Sedimentology	Post Doc 1998-2000

Positions

2015 – pres. Chair of Moss Landing Marine Laboratories (MLML)
2015 – pres. Professor, Geological Oceanography, MLML
2011 – 2015 Associate Professor of Geological Oceanography, MLML
2006 – 2011 Assistant Professor of Geological Oceanography, MLML
2003 – 2006 Adjunct Professor of Geological Oceanography, MLML
2002 – 2010 Visiting Scientist, Institute of Marine Sciences, UC Santa Cruz (UCSC)
2001 – 2002 Lecturer, Department of Ocean and Marine Sciences, UCSC
1997 – 2000 Field Geologist, Italian Geological Survey
1995 – 1999 Lecturer, Earth Sciences Department, University of Florence, Italy
1992 – 1996 Field Geologist, GeoEco - Geologic Engineering, Florence, Italy

Selected Publications

Kender, S., Ravelo, A.C., Worne, S., Swann, G., Leng, M.J., Asahi, H., Becker, J., Detlefh, H., Aiello, I.W., Andreasen, D., Hall, I.R., 2018, Closure of the Bering Strait and global cooling at the Mid-Pleistocene Transition, *Nature Communications* (In print).

Andrea F., Clark, J., Covault, J.A., Power, B., Romans, B.W., Aiello, I.W., 2018, Muddy sand and sandy mud on the distal Mississippi fan: Implications for lobe depositional processes. *Geosphere* doi: <https://doi.org/10.1130/GES01580.1>

Aiello, I.W., 2017, The Miocene hydrocarbon migration system: seep carbonates in the Santa Cruz area, California. In: *Outcrops that change the way we practice petroleum geology, 100th Anniversary of the AAPG*, in print.

Goldhammer T, Schwärzle A, Aiello IW, Zabel M, 2015, Temporal stability and origin of chemoclines in the deep hypersaline anoxic Urania basin. *Geophysical Research Letters* doi:10.1002/2015GL063758

Meister, P., Chaplignin, B., Picard, A., Meyer, H., Fischer, C., Rettenwander, R., Amthauer, G., Vogt, C., and Aiello, I.W., 2014, Early diagenetic quartz formation at a deep iron oxidation front in the Eastern Equatorial Pacific – A modern analogue for banded iron/chert formations? *Geochimica et Cosmochimica Acta*, v. 137, 188-207.

Schlung, S.A., Ravelo, A.C., Aiello, I.W., Andreasen, D.H., Cook, M.S., Drake, M., Dyez, K.A., Guilderson, T.P., LaRiviere, J.P., Stroynowski, Z., Takahashi, K., 2013, Millennial-scale climate change and intermediate water circulation in the Bering Sea from 90Ka: A high-resolution record from IODP Site U1340. *Paleoceanography*, v. 28, 1–14, doi:10.1029/2012PA002365, 2013

Aiello I.W. and Ravelo A.C., 2012, Evolution of sedimentation in the Bering Sea since Pliocene: *Geosphere*, 8(6), 1-23; doi:10.1130/GES00710.1.

Gamage, K., Screaton, E., Bekins, B., & Aiello, I. (2011). Permeability–porosity relationships of subduction zone sediments. *Marine Geology*, 279(1-4), 19-36.

Aiello, I. W., & Bekins, B. A., 2010. Milankovitch-scale correlations between deeply buried microbial populations and biogenic ooze lithology. *Geology*, 38(1), 79-82.

Paull, C. K., USSLER III, W. I. L. L. I. A. M., Holbrook, W. S., Hill, T. M., Haflidason, H., Winters, W., ... & Lundsten, E. (2010). The tail of the Storegga Slide: insights from the geochemistry and sedimentology of the Norwegian Basin deposits. *Sedimentology*, 57(6), 1409-1429.

Reed-Sterrett, C., Dekens, P. S., White, L. D., & Aiello, I. W. (2010). Cooling upwelling regions along the California margin during the early Pliocene: evidence for a shoaling thermocline. *Stratigraphy*, 7(2-3), 141-150.

Meister, P., Bernasconi, S. M., Aiello, I. W., Vasconcelos, C., & McKenzie, J. A. (2009). Depth and controls of Ca-rhodochrosite precipitation in bioturbated sediments of the Eastern Equatorial Pacific, ODP Leg 201, Site 1226 and DSDP Leg 68, Site 503. *Sedimentology*, 56(5), 1552-1568.

Aiello, I. W., Kellett, K., & Jørgensen, B. B., 2006. Sedimentology of open-ocean biogenic sediments from ODP Leg 201, Eastern Equatorial Pacific (Sites 1225 and 1226). In *Proceedings of the Ocean Drilling Program, Scientific results*(Vol. 101).

Parkes, R. J., Webster, G., Cragg, B. A., Weightman, A. J., Newberry, C. J., Ferdelman, T. G., ... & Fry, J. C., 2005. Deep sub-seafloor prokaryotes stimulated at interfaces over geological time. *Nature*, 436(7049), 390.

Synergistic Activities (last 5 years)

2011 – 2014 United States Advisory Committee for Scientific Ocean Drilling (USAC) of the Integrated Ocean Drilling Program's (IODP) Science Advisory Structure

2013 – 2017 Understanding Global Change. Advisory Committee, University of California Museum of Paleontology and the National Center for Science Education

2016 Shipboard Sedimentologist, International Ocean Discovery Program (IODP) Expedition 363 “Western Pacific Warm Pool”

Dr. Aiello’s research approach is oriented towards understanding the complexity of marine systems by investigating the relationships between marine geology and biotic and abiotic processes. Although his main specialization is sedimentology, his research covers a broad range of disciplines and a variety of methodological approaches and analytical techniques. Dr. Aiello successfully integrates geologic research with teaching and mentoring. He is currently mentoring 8 M.S. students and serves on the thesis committees of several others. He has developed and teaches several courses on a variety of topics in Marine Geology, including Geological Oceanography, Habitat Mapping, Marine Sedimentation and Climate Change. Dr. Aiello’s courses have strong practical curricula that involve research cruises, field mapping using terrestrial laser scanning and analytical methods and tools that include petrographic and scanning electron microscopy and EDX analysis, X-ray diffractometry, particle size analysis, solid phase geochemistry and paleomagnetism.

Awards

2011 Early Career Investigator Award, San Jose State University Foundation
2010 – 2011 Distinguished Lecturer, Consortium for Ocean Leadership