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Education:

1980-1986 Scripps Institution of Oceanography, La Jolla, California; Ph.D. in Oceanography

1976-1978 University of Miami, Miami, Florida; M.S. in Marine Geology and Geophysics

1970-1975 Harvard College, Cambridge, Massachusetts; B.A. cum laude in Geology

Professional Activities:

1999 – present, Senior Scientist, Monterey Bay Aquarium Research Institute, Moss Landing, California (Research Chair 2008 – 2012)

1996 –1999, Amos L. Hawley Distinguished Professor, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

1987-1998, Assistant (1987-1991), Associate (1991-1993), and Full (1993-1999) Professor, Geology Department and Marine Sciences Curriculum, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

1986-1993, Assistant (1986-1988) and Associate (1988-1993) Research Scientist, Marine Physical Laboratory, Scripps Institution of Oceanography, La Jolla, California

1985-1986, Visiting Scientist, ETH Zurich, Switzerland

1980-1985, Research Assistant, Scripps Institution of Oceanography, La Jolla, California

1977-1980 & 1975-1976, Geologist, Resource Assessment Group of the U. S. Geological Survey's Office of Marine Geology, Woods Hole, Massachusetts

Research Interests:

Determining the frequency, distribution and environmental significance of continental margin pore water seeps is a central theme of my research efforts. In the past I have worked on diverse seeps including those in the floors of coastal lagoons, on continental slopes, at bases of carbonate escarpments, within sinkholes, over the crests of diapirs, and on the continental rise that contain extensive amounts of gas hydrates. Efforts are also being directed at establishing a better understanding of the relationship between fluid flow and the generation of submarine geomorphic features such as pockmarks, pingos, mud diapirs, and submarine landslides.

Establishing the *in situ* characteristics of marine gas hydrates is a major objective of both past and future work. Recent focus is on methods to detect the presence of gas hydrate in near seafloor sediments and in the evaluation of mechanisms to transfer gas hydrate carbon from the seafloor into the ocean and atmosphere.

Understanding the diverse processes that initially form and subsequently erode continental margins is a recurrent theme of my past work. The modern processes in submarine canyons and continental margin sediment failures are of particular interest.

Developing geological experiments that make use of ocean observing systems to monitor ephemeral events.

Teaching Experience:

During my 12 years as a faculty member at UNC-Chapel Hill, I taught 3 courses per year. Every year I offered an undergraduate course in Stratigraphy and a graduate course in Paleooceanography. The content of the third course varied considerably, but always within the constraints of what else is offered within the department. Periodically I taught a large (~150 student) introductory geology class. Most years I was involved in seminar courses. The topics ranged from strontium isotopes as tracers of natural processes, the evolution of continental margin geology, the environmental significance of gas hydrates, to a required seminar for new graduate students in the general fields of soft rock geology.

Professional Society Memberships:

American Association of Petroleum Geologists
American Geophysical Union
Society of Economic Paleontologists and Mineralogists

Honors and Service:

ODP Sedimentary Geochemistry and Physical Processes Panel 1992-1995
Recipient of the "Z. Reynolds Smith" sabbatical leave 1992
UNC-CH Faculty Council 1992-1995
Associate Chair, UNC-CH Geology Department 1993-1999
ODP - Site Survey Panel 1995 - 1997
JOI-USSAC Distinguished Lecturer 1996-1997
Awarded Amos Hawley Distinguished Professorship 1996
Assistant Editor, Geological Society of America Bulletin 1996-2008
Featured Speaker at COSAIRE 1996 Gas Hydrate Workshop
ODP Science Steering and Evaluation Panel (Interior) 1997-2000
Chair - ODP –Gas Hydrate Program Planning 1998-1999
U.S. Senate Testimony on Gas Hydrates, May 1998
Organizing Committee, Third International Conference on Gas Hydrates July 18-22, 1999
Organizing Committee, Fourth International Conference on Gas Hydrates, May 19-23, 2002
Organizing Committee, Fifth International Conference on Gas Hydrates, June 12-16, 2005
Chairman of MBARI's Marine Activities Committee 2002 - 2009
Science and Technology Advisory Committee (STAC) Orion 2004-2006
International Science Advisory Committee – South Korea 2007
Organizing Committee, Sixth International Conference on Gas Hydrates, July 6-10, 2008
German Council of Science and Humanities- Deep-Sea Research Vessel Panel 2008-2009
Editorial Board Marine Geology 2008-present
International Science Advisory Committee – Korea 2009
Chair MBARI Research and Development Department, 2009 - present
Chair, National Research Council, Assessment of Methane Hydrate (2008-2010)
Elected to Board of Trustee's Consortium for Ocean Leadership (2010 - 2013)
National Academy of Sciences – Decadal Survey of Ocean Sciences (2013-2014)
Fellow – American Geophysical Union 2013
National Research Council, Decadal Survey of Ocean Sciences (2013-2015)

Sea-Going and Field Experience:

Before coming to MBARI participated in the scientific party of 36 UNOLS and USGS research cruises and have been the chief or co-chief scientist on 14 of these cruises including being co-chief on ODP Leg 164. At MBARI have participated in over 222 ROV dives, mostly as Chief Scientist. Since 2008 have served as the principle investigator for 50 AUV dives for near seafloor multibeam surveys. Also have participated in the collection of single and multichannel seismic reflection data; seismic refraction data; piston, box, and gravity cores; dredge and grab samples; heat flow data; surface vessel multibeam bathymetry, Deep-Tow, high resolution and GLORIA side-scan-sonar surveys on oceanographic vessels. 26 dives in research submersibles including 12 in ALVIN and 4 in NR-1.

Publications:

Journal and Book Articles:

Gould, S.J., and Paull, C.K., 1977, Natural history of the Cerion VIII, geographic variation of Cerion (Mollusca Pulmonata) from the eastern end of its range (Hispaniola to the Virgin Islands: coherent patterns and taxonomic simplification, *Breviora*, no. 445, p. 1-45.

Dillon, W.P., Paull, C.K., Buffler, R.T., and Fail, J.P., 1979, Structure and development of the Southeast Georgia Embayment and northern Blake Plateau, preliminary analysis: in Watkins, J.S., Montadert, L., and Dickerson, P.W., eds., *Geological and Geophysical Investigations of Continental Margins*, American Association of Petroleum Geologists, Memoir 29, p. 27-41.

Dillon, W.P., Paull, C.K., Dahl, A.G., Patterson, W.C., 1979, Structure of the continental margin near the COST GE-1 well site from a common depth point seismic reflection profile: in Scholle, P.A., ed., *Geological studies on the COST GE-1 well, U. S. South Atlantic Outer Continental Shelf area*: U. S. Geological Survey Circular 800, p. 97-107.

Dillon, W.P., Klitgord, K.D., and Paull, C.K., 1979, Geologic setting of the COST GE-1 well, U. S. South Atlantic Outer Continental Shelf area: in Scholle, P.A., ed., *Geological studies on the COST GE-1 well, U. S. South Atlantic Outer Continental Shelf area*: U. S. Geological Survey Circular 800, p. 4-6.

Paull, C.K., and Dillon, W.P., 1980, Structure, stratigraphy, and geologic history of the Florida-Hatteras shelf and inner Blake Plateau, *American Association of Petroleum Geologist Bulletin*, v. 63, no. 3, p. 339-359.

Dillon, W.P., Grow, J.A., and Paull, C.K., 1980, Unconventional gas hydrate seals may trap gas off the Southeastern U. S., *Oil and Gas Journal*, January 7, p. 124-130.

Paull, C.K., and Dillon, W.P., 1980, The erosional origin of the Blake Escarpment, an alternative hypothesis, *Geology*, v. 8, p. 538-542.

Manheim, F.T., and Paull, C.K., 1981, Patterns of groundwater salinity changes in a deep continental-oceanic transect off the southeastern Atlantic coast of the U. S. A., *Journal of Hydrology*, v. 54, p. 95-105.

Sheridan, R.E., Crosby, J.T., Kent, K.M. Dillon, W.P., and Paull, C.K., 1981, The geology of the Blake Plateau and Bahamas Region, in *Geology of the North Atlantic borderlands*, eds., Kerr, J. W., and Fergusson, A. J., *Canadian Society of Petroleum Geologists, Memoir 7*, Calgary, Alberta, 1981, p. 487-502.

Liddicoat, J.C., Denham, C.R., and Paull, C.K., 1981, Paleomagnetism of cored sediments from Lake Atitlan, Guatemala: A preliminary study, *Geofisica International*, v. 20, n. 3, p. 263-270.

Paull, C.K., and Dillon, W.P., 1982, Reply to "Comment on erosional origin of the Blake Escarpment: an alternative hypothesis", *Geology*, v. 4, p. 409-463.

Dillon, W.P., and Paull, C.K., 1982, Summary of the development of the continental margin off Georgia based on multichannel and single channel seismic-reflection profiling and stratigraphic well data, in Arden, D.D., Beck, B. F., and Morrow, E., eds., *Proceedings of the Second Symposium on Southeastern Coastal Plain Geology*, Department of Natural Resources, Atlanta, p. 197-200.

Manheim, F.T., and Paull, C.K., 1982, Hydrochemistry of the formation fluids in onshore and offshore strata in the Southeast Georgia Embayment, in Arden, D.D., Beck, B.F., and Morrow, E., eds., *Proceedings of the Second Symposium on Southeastern Coastal Plain Geology*, Department of Natural Resources, Atlanta, p. 211-218.

Paull, C.K. and Dillon, W.P., 1982, The stratigraphy of the Florida-Hatteras shelf and slope and its relationship to the offshore extension of the principal artesian aquifer, in Arden, D.D., Beck, B.F., and

Morrow, E., eds., Proceedings of the Second Symposium on Southeastern Coastal Plain Geology, Department of Natural Resources, Atlanta, p. 178-181.

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Paull, C.K., Hecker, B., Neumann, A.C., Sikes, E.L., Hook, J., Corso, W., Freeman-Lynde, R., Commeau, R., Golubic, S., and Curray, J., 1984, The seeps find at the Florida Escarpment, *Oceanus*, v. 27. no. 3, p. 32-34.

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Neumann, A.C., Bebout, B.C., McNeese, L.R., Paull, C.K., and Pearl, H.A., 1989, Modern stromatolites and associated mats: San Salvador Bahamas, in 4th Symposium on the Geology of the Bahamas, p. 235-251.

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Paull, C.K., Chanton, J.P., Martens, C.S., Fullagar, P.D., Neumann, A.C., and Coston, J.C., 1991, Seawater circulation through the flanks of the Florida Platform: Evidence and implications, *Marine Geology*, v. 102, p. 265-279.

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Paull, C.K., Bebout, B., Neumann, A.C., Zabielski, V., and Showers, W., 1992, Growth rate and stable isotopic character of modern stromatolites from San Salvador, Bahamas, *Paleogeography, Paleoclimatology, Paleaocology*, v. 95, p. 335-344.

Schmuck, E.A., and Paull, C.K., 1993, Evidence for gas accumulation associated with diapirism and gas hydrates at the head of the Cape Fear Slide, *Geo-Marine-Letters*, v. 13, p. 145-152.

Sager, W. W., Winterer, E. L., Firth, J., Arnaud, H., Baker, P.E., Baudin, F., Bralower, T., Castillo, P., Cooper, P., Flood, P.G., Golovchenko, X., Iryu, Y., Ivanov, M., Jenkyns, H.C., Kenter, J. A.M., Murdmaa, I.O., Mutterlose, J., Nogi, Y., Paull, C.K., Polgreen, E., Röhl, U., Sliter, W.V., Strasser, A., Swinburne, N.H.M., Tarduno, J.A., and van Waasbergen, R., 1993, Proceedings of the Ocean Drilling Project, Initial Reports, 143: College Station, Texas (Ocean Drilling Project), 724 pp.

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Paull, C.K. and Balch, W.M., 1994, Oxygen isotope disequilibrium in coccolith carbonate from phytoplankton blooms, *Deep-Sea Research*, v. 41, p. 223-238.

Paull, C.K., Ussler III, W., and Borowski, W.A., 1994, Sources of biogenic methane to form marine gas-hydrates: *In situ* production or upwards migration?, *The New York Academy of Science, Annals*, v. 715, p. 392-409.

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