#### PROFESSIONAL TEACHING EXPERIENCE

**Instructor**, Department of Chemistry, University of California, Berkeley, Spring, 2016, "Green Chemistry: An Interdisciplinary Approach to Sustainability", graduate course in assessment of greentech energy systems and material choices.

**Instructor**, Department of Chemistry, University of California, Berkeley, Fall, 2015, "Greener Solutions", graduate course; project driven team collaboration with private sector companies to develop more sustainable products. Clients were Autodesk and Method.

**Adjunct Professor**, Industrial Design department, California College of the Arts, San Francisco, CA, Fall 2012, Fall, 2014: "BioWerks". This is an upper division undergraduate innovation studio.

**Fulbright-Nehru Senior Scholar**, Centre for Product Design and Manufacturing, Mechanical Engineering department, Indian Institute of Science, Bangalore, India, September, 2013 to June, 2014: teaching "Creative Engineering" graduate seminar course and researching for upcoming book, "A Manual of Bio-Inspired Design for Architects, Engineers and Industrial Designers".

**Adjunct Professor**, Upper Division Interdisciplinary Studies department, California College of the Arts, San Francisco, CA, Fall, 2009, 2010, 2011: "How Would Nature Do That?" This was a 15-week studio course in bio-inspired design innovation.

**Lecturer**, Plant and Microbial Biology department., College of Natural Resources, University of California, Berkeley, Spring, 2011: PMB 290/190"How Would Nature Do That?". This was an interdisciplinary graduate seminar/studio lab in bio-inspired design taught in the Innovation Space of Haas Business School and College of Environmental Design.

**Contract Faculty**, Academy of Art University, San Francisco, CA, Fall, 2009: "Independent Study". Advisor for student masters thesis "Field Program in Biomimicry for Designers" by M. deCola.

**Lecturer,** Integrative Biology department, University of California, Berkeley, Fall, 2008: IB 296 "How Would Nature Do That?". This interdisciplinary graduate seminar in bio-inspired design was offered to students from the College of Design, Natural Resources, Engineering and Business.

**Senior Lecturer**, Humanities and Science department, California College of the Arts, San Francisco, CA, Fall, 2006, Spring and Fall, 2007, Spring 2008: "Applied Biology for Designers and Artists". This 15-week course fulfilled a basic science requirement while teaching innovation in design.

## **CURRENT POSITION**

Executive Director, Berkeley Center for Green Chemistry, January 1, 2016 to present.

Program Director, Berkeley Center for Green Chemistry, June, 2015 to January, 2016.

**Co-Founder and Editor**, Zygote Quarterly digital magazine, February, 2012 to present: This is a first-of-itskind publication that highlights the nexus of science and design as they meet in the sphere of biologicallyinspired problem solving. Nominated for a Digital Magazine Award, 2012, 2013, 2014. <u>www.zqjournal.org</u>.

**Columnist**, "The Biomimicry Column", Greenbiz.com, May, 2009 to present: Over fifty 1600-word essays on bio-inspired design and its impact on sustainable business. Article topics range from green architecture to ecological services, www.greenerdesign.com/bio/tom-mckeag

**Founder and President**, BioDreamMachine, January, 2009 to present: a California public benefit corporation dedicated to bringing the benefits of bio-inspired design instruction to public elementary schools. BDM has instructed several hundred K12 students and several dozen educators in bio-inspired design. www.biodreammachine.org

#### PROFESSIONAL DESIGN AND PLANNING EXPERIENCE

**Landscape Architect**, Thomas A. McKeag, Landscape Architect, 2004-2009. Sole proprietor of landscape design and site planning firm specializing in wineries and vineyard estates.

**Planning Manager, Landscape Architect**, Suzman Design Associates, 1998-2004. Senior manager, planner and designer for large estate, winery and resort projects.

**Landscape Architect**, Richard Berridge, Landscape Architect, Inc.., 1995-1998. Professional practice in site planning and landscape architecture specializing in mountain resort and vineyard estates and wineries.

**Senior Landscape Architect**, Eldon Beck Associates, San Rafael, California, 1993-1995. Supervising designer for private landscape architecture firm specializing in mountain resort and campus planning and design.

Landscape Architect, Trillium Garden Design, Berkeley, California, 1989-1993. Co- proprietor of custom residential landscape design company.

**Planner**, The Planning Collaborative, San Francisco, California, 1988. Staff level planner and project manager for public sector consulting firm specializing in urban streetscapes, park planning and environmental analysis and review.

**Planning Director**, Town of Norton, Massachusetts, 1983. Department head for small suburban town in southeast Massachusetts. Responsible for current and long range planning, environmental review oversight and administration.

**Planning Consultant,** Town of South Kingstown, Rhode Island, 1982. Project manager for the Critical Resource Project, a locally initiated resource inventory and protection program for agricultural preservation, shoreline conservation and aquifer protection.

Assistant Planner, Town of South Kingstown, Rhode Island, 1981. Staff level planner responsible for long range planning and environmental review.

## **RECENT PUBLIC SPEAKING**

**Guest lecturer:** Indian Institute of Science, Bangalore, India, "Bio-Inspired Design" four part public lecture series; spring, 2014; Omega Institute, Rhinebeck, NY, "How Would Nature Do That?", July 17-23, 2011; Universidad Iberoamericana, Mexico City, "Sustainable Innovation Inspired by Nature", July 9-16; Schumacher College, Devon, UK, "How Would Nature Do That?", June, 2011; U.C. Berkeley, ME 290H "Product Design", spring, 2011; Stanford University, ME 221 "Green Design Strategies and Metrics", winter, 2009; California College of the Arts, DSMBA 602, "Sustainability Studio", spring 2010; U.C. Berkeley, ARCH 201, "Architecture Studio", spring, 2010.

**Speaker or panelist**: The Forum, Grace Cathedral, San Francisco, "Design in Nature", March 1, 2015; Emerging Practices conference, Tongji University, Shanghai, China, keynote "Beyond Metaphor: Three Themes for Bio-inspired Designers", October 14, 2014; Department of Architecture Colloquium: Design for Sustainability, UC Berkeley, "Surfing for free: can nature inspired design innovations reduce the impact of climate change?", October 3, 2014; Centre for Sustainable Development, Bangalore, India "Some Bio-Inspired Design Adaptations to Climate Change", April 29, 2014; Centre for Climate Change, Bangalore, India "Some Bio-Inspired Design Adaptations to Climate Change", March 26, 2014; Srishti School of Art, Design and Technology, Bangalore, India, "Getting Bio-Inpired", January 10, 2014; Indian Institute of Science, Bangalore, India, "Six Technology Trends and the Role of Bio-Inspired Design", October 24, 2013; Biomimcry 3.8 Global Conference, Boston, MA, "Lessons from the Egg", June, 2013; Universidad Iberoamericana, Mexico City, Sustainability Conference keynote "Beyond Metaphor", April, 2013; Globe 2012, Vancouver, Canada, "Green Visionaries", March, 2012; Audubon Canyon Ranch, Citizen Science Salon, October, 2011; 2011 Biomimicry Conference, San Diego Zoological Society, March, 2011; Biomimicry Education Summit, Biomimicry Institute, San Francisco, October, 2010; AIA Wyoming semi-annual conference, opening keynote, October 29, 2009.

## ADDITIONAL WORK EXPERIENCE

**Professional Sailor,** Sloop 'Providence', Newport, R.I.; Sloop 'Independence', Newport R.I.; Schooner yacht 'America', British West Indies, 1978-1979.

**Marine Technician**, Research Vessel 'Endeavor", Graduate School of Oceanography, University of Rhode Island (Sargasso Sea survey), Research Vessel 'Sub Sig II', Raytheon Corporation (George's Bank survey), 1978.

# **EDUCATION**

**M.L.A., Landscape Architecture, University of California, Berkeley, 1987**. Thesis: "Point Cabrillo Light, a Site Design for an Historic Lighthouse". Intern for the California State Coastal Conservancy. Teaching assistant for "Natural Factors", graduate level course in environmental assessment. Field technician for "Braided Streams, Snake River Basin, Wyoming", one month hydrology field study with Dr. Luna B. Leopold. Beatrix Farrand Award recipient.

**M.C.P., Community Planning, University of Rhode Island, 1982**. Thesis: "An Aquifer Protection Plan for South Kingstown, Rhode Island".

**B.A., History, University of Rhode Island, 1977**. Graduated "with Distinction". URI President's Award for Academic Excellence.

## PUBLICATIONS

Editor, Zygote Quarterly magazine, 2012-present, http://zqjournal.org

Columnist, Greenbiz, "The Biomimicry Column", 2009-present, http://www.greenbiz.com/users/tom-mckeag

**Co-author**, "Patterns from Nature", Hoeller, N. et al, Society of Experimental and Applied Mechanics annual conference, Springfield, MA, June 4, 2007; Biomimetics12 annual conference, Bath, UK, September 21, 2007.

Author, "Patterns of Honorable Discharge", McKeag, T. A., Waterfront Age, vol.4, no. 3. : 26-31, 1988.

Contributor, "Some Relations Among Velocity, Depth and Slope in Braided Rivers", Leopold, L.B., 1986.

**Contributor**, "Geomorphic Processes of an Estuarine Marsh: Preliminary Results and Hypotheses", Collins, L.M., Collins, J.N., Leopold, L.B., 1988.