



Taylor Engineering

1080 Marina Village Parkway, Suite 501 ■ Alameda, CA 94501-6427 ■ (510) 749-9135 ■ Fax (510) 749-9136

GWELLEN PALIAGA

Gwelen Paliaga has a M.S. in Architecture from the University of California Berkeley and a B.S. in Physics from the University of California, Santa Cruz. His graduate work in Building Science focused on energy efficient and environmentally responsible building systems with a particular focus on passive systems, controls, and architectural integration.

At Taylor Engineering Mr. Paliaga specializes in design of sustainable, “green” mechanical systems and building envelopes. He does complete HVAC designs, including load calculations, system design, energy modeling, and life cycle cost analysis. He has in depth knowledge of human factors (comfort, health, satisfaction) in buildings and their relationship with energy use. Mr. Paliaga was a key member of an ASHRAE funded field study investigating peoples shifting thermal expectations and increased satisfaction when given control over operable windows. Results of this study should affect future versions of the ASHRAE comfort standard.

Mr. Paliaga is an experienced teacher and presenter, having taught and presented in physics, architecture, and building science fields over the last 10 years. He also has experience in carpentry and the construction trades that bring a practicality to his designs that complement his building science knowledge.

Representative Design Projects

Projects for which Mr. Paliaga played a major role in designing the HVAC systems:

Orinda New City Offices	Orinda, CA, 12,000 ft ²
Cathedral of Christ the Light	Oakland, CA, 220,000 ft ²
Chartwell School	Seaside, CA, 20,000 ft ²



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GWELLEN PALIAGA

Education

- 2001 - 2004 University of California, Berkeley
M.S., Architecture
- 1991 - 1996 University of California, Santa Cruz
B.S., Physics, Highest honors

Certifications

- 2004 LEED™ Accredited Professional

Experience

- 2004 - Present Taylor Engineering, Alameda, CA
Senior Mechanical Designer specializing in green building design including energy modeling, thermal comfort modeling, system design, and life cycle analysis.
- 2001 - 2004 University of California, Berkeley, Berkeley, CA
Project manager for an ASHRAE field study investigating peoples shifting thermal expectations and increased satisfaction when given control over operable windows.
- 1998 - 2001 Santa Cruz Institute for Particle Physics, UC Santa Cruz, Santa Cruz, CA
Design Engineer and construction manager of a \$1 million prototype detector for the NASA satellite mission, GLAST (Gamma Ray Large Area Space Telescope).
- 1994 - 1996 Santa Cruz Institute for Particle Physics/ Los Alamos National Lab
Student laboratory assistant and technician. Designed and prototyped fast analog electronics, A-D conversion, and data acquisition systems.
- 1994 - 1998 Carpenter
Seasonal work on residential and small commercial projects.

Teaching Experience

- 2003- Present Guest Lecturer: UC Berkeley, Stanford University
- 2002 - 2003 Department of Architecture, University of California, Berkeley, CA
Graduate Student Instructor. Prepared course materials and taught a discussion section for Architecture 140: *Building Energy and Environmental Management*.
- 1997 - 1998 Physics Department, Humboldt State University, Arcata, CA
Laboratory instructor for analog electronics and introductory physics courses.
- 1994 - 1996 Physics Department, University of California Santa Cruz, Santa Cruz, CA
Lab instructor and tutor.

Professional Associations

- American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE)
 - Associate Member 2004 - Present
 - ASHRAE Standard Committee, SSPC 55, "Thermal Environmental Conditions for Human Occupancy", voting member since 2005
 - ASHRAE Technical Committee, TC 2.1, "Physiology and Human Environment", voting member since 2005
- United States Green Building Council
 - Member of the Northern California Chapter, 2004 - present
 - Founding Member, Emerging Green Builders committee of the Northern California Chapter

Publications

- Hui Zhang, Edward Arens, Sahar Abbaszadeh Fard, Charlie Huizenga, Gwelen Paliaga, Gail Brager, Leah Zagreus, 2006, "Air movement preferences observed in office buildings". Presented in The 3rd Comfort and Energy Using in Buildings: Getting them right, Windsor UK, April 27 - 30, 2006
- Inkarojrit, V., Paliaga, G., "Indoor climatic influences on the operation of windows in a naturally ventilated building", Accepted for publication, Plea2004 - The 21th Conference on Passive and Low Energy Architecture, Eindhoven, The Netherlands, September 2004
- Brager, G., Paliaga, G., De Dear, R., 2004. "The Effect of Personal Control and Thermal Variability on Comfort and Acceptability, Final Report ASHRAE RP-1161", Submitted for publication, ASHRAE.
- Brager, G., Paliaga, G., De Dear, R., 2003. "Operable Windows, Personal Control & Occupant Comfort". ASHRAE Transactions, vol 110 (2), June 2004.
- Thompson, D.J., et al (Paliaga, contributing author), "Gamma-Ray Large-Area Space Telescope (GLAST) Balloon Flight Engineering Model: Overview", IEEE Transactions of Nuclear Science, 2002, Vol.49, No. 4.
- E. do Cuoto e Silva, et al (Paliaga, contributing author), "Results from the Beam Test of the Engineering Model of the GLAST Large Area Telescope", Nuclear Instruments and Methods in Physics Research, 2001, A474, 19-37.
- Atwood, E., et al, (Paliaga, contributing author), "The Silicon Tracker of the Beam Test Engineering Model of the GLAST Large-Area Telescope", Nuclear Instruments and Methods in Physics Research, 2001, A457, 126-136.
- Atkins R., et al, (Paliaga, contributing author), "Milagrito a TeV Air-Shower Array", Nuclear Instruments and Methods in Physics Research, 2000, A499, 478-499

Honors and Awards

- ASHRAE, Golden Gate Chapter, Student Travel Grant for Outstanding Student Involvement in HVAC, 2001 and 2004
- ASHRAE Golden Gate Chapter scholarship, 2001
- ASHRAE National Graduate Student Grant-in-Aid research grant for research into the use of wireless sensors for building monitoring and post occupancy evaluation, 2002

Conference Presentations

- Symposium paper presentation, "Operable Windows Personal Control and Occupant Comfort". ASHRAE Annual Meeting, Nashville TN, 2004