

DWIGHT P. MILLER, PHD

Architectural and Design Psychology
Environmental Psychology
Certified Professional Ergonomist
Email: dpmiller@swcp.com

1717 Louisiana Blvd. NE
Suite 102
Albuquerque, NM 87110
Phone: 505.934.6718

GOALS My goals are to continue exploring the relationships between the human beings and the built environment, conduct environment-behavior research, and help people design the most appropriate spaces for personal growth, well-being, and minimal impact on nature.

SKILLS Helping people understand how architecture affects perception, thinking, emotion, and behavior • Helping designers anticipate the impact of designs on people • Helping home owners make decisions • Matching clients with designers/builders • Green building

EDUCATION Ph.D., MA, Psychology, The Ohio State University, 1980, 1977
BSEE, BA, Electrical Engineering, Psychology, Lafayette College, 1974
Five Architecture Courses, University of New Mexico, 1986-2002

EXPERIENCE Right Home Consulting, LLC, Albuquerque, New Mexico
2007-Present *Owner and Principal Consultant, Expert Witness*

This firm has two major lines of work; consulting with architects, planners, and lawyers about how people interact with the built environment; and helping prospective homeowners develop design programs for their custom homes. The latter involves interviews, questionnaires, and exercises that help clients discover their true values, priorities, and preferences making the multitude of decisions about the home more manageable. Other services include site analysis, remodeling advice, green-building strategies, and designer/builder referrals.

1993-2006 Usable Designs, Cedar Crest, New Mexico
Principal Consultant, Adjunct Professor, Litigation Advisor

Adjunct Professor of Architecture at the University of New Mexico – Taught Human Factors in Design (Arch 470) which addressed how individual and social factors affect architectural design • Taught Architectural Research Methods (Arch 572) which emphasized quantitative and qualitative research techniques used in environment-behavior research. • Taught Psychological Research Methods (Psych 302) addressing the design of experiments and analysis of collected data in the social sciences.

Consulting – Worked with the Van Gilbert Associates and the Albuquerque Police Dept. to design and furnish an Integrated City Communications Center. Reviewed facility drawings, suggested improvements for the dispatch room, performed task analysis for dispatchers and 911 operators, developed functional and physical requirements for sit/stand consoles, created metrics for scoring candidate console designs, and selected seating.

Deposition & Litigation Consulting – Provided defense attorney information on behavioral aspects of restaurant design and helped him win a rare 100% judgment for the defense in a personal-injury case.

1981-2007 Sandia National Laboratories, Albuquerque, New Mexico
Distinguished Member of the Technical Staff

Project Management – Conceived and managed numerous technical projects, including one which investigated the ability to infer building floor plans using cultural data, space syntax analyses, and geometric processing. This technique can be used for counter terrorism, hostage rescue, disaster relief, and archaeological analysis.

Consultant to Sandia's Facility Design Departments – Performed behavioral analysis of Sandia's MESA engineering complex. • Consulted on remodeling space for Sandia's SimLab, • Developed floor layout and systems furniture redesign for Library classified vault. • Designed equipment arrangements and floor-plan layouts for control room for particle-beam fusion facility. • Designed MDL locker room and gowning area, to minimize particle contamination • Helped design control room for rocket-launching at Kauai Test Facility.

Architectural Programming and Post-Occupancy Evaluations – Performed architectural programming for a “commons-style” collaboration workspace for Sandia’s Advanced Concepts Group think tank. • Developed metrics and performed POE for same group 20 months later, and provided lessons learned for Facilities’ future designs. • Wrote technical report financially justifying POEs and recommending their use at Sandia Labs.

Ergonomics Program Development – Developed and managed award-winning, comprehensive ergonomics program for Sandia Labs. Acquired and managed budget, recruited and trained staff, benchmarked, evaluated seating and sit/stand workstations, and developed field tools and program procedures. Lowered work-related injuries and costs 80% over five years. • Consulted w/DOE, local businesses, and Lockheed Martin Corp.

**PROFESSIONAL
SOCIETIES
&
AWARDS**

- US Green Building Council, New Mexico Chapter
- A Center Advancing Sustainable Architecture (CASA) Green Summit Participant
- Program Chair for EDRA 35, in Albuquerque, June 2004.
- Technical Program Liaison for the HFES Annual Meeting in Albuquerque, 1997
- President’s Quality Award – Corporate Ergonomics Program, 1995
- Best Student Paper Award, HFES Annual Meeting, 1981
- Private Pilot’s License, SEL, 1976
- HFES member, 1974-2004; Zia Chapter Treasurer, 1988 – 2004
- EDRA member, 2000-present

**RELATED
PUBLICATIONS
&
PAPERS**

Miller, D.P. and J.A. Wise, Inferring Building Floor Plans from Cultural Data, Geometric Reasoning and Space Syntax Analysis, EDRA 37, Sacramento, CA, May 2007.

Miller, D.P., Designing Environmental Markers to Function for 100 Centuries, EDRA 36, Vancouver, BC, Canada, May 2005.

Miller, D.P. and J.A. Wise, *Design with Spirit: Proceedings of the 35th Annual Conference of The Environmental Design Research Association*, Environmental Design Research Association, Edmond OK, June 2004.

Miller, D.P., A Work Environment for Sandia’s Advanced Concepts Group, EDRA 32, Edinburgh Scotland, July 2001.

Miller, D.P., Mystery and Mastery, book review of *Archetype Design: House as a Vehicle for Spirit*, by Vishu Magee, *Council of Technical Groups Digest*, 3(2), Human Factors and Ergonomics Society, Santa Monica CA, September 2001.

Miller, D.P., Architectural Program for Sandia National Laboratories’ Advanced Concepts Group, Sandia National Laboratories, Albuquerque NM, May, 1999.

Miller, D.P., Corporate Cost Avoidance Using Sound Ergonomics Technology and Quality-Based Customer Services, Chapter 82 in *The Occupational Ergonomics Handbook*, W. Karwowski and W.S. Marras (Eds.), CRC Press, Boca Raton, 1999.

Miller, D.P., Top-Ten List of User-Hostile Interface Design: The ten most frequent mistakes made in human-computer interface design, *Journal of Vacuum Science and Technology A*, 13(3), American Vacuum Society, May/June 1995.

Miller, D.P., The architectural ergonomics of Sandia's RHIC-II gowning facility. In *Proceedings-9th International Symposium for Contamination Control-1988*, Inst. of Environ. Sciences, Mt. Prospect, IL, Sept. 1988.

INTERESTS

Nordic skiing, cooking, classical music, reading, art, oriental rugs, hiking, backpacking, high-end audio, photography, home remodeling, spiritual development, feng shui.

References will be furnished upon request.