

## Harvey J. Bryan

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Professor, The Design School

Director, Professional Science Master's in Solar Energy Engineering & Commercialization

Senior Sustainability Scientist, Julie Ann Wrigley Global Institute of Sustainability

Fellow of the American Institute of Architects

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### Professional Preparation

Arizona State University, Tempe (1968-1973)      B.Arch., 1973

University of California, Berkeley, (1973-1974)      M.Arch., 1974

University of California, Berkeley, (1976-1980)      M.S., 1980

Ph.D., 1987

### Appointments

2012-Present      Director, Professional Science Master's in Solar Energy Engineering & Commercialization, The Fulton Schools of Engineering, ASU

2007-Present      Senior Sustainability Scientist, Julie Ann Wrigley Global Institute of Sustainability, ASU

2003-Present      Professor of Architecture, The Design School, ASU

1999-2003      Associate Professor of Architecture, School of Architecture, ASU

1986-1992      Associate Professor of Architecture, Graduate School of Design, Harvard University, Cambridge

1980-1986      Assistant Professor of Building Technology, Department of Architecture Massachusetts Institute of Technology, Cambridge

### Ten Exemplar Publications

Doddaballapur, S., and Bryan, H.J., "Analysis of the Impact of Urban Heat Island on Building Energy Consumption," *Proceedings of the Solar 2012 Conference*, Denver, CO., May 2012.

Jo, J.H., Carlson, J.D., Golden, J.S., and Bryan, H.J., "Sustainably Urban Energy: Development of a Mesoscale Assessment Model for Solar Reflective Roof Technologies," *Energy Policy*, Vol. 38/12, 2010, pp. 7951-7959.

Bryan, H.J., Rallapalli, H., and Jo, J.H., "Designing a Solar Ready Roof: Establishing the Conditions for a High-Performing Solar Installation," *Proceedings of the Solar 2010 Conference*, Phoenix, AZ., May 2010.

Roseheidat, A., and Bryan, H.J., "Optimizing the Effect of Vegetation on Pedestrian Thermal Comfort and Urban Heat Island Mitigation in a Hot Arid Urban Environment," *Proceeding of the SimBuild 2010 Conference*, New York, NY., August 2010.

Jo, J.H., Carlson, J.D., Golden, J.S., and Bryan, H.J., "An Integrated Empirical and Modeling Methodology for Analyzing Solar Reflective Roof Technologies on Commercial Buildings," *Building and Environment*, Vol. 45, pp. 453-460, 2010.

- Roseheidat, A., Bryan, H.J., and Hoffman, D., "Using Envi-Met Simulation as a Tool to Optimize Downtown Phoenix's Urban Form for Pedestrian Comfort," *Proceeding of the Solar 2008 Conference*, San Diego, CA., May 2008.
- Bryan, H.J., Ethinnawy, T., and Antia, P.S., "Tools for the Mitigation of the Urban Heat Island," *Proceedings of the 2005 Solar World Congress*, Orlando, FL., August 2005, pp. 806-812.
- Bryan, H.J., "Water Consumption of Passive and Hybrid Cooling Strategies in Hot Dry Climates," *Proceedings of the 29<sup>th</sup> National Passive Solar Conference*, Portland, OR., July 2004, pp. 1059-1063.
- Bryan, H.J., and Deshmukh, A., "Making the Case for Energy & Cost Benefits Analyses of Personal/Task Cooling Solutions," *Proceedings of the 20<sup>th</sup> International Conference on Passive and Low Energy Architecture*, PLEA International, Santiago, Chile, November, 2003, pp. 659-664.
- Ghatti, V., Scheatzle, D., Bryan, H.J., and Addison, M., "Passive Performance of a High-Mass Residence: Actual Data vs. Simulation," *ASHRAE Transactions*, Vol. 109, Part 2, 2003.

### **Brief Bio**

Harvey Bryan is an architect and building scientist who has been involved in sustainable building design and renewable energy research for some thirty-five years. Over this period his research has received support from numerous public and private sponsors and is a recipient of several national research awards. Dr. Bryan has previously taught at MIT and is currently a professor at Arizona State University, where he directs an NSF funded Professional Science Masters (PSM) program in Solar Energy Engineering & Commercialization. He has been an investigator on DOE funded projects during both the Solar America Initiative and the SunShot program eras. Dr. Bryan has been active in several technical societies; he has served on the ASHRAE committee responsible for developing the *ASHRAE 90.1 -- Energy Standard for Buildings Except Low-Rise Residential Buildings*, and on the ASHRAE committee which developed the *ASHRAE 189.1 -- Standard for the Design of High-Performance Green Buildings*. He was also on a committee of experts assembled by ASHRAE, USGBC and CIBSE that resulted in the publication "*Performance Measurement Protocols for Commercial Buildings*," (ASHRAE, 2010). Dr. Bryan was a member of the State of Arizona's Solar Energy Advisory Council and is a LEED Accredited Professional with Building Design + Construction specialization. He has served as an Associate Editor for the journal *Solar Energy*, was chair of the American Solar Energy Society's Solar Buildings Division as well as served as chairman of the *Solar 2010* Conference. Dr. Bryan has a B.Arch. from Arizona State University, an M.Arch., M.S. and a Ph.D., all from the University of California at Berkeley, he is a Fulbright Fellow, a Fellow of the American Institute of Architects, as well as a Fellow of the American Solar Energy Society.