

Ying Hua

Web Bio

Information

Biography

Biographical Statement

Coming from an architecture background, Dr. Ying Hua had training in both building science and behavioral sciences.

Professional

Current Professional Activities

Co-Director, International Workplace Studies Program, Cornell University;
Appointed Member, China Green Building Council;

Research Advisory Committee Member, U.S. Green Building Council (USGBC);
Co-Chair, Work group 1: Buildings and their Sustainable Performance,
International Sustainable Campus Network (ISCN);

Co-author, IFMA Sustainability Facility Professional Credential.

Research

Current Research Activities

Dr. Hua has been conducting research on the effect of passive design strategies on building performance; building systems integration; post-occupancy evaluation; interaction between occupants and building systems; occupant perception, satisfaction and control behavior; and the impact of workplace on occupant behavioral outcomes. The goal of her research is to inform the design, delivery, operation, and re-engineering of the built environments and building sector policy-making to enhance the quality of built environments and the health and performance of their occupants, and to reduce the energy demand by the building sector and respond to the challenges of global climate change.

As an Abe Fellow awarded by the Japan Foundation Center for Global Partnership and the U.S. Social Science Research Council, Dr. Hua is studying the strategies to engage and motivate multiple stakeholders in sustainable building practice in different building markets in the US, Japan, and China. Related to her research, one of her courses on stakeholder interaction in the building delivery process and building life-cycle and the various non-technological barriers for the market transfer towards sustainability, was awarded the inaugural Innovative Green Building Curriculum Incentive Grant by the U.S. Green Building Council (USGBC).

Dr. Hua is an Appointed Member of the China Green Building Council, actively promoting sustainable building policy, practice, and education in China. She is playing an active role in promoting sustainable campus both in China and internationally.

Extension

Education

Education

- Ph.D., Building Performance & Diagnostics, Carnegie Mellon University
- M. Engineering, Building Science & Technology, Zhejiang University, China
- B. Arch., Zhejiang University, China

Courses

Courses Taught

DEA2040: Introduction to Building Technology - 2008, 2009, 2010, 2011
DEA3540/6540: Facility Planning and Management Studio - 2009, 2010, 2011
DEA6250: Collaborative Sustainable Building Practice - 2009, 2010, 2011

Websites

Related Websites

International Workplace Studies Program (IWSP)
iwsp.human.cornell.edu

Collaborative Sustainable Building Program (CSBP) (under development)
csbp.human.cornell.edu

Administration

Publications

Selected Publications

Hua, Y., Becker, F., Wurmser, T., Bliss-Holtz, J., & Hedges, C. (Under review). The Effects of Nursing Unit Spatial Layout on Nursing Team Communication Patterns, Quality of Care, and Patient Safety. The Health Environment Research and Design (HERD) Journal.

Nishida, Y. & Hua, Y. (2011). Motivating stakeholders to deliver change: Tokyo's Cap & Trade Program. *Building Information & Research*, Vol. 39, No. 5, 518-533.

Hua, Y., Loftness, V., Heerwagen, J., & Powell, K.M. (2011). Relationship between Workplace Spatial Settings and Occupant-Perceived Support for Collaboration. *Environment and Behavior*, Vol. 43, No. 6, 807-826.

Hua, Y., Oswald, A., & Yang, X. (2011). Effectiveness of daylighting design and occupant visual satisfaction in a LEED Gold laboratory building, *Building and Environment*, Vol. 46, No.1, 54-64.

Hua, Y., Loftness, V., Kraut, R., & Powell, K.M. (2010). Workplace collaborative space layout typology and occupant perception of collaboration environment. *Environment and Planning B: Planning and Design*, Vol.37, Issue 3, 429-448

Hua, Y. (2010). A model of workplace environment satisfaction, collaboration experience, and perceived collaboration effectiveness: A survey instrument. *International Journal of Facility Management*, Vol.1, No.2, 1-21.

Joseph, A., Keller, A., Quan, X., Quist, C., & Hua, Y. (2010). An open-source searchable database to assess the impact of environmental strategies on outcomes in healthcare facilities – Report by the Center for Health Design to the U.S. Green Building Council.

Yang, X. & Hua, Y. (2009). Globalization challenges for innovative city development: Case study of Pittsburgh, *Urban Studies*, 2009(12), 29-38 (in Chinese).

Hua, Y. & Yang, X. (2008). Barriers for green building practice in China. *Proceedings of World Sustainable Building Conference (SB08)*, September 21-25, 2008, Melbourne, Australia.

Yang, X. & Hua, Y. (2008). University campus as creative hub critical to city internal expansion. *Proceedings of the 44th ISOCARP Congress: Urban Growth without Sprawl – A way Towards Sustainable Urbanization*, September 19-23, 2008, Dalian, China.

Hua, Y. & Yang, X. (2007). Case Study of Lafarge China and Shui On Cement: Emission-related CSR in Chinese Cement Industry. In Hooker, J., Hulpke, J. F., and Madsen, P. (Eds.) *Controversies in International Corporate Responsibility*. Philosophy Documentation Center: Charlottesville, Virginia, pp 129-143.

Yang, X. & Hua, Y. (2006). A new method for measuring urban sustainability: Integrating spatial analysis and metabolism study. *Proceedings of International Conference on Sustainability Measurement and Modeling (ICSMM2006)*, November 16-17, 2006, Barcelona, Spain.

Hartkopf, V., Loftness, V., Aziz, A. & Hua, Y. (2006). Ecology of Shelter Development: Professional and Educational Implications of Innovations in Building and Construction Demonstrated by the Robert L. Preger Intelligent Workplace (IW) and Expected from the Building as Power Plant (BAPP) / Invention Works Projects at Carnegie Mellon University. In Kefeli, V. & Leininger, C. (Eds.) *Sustainability and Regeneration of Ecological Systems in Western Pennsylvania*,

USA: Research and Efforts, Chapter 10, pp89-98.

Loftness, V., Hartkopf, V., Lam, K. P., Snyder, M., Hua, Y., Gu, Y., Choi, J., & Yang, X. (2006). Sustainability and health are integral goals for the built environment. Proceedings of the Healthy Buildings 2006 – Creating a Healthy Indoor Environment for People, June 4-6, 2006, Lisbon, Portugal.

Loftness, V., Choi, J., Gu, Y., Hua, Y., & Snyder, M. (2006). Case studies for the life-cycle justifications of high performance, environmentally-responsive, green hospitals – Report to the Northwest Energy Efficiency Alliance (NEEA), July 2006.

Loftness, V., Hartkopf, V., Gurtekin, B., Hua, Y., Snyder, M., Qu, M., Gu, Y. & Yang, X. (2005). Building Investment Decision Support (BIDS™) - Cost-benefit tool to promote high performance components, flexible infrastructures and systems integration for sustainable commercial buildings and productive organizations. 2005 AIA Report on University Research

Yang, X. & Hua, Y. (2004). Wuhan vs. Pittsburgh: Urban transformation of old industrial cities under globalization impacts. Proceedings of the City Futures conference, July 8-10, 2004, Chicago, IL.

Hua, Y. & Yang, X. (2004). Urban sustainability issues of Chinese small cities. Proceedings of the World Building Congress - CIB2004, May 2-7, 2004, Toronto, Canada.

Loftness, V., Aziz, A., Srivastava, V., & Hua, Y. (2003). Creating a national environmental assessment toolkit (NEAT!) - Productivity protocols for the field evaluation of baseline environmental quality. Proceedings of the US Green Building Council (USGBC) International Green Building Conference, November 12-14, 2003, Pittsburgh, PA.

Xu, L., Ge, J. & Hua, Y. (2002). Analysis on the environmental problems accompanying high-speed urbanization of small towns in China, Journal of Environmental Sciences, Vol. 14, No.1, 120-126.