

# Ying Hua

## Web Bio

### Information

#### Biography

##### Biographical Statement

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

#### Teaching

##### Teaching and Advising Statement

For complex topics such as sustainability, resilience, quality of built environment, ..., the search for solutions starts from defining the problems and challenges. In the context of buildings and cities, I would like to teach and advise my students to have both the scope and the skills for creating methods and solutions (including designs) that view human beings as an integral part of the built environment and can generate value. Being member of both graduate fields of Design & Environmental Analysis and Real Estate at Cornell gives me opportunity to reach out to more students from a variety of backgrounds and make an impact.

#### Professional

##### Current Professional Activities

Co-Director, International Workplace Studies Program, Cornell University;

Faculty Fellow, David R. Atkinson Center for a Sustainable Future, Cornell University;

Appointed Member, China Green Building Council;

Executive Director, Built Environment Research and Innovation Collaborative (BeRIC);

Co-Chair, Work group 1: Buildings and their Sustainable Performance, International Sustainable Campus Network (ISCN);

Co-Chair, Research Committee of the International Facility Management Association (IFMA) Foundation's Educators Special Interest Group;

Member, Sustainable Campus Task Force, China Green Building Council;

Member, Commission on Accreditation, International Facility Management Association (IFMA) Foundation.

#### Research

##### Current Research Activities

Dr. Hua has been conducting research on post-occupancy evaluation (POE); interaction between occupants and building systems; occupant perception, satisfaction and control behavior; and the impact of workplace layout on occupant behavioral outcomes, e.g. collaborative behavior and sedentary behavior. She is also studying strategies to engage and motivate multiple stakeholders in sustainable building practice and in resilience building efforts in multiple building markets in the U.S., Japan, and China.

It is her goal to inform the design, delivery, operation, and re-engineering of built environments and building sector policy-making to enhance the quality of built environments and support health and performance of their occupants, and to mitigate the building sector's impact on global climate change.

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: High Performance Buildings

DEA5540: Workplace Strategies Studio

DEA6250: Human Dimensions of Sustainable Building

## **Websites**

### **Related Websites**

International Workplace Studies Program (IWSP)  
[iwsp.human.cornell.edu](http://iwsp.human.cornell.edu)

## **Administration**

## **Publications**

## Selected Publications

Hua, Y. & Yang, E. (2014). Building spatial layout that supports healthier behavior of office workers: A new performance mandate for sustainable buildings. *Work: A Journal of Prevention, Assessment, and Rehabilitation*. Vol. 49(3), 373-380.

Hua, Y., Gocer, O., & Gocer, K. (2014). Spatial mapping of occupant satisfaction and indoor environment quality in a LEED Platinum campus building. *Building and Environment*. Vol.79 (September 2014), 124-137.

Joseph, A., Taylor, E., Quan, X., Nanda, U., & Hua, Y. (2014). Building a knowledge base for evidence-based healthcare facility design. *Intelligent Building International*. Vol. 6, No.3, 155-169.

Hua, Y. (2013). Chapter 3: Sustainable campus as a living laboratory for climate change mitigation and adaptation: The role of design thinking processes. In Koenig, A. (ed.) *Regenerative Sustainable Development of Universities and Cities: The Role of Living Laboratories*. Cheltenham: Edward Elgar.

Hua, Y. (2013) Understanding POE for future building practices. Editorial for the Special Issue on Post-Occupancy Evaluation (POE). *Intelligent Buildings International*. Vol.5, No.3, 133-134.

Jaitli, R. & Hua, Y. (2013). Measuring sense of belonging among employees working at a corporate campus: Implication for workplace planning and management. *Journal of Corporate Real Estate*. Vol. 15, Iss. 2. 117-135.

Hua, Y., Becker, F., Wurmser, T., Bliss-Holtz, J., & Hedges, C. (2012). 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*. Vol. 6, No. 1, 8-38.

Konno, N. & Hua, Y. (2012). Designing the workplace for knowledge creation: Innovating “Ba” in the era of the networked workplace. *The Japanese Journal of Labour Studies*, No. 627, October 2012, 44-57 (In Japanese). ? ?

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.

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., 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.