

**Research Roundtable:  
Sustainable Community Planning, Design, and Construction**

Roundtable co-chairs: Tom Woodfin, John Nichols, and Ming Zhang

**1. General description of the area**

Chinese cities are rapidly developing and being transformed as continued political and economic reform move the country towards a more market-oriented economy. The pressures inherent in accommodating such rapid urbanization raise concerns over long-term sustainability and pose substantial challenges in infrastructure and transportation planning, affordable housing, engineering and construction standards and management, appropriate community design and social and economic equity issues.

The roundtable focuses primarily on three areas concerning sustainable urbanism and sustainable community design: 1) community design for long-term community health, both social and economic, infrastructure planning and integrated assessment of environmental and other quality of life issues, 2) affordable housing and green building design, and 3) construction process management including proper engineering standards, monitoring and assessment with application of Information Technologies.

**2. Benefits of SINO-US collaboration**

Achieving sustainable systems requires human behavior, both personal and organizational, that optimizes resource use without creating negative consequences in the long run. Unfortunately most economic models in use today promote the maximization of short-term gains at the expense of long-term sustainability. Decisions, both governmental and private sector, often serve limited and short-term goals at the expense of a long-term sustainable future. While interventions are aimed at short-term gains, they often fail to have a complete understanding of the underlying problem, and promote existing solutions that are ill equipped to address the comprehensive nature of the problem. China and the United States share many concerns over sustainable development and have common interests in developing solutions that promote sustainable futures.

The three primary focus areas are all dimensions to the larger concept of sustainable development. They represent areas of expertise and interest from TAMU faculty researchers together with their Chinese counterparts to develop collaborative projects. Several of these are research proposals that have been submitted by individual faculty members and their specific interests are incorporated into this broader interdisciplinary roundtable discussion. The Sino-US collaboration in the areas of sustainable community planning, design, and construction benefit collaborators from both sides in enhancing academic research and education and in better informing governmental policy-making.

### **3. Existing success stories in collaboration**

- 1) Joint proposal submitted to NSF by faculty members from the College of Architecture at TAMU and Southwest University of Science and Technology, China.
- 2) Demonstration on how to apply the concept of healthy community and healthy city in China through academic practice. Since 2000, faculty and graduate students of the landscape architecture at TAMU have conducted over ten academic practice projects in China.
- 3) Promotion of the concept of healthy community and healthy city through publications and conferences in China. The Community Design magazine, Tsinghua University School of Architecture, and TAMU will co-sponsor a symposium on healthy community in China in May 2004 in Beijing, with a special issue of Community Design magazine to be published on healthy community design. A group of ten faculty members from the College of Architecture will attend the symposium.
- 4) Exchanging scholars. A faculty member from Central China University of Science & Technology will be visiting the College of Architecture at TAMU in 2004-05 for joint research on digital city development in China.

### **4. Collaborative projects we should focus in near term**

Two major areas of collaboration identified from the roundtable discussions are.

- 1) Educational/professional exchange
  - a. Increase the public awareness of the concept of healthy community and healthy city through continuing education programs at Texas A&M University. Three colleges at TAMU (Architecture, Bush School, and Geoscience) are preparing “City Planning and Management Workshop for Chinese Mayors” to begin in Summer 2005.
  - b. Publish co-authored papers or books.
  - c. Publication of theme-based special issues of academic journals. School of Architecture at TAMU is home to two academic journals. School of Architecture and Planning at Central China University of Science & Technology is home to an academic journal in China.
  - d. Development course syllabi and degree curriculum towards transferable credits or joint degrees
  - e. Exchange of visiting scholars and students Demonstration projects in urban planning, health design, and ecological building design.
  - f. Joint evaluation and management of planning, design, and construction projects.
- 2) Development of joint research proposals targeting national (China and US) and international funding agencies. Research ideas emerged from the discussions:

- a. Health community design and development. Target agency and time: Ministry of Construction, China, 2004-05.
- b. Urbanization and affordable housing provision in midsize Chinese cities. Target agency: Division of Development at the World Bank, 2004.
- c. Adaptive reuse of foreign concession areas in Chinese cities. Target agency: UNESCO, 2004-5.
- d. Social and spatial transformation of 'the work unit' (DanWei) and its implications for urban transportation and land development. Target agency: Chinese National Science Foundation, 2005.