Sustainable Urbanism in China: A Student’s Perspective

May 23, 2013

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University of Cincinnati

Spring 2013

**Preparing for International Travel**

Studying abroad is one the most rewarding experiences a student can have during their college career. I was fortunate enough to have the opportunity to study abroad as an undergraduate and I know the value in experiencing another culture. When I learned that the School of Planning was offering a chance to study abroad as a graduate student in China I knew I had to go. The opportunity brought together planners, architects, and engineers to study sustainable urbanism in China and experience the sites and cultures of Asia.

Preparing for international travel is extremely important in ensuring a successful study abroad experience. Packing the essentials is the first step and should include a wardrobe that reflects the weather at your destination and any special events/presentations you may have to give. It was important to pack in layers that could be interchanged depending on the situation. In addition to clothing, I brought a converter for my electronics that I never actually needed because the hotels all had international plugs. If you plan on taking pictures be sure to bring enough memory cards or a computer to offload all of your images.

In terms of preparation for communication back home, it is important to be flexible. The Chinese government restricts many social media websites, and without a VPN you cannot access sites like Facebook. Access to the Internet is also difficult, with most hotels having Internet through Ethernet cables only. Let your family and friends know when you will arrive and never set a specific time that you will call or email because you never know when you will g have the chance during a busy schedule. Overall, it is important to be prepared and willing to compromise if something does not go as planned.

**Reflections on Sustainability in China**

My background in community planning and sustainable development made this trip the perfect companion to my graduate education. There is only so much one can learn about global sustainability from research and class lectures. Especially when it comes to China, sustainability has become an increasingly important topic. With such a large land area, population, and development potential China has the capacity to expand far more than the United States ever has. Coming from a background in environmental science and planning I have always wanted to experience first-hand the growth that China is experiencing.

The goal of this trip was to examine these growth issues and identify any strategies that are in place or that could be implemented in Chinese cities. Through site visits and discussions with Chinese faculty and students we hoped to experience first-hand many of the urban issues facing China. The first of these issues I experienced was after I passed through customs, seeing that the airport drinking fountains consisted of a 'cullingan-man' type dispenser that distributed purified water. A by-product of massive and hastened urbanization in China, most of the tap water in Beijing is undrinkable unless boiled. Because of this we drank a lot of tea and bottled water, a practice that makes cities like Beijing less sustainable.

Stepping outside for the first time I could definitely taste the particulates in the atmosphere and see a small amount of smog. The smog and remnants of poor air quality can be seen on every car in the form of a layer of dust. As we headed southwest towards the city from the airport, massive high-rise residential buildings dotted the landscape in what seemed to be a haphazard way. The hotel was located on a corridor where a recent elevated freeway was being constructed, harking back to the post WWII era of interstate highway building in the United States. Taking all of these first day observations into account I started to wonder if China is on track to be where the United States and other post-industrial cities were 100 years ago with growing urban areas, increases in automobile use, and a reliance on fossil fuels (coal) for energy.

We were fortunate enough to have the opportunity to tour two universities while in Beijing, the Beijing University of Technology (BJUT) and Tsinghua University. The first day at BJUT gave our group the chance to listen to students and professionals in planning and architecture about redeveloping areas of Beijing. It was a great experience to see and hear how Chinese students are tackling sustainability issues in Beijing. The following day we gave group presentations on several sustainability topics that aligned well with issues facing Chinese cities. I worked on studying the characteristics of sustainable cities and many of the students were interested in ways to make their sites more sustainable in a country where development is increasingly focused on the automobile.

This development has caused the recent smog problems in Beijing, decreasing visibility and increasing particulate matter pollution in the lower atmosphere. Our trip to Tsinghua University the following day was on the first day of the national May-Day holiday. Government workers and many others are given several days off from work for this holiday. Most residents travel home to rural parts of China and many Chinese tourists flood famous spots in the city using public transit. After just one day of reduced driving in the city the smog was considerably less and the skies were much bluer and cleaner. One wonders if government policies to reduce vehicles in the city would show an improvement in air quality over time and what trade-offs would be necessary for such policies to be successfully implemented (increases in public transit, etc).

Though Beijing’s growth is centered on the automobile, its development of high-speed rail and other public transit systems is progressive compared to the United States. In Beijing we traveled via bus and subway, an experience packed with people. It seemed that even though the transit system was being heavily used it was not adequate enough for those needing to use it. In addition to the bus and subway we were able to take the high-speed rail from Beijing to Jinan, traveling over 250 miles in an hour and a half. We also traveled back to Beijing on an overnight train that took much longer but provided a cheaper and alternative mode of transport. During our time in Jinan, we were able to ride on their Bus Rapid Transit (BRT) system and experience a streamlined system that is growing and becoming increasingly more sophisticated.

In addition to sustainable transportation improvements, energy production is also an important aspect of sustainability that we were able to experience in China. The coal-fired power plant that we visited outside of Qufu was a massive structure that burns 360 tons of coal per hour. One of the workers confirmed what one of the professors at Tsinghua University talked about in their presentation, that even in the next 50 years China would be producing over 50% of its energy using coal. While this process is not a sustainable one, it is difficult to imagine China producing enough energy for its growing urban population without relying on unsustainable sources.

From this experience traveling in China I was able to witness the country’s energy production, transportation infrastructure, and development first hand. Though much of what I saw was not sustainability as it has come to be defined in the United States, China is starting to think about sustainable practices that could guide their future development. China’s shear size and scale make it extremely difficult to incorporate sustainability across the board, but smaller initiatives are beginning to educate those in a position to make a difference. The work that each university we visited is doing will shape China’s future. In partnership with the University of Cincinnati, it is my hope that the lessons learned from an unsustainable past in the United States can and will be used by China to ensure a sustainable future for its people.