

In 2050, our world population is estimated to be 9 billion people (U.S. Census Bureau). Of those 9 billion, the Washington-based Population Institute predicts, "an estimated two-thirds of the world's population will live in urban areas". This increase in urbanization will put unprecedented demands on even our most advanced infrastructures.

One of the main concerns for managing growth of urban cities is creating smarter transportation systems that reduce traffic and pollutants. As discussed at Design Innovation Institute's (DII) High Speed Transit Forum, our current transportation system generates traffic jams and congestion, pollutants, and fatal car accidents. A common misconception we seem to have is the need to build more in order to accommodate more. Building more freeways and highways theoretically increases efficiency and reduces congestion, but in actuality, creating more roads inevitably increases the number of cars on the road. Even the hybrid cars that decrease harmful emissions and increase gas mileage are an incremental change to fix a very large problem. Our cities' infrastructure and transportation systems are in dire need of restructuring to accommodate the predicted increase in urbanism.



Cars, cars, and more cars in Shanghai!

One solution that revolutionizes the use of space and transportation in large cities are high speed trains. Major cities all over the world have turned to

these smarter transportation systems for speedier traveling that relieves some of the current problems related transportation. London's British Rail Class, the Siemens Velaro in Barcelona, Japan's 500 Series Shinkansen are just a few examples of successful high speed trains all over the world. Even The California High Speed Rail Authority is currently planning trains that link Los Angeles to Las Vegas and other major cities.

Thanks to Calvin Woo, Design Innovation Institute, The Maglev team, and a very lucky



Calvin Woo, myself, Brian Leininger and Susan Merritt pose for a picture after the drawing at the Transitions Forum.

raffle drawing, Brian and I were able to experience the Shanghai Maglev Train in person! The Maglev system uses magnetic levitation from magnets to propel the train and is able to reach a speed of 431 km/h (268 mph) without harmful emissions. This high speed system is very efficient for mass, rapid passenger transportation that connects the Pudong Airport to Shanghai's bustling city center.



To the left:
A very smooth and sleek magnetic train, The Maglev.



The times and the speed of the train. It took less than 4 minutes for the train to get up to maximum speed!

When riding the Maglev, I expected that same feeling I get while riding a roller coaster - when the cart drops and your organs seem to suspend in space. This was not the case. The ride from Pudong Airport to the main city was actually very calm and quiet. It did not feel particularly exciting, as I had imagined going 431km/h would be. The only sensation that illustrated the speed was looking out at Shanghai 's countryside blurring into beautiful wisps of watercolor streaks.

Although we did not experience the expected exhilaration from the speeding magnetic train, we were very fortunate to indulge in other activities that showcased Shanghai's charm. We explored many of Shanghai's unique districts from the artsy Old French Concession Area to the popular Bund highlighting Shanghai's skyline. At the famous Yuyuan Garden, we stood in line for the most famous dumplings in Shanghai, where we met and dined with American actor Jason Biggs and his company.



Jason's wife, her sister, Jason Biggs, Brian and our friend Nancy share a toast and famous Chinese dumplings. Can this get any better?



Brian and I pose for a touristy photo at Shanghai's beautiful skyline.



Lines full of people sporting colorful umbrellas on a hot day at the Expo.

As if the rest of this amazing trip was not exciting enough, the 2010 World Expo was also going on in Shanghai during our stay. Despite a mere 250,000 visitors each day (they expect over 70 million by the time the Expo concludes in October), we could not pass up the opportunity to see such an incredible display of different cultures and innovation. It was unlike anything either of us have ever seen. There were over 200 exceptional pavilions built, showcasing each country's unique cultural, economical, and technological developments. At any given time, many of the pavilions had long lines of people waiting to get in, some as long as 8 hours each!

There were also other pavilions that highlighted urban best practices that brought the idea of sustainability and the future together. One of my favorite pavilions is called "Pavilion of the Future" which displayed recent sustainable economic, social and environmental solutions for the cities of

our future. This pavilion pointed out different problems and potential future problems associated with our cities, including the critical topic of transportation.

While Brian and I meandered through these informational exhibits of ideal concepts of the future, I was reminded of the time when we were sitting at the Transit Forum, thinking about these same thoughts. Halfway around the world, professionals, idealists and everything in between were also dreaming of similar solutions for a sustainable planet. This trip to Shanghai was a serendipitous experience of a lifetime, not just for the site seeing and experiencing a different city, but a vital understanding that despite the distance and differences, our goals for a better future align - across both borders and cultures.

Thank you DII for this amazing experience!