Study Abroad: My Trip to China

By: Rachel Wessel (T-12)

At the TIME 2000 Seminar in March, 2010, an announcement was made about a study abroad trip to China that would start in June. Remembering how my mom taught me to make the most of every opportunity, I went home with a curious attitude and considered, “Would China be somewhere I’m interested in going?” The obvious answer was “yes!” I quickly signed up, and before I knew it, there was a month left before the departure day.

In May, as the final days of my last semester as a freshman wound down, I started to get really stressed. Not only were the final exams for my tough classes quickly approaching but I also knew that I needed to submit the TIME 2000 portfolio before I left. A 16-hour trip to a country on the other side of the world one day after my last exam was slightly pushing my sanity overboard. I didn’t know any of the other students going on the trip and it suddenly seemed daunting. My imagination started running the “What-if” tape: “What if I didn’t make any friends? What if I got home sick? Plane sick? What if the plane crashed? What if I’m ‘Taken’ like in that movie? What if…” Sometimes the imagination runs a little too wild. Yet, on the day of departure, the majority of my fears flew away, especially the irrational ones. As I got to know the other students on the trip, the excitement pushed all of my anxieties away. What a great opportunity to be going to China!

Soon enough, we were on the plane. The trip consisted of two flights; the first flight took thirteen hours and landed in Beijing. From there, we took the second flight, which only took about three hours and brought us to our final destination, the Sichuan Province capital, Chengdu. Despite the long flight, it was really hard to sleep. For one thing, China Air didn’t have the most comfortable seats. Something even worse than uncomfortable chairs was that throughout the entire trip it was never dark. We were passing over the date line so it was always daytime! When we finally arrived at the Sichuan University in Chengdu, I basically passed out from exhaustion.

The first day in China was a busy one. I started getting acquainted with my immediate surroundings, which included finding the bathroom. I was slightly nervous because I had heard that China frequently used the “hole in the floor” type of toilet. I wanted to make sure that wasn’t the case. Thankfully, my roommate and I had a “normal” Western Style, sit down type of toilet. The funny thing was that the bathroom was outside of our actual room. In China, not all bathrooms and laundry centers were living in; over the weekend we went on different trips, seeing the different sights of Sichuan. These trips involved Buddhist temples, long hikes up holy mountains, and seeing wildlife such as the Giant Panda. It was on these trips that I saw amazing, historical sites, the types of things that people include on their lists of “places to go” or “things to do before I die.”

The last two days of the trip were

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spent in Beijing where we visited great sights including The Forbidden City, Tiananmen Square, and, of course, the Great Wall of China. These were all amazing sights and many times when I tell people I’ve been to China they ask about them, but truly it wasn’t the sights that made my trip amazing – it was the experiences. Life, in general is made up of experiences that shape us into the people we are meant to be. The one experience that impacted my stay the most was being immersed in an entirely different culture. Part of becoming an excellent teacher is the ability to see things from different perspectives. This ability will allow you to relate better to your students. After spending time in China, I’ve come to the realization that not everyone lives in the nice little bubble that I’ve grown up in. I have in turn realized that each of my students will be different; they will have different backgrounds and different styles of learning. With this knowledge, I can adjust my teaching style to instill in my students a love of mathematics. Along with that, I have the great opportunity to share my experiences and thus make classes more exciting. I can bring students across the sea for a brief period of time. Just thinking about it makes me want both to travel more in order to gain more knowledge and to start teaching, now, in order to share that knowledge.

I urge you all to study abroad if given the opportunity. It was a great experience!

Good bye - 再见！

Rachel at the Great Wall of China →

Benoi B. Mandelbrot: Father of Fractals Remembered

Throughout life and in mathematics, the term “similar” has been used on numerous occasions. Most people find friends with similar views and beliefs, listen to similar music, and carry out similar activities daily. In a tenth grade geometry class, we learn that all circles are similar and how to prove that two triangles are similar. The term self-similarity is not used as often. Have you ever wondered what the length of the coastline of NYC is? What if you were told the length approaches infinity? A figure has self-similarity when it has features which appear identical or similar to itself at different scales of magnification. Pieces of certain natural and mathematically produced objects resemble a small copy of the object as a whole. Many objects in nature are self-similar. The reason the length of the coastline approaches infinity is that when you zoom in on a certain piece of the coastline, it has the exact same shape as the coastline when viewed originally. Continue to zoom in and the same findings will occur. There’s a famous triangle called Sierpinski’s Triangle which contains this trait, as well. It is generated by joining the midpoints of the sides of an equilateral triangle, forming four smaller triangles that are similar to each other and to the original triangle. This process is repeated with each new, smaller, similar triangle formed. Even everyday objects have this characteristic. Each tree branch has small branches that look like a minimized copy of the tree as a whole. Any object that has the characteristic of self-similarity is considered a fractal.

Benoit B. Mandelbrot was the father of the concept of fractals and coined the term in the mid 1900s. The study of fractals gave scientists a way to mathematically describe irregular shapes such as blood vessels and snowflakes. Mandelbrot, who was born on November 20, 1924, passed away at the age of 85, on October 14, 2010. His contributions to mathematics will live on forever. The next time you look at a coastline or a tree, try to see it in a different way. Math is truly everywhere!

October, 2010, What A Month!

Did you notice that this October had a very special date? This date occurs every one hundred years and, even though this sounds like it would be something very unique, a date similar to this one occurs twelve years in a row. Is the date obvious? It’s October 10, 2010, of course! 10/10/10 is the only day this year whose month, day and year are represented by the same number. This occurred in September, 2009, August, 2008 and similarly through January, 2001.

This October, you may have also seen the following cool “fact” somewhere on the Internet: “October 2010 has five weekends! This only happens every 823 years!” It is funny how the word “fact” is used so lightly. While it is true that October 2010 had five Fridays (1st, 8th, 15th, 22nd, 29th), five Saturdays (2nd, 9th, 16th, 23rd, 30th) and five Sundays (3rd, 10th, 17th, 24th, 31st), it is NOT true that this occurrence is so rare. Many Internet users have blogged on various forums about this “fact” not actually being a fact. One blogger wrote: “Let’s think about this mathematically. A year can only start on one of seven days, so there are seven possible basic calendar years. Add leap years, and there are four-teen basic calendars. People are claiming that one of those calendars only gets used every 823 years! How would that be possible?” There were actually five weekends in October 1999, just eleven years ago. So, while October 2010 was unusual for having five weekends, it happens more often than once every 823 years. Also, it turns out that any 31-day month will have five of whichever days the first, second, and third days of that month fall on. Don’t be fooled by Internet myths... always check the math!

I can’t wait for 11/11/11!

By: Mara Markinson (T-11)
It all began when I heard about the AmeriCorps National Civilian Community Corps (NCCC) program from fellow TIME 2000 alumnus Sarah Hofer. The idea of spending ten months away from home traveling the country and helping people, as a job, sounded like a special experience—one I needed to have. Program members are required to complete a minimum of 1700 hours of direct project service, 80 additional hours of Independent Service Projects, physical activity three days a week, and specialty roles within a team in order to qualify for the education award upon completing the program. During the program, participants receive a living stipend of $167.56 after taxes, every two weeks, and $4.50 a day for food (which takes you farther than you might think). Housing, uniforms, and a fifteen-passenger team van are provided.

After applying through the Web site, www.americorps.gov/nccc, in November 2008, I was finally accepted to the program at the start of July 2009, about two weeks before I was to leave. My new home base was to be Vicksburg, Mississippi. My response was likely the same as yours: “Where the heck is that?!” However, I was excited finally to be accepted as a Corps member and that I wouldn’t be aimless following my recent graduation from college.

I flew from New York on July 31, 2010, to Mississippi, with a large feeling of entering the unknown and unexpected. The month of August was spent on campus with other recruits, enduring long days of training followed by fun nights playing Ultimate Frisbee or soccer. Our campus started with about 160 Corps Members, 20 Team Leaders, 2 Unit Leaders, and various other staff people. Imagine the largest game of capture the flag possible; that was a fun night! After the fun times of Corps Training Institute, we were split into our permanent teams of 8-12 people, led by a Team Leader. The fourteen different teams were sent on a multitude of projects throughout the Southeastern United States.

My team’s first project was located two hours east of Vicksburg in Meridian, Mississippi. While there, we worked with Habitat for Humanity and helped build two houses. We worked on siding, roofing, insulation, and drywall. It is interesting to note that the Queens College Clocktower is dedicated to the memory of three young men: James Chaney, Andrew Goodman, and Michael Schwerner. Michael Swerner and Andrew Goodman were from NY and Andrew was a QC student. James Chaney was from Meridian. In 1964, the three men were murdered near Meridian by the Ku Klux Klan over their fight for civil rights. This crossed my mind several times while there.

Our second project was a split project, meaning we had two different projects during the second round. First, we worked on fixing a local women’s shelter in Vicksburg, which included painting, yard work, and more painting. Then we headed off for a long drive to Louisville, Kentucky. There, we worked with the Salvation Army’s Angel Tree Program which provides clothing and toys to children in qualified low income families during the holiday season. We worked both in the warehouse, preparing donations and filling bags for each child, and in the malls, supervising other volunteers at adoption stations.

After a brief vacation, during which I was able to come home and visit for the holidays, we returned to the campus and were sent on our third project, another split. We spent our first month in Mobile, Alabama, working for L’Arche Mobile. L’Arche is an international organization started in France that provides warm, caring communities to mentally disabled adults. We did a lot of handyman work for them including fixing screens, painting, plastering, and laying a new laminated floor. In the evenings, we had dinner with the residents and their aides at each of the four houses in the community. At the end of the project, we took the residents to the beach where we hung out and played volleyball. This was my team’s favorite project.

Next, we went from the gulf coast warmth of Mobile to the chilly air of Nashville, Tennessee. In Nashville we worked at the Radnor Lake State Natural Area. The first two weeks were spent working on graveling and mulching the trails, and the final two weeks clearing invasive plant species from sections of their land.

Finally, we were on our fourth round. In Memphis, Tennessee, we worked with a number of different organizations. The primary organization was the Wolf River Conservancy; we helped with environmental efforts to preserve natural habitats along the Wolf River which runs through Nashville. We also worked for the Vol-lintine Evergreen Community Association, helping them gravel one of their “rails to trails” and helping to fix the facade of their offices. About half-way through our project in Memphis, there were terrible storms and we moved to Millington, Tennessee, to assist the Red Cross with the disaster response. After a number of days working in shelters, we moved to Nashville to assist with response efforts. We went from 12-hour overnight shelter shifts to distributing supplies off the back of a truck to client case work (my favorite). Client case work involved walking the streets in different communities affected by the flooding, talking to the residents, listening to their sto-
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Museum of Mathematics to Open in 2012
The new museum of mathematics will be open in Manhattan in early 2012. For information visit www.momath.org and www.mathmidway.org