Making Tracks: Mu Cao

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In the “Making Tracks” series, RCC fellows and alumni present their experiences in environmental humanities, retracing the paths that led them to the Rachel Carson Center. For more information, please click **here**.

By **Mu Cao**.

When I was little, I spent a lot of time sitting in our small yard listening to funny local stories from my grandma. Though most people in our region consider themselves authentic northeasterners, they are actually quite new immigrants to this land. My grandma’s father carried my grandmother to Harbin (my hometown and the capital city of the northern most province of China) in one of the two baskets hanging from his shoulder pole, when she was 5 or 6 years old—like many other refugees when the war was spreading across central China. For this reason, their homeland stories tend not to be very local; they mostly reflect the folklore of Central China or are about wild nature. It makes sense then that my childhood memories of Harbin recall some of my earliest experiences with the natural environment—an area that was basically thick and boundless forest, rich black soil, and wide rivers.

One of the most common stories we heard was about the hunting life of early immigrants, and how easy it was. To say that they could “use sticks to hunt deer, use gourd ladles to take fish out of the rivers, and just open their windows to let pheasants fly into their cooking pots,” is not an exaggeration. Believe it or not, although in the Qing Dynasty, China was already under great population pressure, massive exploitation in this part of China didn’t happen until the mid-nineteenth century. The Willow Palisade built by Qing emperors, who believed Northeast China was the birthplace of the Manchu minority group—“the land of the rising dragon”—prevented the Han immigrants from exploiting the land. Han Chinese distinguished themselves from other tribes through agricultural production, whereas the Manchus practiced hunting and gathering for subsistence.

Nowadays, however, the majority of residents in Northeast China are Han immigrants, rather than descendants of Nurhaci (the Manchu forefathers), which accounts for this development of the land. For that reason, this is “new” land in a very old country; northeastern life is blessed with resources and energy, and people have had no fear of any kind of shortage since the 1990s. In fact, this fertile land is still the biggest producer of grain in contemporary China.

One cold afternoon on 13 November 2005, there was a big explosion in a chemical factory in Jilin City, upstream of the Songhua River. The blast shattered windows in the residential areas within 200 meters, and the thick black smoke coming from the factory could be seen clearly from the other side of the river. Nearby residents were evacuated immediately and the flames were finally extinguished. In the end, the explosion caused five deaths, multiple damages to the chemical plant’s buildings—which directly led to factory shutdown—and, far beyond that, the spilling of over one million tons of chemicals into the Songhua River. The chemical flow ran down the river channel from Jilin to Heilongjiang province and reached Harbin 10 days later. To protect citizens from the chemicals, the city’s running water was cut off for five days, which meant over five million people needed to live on bottled water. It was the first time citizens realized that water meant everything to the city.

That afternoon, I was still a sophomore majoring in Chinese history at Nankai University, sitting in the classroom and thinking about my first academic term thesis. All the conflicting information about the panic, anxiety, and fear in my hometown was the most vivid lesson for me, showing how important the environment is to us, especially its great influence on big cities. The explosion helped me to make up my mind.

In 2005, environmental history was still a very new subject in mainland China. But students at Nankai University were very lucky to have an environmental history course taught by Professor Wang Lihua, one of the leading environmental historians in China, who has been my advisor for the past 10 years and has helped me greatly since I conducted my first academic research on pollution in the Songhua River.

For this research, I applied for student funding from Nankai University in 2006 and organized a five-person research group to do field work in a farm downstream from the Songhua River in Heilongjiang province. The time we spent there was invaluable. Since our five team members came from four different disciplines, our discussions were quite fascinating—and effective, given that one problem could be observed from different

angles. It was the first time I realized that while most historical research focuses on past environmental history, one can also look to the present and even consider the future. My study of the Songhua River Basin and several of the biggest industrial cities along the river discussed how much rapid industrialization and modernization had changed the local environment. I was obsessed with how quickly our cities were changing, as well as their influence on the nearby environment. This led to research for my PhD project on the urban environmental history of Tianjin.

It is a brand new area of research and a huge challenge for me, and I know I need to learn more in this field. I flew to the US in late 2011 to further my studies with the great historian Donald Worster at the University of Kansas for one year. During my stay, Professor Worster was a great mentor whose generous help, wisdom, kindness, and suggestions greatly influenced my views on living and research. His encouragement has been a great motivation to my work, even after I left KU.

My doctoral research began at about the same time as I started my own family in Tianjin. Though my childhood memories of my hometown, Harbin, are full of romantic natural views and carefree childhood life, my days in Tianjin were full of grown-up pains and household chores, which were hard but real. I had to learn how to live in Tianjin—to experience the change from being a total stranger to becoming a new citizen. Though locals know better about their city and culture, the outsiders, as one old saying goes, “see most clearly.” I always feel something old but exciting, common but important, in this city. At the same time, I am also fascinated by the close relationship between Tianjin and its water resources and seek to explain the old and new “water cycles” in this city. I write about how water created Tianjin city, how the city grows on the rivers, how people take fresh water home, and how they drain their waste down to the stream. Using long forgotten facts and details, my research aims to explain the changing urban environment in early modern times, a focus that led to my project at the RCC: the water supply and drainage system of Tianjin.

These are just a few fragmented memories, but there are so many more stories and people who helped me as mentor and friend. I could not have made my way without them.