# Making Tracks: Yan Gao

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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**.

**“Watermarks on My Path”**

By **Yan Gao**

When I started writing this article, my home city, Wuhan—situated at the confluence of the Yangzi and Han Rivers—was undergoing one of the largest floods in the city’s modern history. According to data from the Wuhan meteorological authorities, from 1 June to 6 July, cumulative rainfall in Wuhan’s main districts totaled 1087.2 mm, and the weekly precipitation in Wuhan from 30 June to 6 July reached a record-breaking 574.1 mm. The excessive water paralyzed the entire city: subway stations were submerged, roads were flooded, communities experienced severe drainage problems, there were citywide electricity cuts, and schools and workplaces closed. I was thousands of miles away, anxiously reading news reports.

It brought back memories of my experiences in dike protection along the Han River in 1998, the last time Wuhan suffered a flood comparable in scale. At that time I was a summer intern in the media control office of my hometown government. The water level of both the Yangzi and Han had been rising dangerously, and the municipal government decided to mobilize government officers to inspect the river dikes for traces of potential breaks. I was assigned to an overnight shift to inspect a section of the Han River main dike. We were briefly trained in how to spot dangerous water holes and warned not to doze off. Equipped with raincoats and flashlights, we watched the dike closely from midnight until dawn: that night, the dike was safe. Years later, when reading historical documents on dike maintenance and protection, I realized that, that night, I had been doing something people had been practicing for centuries.

I grew up in a farm town reclaimed from the wetlands near Wuhan in the 1950s. The dividing line between the wetlands and the city is a long dike called the Zhanggong dike, built by the highly esteemed Viceroy of Huguang Zhang Zhidong in the early twentieth century to fend off floods from the city. The wetlands quickly developed into a town that was practically indistinguishable from the neighbouring city, and the Zhanggong dike became more of a landmark than a feature of hydraulic infrastructure. But the townspeople often considered sacrificing the town for the safety of the city whenever there was a big flood. In such a "watery" environment, my family, full of people who are trained in water management—be they government officials who were in charge of water control bureaus, or hydraulic engineers—educated me about agricultural irrigation, dike and dam construction, and flood control. Their influences on me have been profound.

Perhaps because of all these "watermarks" on my life, I took some time to embark on the research of water management in China. I chose to major in world history for my undergraduate studies, and went on to research economic systems of early modern England for my master's degree. By the end of my first year as a master's student, I had developed an interest in the comparative history of China and the West, which led me to study abroad. I was fortunate to be admitted to Carnegie Mellon University where I changed my field from world history to Chinese history, and where I immersed myself in demographic trends, agricultural production, market formation, commercialization, and economics-related issues. A course with Prof. Joel Tarr on history and policy opened my eyes to the role of the environment in human social and economic activities—we learned about technology and the environment, pollution, stakeholders in natural resources, and environmental policymaking. A project on the Three Gorges Dam at the end of that course steered me towards water disputes in late imperial China: I had found a way to combine my background in socioeconomic history, Chinese literature on water control (*shuili*), and environmental history. I was truly lucky to work with professors who offered their extraordinary professionalism and support for my scholarly endeavors; they significantly shaped my academic life.

As many scholars have emphasized, water control is essential to understanding the mechanism of state-society relationships in Chinese history. Work in the field is abundant, and we have seen several paradigm shifts: from the foundational but much criticized theory of "Oriental Despotism" by Karl Wittfogel, to Balinese Geertzian or Stephen Lansing's idea of "democratic irrigation models" of power resting on local social organizations. Since previous scholarship on water control has mostly viewed water as a backdrop for political events, without emphasizing its participatory role in history, I

decided to explore further. My immediate interest was in water-related issues in the Jianghan Plain, where I grew up. Evolved from the ancient Yunmeng wetlands, the Jianghan Plain has long been ridden with natural calamities, especially floods. I examined how people dealt with water calamities and how the local hydraulic communities of the plain were transformed from the 1700s onwards. My dissertation attempted to answer the following questions: How did the region's environment shape local communities' lives and the state's resource management in history? How did the landscape and waterscape of the plain change from a long-term perspective? How was the water regime transformed in late imperial and modern China?

My current manuscript, derived from my dissertation, tells a story of regional development focusing on projects of resource management in the modern history of the plain. My research has taken me around the local communities of the Jianghan Plain and the Dongting Lake area in central China; I have dug into the local archives, explored the temples dedicated to water gods and goddesses, and collected stone inscriptions; I have also been to major dams in this region and sailed down the Yangzi River. I am fascinated by how water has shaped human communities and the enduring marks it has left behind. The ones that have impressed me most were left by the 1870 Yangzi flood on two columns of the Hall of the Great Yu—the legendary sage who successfully controlled the floods thousands years ago. Looking at the watermarks, I can't help thinking that though humans have controlled water through damming, diking, or channeling, water has always imprinted human history with its own marks, seen and unseen.

The summer of 2016 sees an important and exceptionally fortunate episode in my work—I have joined the vibrant scholarly community at the Rachel Carson Center. Constantly inspired by my brilliant colleagues and enjoying the pleasant summer in Munich, I continue to work on my book manuscript on the Jianghan Plain and aim to start research on my second project on the transregional movement of knowledge in hydrology from a global perspective. The watermarks on my path have had a deep impact on me, and I will surely collect more watermarks that not only define my work, but also shape my life.