

After Thirty Years, You Still Can't Drink the Water

By Arthur Barbeau

I first went to China in 1986 as a member of a group of fifteen professors of world history from West Virginia. Under a grant from the US Department of Education, all had to agree to increase our coverage of China and to produce modules that would be circulated to our West Virginia colleagues in the hopes that they would also expand their treatment of China. Agree? This was one of the biggest no-brainers of my career. Over the next thirty years, I've been to China an additional thirteen times—two of those were for full years.

Our schedule called for us to go to Hong Kong and fly to Beijing to spend two weeks at Beijing Normal University for lectures on traditional China while taking trips in the capital and surrounding area. After a quick trip to Xi'an, we would go to Fudan University in Shanghai to study China's Modern period; this included side trips to Suzhou and Hangzhou. Our final leg took us on the road to visit Chengdu, Emei Shan, Leshan, Chongqing, and Dazu. Returning to Chengdu, we went down the Chang Jiang by boat, and then from Wuhan to Guilin and Guangzhou before returning to Hong Kong. It was an ambitious and very busy undertaking.

To prepare for our ordeal, there were visas to obtain, shots to get, and readings on what to expect when we got there. One caution constantly came up in the latter: We were reminded that it was unwise to drink water from faucets or even to use that water for such daily rituals as brushing our teeth once we left Hong Kong. It simply wasn't safe to drink water that wasn't boiled or to eat uncooked fruits or vegetables that hadn't been sterilized. Too many of the latter grew where "nightsoil" was used as a fertilizer.

By my third day in Beijing, I felt that a modification was necessary in my personal schedule. I had waited too long for this first visit to a country that had fascinated me since childhood. The great lunches at the Dadu Hotel took up too much time. They also left me a bit logy during our post-lunch activities. I decided to see if it was possible to eat on the street. Not far from the Dadu were the Beijing Zoo and a large bus turnaround. In front of those were a number of small food stalls. For pennies, I got a skewer of mutton roasted over charcoal, which I washed down with a bottle of the local soft drink. For dessert, I added a popsicle or slice of watermelon. The first few days, I did wonder if the popsicle had been made with boiled water and if the watermelon was really safe. Though I survived, the rest of our group did create an informal pool on when my stomach distress would kick in.

Our flight from Xi'an to Shanghai was delayed, and the local hosts took us to a small restaurant for lunch. Most of my colleagues used their little Wipe 'n Dries to clean their chopsticks. I used the Chinese method. Pouring hot tea into my glass, I swirled the chopsticks in the glass and poured more tea over the dishes. The used tea was just tossed onto the floor in a corner. When we arrived in Shanghai, some of my colleagues were having trouble with their stomachs and lower intestines.

One last incident from this first trip to China will be forever locked in my memory. Everywhere we went in China, there was clean hot water, tea, and occasionally coffee. These have never appealed to me; I prefer cold drinks, which were rare in China at that time. On Emei Shan, we were at an elevation of about 1,000 meters (1,094 yards) where two small streams joined. It was a very hot day, and I went down to the bank to wash my face. The water was cold, almost frigid. I calculated that we were probably so high up that there were no habitations above us. I raised a handful to my

mouth and took a sip. Then, after a few more, I looked around. About ten feet upstream, a mule was up to its hocks in the water—urinating! But that cold water was so refreshing.

The next year, my wife and I took our two-year-old daughter to Henan University in Kaifeng. Though our water for bathing and, later, for heat was provided by a boiler, drinking water came from a smaller boiler in the foreign faculty compound. Of course, we could also drink bottled water, as well as local and foreign soft drinks. Without a refrigerator, the closest I could get to a cold drink was to fill used soft drink bottles with sterilized water. We were always careful to sterilize the baby's bottles with water that we reboiled ourselves. Students filled their water bottles at a different and larger boiler house.

When we traveled by train, every car had a charcoal boiler at one end. In soft and hard sleepers, car attendants sometimes made efforts to keep the two large Thermos bottles in each compartment or aisle filled. There were times, though, when boiled water ran out before the trip ended. Chinese passengers carried their own bottles to make tea; in a hard seat, you had to fill your own from the boiler.

A few years and a couple of trips later, I was in Beijing as a Fulbright Scholar at Beijing Foreign Studies University. Before we started classes, there were a couple of days of orientation for all those who would be Fulbright Scholars in China that year. Most of one morning was spent listening to the doctor from the American embassy. He was so cautious, even negative, that it was surprising that we didn't just pack up and return to the US. By his own admission, his personal travels within China were confined to a few of the major eastern cities, and he always flew to his destinations.

He told us that, for our personal use, water should be boiled for at least ten minutes. Fruits and vegetables that would be eaten without cooking should be carefully washed before being soaked in sterilized water, to which bleach was added, for at least fifteen minutes. It would be better just to avoid anything raw. Only reputable international brands of bottled water were safe, but one needed to make sure the original seal was still intact. The only soft drinks he guaranteed were Western brands. If bottled, one needed to be aware that Chinese imitations were frequently packaged in colors and shapes that were designed to be misleading. Even in the best restaurants and hotels, he advised against drinking anything with ice in it; the ice might not have been frozen from sterilized water! On more than one occasion when drinking with a colleague, if the waitress started to pour his into a glass with ice in it, I usually got that portion as well as my own. A couple of years later, I ran into the doctor from the Australian embassy. When I asked him what advice he gave his countrymen, he replied: "Tough it out, mate. Tough it out."

When I traveled without family (nine trips of one or two weeks), I usually took hard sleepers for longer train trips. The situation was such that it was inconvenient to follow the American doctor's advice. You just couldn't take the large Thermos into the washroom at the end of the car. It was simply easier to use water from the faucet that was not sterilized. Especially in Kaifeng, I often ate in friends' flats. To get water, one went outside to a public faucet. There, we might carefully wash such things as tomatoes. Still, we ate those raw, without additional steps to sterilize them. I can't remember school cafeterias in Kaifeng, Beijing, or other cities ever serving raw vegetables; watermelon was probably the only fruit that I recall in such places.

Boiling water to sterilize it did not solve all the problems with water from a municipal system. It only killed the bacteria, including that from human and animal waste. Water contained other contaminants. Agriculture added pesticides and fertilizers; industrial wastes included various other unhealthy (actually toxic) materials, especially heavy metals such as cadmium, mercury, zinc, lead, and chromium. Arsenic was also fairly

common in tap water. In fact, boiling—by reducing the amount of water—really increased the level of toxicity! Certain filters could remove some of those things, but these were nonexistent in China's cities or rural areas. Travelers from abroad such as tourists and students usually don't pack acceptable filters or refills for them. At least, I never met anyone who did, including long-term residents or expats.

By the mid-1990s, some environmentally concerned groups were beginning to appear in China, and even government agencies were taking notice of pollution. *China Daily*, the government's official English-language newspaper, occasionally had comments warning about water and other forms of pollution.

I saw something similar in both Sichuan and Gansu. A number of villagers never used river water for drinking. Even when their crops were planted next to a river, they didn't use that water for irrigation. An item in *China Daily* and on television made mention that almost half of tested rice samples in Guangzhou had toxic pollution levels that made them unacceptable. All had come from Hunan and Hubei, where industrialization was underway. In both those places (as well as others), in small-town restaurants and on long-distance buses, I was still an object of curiosity because a Westerner was still a rarity. In one small restaurant, I mentioned the story about polluted rice results from Guangzhou. Two peasants at a nearby table said that was because a factory manufacturing batteries had been constructed there and its waste had contaminated the irrigation water. When I asked if the locals were concerned, they said the peasants had found a way to cope. Rice using water from the irrigation ponds was delivered to the government as its quota to the state. The farmers ate rice and vegetables from other plots that they watered from cleaner streams or from wells! They didn't seem to worry that even the aquifers might also be contaminated. Of course, they did boil their tea water.

Some villages along a river in Gansu did not use that water for drinking, even though they boiled what they drank. Though crops might be planted in flat land close to the river, farmers made an extra effort to climb higher to get water from wells; some expended time and effort into constructing irrigation canals at those higher elevations. More than one peasant pointed to obvious pollution in the river. I've even seen a foamy froth of industrial waste from factories far enough upstream to be out of sight.

I went to San Po Cun, a small Muslim town in Henan Province. My childhood was spent in a small city in Peabody, Massachusetts, a major center for tanning leather, so I grew up with the sights and smells of the operation. Along one small unpaved lane in San Po Cun, leather tanners removed remnants of flesh from the inside of the hides. Every house was engaged in the work. About midway along, the land fell off on both sides; ditches of black effluvia flowed along both sides and into the "lagoon," which was full of the slime. Never in my Peabody days did I encounter such a putrefying stench.

In earlier years, hides were air- or salt-dried. They were then treated with natural vegetable tannins. This seems to have been the traditional practice in China, as well as in the West. Now, formaldehyde is a major component of tanning. Chemicals derived from coal tars are also used. Many of these are loaded with cyanide compounds.

In this catalog of horrors was one gratifying exception. In 1988, we were hosted in Nanjing by a company that manufactured equipment for petroleum refineries. We were taken to a beautiful park that surrounded a pretty lake. It had once been a pit for waste from our host and another company. Initiatives by workers at the two factories led to the drainage of the pit, cleanup of the site, and the construction of the pleasant little urban park.

My personal experiences during the present decade in China indicate that good hotels, some offices, and a number of schools now purchase



A local woman in Guangdong Province told Greenpeace, "We don't ever dare to open our windows; it stinks too much." Ximei Village is right next to the Xiao Xi River, into which many factories in Guraio, Shantou, discharge their wastewater. Source: © Lu Guang/Greenpeace

water in jugs. Supposedly, these contain water that has been sterilized, but I'm not sure that this water has also been filtered to remove toxins such as heavy metals. In the hotels, the jug is mounted on a base that provides both hot and cold water. Because of my personal disposition to drink cold beverages, I can't verify how hot the water can be; the cold is just room temperature. The newer train cars are also provided with new water systems that boil the water by electricity.

Another positive sign are government plans for massive transfers of water from the Chang Jiang and its tributaries to the Huang He (Yellow River) in northern China. In the northwest, it would provide more water for both agriculture and industry, and enough extra to flush out some of the contaminants. Further east, water from the Han River, a Chang Jiang River (Yangtze) tributary, would guarantee that the eastern portion of the Huang He will not go dry before it reaches the sea; in some recent years, it actually has, resulting in such serious pollution that crops simply will not grow. Finally, there has been a significant growth of environmental groups that are convincing the Chinese public that changes must be made.

I have also seen a growth of blooms of blue-green algae. These blooms may vary from a light shimmering sheen on the surface to a thick green mass a foot or more thick. The cause of this pollution is the runoff of fertilizers and animal wastes from farm land. There have also been localized outbreaks of epidemics of cholera or typhoid that are attributed to water pollution.

My most recent trip to China was in 2015. Since that very first trip, I have slowly become aware of the problem of water pollution in China. It grew from a simple caution that one should not drink tap water. Despite growing personal concern, it took years for me to realize the real ramifications of the overall problems. Yet, almost a third of a century later, I still shouldn't drink the tap water of China. ■

ARTHUR BARBEAU is Professor Emeritus of History and Anthropology at West Liberty State University in West Virginia. He has made fifteen trips to China and taught there for more than two years, including one year as Fulbright Professor of American Studies at Beijing Foreign Studies University.