

My current research as a doctoral student in sociology at University of California at Santa Cruz is focused on how marginalized populations (e.g. those without homes, migrants, immigrants, or those in precarious living situations) in high-income urban areas are impacted by water and sanitation infrastructure configurations. This focus has been shaped by my experiences in the water sector. I started out teaching younger students about watersheds before obtaining an undergraduate degree focused on Environmental Studies. I went on to work with a couple different United States governmental agencies on water quantity management and groundwater monitoring and management. Afterwards, I attended a master's program on Water Resources Policy and Management to study global watershed issues, and completed a major project on gender equality and empowerment in water and sanitation in rural India. When I returned to the United States, I began volunteering with an organization that focuses on North American sanitation issues (www.phlush.org) including toilet design and emergency sanitation. This experience, coupled with close interactions with a chronically homeless family member, propelled me to study how sanitation issues impact those living on the margins in wealthy cities. I started thinking about similar issues in Paris after visiting the country a few years ago because my step-father is French.

While I have not started official field research in Paris, I am in the process of defining the theoretical background of my project. The research is informed by two aspects of urban sociology: post-colonial urbanism and urban political ecology. Post-colonial urban theory is intriguing to me because it considers how informality (e.g. employment, housing, technology, governance) shows both the agency and challenges of those living on the margins of cities. It can illuminate how people without access to water and sanitation infrastructure use informal approaches to access or govern that infrastructure. This literature is typically only applied to studies of cities in the global south, but I would like to use it to examine wealthy cities in the global north. Urban political ecology is also interesting to me. It considers the socio-ecological production of urban inequality, and some of it outlines the historical development of networked water and sanitation systems in wealthy urban areas. Likewise, I hope to understand how certain people living on the margins are impacted by environmental inadequacies with water and sanitation infrastructure. After defining my theoretical background, I will move forward outlining my research plan for Paris along with another location in the United States.

Even though I have not started official field research, I did conduct a few preliminary interviews with organizations (e.g. governmental, non-governmental) and individuals (e.g. Roma and those living outside) in Paris. My findings are not as comprehensive as our distinguished Parisian discussants or Dr. Bernard Barraque (pre-eminent water and sanitation infrastructure scholar in France), but I will still share them. These experiences might allow me to discuss anecdotal ways that "households of the urban poor taking action to gain what they need" in terms of water and sanitation. The city of Paris has an extensive public toilet and fountain system (i.e. over 350 toilets and 1200 fountains). They even have a hand-held map that shows all toilet and fountain locations, and supposedly distribute jerrycans to those living outside. There are also multiple municipal showers as well as an association that provides a mobile shower service. There are, however, various challenges for some people accessing these facilities. First, most of them are located within central Paris, but many people without homes live outside central Paris. Second, public toilets are only open for a certain number of hours during the daytime, and some are broken or not functioning. Third, municipal showers are only

open on certain days, and there seems to be some gender, race, and class conflict among people using the facilities.

Along with non-governmental organizations (i.e. associations) that provide services to those living outside, I also talked to people living on the street near the Pompidou Center and Gare Austerlitz and people living in a Roma camp in Ivry sur Seine. Multiple homeless people seemed to take advantage of a water tap located on the back of public toilets for washing and bathing. One man even had a vegetable stand near the Rambuteau metro entrance, and would use that water tap for washing his vegetables before selling them. Other homeless people would use a water tap located inside the metro tunnels for cleaning. The small Roma Camp in Ivry sur Seine was located far away from any public toilets. They dug a small pit latrine on their property. They had talked to the city about getting a portable toilet, but were on a waiting list for that to happen. I was also told of squats in the Paris metro area that did not have access to water and sanitation services, and visited an old school being occupied by over fifty migrants in a political act to raise awareness to their plight. This facility had no water or sanitation access, and there were no organizations addressing water and sanitation issues there.

The scenario that I have just described also relates to "ways in which community based organizations and NGOs are representing and supporting the claims and negotiations of the urban poor with employers, city agencies and others." I briefly described how the City of Paris addresses problems with access to water and sanitation, but it still appears that there are many people (e.g. mostly migrants and Roma camps outside of provision areas) without access to these facilities. Interestingly, several different architecture associations are designing non-networked latrines for these groups of people. The founding architect of 6B had designed some latrines for migrants in marginal spaces in Saint Denis. Another student group called Bellastock built composting toilets for Roma camps in Saint Denis, but the toilets were eventually destroyed by governmental officials. Another architectural student working with Association Quatorze built composting toilets in a Roma camp in Trier sur Seine (where Parisian discussant Nita Chadhuri has done extensive work), but these toilets are only sometimes used due to various issues. There are also advocacy organizations trying to influence policy change to increase water and sanitation access, and I spent some time talking with one called Coalition Eau. They campaigned for the government to pass a bill which outlines the country's commitment towards implementing human rights for water and sanitation, and it requires cities of a certain size to provide hygiene facilities with water and sanitation.

It might seem that these are all basic issues of public versus private infrastructure provision. Those without access to private property will not have the benefit of having access to water and sanitation infrastructure; those with private property have access to water and sanitation infrastructure. There are higher numbers of people with private property having access to water and sanitation in wealthy cities along with better social services to provide access to public water and sanitation infrastructure facilities. I think, though, that I am interested in going beyond this simplistic analysis. I hope to better understand drivers (e.g. political reform, interest group politics, etc.) of water and sanitation infrastructure change in urban areas that result in greater social equality and environmental adequacy. I want to evaluate if there are certain hegemonic forces restricting or promoting infrastructure change, and think that an evaluation of how marginalized people encounter challenges with water and sanitation infrastructure will help shed light on these issues.