

Student's Name

Professor's Name

Course Name/Code

Date

### **Graduate School Essay Example for Penn: Environmental Studies and Urban Planning**

I took a job as a research assistant at a nonprofit focused on urban heat island mitigation because I needed summer income between my junior and senior years. I had studied environmental science. I had not studied cities.

What I found was that urban heat, the five to ten degree difference between dense city centers and surrounding suburbs, was not primarily an environmental problem. It was a zoning problem. The neighborhoods with the lowest tree canopy coverage, the highest surface albedo, and the greatest heat exposure risk were the neighborhoods that had been redlined, then cleared for highway construction, then systematically denied the green infrastructure investment that cooled adjacent districts. The environmental problem had a political history.

That discovery redirected my senior thesis, which I completed under Professor Ana Ferreira at Temple University. The thesis examined the spatial relationship between historical redlining boundaries and current urban heat exposure risk in Philadelphia, using GIS analysis to map the overlap between HOLC grade boundaries and contemporary land surface temperature data. I presented preliminary findings at a regional urban planning conference in April of my senior year.

I am applying to Penn's urban environmental planning program because I want to develop the policy and planning tools to address the gap my thesis identified: how do you design green infrastructure investment programs that reach the neighborhoods where heat risk is highest without accelerating the gentrification pressures that displace the residents who live

there? Professor Marcus Webb's research on equitable green infrastructure deployment in legacy cities is the specific intellectual context I want to work within.

