

Graphic Mapping of Effects of Industry and Climate Change

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My Class of 1964 Summer Fellowship brought me to the city of Montreal, Canada, to work at the Commission for Environmental Cooperation as an Environmental Mapping Intern under Yale's International Bulldogs Program. My intention was to explore the use of cartography in advancing awareness and understanding of environmental issues both through research into the diverse modes of representation used in cartography as well as through hands-on work with ArcGIS, a mapping software program used widely in my two long-term fields of interest, architecture and the environment. In my two months in Montreal, I learned not only that cartography is a powerful tool for representing environmental issues graphically, but also that its power is a source of controversy and contention in international environmental work.

The organization with which I worked, the Commission for Environmental Cooperation, was established under the North American Free Trade Agreement (NAFTA) to facilitate collaboration and avoid potential conflicts on environmental issues among the three North American partner countries: Canada, the United States, and Mexico. The office itself was trilingual; conversations would begin in Spanish, switch almost unnoticeably to English, and then end in French, which provided me with the opportunity to discuss the environment in all three languages. Through my internship, however, I was working primarily with the two project managers of the CEC's North American Atlas Project.

In order both to meet the needs of the CEC and to satisfy my own interest in acquiring experience with ArcGIS in the course of my nine weeks there, the internship consisted of several phases. At first, I catalogued hundreds of the CEC's past maps and graphics to give the project managers a sense of how the CEC had mapped North American environmental issues throughout its ten-year history. After presenting my work, the project managers and I developed a two-part plan for the remaining portion of the summer: first, to compile a feasibility report involving research into innovative mapping techniques that could be applied to the CEC's international pollutant release data; and second, to develop my skills with ArcGIS through independent tutorials and consultation with the project managers. By the end, I had produced a 15-page feasibility report for the North American Atlas Project and a sample map in which I employed ArcGIS to show the amount of formaldehyde released to water across North American watersheds.

While the tangible products of my experience were satisfying, my internship left me with a deeper understanding of the power of cartography in documenting environmental issues. As I proposed innovative ways of representing North American pollutants, I encountered friction among some in the organization who doubted that such maps would survive the process of deliberation and arrive to the general public. The strength of the industrial lobby in parts of North America, they warned, would see their own facilities implicated in the maps and obstruct their publication in order to preserve their opinion with the general public. I concluded, therefore, that mapping is a powerful tool whose deployment may be best achieved through a more grassroots means of

dissemination rather than through the framework of an organization like the CEC whose primary interest lies in avoiding international conflicts.