I-UTRA Research Proposal  
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**Socio-environmental Succession in Providence, Rhode Island, 1950-2015**

**Overview and Research Aims.** This proposal for an I-Team UTRA will fund 3-4 undergraduate students from the social and environmental sciences who will work with me and a sociology graduate student to uncover the hidden history of urban green space and its relationship to industrial land use in Providence, Rhode Island over the last six decades (1950-2015). It builds on and substantively extends an NSF-supported study undertaken in collaboration with urban sociologist James R. Elliott (Rice University) that investigates how ongoing interactions among urban social and ecological systems drive urbanization and transform the historical nature of cities. The primary research aims in extending the project to Providence will be to 1) develop a comprehensive geo-located database of historical public green spaces in the city, 2) undertake historical research and conduct contemporary site surveys and oral history interviews with older residents to fill in the history of land use on and around sites once (or still) used as public green space, and 3) combine this data with data from a companion database on historical industrial sites and Census data to investigate the temporal and spatial relationships between urban green spaces, industrialized lands, and changing neighborhood characteristics.

**Project Significance.** Cities are manifestations of complex and ongoing interactions between the natural and social world. The proposed project treats one city – Providence, Rhode Island – as a research laboratory for studying urbanization as a process of “socio-environmental succession.” Defined as “interactions among social and biophysical phenomena that situate urban land-use patterns recursively and reciprocally in place” (Elliott and Frickel 2014: 6), socio-environmental succession involves not just spatial division and privatization of urban lots as urban scholars have long known, but also the continual redevelopment and reuse of public as well as private urban space as a whole. Over time, this recursive dynamic produces change in forms of (continually reproduced) urban organization that is neither strictly social nor strictly environmental but instead deeply and mutually constitutive of both (Elliott and Frickel 2013).

To date, our larger project has “read” socio-environmental succession processes through analysis of land use change on industrial manufacturing sites in four US cities: New Orleans, Minneapolis, Philadelphia, and Portland. The project has introduced a new methodological approach for tracking urban-scale land use transitions and generated new theoretical insights on the mechanisms driving such change. Together, these methodological and theoretical advances allow us to provide empirically rich and analytically rigorous answers to policy-relevant questions concerning environmental inequality and systemic risk that have eluded urban and environmental scholars until now.

With my recent move to Brown University I am eager to expand the project empirically and conceptually by bringing in Providence as a new fifth case and by adding public green space as a new category of historical analysis. Funding support from an I-Team UTRA will allow me to quickly and efficiently move the project onto new ground (literally) in ways that substantively enrich the larger project. This effort will also establish a baseline set of data for germinating
student-led projects in a new undergraduate course on “sustainable cities” that I will be teaching as a regularly offered course in the environmental studies curriculum through the Institute at Brown for Environment and Society (IBES).

Like the four cities in our original study, Providence is a historic river port city with a diverse population and a long history of industrial production. The city’s distinctive history of community-led efforts to promote public green space make it particularly advantageous as a research site for the proposed study. Precipitous declines in local manufacturing during the latter third of the 20th Century generated conditions for extensive land use transitions as industrial facilities closed down and the formerly occupied lots were either redeveloped or left to the city government to deal with as blighted (and likely contaminated) property. Perhaps not coincidentally, given the availability of derelict urban lots then on hand, expansion of the city’s parks system began to take off in the 1990s (McMahon, 2014). Today, Providence is home to over a 110 parks, playgrounds and other recreation sites managed by the Department of Parks and Recreation, and over forty neighborhood community gardens, most of these managed by the Southside Community Land Trust (est. 1981) (http://www.southsideclt.org). The confluent history of deindustrialization and urban green space expansion raises questions of theoretical and local policy significance: What prior land uses does public green space replace? Conversely, when parks and playgrounds disappear, what other types of land use does their redevelopment bring? What are the social and environmental implications of these dynamics for neighborhoods and for the city as a whole? Students working on this project will address these questions.

The Project’s Interdisciplinary Approach. The proposed project is broadly interdisciplinary. As developed thus far, our theoretical model of socio-environmental succession integrates and synthesizes research from sociology geography, human ecology, environmental history, urban studies, and industrial ecology. It also utilizes methods of data collection and data analysis from a range of fields. These include archival research and analysis of government documents, conducting neighborhood site surveys, and socio-spatial analysis and GIS mapping techniques. Because the green space component is new, the project will benefit from having students with diverse interests and methodological skills learned in existing Brown courses in Geography, Sociology, History, Urban Studies, American Studies, and Modern Culture and Media, in addition to Environmental Studies. Student collaborators will also be encouraged to use data and ideas from this project to prepare papers and individual projects for other courses, compounding their professional development.

Need For a Larger Research Cohort. Data collection for this project will be highly labor intensive and requires “boots on the ground.” The Providence Superintendent of Parks and Recreation has offered to provide a comprehensive list of formally registered green space sites dating from 1950 to the present. Working with Tom Marlow, a sociology graduate student advisee, I will develop a second list locating historical and current community garden spaces,

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1 Directories that we will use for the study show a steady and steep decline, dropping from 1,649 Providence-based facilities in 1953 to 747 facilities by 1988 (Rhode Island Department of Economic Development, various years).

2 http://www.providenceri.com/sites/default/files/file/Parks_and_Recreation/CoP_NeighborhoodParksList_10-2010.pdf
schools, cemeteries and greenways, aiming to be as comprehensive as possible. I anticipate being able to geo-locate more than 200 unique sites of interest. Students working on the project next summer will focus on generating detailed histories of these sites. These research efforts will include:

- Site visits to geo-locate sites and ground-truth information from historical research
- Site surveys to characterize current land use activities at the site and neighborhood level
- Photo-documenting each site and surrounding neighborhood
- Identify prior and subsequent land uses and market values using city property tax records
- Oral history interviews with older residents to fill gaps in the historical record
- Preparing short summary reports for each site
- Preparing historical maps of Providence green space using GIS software
- Creating a project webpage
- Creating a socio-spatial database that can be paired with industrial site data for analysis

In combination these research tasks will provide students with a wide range of experiences that, among other things, will include research ethics and instruction on human subjects review and digital media and communication technologies, possibly involving documentary film production.

**Mentoring Strategies and Philosophy.** I am committed to the idea that learning is a deeply collaborative process and I work hard to nurture classroom and research environments where students feel safe and supported in taking intellectual risks. To build mutual trust and synergy we will hold weekly meetings throughout the summer to coordinate research tasks, present findings, provide feedback and troubleshoot problems, and develop new strategies and divisions of labor as the project develops.

**Research Environment.** Student research related to green space site visits will take them to all corners of the city, working in pairs to facilitate safety. Transportation costs will be paid from my personal research account. In addition to extensive field work, students will also conduct research at City Hall (for analysis of property tax records), in the IBES Earth Lab (for developing GIS maps), and in local library archives (e.g. Brown’s John Hay Library contains historical Sanborn maps and the Mary Elizabeth Sharpe papers). I will secure computer resources, as necessary, in IBES and will use IBES conference rooms (110 and 142) for team meetings.

**References**


Rhode Island Department of Economic Development. Various years. *Rhode Island Directory of Manufacturers.* Providence, RI.