

Terra Nullius or Terra Incognita? Documenting Land Use Practices in Philadelphia

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Introduction

Across the United States, postindustrial cities are exploring different creative strategies to revitalize the vast swathes of vacant and abandoned land left by the exodus of residents and industry. It is essential to pursue this work towards developing new economic and social opportunities in and for our cities. However, many redevelopment strategies have failed to incorporate the social, ecological, and economic activities already occurring, which can further the marginalization of current residents. Indeed, displacement of residents and their informal land use practices can occur when they are not included in plans for neighborhood change.

This project investigates such rapid socioecological change and its influence on local residents in Philadelphia's South Kensington neighborhood, a formerly distressed neighborhood that has recently seen a boom of residential and commercial development.

Methods

To document greenspaces and their associated landuses in Philadelphia's South Kensington neighborhood, we used commercial aerial imagery purchased and made available by Google through Google Earth, along with Google's proprietary Street View Imagery. Google Earth has lower costs and technical barriers than traditional remote sensing tools, consonant with the project's goals of developing a methodology replicable by local community groups and activists. Google Earth's imagery is also longitudinal, which allows for the mapping of urban greenspaces across time as well as space.

Using Google Earth's Add Path tool in Google Earth Pro, we digitized greenspaces parcel by parcel for every Census block group in the neighborhood. All greenspaces were digitized on a flat plane at an eye altitude of 700-850 feet. Using parcel data generated by the City of Philadelphia, we then classified greenspaces based upon the landuse associated with the parcel(s) they were on: Residential, Vacant, Industrial, Commercial, Religious, or Park.

Results

We found that the landscape of South Kensington features many small, informal greenspaces, largely on vacant and residential land. In total, there were 73 greenspaces in the neighborhood, with a total area of 11.71 acres. Greenspaces were most common on vacant (55 in total) and residential (10 in total), although typically of small size on these land uses (averaging 0.16 and 0.02 acres on vacant and residential land uses, respectively). While less numerous, greenspaces on commercial (2, average 0.56 acres), religious (2, average 0.46 acres), and park (3, average 3.24 acres) land uses were much larger.

Approximately 5.5% of the area of the neighborhood was covered by these informal greenspaces. Future plans for redevelopment should take these current land uses into consideration and strive to preserve the ecological, economic, and social benefits they provide to residents and visitors.

Future research

The results of this research to date represent, initial, exploratory investigations of urban socioecological change in the South Kensington neighborhood of Philadelphia. As such, it will be extended in the future. Specifically, this summer will include a fieldwork trip to Philadelphia to groundtruth the remote sensing results. Student research assistants will also work this summer to digitize greenspaces in 2010 to allow for a temporal analysis of landscape change in the neighborhood. Once this temporal analysis is completed, we will analyze demographic and development correlates of greenspace change in the neighborhood. Results will be presented to local residents and qualitative interviews conducted. Finally, this project is part of a larger comparative study that is being developed with research on urban socioecological change already completed in Detroit.