

A Tale of Two Cities: Comparative Landscape Study

Stavros S. Niarchos Hellenic Research Fellowship Report

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This summer, I had the opportunity to begin working on my senior project, looking at an important aspect of urban planning that carries significant implications for management of suburbanization's ecological impacts. My goals were to study the relationship between transportation policy and suburban land use patterns in Paris, France, and in Athens, Greece. I hoped to examine the spatial impact of transportation networks on population density, vegetation distribution, real estate values, and land cover classification, as well as to identify the underlying political and social forces that shape those transportation networks. To study the effects of transportation corridor mode on suburban land use patterns (i.e., railway corridors versus highway corridors), I researched general principles of urban expansion, acquired remotely sensed satellite data on Paris and Athens, and traveled to both cities to observe their transportation policies, transportation networks, and suburban land use characteristics. I used scientific literature, policy documents, satellite imagery, and personal interviews with conservation managers, academics, and government officials to begin my exploration of this topic.

The first part of my summer research focused on establishing a background body of knowledge to direct my later summer activities. I began by compiling and reviewing in depth the scientific literature on transportation's effects on suburban expansion around large urban centers; I had already identified a number of articles during the EVST Junior Seminar last spring, and I added to this body of works with other articles that I felt would help to give me a good grounding for beginning my senior project research. I also read a couple of well-known books on the principles of urban planning, City: Urbanism and its End by Douglas Rae and The Death and Life of Great American Cities by Jane Jacobs, both of which helped me to place my own topic within the broader context of the evolving field of urban planning. Also with the goal of furthering my background knowledge of the link between transportation and suburban land use, I examined the Washington, D.C., area and the northeastern Pennsylvania area for the character of their relationships between transportation corridors and suburban expansion traits. Finally, during this early period of my research, I worked with Larry Bonneau of Yale's Center

for Earth Observation to acquire four hyper-spectral dataset images of Paris and Athens. I used these datasets to measure vegetation distribution and land cover classification patterns around the two cities, and this fall I will be pairing them with spatial information on population density and real estate value to complete my quantitative profile of suburban land use patterns in and around my study site.

The larger part of my summer internship was spent on site in Europe, observing and documenting the nature of selected Parisian and Athenian suburbs, as well as researching (through both documents and interviews) the transportation policies that shape the cities' commuting and residential development patterns. In Paris, I met with a number of academics whose research is related to mine. I spent several days in the university and government libraries in central Paris, finding European Union documents and local media reports on transportation changes and environmental policies in and around the city of Paris. Most importantly, I traveled to the Parisian suburbs to the west of the city in order to GPS-mark metro centers and to document land use patterns around these rail-based corridors. In Athens, I again met with several individual contacts, this time primarily regional and municipal government officials. They also directed me to written information on the many transportation network changes taking place in the city. I traveled to some of the city's suburbs, north of Athens' center. Seeing the suburbs in person allowed me to document and better understand the form that urban expansion is taking in the Greek capital. In both cities, I used photographs and GPS waypoint markers to document on-the-ground land use traits. In Paris, I focused on two suburban towns west of the city, Chatou and Rueil Malmaison; in Athens, I focused on the major highway corridor in northern Attica and in particular on the suburb of Kifissia.

To understand the policies that influence the cities' transportation and land use patterns, I met with Nadia Hilal of the Sciences Po University, agricultural economist Andre Gilbert, Victoria Sotiriadou of the European Union's economic council, Kleanthis Rokidis of the Regional Administration of Attica, mechanical engineer Dimitra Mika of the Regional Administration of Attica's Managing Authority division, and representatives of the Goulandris Natural History Museum in Kifissia. I had scheduled additional appointments with two other individuals in Greece, Nikos Zarbalos of the Socialist Party's Urban Development and Transport Committee and Professor Dimitris

Oikonomou of the University of Thessalia, but both of these appointments were not met—a summer lesson in the frustrations of “Mediterranean time.” I hope to conduct correspondence interviews with these two contacts during the school year, as my senior project progresses. The meetings were very helpful not only as interviews on France’s transportation policies and Paris’ commuter patterns, but also for the counsel I received on how to direct my project. I found that my knowledge of the French language improved the Parisian segment of this interview aspect of the research experience immeasurably.

The summer research was immensely helpful—even essential—to the progress of my senior project. My summer experience provided more challenges and new information than I had expected, leading me to change my assumptions about the distributions of income, population density, and vegetation communities in both cities. From the experience, I realized not only that the relative “greenness” of each country must be evaluated in comparison to its European counterparts rather than in relation to the United States, but also that the recent Athens Metro project has proved much more successful than I had thought. After this experience, I decided to shift the focus of my senior essay toward an evaluation of the Athens Metro project and its effects on suburban land use around Athens, since the political and ecological implications of this single project alone will provide a great opportunity for a more topical, focused project on suburban land use issues today.

The Niarchos Research Fellowship allowed me to travel to Athens for a critical component of my project research. In addition to the interviews I conducted and the spatial land use data that I collected while in Athens, I learned a great deal from the cultural interactions and experiences that exposed me to Greek music, food, and ways of living. The Greek segment of my project challenged me beyond my basic academic pursuit, to interact with and embrace the rapidly changing and culturally distinct population of the modern Greek capital. Thank you so much to the Council on Hellenic Studies for this opportunity! I hope to someday return to Greece for more extended study.