Fieldwork in an Urban Setting: Structuring a Human Geography Learning Exercise

By: Susan M. Walcott

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Abstract:
Carefully constructed urban fieldwork enriches students' geographic education in ways impossible to reconstruct in the classroom. Geographic literature lacks good examples from human geography of how this might be accomplished. This research extends fieldwork application to the urban setting at a level most appropriate for college students, particularly those in an urban institution. The research question explored concerns the relationship of a city and its suburbs. Students conducted tests of the suburban dependency theory in five different communities in metropolitan Atlanta, using a variety of data sets, interviews, surveys, and other field techniques. Critical factors previously overlooked were size of the community and the role of county government.
Key Words: fieldwork, suburban dependency, urban geography, human geography

Article:

> It is arguable that in geography...field work is as intrinsic to the discipline as clinical practice is to medicine. Bligh (in Gold et al. 1991)
>
> The principal training of the geographer should come, wherever possible, by doing fieldwork. Sauer (1956)

Extending education outside the classroom through fieldwork holds invaluable rewards for geography students, but few guidelines exist for structuring such activities, particularly in human geography (McEwen and Harris 1996). Most of the scholarly articles on structured fieldwork are targeted for activities in physical geography (Bolton and Newbury 1967). In addition, too many older examples verge on "degenerat[ing] into a sterile plotting exercise" (Archer and Dalton 1968, 93), even within a human geography framework. Land-use maps showing physical and demographic features are electronically available, eliminating the sketch book creation common as a map exercise in the past. Amassing and layering new data integrates decision makers and the effects of human interventions on both the physical and social landscape in ways that are suitable for analysis by computerized geographic information systems (GIS), permitting application of multiple methods to complex interactions of humans with their urban environment.

The purpose of this article is to illustrate a model for integrating urban fieldwork into a human geography class project. A current and contentious issue concerning Atlanta, Georgia, involves regional transportation patterns, land use planning, and the need to understand the relationship between the suburbs and the central city in order to anticipate future growth. A review of geographic literature dealing with similar issues revealed a debate over the suburban dependence hypothesis--i.e., the extent to which suburbs depend on the nearby central city or vice versa, interrelate with the central city, or are largely autonomous cities in themselves (Ledebur and Barnes 1992, Ledebur 1993, Hill et al. 1995, Bingham and Kalich 1996). To additionally address assertions that suburbs are largely faceless, interchangeable entities, four incorporated areas in locations around Atlanta were chosen for this class research project.

Steps of organizing an urban fieldwork project flow from conception to completion, including dissemination of results via presentation and publication. The critical first step is coming up with an interesting and important topic, which will vary for each community. The instructor selects initial readings to familiarize students with the methods and concerns of applied urban geography research, and then groups the class into areas of responsibility for coverage by geography and topic. At the conclusion of their research, students present to the class a short oral report, which includes their methodology. Group discussion wraps up by comparing outcomes and analyzing responses to the initial question posed. A lengthier written report submitted to the instructor includes all material collected during the course of the research.

The nature and setting of this hypothesis exploration fit the special needs and environmental opportunities of community colleges that are often overlooked in the education literature. This sample learning exercise is particularly suitable for colleges in an urban setting, where the student body is often highly diverse in age, experience, and residence location within a metropolitan area. Drawing on the background and abilities of these students offers the opportunity to challenging students to test models of metropolitan development found in their textbooks and their own expectations of the region's sociopolitical economy.

Geographic literature often proclaims the virtues of fieldwork as both an empirical test of theory and for its own interest. Students benefit from fieldwork as their understanding of a subject is deepened by integrating theory and practice in real-life situations, motivating them to enjoy academic work by experiencing the pleasure of original research, and encouraging development of independent research skills (Davis 1993, Hay 1992). The methodology of fieldwork comes from the qualitative research tradition, wherein learning about a research topic involves gathering data on a subject by studying and observing it in the natural setting (Glesne and Peshkin 1992). Behavioral learning theory builds on John Dewey's "linking science" (Bednar et al. 1991, 88) bridging behavioral and cognitive studies and instructional practice. Experience forms the basis on which meaning is developed in the active process of learning. Students acquire experience and an understanding of overlapping complexities that transfer beyond any one class, as well as a feel for what geography as a discipline can contribute to pressing urban debates.

DESIGNING A QUESTION WORTHY OF EXPLORATION

The class project should tie together and empirically test basic concepts presented in class and in outside readings. It should involve an issue of scholastic merit still debated in geography and of contemporary relevance interesting enough to compel students' best efforts. The question chosen for exploration concerns an unresolved and recent debate within urban geography as to the extent to which suburbs still depended on the large city they bordered, were fairly independent, interacted primarily among themselves, or supported a dependent city weakened by the paucity of a supportive middle and upper economic echelon (Muller 1981, Leinburger 1988, U.S. Office of Technology Assessment 1995).

The suburban dependence hypothesis questions whether the health of suburbs reflects the state of affairs in the nearby central city or if the two are quite separate (Berry and Cohen 1973). Statistical studies in the early 1990s noted that increases in suburban incomes were correlated with increases in central city incomes. Whether one was necessarily pulling along the other, or if all boats rose in a general macroeconomic rising tide, remained an issue. Hill et al. (1995) claimed that although cities and suburbs were interdependent due to land and labor links, healthy suburbs could still flourish despite ties to a weak or even extremely ill city. Preceding studies argued to the contrary that suburbs and cities are so tightly interdependent that increasing disparities do not bode well in the long run for the general metro state of health (Ledebur and Barnes 1992, Ledebur 1993, Savitch et al. 1993). In one of these studies, Atlanta was identified as an area with "unusually healthy suburbs linked to[an] unusually weak central cit[y]" (Hill et al. 1995, 152). A more recent case study of Cleveland, Ohio, argued reverse causality: "the downtown area is dependent on its edge cities and suburbs" (Bingham and Kalich 1996). Leaving aside the role of edge cities (Garreau 1991), a landscape of development largely characterized by office towers in an unincorporated concentration, the class project was designed to test the arguments for our own region.

Metropolitan Atlanta's unrelenting growth boom, particularly through the 1980s and 1990s reinvigorated outlying former-bedroom suburbs to the point where the metro area's commuters log the longest--and some of the most gridlocked--mileage in the United States. Major highways into the city of Atlanta and between suburban centers of employment are increasingly inadequate to meet the demands placed on them. Newcomers to the area often move directly to the suburb, with suitable amenities (e.g., good schools, affordable housing), that is closest to their job, rather than moving out of the city as was an earlier pattern for new suburban residents.

In the case of Atlanta's outlying cities, distinctions abound. Suburbs for the class project were carefully chosen to reflect this demographic, size, history, economic, and location distinctiveness, while holding constant some other features to better assess their effect (South and Crowder 1997). Figure 1 shows the five target suburbs in relation to Atlanta. Lawrenceville and Marietta are two large, historic cities in different parts of the northern tier (northeast and northwest, respectively). Lawrenceville has a sizable Hispanic population drawn by the hot job market, while Marietta is bisected by a major interstate. Clarkston and Lithonia are both about one mile in diameter. A large immigration of both Asian and Bosnian refugees has greatly reduced the numerical dominance of Clarkston's traditional population, while demographically Lithonia is predominantly middle income African American. Norcross is also in the northeast, but serves as home to Atlanta's greatest high-tech concentration (the Technology Forest, as the area is locally known). Its proximity to Chamblee and Buford Highway, the major areas of new immigrant activity, add another dimension to its development. Norcross recently came to the attention of the national news media due to a new law requiring that all signs of public businesses be at least 75% English. All towns are located adjacent to major highways or interstates.

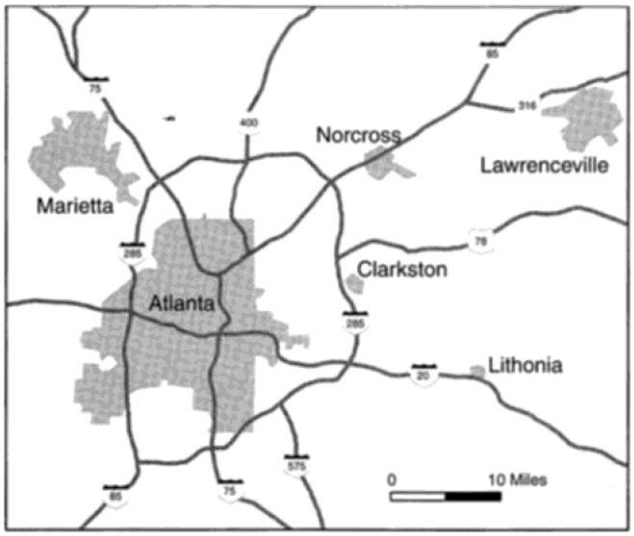

Figure 1. *The five target areas in relation to Atlanta.*

URBAN FIELDWORK FOR HUMAN GEOGRAPHERS

Given the question to explore (the nature of the interactions between Atlanta and its five target suburbs, and their interactions among each other) and the geographic target areas for the research, the next step is operationalizing the exercise. Numerous examples of fieldwork exercises are available in a variety of academic disciplines (Gold et al. 1991), yet the steps needed to guide the practice remain the same. Clearly structured goals and procedures are critical. The urban geography class that conducted the exercise described here met twice each week, as a regular three-credit course open to both senior undergraduates and graduate students. Time needed outside the class to complete the project varied widely depending on the topic, the ambition of the student, and any unforeseen complications. Regular textbook chapters were assigned as well as outside reading pertaining to the report topic.

To make the process--as well as the product--a learning opportunity, several readings on the mechanics of doing urban research were selected (Andranovich and Riposa 1993). A page of directed reading questions for

each of the selections elicited students' thoughtful response. Steps covered in the generic urban research process were related to the Atlanta-focused project, including

* identifying a problem and its components (what is the relationship between Atlanta and a suburb as revealed by transportation connections?),

* developing hypotheses about causal relationships (the literature suggests suburbs are residence sites for persons commuting to city jobs),

* developing variables and measures (traffic counts and passenger levels on cars, buses, commuter rail, construction of highways and other infrastructure),

* testing accuracy of proposed relationship (observation, printed material, interviews, surveys),

* evaluating hypotheses, and

* suggesting significance.

The final task was to communicate results appropriate to the target audience through maps, overheads, graphs, and charts (Hay 1996).

Students were given the opportunity to choose, by a show of hands, which of the five suburbs they wanted to study. The object was to distribute coverage of each suburb roughly evenly among the student groups. A list of topics for examination was prepared on an overhead, but students were first asked to generate their own list of attributes that should be examined to best determine the nature and degree of independence or interdependence in the suburb-suburb-city relationship. The two lists turned out to be quite similar. The final topics of examination--land use, demographics, transportation, occupational and economic base, and a few reflecting a particular interest of a student--were divided among the group of researchers who volunteered to examine each city (Table 1).

Table 1. *Student paper topics.*

Marietta	Lawrenceville	Clarkston	Lithonia	Norcross
Land Use	Land Use	Land Use	Land Use	
Economic Base	Economic Base	Health Care/ Immigration	Economic Base	
Transportation	Transportation	Transportation	Transportation	
Political Impact	Education/ Immigration	Political Impact		
Commerce	Central Business District buildings	Crime		
Population Expansion/ Transition	Population Expansion/ Transition	Demographic Transition/ Immigration	Demographic Transition/ White Outmigration	Economic Base/ Demographic Shift

Following class discussion, the instructor marked several areas of primary importance (transportation, land use, and demographics). Students discussed and decided who in their city-specific group was to take which topic to be covered. This assured some comparable topics from suburb to suburb. A student with a strong interest in a particular area--e.g., historic preservation, health care, or education--could pursue this as long as the major topics were covered by others in the group. Some of the most useful and clear lessons came from students listening to presentations by others who had either a town of the same size (hence similar challenges) or the same topic as the one with which they were most familiar.

Students should pick a part of the task to which they can bring their own skills, and/or are willing to expand on by attempting something new. An architectural interest, for example, could translate to an examination of an urban built-environment, researching archives for historical background, and additionally locating and interviewing individuals with special knowledge of a planning, construction, or restoration project. A journal kept during the project can be used to explore the process of research and discovery. An initial preassessment of skills and objectives provides an interesting and informative measure of progress by the end of the project.

Several checkpoints need to be built into the timeframe to monitor students' progress. Requiring periodic due dates for material that is then quickly evaluated and returned keeps students on task, while offering timely suggestions. An outline of the project, including anticipated literature and data sources, should be required early in the process. Students must include not only data specific to their project and material which they have located for their area of interest, but also envelop this specificity in a disciplinary literature derived from both books and journal articles.

Students should be encouraged to get out in the field early and often. Very interesting and useful experiences can be had through human-to-human field contact. Particularly for students exploring business and personal location decisions, there is no substitute for personal interviews (Schmenner 1982, Schoenberger 1991). The instructor's responsibility is to present the techniques best suited to eliciting informative responses and to suggest possible sources for such interviews. Class time should be scheduled for a round-robin sharing of the topic, city, and sources under examination. This is an excellent point at which to encourage students to share resources, leads, and warnings with other students, as well as questions for the group.

ANALYZING THE PROCESS

Research progresses through several stages: preparation prior to entering the field, strategizing observation techniques, developing interview questions and access, rapport and subjectivity stances and data analysis, and writing the data's story (Glesne and Peshkin 1992). The first step involved Internet and in the library database searches that were both city and key-word specific. Through these resources, students obtained maps of the area, tourist information, and census information. For later use in a GIS map, students located electronic files of U.S. and state data. The Atlanta Regional Commission (ARC), a super-district planning organization for Fulton (including the city of Atlanta) and 10 surrounding counties, was another level of government quite helpful with providing data collected for previous projects. They also provided some reports prepared for studies on particularly pressing issues such as statewide and metrowide transportation. County sources were also helpful. A remote sensed map from several years ago, for example, provided an interesting contrast with current land use patterns.

Community and urban college students often own their cars and are older, as well as more mobile, than student at a residential college or a K-12 setting. They are presumably up to the challenges of more self-directed work, and need a long lead time to fit within their hours of work-school-research. Further paper data was sought in the field by driving to the town and consulting the city hall, city GIS department, zoning coordinator, and parks and recreation office for archives to search and eyewitnesses to interview. One student followed a self-guided tour of a town covering out-of-the-way places of interest, and uncovered clear demographic and land use patterns of separation.

Part of the research experience was the variety of responses received to interview requests, from the infamously familiar "phone tag" to the hand-off, "You really should speak with ___," and the refreshingly open breakthrough conversations. Students were instructed to use references whenever possible for an introduction and to debrief with a word processor as soon as possible after an interview. Over the course of five weekends one ambitious student conducted his own extensive door-to-door survey of residents in three neighborhoods. He drew up a questionnaire and later correlated the anonymous responses with addresses for a GIS map of best-fitting factors. The city planning office requested, for their own reference, a copy of the resulting report, which covered over 50 pages.

Surveying the field universally proved to be the most enjoyable step. An initial "windshield survey" was undertaken from inside a car, followed in some cases by a bicycle reconnaissance and in all cases by a walking experience of the main district. Students were encouraged to eat and shop in the town, to observe traffic patterns (both vehicular and human) at different time periods (early, peak, post-5 P.M.), and to compare weekday with weekend usage. Students attempting to gather information from volunteer and immigrant agencies reported amazement at the circumstances under which such agencies operated. One student interested in health issues noted that only one medical practitioner was available for an entire health agency. In order to get anyone to speak with her, she was required to trade their time for her time as a volunteer, adding a few extra days to the research process. Another student was so appalled at the jumble of activity apparent at the immigrant center that he left before he could request time for an interview. Such experiences are vital to convey urban circumstances and impossible to teach in a classroom.

Thus equipped with data from a variety of sources, including maps, documents, brochures, surveys, and interviews, students confronted the second critical step of analysis. All students were required to map the results of their explorations. Depending on their familiarity with GIS techniques, some students were able to integrate data sets with city maps. Comparisons of patterns with theoretical and/or predicted models assisted analysis. Some maps and graphics integrated new student-generated information.

Two briefly summarized case studies convey some of the approaches, problems, and strategies encountered by students in the course of their research. The first student's topic was Suburb Connection-Transportation Issues in Marietta and Cobb County. Relying heavily on information from the local library, historical society, and Chamber of Commerce, he traced the history of growth of Cobb County's population, the railroad and then freeway tie to Atlanta, and reasons for failure of public transportation proposals to extend the Metropolitan Atlanta Rapid Transit Authority (MARTA) subway rail service into Cobb County from Fulton and the city of Atlanta. Instead, a county-run Cobb County Transit bus service was established to carry riders directly between the county and points downtown. Reports and data, compiled from the ARC, led to maps and charts he extracted and created. The problem lay in coming up with clear commuting patterns. The ARC agreed these were hard to determine, and the best they could offer was a complicated model that was easily thrown off by essentially political calculations. Failure of the county to pass a one-cent increase in sales tax for new transportation construction, and failure of the federal government to permit county road projects to be "grandfathered" in and thus avoid a Clean Air Act road construction moratorium, were outside the model's ability to anticipate. Dealing with the problems of inadequate models and high changeability in transportation circumstances led him to use the best information available, while clearly acknowledging its limitations and the consequences of anticipated changes. His conclusion was that this suburb grew due to transportation links to the city, but was now a center of its own transportation nexus, avoided and circumvented as much as Atlanta and yet subject to regional penalties and constraints.

The second student's topic was the impact of immigration on a suburb's economic well-being. As did the first student, she read general books and articles on the topic of urban management, decline, and regeneration, but also attended local meetings. She talked to numerous city officials, called state and national political figures, organized presentations for meetings, and spoke to city planners in another state about coming to talk to her town's leadership about their far more successful turnaround efforts. She saw her town's fate tied to a local power base that was subject to collusion with the county and neglect by state and federal agencies. The town had developed as a satellite of Atlanta, but was highly dependent on other scales for support.

ANALYZING THE OUTCOME

Discussion elicited critical new considerations not evident in previous literature on suburban dependency. Short oral reports summarizing findings were presented alphabetically by town to the class. Comparisons were quickly apparent, based on salient features such as the physical size of the suburb (Table 2). The city of Atlanta, with 131.8 sq. miles, has a population of approximately 300,000, in a 20-county MSA of over three million. Smaller suburbs are more connected to nearby larger suburbs such as Marietta and Lawrenceville than to the

metro center city. Dependency moves by steps up the scale of size (i.e., each area is most dependent on its nearest, slightly larger neighbor). Over 80% of office space built in Atlanta is in the suburbs. Changes in health-care funding have increased the dependency of indigents on local hospitals, since dollars now travel with the patient rather than a targeted facility. Small towns are most dependent on county ties, an urban regional scale neglected in previous studies but very important in states, such as Georgia, with strong county government. Larger towns are increasingly independent of the big city, and are growing healthier. Clearly, a rising economic tide in the metro region is carrying many boats with it, as new suburban residents are added for the increasing number of diverse jobs, many of which occur in and are serviced by suburban dwellers. Even small-town residents frequently commute to jobs and services in the closest large suburb rather than to the city of Atlanta. City and suburbs are still interlinked, but in an increasingly more complex relationship.

Table 2. *Findings.*

Marietta	Lawrenceville	Clarkston	Lithonia	Norcross
Land Use				
·Sector model ·Activities in their own subareas ·Large regional malls ·Historic preservation in CBD ·Military site for base, manufacturing	·Multiple nuclei Activities in their own subareas ·Large regional malls ·Residential land converted to commercial/indus. sites ·Actively expanding	·1-mile circle ·10 miles NE of Atlanta ·Apartments changed land use to higher density ·R/R split CBD (as in Marietta)	·1-mile circle ·20 miles SE of Atlanta ·12% housing loss from height to present ·No residential development ·Hoping for shopping center	·Urban realms model ·Seek to control quality of life thru land use rules ·Big land value increase with growth of high-tech companies
Transportation				
·Highly accessible ·Many commuters and mall centers ·Growth engine for county	·Highly accessible ·Many commuters and mall centers ·Growth engine for county	·Three metro subway stops ·Main links suburbs to suburbs ·Around highway perimeter flow	·More roads to county than tie to Atlanta ·Road commuters	·Demographic split for income, jobs, commute destination
Jobs				
·40% work in Marietta, 15% in city of Atlanta, 45% other ·Major employers retail, FIRE, military	·57% work in same county, 10% more than in '80 ·96% of 500 polled work in area	·45% work in same county, 36% in Fulton Co. (includes Atlanta), 7% in Gwinnett Co.	·17% in Atlanta; remainder in MSA ·Big difference in incomes	·Technology park anchor ·Big housing price increase
Demography				
·44,129 population, 10% of county total ·Hispanic small percentage ·Largely white ·Slightly less prosperous than surrounding county	·Very rapid increase in population from '70 to '90 (244%), esp. Hispanics ·Rapid county growth	·High number of apartments, immigrants ·'80 91% white, now 37% white ·Largely immigrant receiving area	·Largely middle class African American ·From 1:1 with whites in '70 to 2.5:1 in '90 ·Avoid city taxes since unincorporated	·73% white, 19% African American, 5% Asian, 5% Hispanic ·Young, corporate frequent movers
Business				
·Seeks local college advice ·Fiber optic ring installed ·CBD plan, conference center close to city ·Highway commercial center	·Strong CBD ·Suburban downtown, multiple mall nuclei ·Self-supporting regional independence from Atlanta	·Grim ·High tax, low base ·Poor planning, low cohesion ·Shopping areas, like job sites, along arterial highway rather than tied to Atlanta	·Grim ·CBD 2 blocks ·High tax, low base ·Poor planning, low cohesion ·Hopes for new local mall as tax and business draw	·75% of county high-tech firms ·CBD train depot transformed to trendy café ·City Council fears immigrant spread hurts upscale image

The research carried out in this urban fieldwork exercise demonstrates the efficacy of hands-on authentic learning experiences. Remarkably, the paucity of literature on fieldwork in human geography seems inversely proportional to its value. Potential benefits accrue both to the communities examined and to the students who

were led through and released into an original research experience too often unavailable to undergraduates. The applied nature of their urban research generated the reward of possible policy applications. Students universally expressed heightened appreciation for the interconnected complexity of metropolitan regions.

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