BECOMING AN APPLIED GEOGRAPHER: PEOPLE, PLACES, AND PERSPECTIVE

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My professional development as an applied geographer was largely serendipitous and resulted from a nexus of people and places, and an early introduction during my undergraduate program at Kent State University that geographical perspectives were useful in solving "real world" problems. In this context, "people" refers to a few influential professors, peers, mentors, and colleagues that have provided inspiration, support, guidance, and constructive criticism over my career. I have also benefited immeasurably from my interactions with colleagues while serving as an officer in various professional organizations and through my participation in the Applied Geography Conferences. The places that have shaped my career include the Department of Geography at Kent State University where I completed a bachelors, masters, and doctoral degree. While finishing the Ph.D. degree, I had the good fortune to work at the North Central Forest Experiment Station, USDA—Forest Service in St. Paul Minnesota. While there I worked with personnel from a number of federal land management agencies on applied projects involving the use and users of our nation's rivers for recreational purposes. Following the Forest Service experience, I received my first academic appointment at the University of North Texas where I would spend the next 24 years, and fully develop my career as an applied geographer interested in water resources, environmental policy, and resource management.

During my freshman year at Kent State University (1969-1970), which was tragically cut short by the May 4, 1970, Viet Nam War Protest/National Guard shootings, I enrolled in my first two college geography courses. The first, Introduction to Physical Geography was taken during the fall quarter. The second, the Geography of United States and Canada, taken during the spring quarter, proved much more memorable and influential. It was more memorable because the shootings occurred during this quarter and we were

forced to finish the coursework through correspondence after Kent State University was closed. It was influential because my professor was Bart J. Epstein and it was during this course that I was introduced to how geography could be used in retail site selection and business geography. While I did not take additional coursework in this area or pursue business geography as a career, it was clear to me that a geographic perspective, and in this case, "location, location, and location," was useful in solving problems.

Throughout my stay at Kent State University and over my career at the University of North Texas, Bart J. Epstein continued as a colleague and mentor, largely through our collaboration with the Applied Geography Conferences. At the end of my undergraduate studies, and following an "interesting" experience during my student teaching quarter (1973) at Akron East High School in Akron, Ohio, I decided to switch from history to geography and to accept a graduate teaching assistantship to work on an M.A. in Geography at Kent State University.

Three courses in quantitative methods were required for the M.A. program and each course was taught by Milton E. Harvey. During these courses I learned the importance of quantitative techniques, and research design in spatial analysis and problem-solving. More importantly, I began to develop a competency with survey research techniques and used a questionnaire to collect data for my thesis, which focused upon people's perceptions of recreation resources for planning of the newly created Cuyahoga Valley National Historical and Recreation Area extending along the Cuyahoga River between Cleveland and Akron. I continued to use survey research techniques for my dissertation, while working with the USDA Forest Service, and on numerous applied research projects at the University of North Texas.

Beyond learning about quantitative techniques and spatial analysis, the most lasting benefit of these courses was the beginning of a personal and professional relationship with Milton E. Harvey. He served as my thesis and dissertation advisor and continues as a mentor, sounding-board, and trusted colleague. Another important professional relationship, this one with John W. Frazier, also developed during my graduate program at Kent State University. My first presentation at a professional meeting was the 1978 Applied Geography Conference, organized by John W. Frazier and Bart J. Epstein. I also published my first paper, "Spatial Considerations in the Planning of Urban Recreation Facilities: A Review and Empirical Example" in Volume I (Schoolmaster, 1978) of the *Papers and Proceedings of the Applied Geography Conference* using survey data from my thesis.

During my graduate program, I participated in two other recreation related research projects (besides my thesis and doctoral projects) that used

survey research. The first (1975), was serving as the director of a survey team gathering information on people using the Cleveland Metropolitan Parks. Information collected by the team was used by planners in updating the system's facilities and activities. The second (1978), was as an interviewer on the Mohican River in Ohio, the Ocoee and Hiwassee Rivers in Tennessee, and the Nantahala River in North Carolina. The interviewing was part of a preliminary project aimed at field testing survey instruments and collecting information to improve our understanding of river recreation. This project was directed by David W. Lime and located at the USDA—Forest Service, North Central Forest Experiment Station in St. Paul, Minnesota. Dave Lime is a geographer who did his graduate work at the University of Pittsburgh and later worked with Robert Lucas on projects dealing with carrying capacity and resource management in the Boundary Water Canoe Area Wilderness of Minnesota. Dave had known Erich Bordne, who was on the faculty at Kent State, when both were at the University of Pittsburgh. I was referred to Dave by Erich Bordne as someone who had experience with survey research and would be available to serve as an interviewer for the river recreation project. In both the Cleveland and Forest Service projects, the applied nature of the research and the use of survey techniques to collect information for resource managers underscored the relationship between research and application, and nurtured my interest in applied geography.

In January 1979, at the invitation of Dave Lime, I moved to St. Paul and joined the USDA—Forest Service at the North Central Experiment Station as a recreation research specialist on an Intergovernmental Personnel Agreement coordinated through the Department of Forest Resources at the University of Minnesota. Primarily, I was responsible for coordinating the on-site data collection, and subsequent processing and analysis of the survey results on the use and users from 23 rivers across the United States. This effort was part of the National River Recreation Study and gave me the opportunity to meet and work with a variety of resource managers from the Tennessee Valley Authority, Bureau of Land Management, National Park Service, and Forest Service. The experience further demonstrated how survey research could be applied in a variety of settings to help understand and solve practical problems relating to resource management. During this stay in St. Paul, I had the chance to work in the field, develop interviewing schedules, hire interviewers, talk with managers about the use of survey results, and of course, float some beautiful rivers. As the data collection phase of the project was coming to an end, I completed my dissertation at Kent State University and began to apply for academic employment.

As a new Ph.D. with a specialty in recreation geography, there were few positions available in the spring of 1980. Fortunately, there was one such position I felt well qualified for in the Department of Geography at the University of North Texas (then North Texas State University). They were looking for someone to help build bridges with the Department of Parks and Recreation and the Institute of Applied Sciences, a largely research oriented group focused on environmental issues and water resources. The chair of the Department of Geography at that time was Terry G. Jordan. The interview went well and, before I left Denton to return to St. Paul, Terry made me an offer. The following week I accepted the invitation to join the faculty and moved to Denton in July 1980, for what would be the next 24 years of my career as an applied geographer. Over this period, Terry G. Jordan was a mentor, helped me to improve my teaching and scholarship, and remained a close personal friend until his passing in 2003.

During the first few years at the University of North Texas (UNT), I began to build upon my experiences in river recreation and survey research, and contracted for four projects; two with the Bureau of Land Management in Montana, one with the Corps of Engineers on Lakes Lewisville and Grapevine located in the Dallas/Fort Worth metroplex, and one with City of Flower Mound, Texas. In each case, the projects were heavily applied and involved the collection of user information for the purposes of recreation resource management and planning.

Another person who served as an important mentor throughout my UNT career was Kenneth L. Dickson, the director of the Institute of Applied Sciences. Ken is a biologist by training with expertise in water resources, environmental science, and aquatic toxicology. Given our mutual interests we collaborated on a number of post-impoundment environmental studies for the Corps of Engineers on Lake Ray Roberts, and worked together along with a number of other colleagues on the development of M.S. and Ph.D. degrees in environmental science.

During my first years in Denton the notion of place again influenced my applied research interests. In Texas, the issuance of general obligation bonds to finance water resources projects requires voter approval through a statewide referendum process. Between 1957 and 1981, there had been eight such water-related referenda. By mapping the electoral geography of the election results at the county level I was able to identify patterns reflective of voter perceptions of the individual referenda, and of water resource issues across the state (Schoolmaster, 1984). This information could then be used to inform water policy development and in the crafting of future referenda. As a result of this research I was able to work with staff from the

Texas Water Development Board and develop other applied projects dealing with water conservation, the marketing of water rights, and river protection (Schoolmaster & Fries, 1990; Schoolmaster, 1991; Pettit & Schoolmaster, 1997).

In addition to these research themes, my maturation as an applied geographer was closely tied to the classroom. Early in my tenure at UNT, I developed a required course called Applied Geography. This was a sophomore level offering which focused on active learning, critical thinking and communication skills, and enabling students to identify, articulate, conceptualize, and solve locational and environmental problems using spatial data and geographical research techniques. While some colleagues would debate the need for a specific course on applied geography, in effect, this offering served as a capstone course which required the students to solve an applied problem of their choosing and to role play as if they were employed by a governmental agency, consulting firm, or private sector firm. The applied nature of the geography program at UNT was further solidified in 1995 when the Texas Higher Education Coordinating Board approved the department's request to offer a M.S. in Applied Geography.

Since its inception in 1978, I have participated in every Applied Geography Conference.[1] This participation originally grew out of my Kent State University connection with John W. Frazier, Bart J. Epstein, and Milton E. Harvey. In addition to presenting papers, I assumed other roles in support of the conference's mission. For 13 years I served as editor or co-editor of the *Papers and Proceedings*, seven years as Executive Director of the conference, and as local arrangements coordinator when UNT hosted the conference in Denton and Fort Worth, Texas. More importantly, participation in the conference provided the occasion to interact and become friends with a wide variety of geographers from business, industry, government, and academia and believe that these associations have contributed greatly to my education as an applied geographer.

From 1988 to 2000, I was chair of the Department of Geography at UNT. During this time, our department grew its majors, invested heavily in developing GIS research and teaching capabilities through the Center for Spatial Analysis and Mapping (CSAM), and added the M.S. in Applied Geography. Combined with the research interests of other faculty such as Don Lyons in economic geography, Joseph Oppong in medical geography, Paul Hudak in hydrogeology and groundwater, and Harry Williams in physical geography and geomorphology, the department enhanced its reputation for producing high quality students for employment in the Dallas/Fort Worth region.

In 2000, I stepped down as chair and was asked to serve as the Executive Assistant to the Chancellor of the UNT System and President of UNT, Dr. Alfred F. Hurley. Al Hurley provided me with an opportunity to broaden my experience in higher education administration, and to participate in a variety of activities ranging from developing policy for the fledgling UNT system, to interacting with members of the Board of Regents and Texas Legislature. It was during this period that I used applied geography to address research questions facing our administration. Three such questions were related to how geographic information could be used in conjunction with university development. One question dealt with where would be the best locations across Texas to start UNT alumni chapters? A second dealt with identifying the geographical patterns of alumni and donors to enhance fundraising efforts (Schoolmaster, Drury, & Wood, 2004). A third looked at UNT alumni patterns relative to the location of super-market chain stores when deciding which chain to enter into an agreement with for frequent shopper benefits. In each case, the spatial data and research techniques proved useful in assisting university development officers. Following two years in this position, I returned to the College of Arts and Sciences as an Associate Dean for Administrative Affairs (2002-2004) and then on to Eastern Kentucky University (EKU) where I continue to serve as Dean of the College of Arts and Sciences. Since joining EKU, my research interests have focused on the pedagogy of applied geography and the use of geospatial information in higher education decision making.

My journey as an applied geographer began as an undergraduate at Kent State University and was later nurtured by people such as Bart J. Epstein, John W. Frazier, and Milton E. Harvey. The people-place nexus was also important at the USDA—Forest Service working with Dave Lime, and throughout my stay at the University of North Texas, where I developed applied research projects in water resources and environmental policy in response to local/regional needs.

I would advise students pursuing a similar career to seek programs that recognize the importance of applied geography and to build a network of professional contacts. I would also recommend that courses in research design, spatial analysis, and GIS be integrated with a topical specialty area, and that competence with a second technique such as survey research be developed as part of the program of study. Similarly, a strong conceptual background can provide an element of transferability from place to place and enable a student to capitalize on regional research opportunities and build professional linkages with business, industry, and governmental agencies in the area. Finally,

students should take advantage of internships, cooperative education, and service learning to gain practical experience as part of their preparation for being applied geographers.

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Footnotes

[1] In October, 2006 due to a family emergency, I was unable to attend the 29th Applied Geography Conference in Tampa, Florida. The paper I prepared was presented by John W. Frazier.