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Stephanie A. Keep
Space Exploration: Mapping
Students' Perception of the
Smith College Campus

ABSTRACT

In keeping with the values of the National Association of Social Workers (NASW), this longitudinal exploratory study was developed with the belief in the importance of assessing the individual perception of the client when planning, creating, and implementing a change effort for which the client has been named beneficiary. The study was undertaken to measure spatially how people perceive their environments as a means to support community planning, specifically focusing on whether an environmental change effort, the new Campus Center, can affect students' perception of community support, satisfaction, safety, and formal and informal socialization.

A mapping questionnaire was sent out to Smith College undergraduates in 2002 before the new Campus Center was built and in 2005 after it was built. There were 297 respondents in 2002 and 186 respondents in 2005 who rated their sense of safety, community support, access to informal and formal socializing, who matched statements with a map of the Smith College Campus.

The findings show that the new Campus Center has become a centralizing location for the Smith College community, contributing to an already high level of student satisfaction. The study further shows that environmental change efforts can be assessed, clients' perceptions of their environment can be qualified, quantified, assessed, and expressed, and mapping questionnaires are an effective and inclusive tool.

SPACE EXPLORATION:
MAPPING STUDENTS' PERCEPTIONS OF
THE SMITH COLLEGE CAMPUS

A project based upon independent investigation,
submitted in partial fulfillment of the requirements
for the degree of Master of Social Work.

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CHAPTER I

INTRODUCTION

The purpose of this study was to measure spatially how people perceive their environments as a means to support community planning. The focus of this study was to examine the relationship between Smith College Students and the Smith College campus through a spatial medium. The Geographic Information System (GIS) is a computer technology, which allows the mapping of spatial data within a universal plane system. For this study, I mapped student perception as it relates to specific locations on the campus creating patterns of interrelated data. In future studies, data based on perception could be cross-compared to data that are more concrete, for example- the student's perception of safety could be compared to the Public Safety's records of location of assaults. In 2002, I conducted a study to map the student perceptions of the Smith College campus before the new Campus Center was completed in August of 2003. Specifically, the Smith students were asked in a survey to rate and localize their sense of community support, safety, satisfaction with the campus, and formal and informal socializing. At the time of the original study, there was not a central student center and dining areas were separated by dormitory. While the majority of students ranked safety, supportiveness of community, and satisfaction of the campus very high, nearly half the students indicated that there were not places for formal and informal socializing outside of their dormitory. A follow-up study was recommended in the first study to assess

whether the new Campus Center, a formal change effort, would change the student perception and add to the level of student satisfaction.

In similar research there has been primarily a focus on the personality traits of the "person" in *person-in-environment* studies (Lounsbury, Loveland, & Gibson, 2003; Bowen, Bowen, & Richman, 2000), but less research has focused on the *client, user, constituent, or recipient's* perception of their environment, which indicates a need for more research that is user-focused. As clinical social workers, we are trained to assess a person *in situ* to gain a holistic picture of a person's lived experience. This biopsychosocial lens is important when planning for community development or intervention, particularly as an outsider, to consider and include the needs, thoughts, and feelings of the recipients about their own environments. Therefore, the purpose of this follow up study was to examine if an environmental change effort would affect the students' perception of their campus and to explore mapping as a methodology for assessing change. The need for this follow-up study is indicated by its longitudinal examination of the effects of a change effort, which cannot be fully explored without comparing students' perception of the Smith College campus before and then after the Campus Center was built. Did the environmental change effort, the building of the new Campus Center, affect student's perception of community support, satisfaction, safety, and formal and informal socialization on the Smith College Campus?

CHAPTER II

LITERATURE REVIEW

The great obsession of the nineteenth century was, as we know, history: with its themes of development and of suspension, of crisis, and cycle, themes of the ever-accumulating past, with its great preponderance of dead men and the menacing glaciation of the world. The nineteenth century found its essential mythological resources in the second principle of thermodynamics- The present epoch will perhaps be above all the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment. I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein.

Michel Foucault

Social workers, anthropologists, architects, social theorists, and urban planners are interested in the interaction between people and their environments (Dixon, 2003; Saleeby, 2004; Widlock, 1999). This *ecological perspective* has often focused on environmental stressors such as *poverty, oppression, or personality traits* of an individual, while more recently there has been a focus on "the more immediate physical and social environment" (Saleeby, 2004, p.8). Saleeby notes that the *person-environment* perspective has been criticized as observational and not proactive towards changing the environment, but he asserts that the *person-environment* perspective does, through informing planning, induce change efforts. Dixon contends that when planning changes in a campus' community structure, "architects [of college campuses] must consider how their works will be perceived by many constituencies- students, faculty, administration," as he calls campuses "great laboratories for testing the contextual relationships" (p.41).

Since the purpose of this study was to explore spatially how people perceive their environments as a means to support community planning, specifically, the relationship between Smith College students and the Smith College campus, I explored and reviewed a broad framework of literature. The literature review is divided into the following categories: object relations and self-psychology, social work social theory, use of maps, student satisfaction, safety, and perception of community support.

Object relations and self-psychology

The environment has been an important focus of both object relation and self-psychology theorists (Donner, 1988; Kanter, 1990). D.W. Winnicott, a British psychoanalyst and pediatrician, associated with the British school of object relations, emphasized the need for humans to have a "good enough *holding environment*" (Berzoff, Flanagan, & Hertz, 2002, p.137) in order for normal development and adaptation to proceed. Both D. W. Winnicott and his wife, Clare Winnicott, argued for the therapeutic importance of planning and managing the physical, social, and familial environments for patients, connecting well-being with the environment. In looking at the connections between self-psychology and the environment, Donner (1988) writes:

Although self-psychology is a psychology of inner states and deals exclusively with intrapsychic phenomena, one of its central theoretical constructs--the self object--links the subjective felt well-being of an individual with selectively attended-to aspects of the environment (p.18)...Part of the self is always experientially merged with part of the environment. The self is never wholly autonomous. Thus, the environment is not only the context in which the self evolves, but is experientially part of the self. Using the concepts in psychology, the social work concept of person-in-environment might more accurately be relabeled person-and-environment-in-environment. (p.19)

While Smith College students are not clients, they are nonetheless, as all humans, subject to the connections between well-being and environment.

Social Work Practice

The connection between a person and the environment has been highlighted in the National Association of Social Workers (NASW) *Code of Ethics* (1999) as "a historic and defining feature of social work," which states "Fundamental to social work is the attention to the environmental forces that create, contribute to, and address problems of living" (p.1). Additionally, social workers are called to "promote social justice and social change with and on the behalf of clients"(p.1). This client focus demands the inclusion of the clients' perspectives, wants, and needs when creating, planning, and implementing an environmental change effort on their behalf.

Weick (1981) contends that the focus of social work is too narrow when it considers the client in terms of the psychological factors of environment but not the physical factors of the environment. Weick is concerned if the focus is only on the intrapsychic aspects of a client, then the intervention will be centered only on the individual. Weick considers this limited focus to be emblematic of the division in the social work profession between those advocating for change within an individual and those advocating for change in the greater society. Therefore, Weick hopes to offer a new theoretical base that would provide a synthesis between the interior and exterior environments, arguing that "if social workers assume that the social and physical environments, those both internal and external to an individual, form a matrix of behavioral influences, they can define health as a qualitative expression of the interaction amongst environments" (p.142), and thus extinguish the dichotomy.

With similar concerns, Gutheil (1992) states "Attention to the environment is the hallmark of good social work practice"(p.391) and advocates for social workers to include the physical environment as part of every client assessment. Without an awareness of the client's needs for personal space and privacy, for example, Gutheil claims that it is difficult for the social worker "to evaluate the full meaning of clients' behavior" (p.391). Gutheil notes that "people respond to both concrete and symbolic aspects of their physical settings" and "perceive and react to the same environment differently" (p.391); therefore, behavior that may appear maladaptive, under closer scrutiny, may actually be the most adaptive possible under the given conditions. Further, Saleeby is concerned that "there is a sense of the environment that social work has, to a significant degree, ignored--that is, the immediate, proximal, often small environment where people play out much of their lives" (p.7), and that it is difficult to divide personal identity from place. Thus, Saleeby advocates for social workers to focus on "the power of small" (p.8), meaning even small change efforts, such as community gardens or murals, can have a dynamic effect on personal and community well being.

While in agreement about the ecological approach being a hallmark of social work practice, Kemp (2001) articulates the need for social work to rework the "person-in-environment" formulation to "women-in environment" in order to "incorporate gender and its implications more fully," giving attention to "women's subjective experiences of their everyday environments...the connections among these environmental experiences, the geographies of women's lives, and larger social categories such as race/ethnicity, class, and sexual orientation...[and] women's environmental strengths, resources, and agency" (p.7). Consequently, Kemp is concerned that the current assessments of women

and their environments "contain assumptions...that reflect the dominant cultural experiences and hence systematically obscure the experiences and perspectives of nondominant groups, such as women and people of color" (p.10). In the spirit of being self reflective, Kemp advocates for social work to regularly examine its own theoretical underpinnings and for social workers to actively consider the client's "experienced environment" and perception by using tools like narratives, drawing pictures, and mapping. Smith College was built as and remains a woman's college, which raises the question of how gender is a factor in how the campus space is planned and experienced.

In keeping with the values of the NASW, the current study was developed with the belief in the importance of assessing the individual perception of the client when planning, creating, and implementing a change effort for which the client has been named beneficiary. Further, this study focused on the opinion and feelings of the clients about the experience of their environment, as opposed to studying the inner life of a person or the outer aspects of the physical environment. For this study, therefore, the client was the Smith College student and the environment was the Smith College campus.

Social Theory

While an undergraduate at Smith College, I did not have a single course ranging from Landscape Architecture to Neuroscience unaffected by developments in social theory, and so I conclude that social theory has brought about a reexamination of the whole of the Academy. Kemp (2001) writes, "Both feminists and postmodern theorists have asserted the need for a careful examination of the potent but taken-for-granted concepts around which disciplinary knowledge and practices are organized"(p.10). While there is a reexamination of the underpinnings or assumptions of well-established theories,

there have also been changes in how researchers currently research phenomena with growing acknowledgement of how power structures and dynamics, relationships, and perspectives affect the meaning of the phenomena.

In keeping with Foucault's (1967) contention that we are currently in an "epoch of space," cartographers, geographers, architects, and social workers are critiquing and exploring meaning of space (Davidson & Milkigan, 2004; Dodgshon, 1998; Freshwater, 2005; Goss, 1988; Kemp, 2001). With social theory in mind, Kemp (2001) argues for the importance of subjective experience of space, saying:

No environment...can be understood in isolation from the personal and cultural experiences of the people within it or the larger sociopolitical arrangements that shape and are shaped by this everyday experience...[and] absolute understandings of space---as a fixed, objective, external world---have been overtaken by conceptualizations of space as expressive and constituted by social and economic relationships and as thus inherently dynamic, evolving, and socially constructed (p.13).

Freshwater (2005) is also concerned with the "lived experience of spatiality" (p.178) and when looking at therapeutic space states that "spaces are invested with all sorts of meanings" (p.177). In examining social theory and the built environment, Goss (1988) wonders how physical environments can perpetuate and reify inequality and emphasizes the importance of the subjective experience of the built environment:

Human life is multiple sided and complex, and the meaning of a building cannot simply be read without considering the interaction of the subjects who are ultimately the sources of all its functions and meanings. Analysis must focus on both intent (conscious and unconscious) of the producer; the requirements, demands, and limitations of production; the process of consumption; and the perceptions, satisfactions, and criticisms of the consumers (p.400).

Dodgshon (1998) marks this subjective view as a shift in human geography from "primary observer-object relationship" to "secondary observer-object relationship" where

the geographer now observes how others observe the environment (p.4). Similarly, social and cultural geographical studies have been expanded to include the "spatializing of emotions" (Dodshon, 1998, p.4) and "domestic spatiality" (Conradson, 2003,p.451), where the emphasis has more to do with *meaning* and less to do with *accessibility* or *use*. In fact, the "relativity" of maps has sparked a debate in the world of geography and cartography about whether maps are an accurate rendering of physical space or they are a *social product* (Perkins, 2003). Perkins argues that while social theorists "dissect the relationship between mapping and exercise of power" they do not actually understand "how maps work" (p.341) and offers GIS as a potential way to create broader truth by using counter-*mapping* techniques, such as *bottom-up mapping*, where community members create maps of how they perceive their own communities.

Social theorists raise important questions for social work and for geography, questions of elitism, access to power, whose voice is heard, and relativity. Because I am interested in the meaning of space, I was interested in studying the subjective experience of Smith College students and wished to map their feelings and perceptions of space, as a way to inform community planning. Because the participants offered spatial answers to questions like "[Point A] is where I go to hang out with my friends" which was clustered into rainfall densities and superimposed onto maps, created maps from this study are certainly a social product even as they meet the criteria of geographic accuracy.

Using Maps

To begin to understand this interrelationship between the students of Smith College and their campus, student perception of this relationship needed to be assessed. While mapping has been the primary domain of geographers, new GIS technology has

opened mapping for studies of permeability, preference, and perception when evaluating a community (Thill & Sui, 1993; Widlock, 1999; Linden & Sheehy 2004). Carver (2003), who calls for a new research agenda for Information and Communication Technologies (ICT), suggests greater use of participatory approaches (mapping and surveys of the general public) when assessing community needs and developing community plans. He hopes that the increase in worldwide computer use and internet access will lead to a democratization of participatory approaches and that the greater accessibility of Global Information Systems (GIS) will broaden maps to include both traditional and indigenous knowledge. To this end, software has already been developed by the Neighborhood Initiative Foundation (NIF) called "Planning For Real" to interface community members' topographic maps with generic maps and to augment community planning. Carver hopes that the GIS technology will "break down barriers to participation" and allow a "two-way flow of information" (p.63) so that all the stakeholders can participate in community planning.

A small example of the use of ITC's is a study by Widlock (1999) in Namibia that used an urban permeability model to create a topographic map. Namibian community members were interviewed in this study to assess could access a given space or hut in a camp, creating "spatial correlates of social organization" to illuminate how the environment affects behavioral action (p.392). Increasingly, developing countries that are interested in sustainable development are seeking to include perspectives that are more indigenous in community planning.

Some of the weaknesses of using maps and computerized programs is the lack of access to information and technology for the under served side of the *digital divide*

(Carver, 2003; Kemp, 2001; Perkins, 2003). Questions about *who* has access to mapping technology, *what* information is being highlighted, and *how* is the information being represented and used are important. Carver (2003) suggests, however, that "despite its limitations, the map is the best way of organizing spatial information and is the best available tool for interacting with it [even though it] may not be best suited to represent more qualitative and perceptual effects of place since this is a more personal construct" (p.66).

Some mapping surveys have been criticized as inaccurate or "fuzzy" due to subjectivity of response or use of ordinal ranking. However, recent studies have found that there may be differences between verbal questionnaires and mapping, but that the results still remain reliable over time (Linden & Sheehy, 2004; Thill & Sui, 1993). Specifically, in the Linden/Sheehy (2004) study, the stated purpose was "to develop a method for eliciting environmental perceptions that would prove to be reliable"(p.32). The researchers compared the reliability of verbal questionnaires to map questionnaires and found that although the map questionnaires had greater variability of response, the two methods still showed significantly reliability ($p < .001$).

The Linden/Sheehy (2004) study is relevant to my research, as it examines the method and measuring reliability of maps and questionnaires, both methods employed in my study. Although my study was exploratory, it was a longitudinal study, and therefore reliability over time is an important factor in assessing confidence in the conclusions.

Assessments of Student Satisfaction

Several studies have examined the relationship between the *psychological sense of community* (PSC) and personality traits in middle school, high school, and college

students (Lounsbury et al 2003; Lounsbury & Denui, 1996; Bowen, Bowen, & Richman, 2000). Researchers have used personality scales like the Adolescent Personality Style Inventory (APSI) or Extroversion Scale from the NEO PI-R to assess personality traits. In the Lounsbury/Denui (1996) study, the researchers had students rank their perception of safety, support, and satisfaction in statements like "Students feel they can get help when they need it here" (p.385), and then the researchers compared the results to physical factors such as school size or behavioral factors such as truancy. In all of the studies above, the external environment is not the focus, but instead the primary focus is on the student internal traits, their personality. While it is important to assess students' perception and satisfaction with the school environment as a means of accessing change, the suggestion that a dissatisfied student must have a set of personality traits that would indicate they were not a good candidate to be a community member appears to want to blame the product user for perhaps a bad product.

Interestingly, using a sample of 945 middle school students, Bowen et al. (2000) found greater student satisfaction was correlated smaller school size for white students and more teacher support for female students; but for students of color, a larger school was indicative of higher satisfaction and greater teacher support. It is important to note that these studies are focused on the majority, and that they therefore treat the students as a homogenous group, without looking at specific demographic variables. Admittedly, my study also did not divide the students into subgroups but examined the students as a whole group and therefore missed specificity of multiple viewpoints.

Safety

As with some of the student satisfaction studies, some of the safety studies look at factors such as risk and then correlate them with individual characteristics to see what variables make a student *at risk*. For example, a study of college women's risk for sexual assault focused on the sexual behavior and prior victimization of female students to assess the likelihood of revictimization after having a one-day rape awareness program (Gidycz et al., 2001). What that study did not do, however, was to examine what environmental factors on campus might be related to risk such as lighting, call boxes, self-defense courses, or Public Safety officers on foot. Thus, it was biased to the extent that it examined only personal factors of the victim and excluded environmental factors or the interplay of environmental factors when assessing risk.

Neighborhood and campus mapping is being used increasingly to assess environmental risks (Astor & Meyers, 1999; Nelson & Baldwin, 2002). After citing a study from 1998, which indicates that violence against female social workers is a concern in many schools, Astor and Meyers (1999) studied five violent-prone high schools by interviewing teachers, students, and social workers. Interested in opening a dialogue about gender and violence and to identify areas of risk and to secure those areas, the researchers found that female students identified more areas of prior attacks and areas that were unsafe than their male counterparts. The researchers also learned that there was more female-on-female violence than previously known. Most areas where attacks were made were unmonitored and not well lit, such as stairwells. As a result, Astor and Meyers (1999) advocated for maps to help identify "hot spots".

Nelson and Baldwin (2002) have recommended the use of Comprehensive Neighborhood Mapping (CNM) as a strategy to help protect young people in neighborhoods identify environmental danger points to reduce sexual offending against children and young people. This CNM model was designed to create a partnership between communities and agencies to build safer neighborhoods. In the 2002 study of Smith student perception, students identified places on the campus that they felt least safe, and most areas were either remote, associated with a prior attack, or were not lighted after dark. This type of mapping, therefore, can help institutional planning when students identify areas as "unsafe." Environmental risks can be assessed, altered, and followed up on, as Smith College Department of Public Safety keeps records of crimes and crime locations.

Sense of Community

Another aspect of interest to planners is environmental factors that affect people's sense of community. In a recent study, Kim and Kaplan (2004) examined two planned communities in order to explore whether community layout and diversity of land use affect residents' sense of community in planned communities. One community was a traditional suburban development (Orchard Village), planned with conformity of structures, individual garages, cul-de-sacs, and sidewalks away from houses and closer to the road. The other community was a new urbanist development (the Kentlands) in the same region of Maryland, built to focus on the pedestrian by building housing more communally parceled, planning sidewalks close to housing, and creating more open spaces for walking and socializing. Interviews and a survey were used to assess the physical characteristics of the planned communities as factors in the residents' sense of

community, and a Likert scale was used to grade importance of community characteristics. The researchers found while both groups had high levels of "sense of community" that the Kentlands community more often cited a "sense of community" as an important factor for choosing that location than did residents of Orchard Village. Both groups indicated that the physical features of landscaping, architectural features, and areas to walk were very important features, but they were more important to the Kentlands group. They also more strongly identified with their community, found physical features more satisfying, showed greater attachment to community, and indicated greater satisfaction with walkability in relation to natural features and local services.

The Kim and Kaplan study supports the theory that the physical layout affects the sense of community attachment, identity, sociability, and pedestrianism, and that it used multiple methods strengthens its findings. However, the study did not examine the financial, ethnicity, marital status, family size, occupation, age, and gender statistics, which may have indicated very different demographics.

An earlier study (Lounsbury & Deui, 1996) examined whether college and university size and residence is correlated to a sense of community. This study found that students reported a higher community sense on smaller campuses, especially when they live on campus. The 2002 study of Smith students indicated high levels of community sense. Nearly all Smith college students live on campus and the college has less than 3,000 students.

The Current Study

In 2003, Smith College built a large new Campus Center, which provided an opportunity to examine student response to the Smith College campus before and after this change effort had been implemented. The Smith College website (retrieved June 30, 2006) offers the following mission statement:

The Campus Center is the community center of the College, providing a wide of range excellent services, programs, and conveniences for all members of the Smith College community. As part of the Campus Center, the Office of Student Activities complements the academic mission by providing and supporting opportunities for learning through co-curricular involvement. The activities, facilities, and services of the Campus Center serve as a social learning laboratory that provides and promotes students' personal growth, leadership development, social responsibility, co-curricular involvement, multicultural competence, and intellectual inquiry. All members of the Campus Center staff are committed to providing an enjoyable, relaxing, and engaging environment where students, faculty, and staff can come together socially and for formal and informal programs and activities (<http://www.smith.edu/campuscenter/offices.php>).

In sum, Smith College created a student center to try to provide a centralizing meeting place for the Smith College community. My study set out to explore if student perception of the Smith College campus was affected by the creation of a Campus Center. Did this change effort, to provide a center for the Smith community, successfully fulfill its above mission? Do the students actually use the Campus Center as intended, a place for formal and informal socializing, to bring family and friends, for eating, for meeting with professors, for meetings, and for quiet and relaxation? The purpose of this study was to try to answer these questions through a follow-up study to the study in 2002. The current study made comparisons between the two sets of data to see if there were changes over time in regard to student perception of safety, satisfaction, and sense of community. The next chapter will cover the methods used in the 2002 and 2005 study.

CHAPTER III

METHODOLOGY

The purpose of this follow up study was to examine if an environmental change can affect the students' perception of the Smith College campus. Do environmental change efforts, like the building of the new Campus Center in order to centralize the college community, affect the student's perception of community support, satisfaction, safety, and availability of formal and informal socialization on the Smith College Campus?

Research Method and Design

In this study, a fixed method of descriptive research was used. Anastas (1999) recommends descriptive research to "develop a better understanding of a phenomenon in detail" (p.123). The highlighted advantage of descriptive research is its "unambiguous results" (p.138), but it has been criticized for being purely descriptive without consideration of etiological factors. As this was a follow-up study, the methods had already been pre-established by the prior study, including a four-page questionnaire (Appendix C) used to gain a sense of the relationship between the students and their environment.

The questionnaire asked for students' class year, age, and residence. The first part of the survey is a list of general statements about the campus, such as "I feel safe walking on campus after dark," for students to rate on a Likert scale (see Appendix C). These data

were quantified in percentages and graphed. The second part of the survey includes statements like "my favorite place on campus" to be matched by the participant with a locale on an enclosed map of the Smith College Campus (see Appendix C), and it was quantified and analyzed by using a density cluster map. A new survey was created for this study to update the map of the Smith College campus in order to include the Campus Center and other recent building renovations. Additionally, the class years of students and my contact information were updated for this study. Concepts like "community support" and "safety" are subjectively interpreted by the participants in the rated statements. For example, for the concept of community support, the statement would read "I have a supportive community here at Smith College," in response to which the participant is asked to choose from 1 to 5 on a Likert scale ranging from "Strongly Agree" to "Strongly Disagree."

The original study was proposed to the Smith College Human Subjects Committee in 2002, and at that time the committee exempted the need for a Human Subjects Review and informed consent because the participants were voluntary, over 18 and anonymous, and the questions were non-invasive. The Smith College Human Subjects Review Board reviewed the 2005 study, and the committee accepted the study on January 17, 2005. I have enclosed a Human Subjects Review acceptance letter (Appendix A). To repeat the study, I received permission from the Smith College Dean and the help of the Smith College Spatial Analysis Lab (SAL) manager. I was a Smith College undergraduate student, which means that I believe I have an insider perspective of the campus environment. This may have been helpful in that I am familiar with the population and the environment, but it may have been harmful in I may have membership

bias which can affect a study or narrow perspective. I received supervision to help keep the focus of this study as bias free as possible.

Sample

The participant sample was selected using a stratified and systematic random sampling method from undergraduate female population of Smith College. The initial sample frame of 1,200 students was stratified into 300 students from all four-class years, and the final sample was systematically sampled by placing a survey in every third mailbox. Female participants were used, as that is the general identified gender group at Smith College; however, any Smith undergraduate was eligible to complete the survey without regard to gender assignment. Graduate students, staff, and faculty were not surveyed, although they are also users of the campus. Thus, the sample was representative of the under graduates, as Smith College is a women's college, but not of the larger population. In the 2002 study, 297 participants and in the 2005 study, 187 participants responded to the survey. Anastas (1999) warns that *attrition* rates can be high in longitudinal studies, but as this study does not use the same group of students, there can be broad speculation about why there were nearly one-third less respondents in the second study. I was an undergraduate student during the first study, so some respondents may have answered the questionnaire because they had direct contact with me and felt more affiliation. The participants were not offered incentives, which some researchers have used, like money or academic credit (Lounsbury & Denui, 1996).

Data Collection Methods

In February 2005, the surveys were randomly hand delivered to 1,200 undergraduate Smith College female student mailboxes, 300 surveys per each class year.

As there are approximately 900 students per class year, I put a survey in every third mailbox. Mailboxes only have numbers, so the identity of the recipients was unknown. The surveys took approximately five minutes to complete and the participants had one week to respond. The design of the survey is such that participants could put the survey into the campus mailbox after completion, and then the surveys were delivered to my on-campus mailbox. Anastas (1999) cites the strengths of using a self-reporting questionnaire as being cheap, easily accessing a large population and allowing for anonymity. Some noted disadvantages of a self-report questionnaires are lack of follow up with participants due to anonymity, burdensome if too lengthy, and incomplete responses.

The survey included an informed consent form (see Appendix B) and my name and address if any participant has any question about the study. The survey is a visual medium and so may have ruled out participants with visual impairments; however, the survey could be filled out with verbal assistance. It should also be noted that people have differing spatial abilities, so the map enclosed in the survey may have been better understood by some participants than others. This study does not identify and distinguish socioeconomic, race/ethnicity, sexual orientation, or gender factors amongst the participants, limiting the findings as it did not include how the potential effects of these factors. Looking at such specific demographic factors may be indicated for further studies.

Data Analysis

For this study, each completed survey was given a sequential number, and the data was entered, analyzed, and represented using ArcGIS, ACCESS, and Excel

databases. Maps were generated in the Smith College SAL using a rainfall density model in ArcGIS. The manager of the GPS Lab at Smith College supervised the data entry and mapping of data.

The next chapter will include the study findings and comparison of the 2002 and 2005 study of student perception.

CHAPTER IV

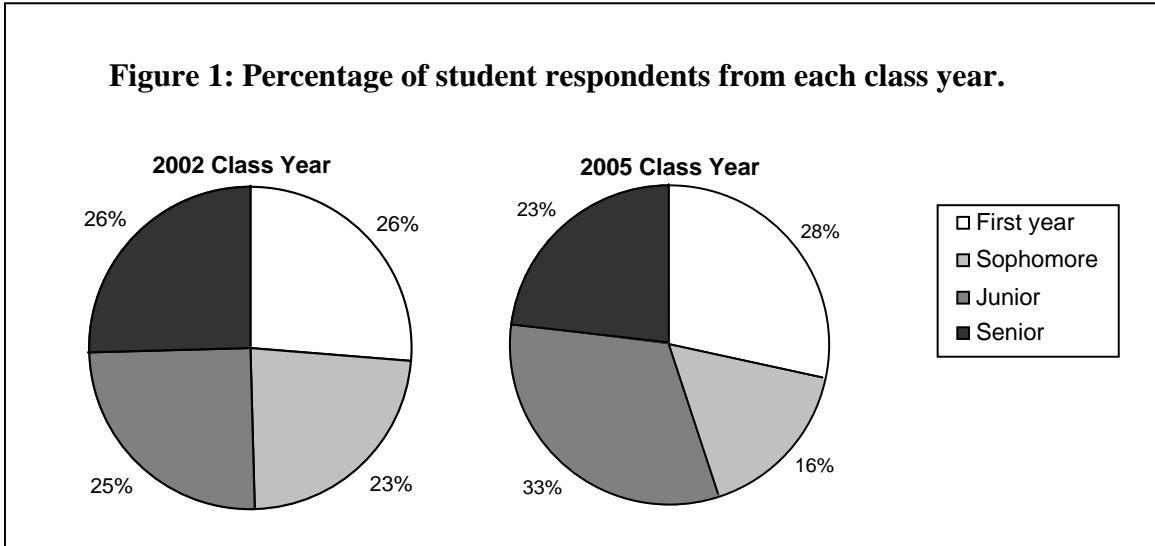
FINDINGS

The purpose of this exploratory and longitudinal study was to explore how people perceive their environments as a means to support community planning. Using a spatialized assessment tool, a mapping questionnaire (Appendix C), this study focused on the relationship between Smith College students and the physical Smith College campus. In 2002, one similar study was implemented and data were gathered before the new Campus Center was built. In 2005, this study was repeated and data were gathered after the new Campus Center was built. The following findings are a comparison between the data from the 2002 study and the 2005 study. For clarity between the two studies, from now on the 2002 study/respondents will be referred to as "02" and the 2005 study/respondents will be referred to as "05."

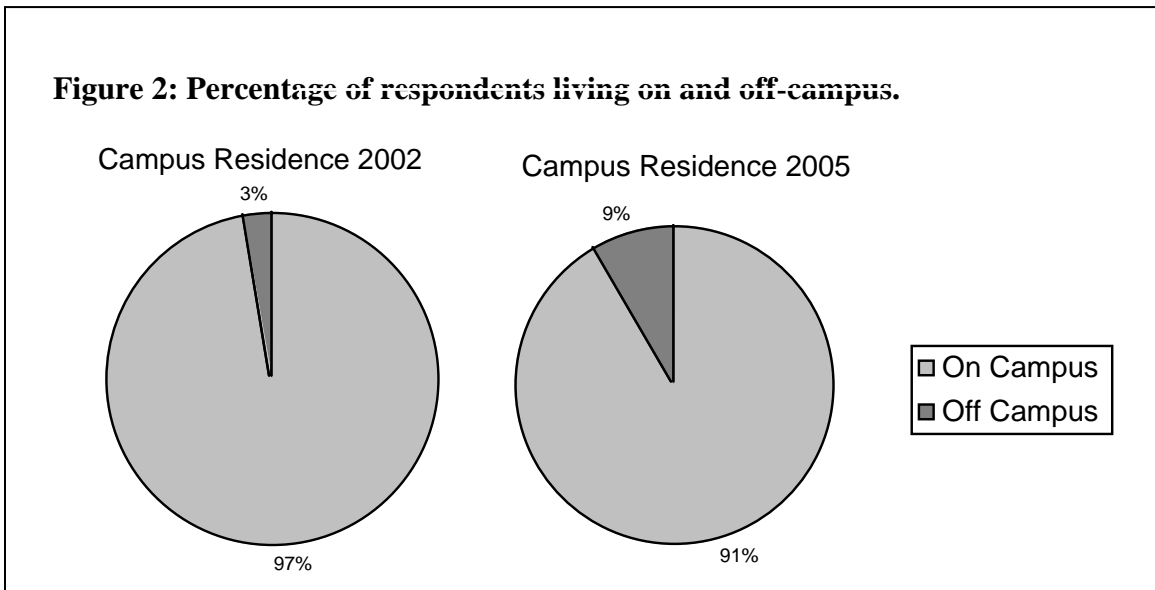
The Sample and its Demographics

The respondents were all Smith College undergraduate female students and indicative of the Smith College student population, but not of the general population. In the questionnaire (Appendix C, p.2), demographic questions were limited to graduation year, class year, age, and current residence. The 02 study involved 297 respondents and the 05 study had 186 respondents (over a 100 less respondents). In the 02 study there was

an even distribution of respondents by class year (see Figure 1). As Figure 1 shows in 05 study there were proportionately fewer sophomores. The 02 study shows that 290 of the



respondents lived on campus and eight of the respondents lived off campus, while the 05 study shows that 169 of the respondents lived on campus and 15 of the respondents lived off campus (see Figure 2).

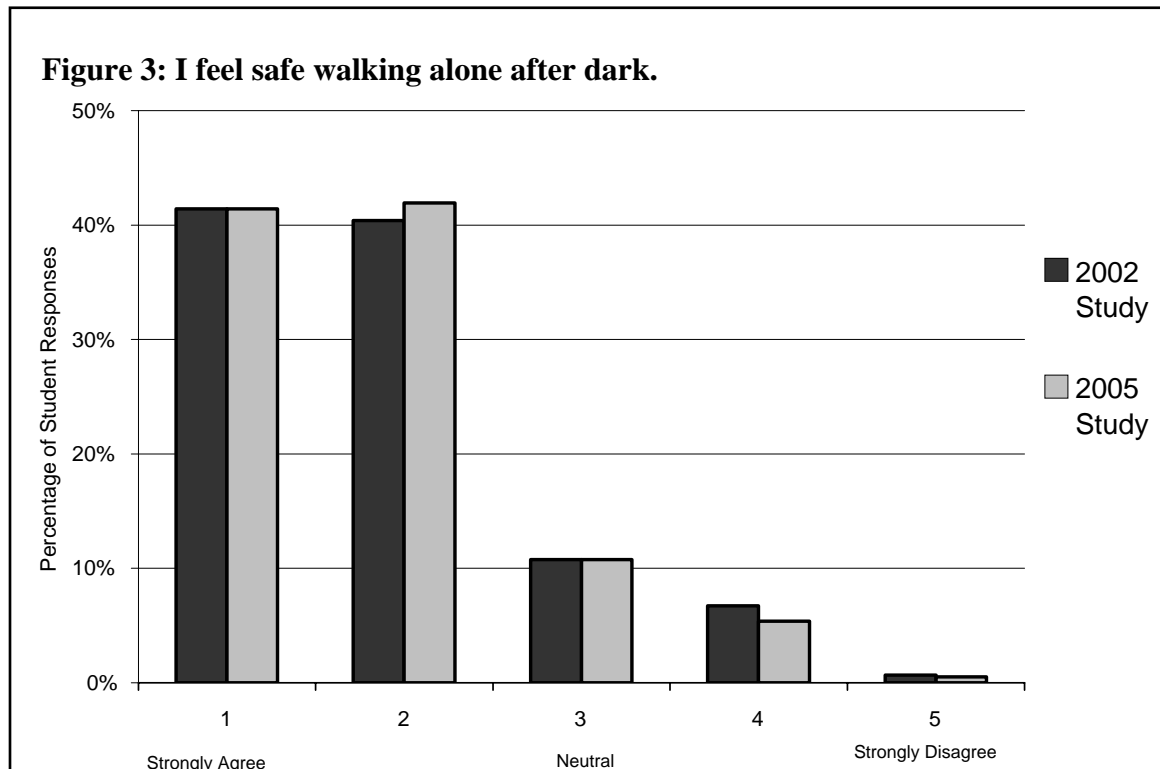


Findings of Student Experience of Campus

On the first page of the questionnaire (Appendix C, p.2), respondents were asked to rank seven statements representing their experience of the Smith College Campus. Respondents ranked the statements using a five point Likert scale where 1=Strongly agree and 5=Strongly disagree.

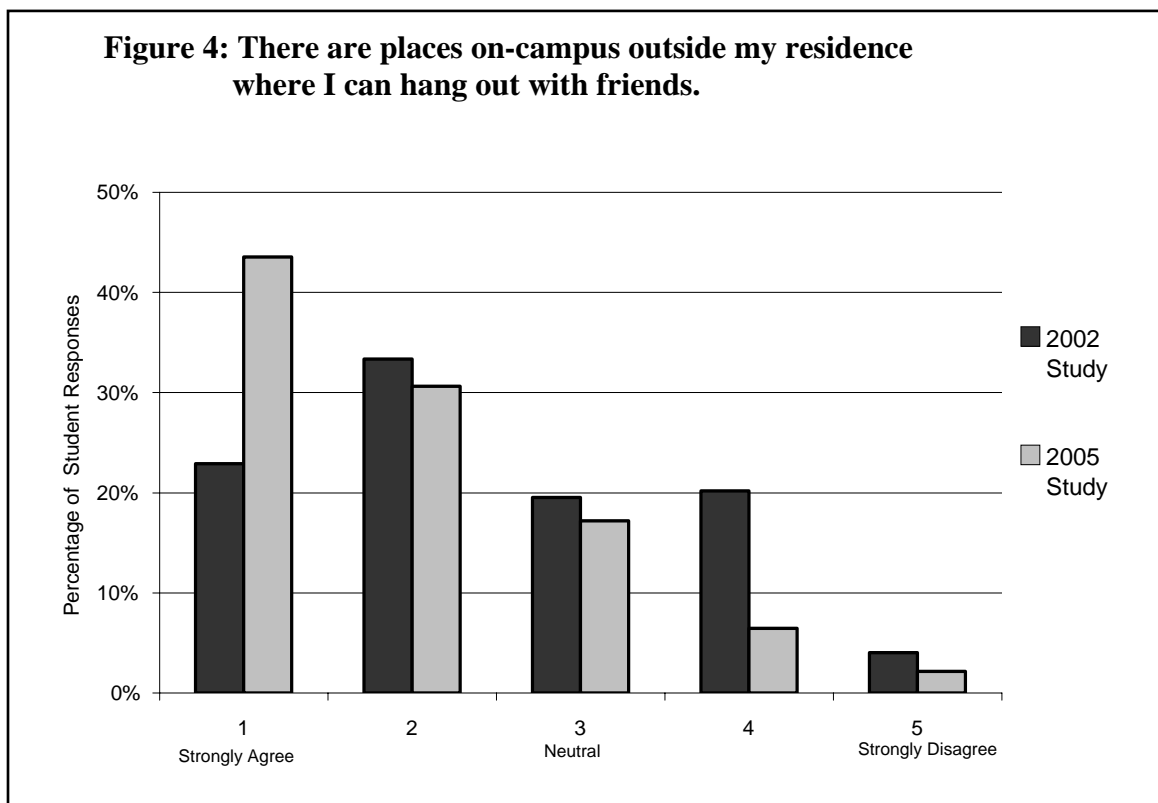
Experience of Safety

In both studies, the majority of students indicated feeling safe on the Smith college Campus walking alone after dark (see Figure 3).



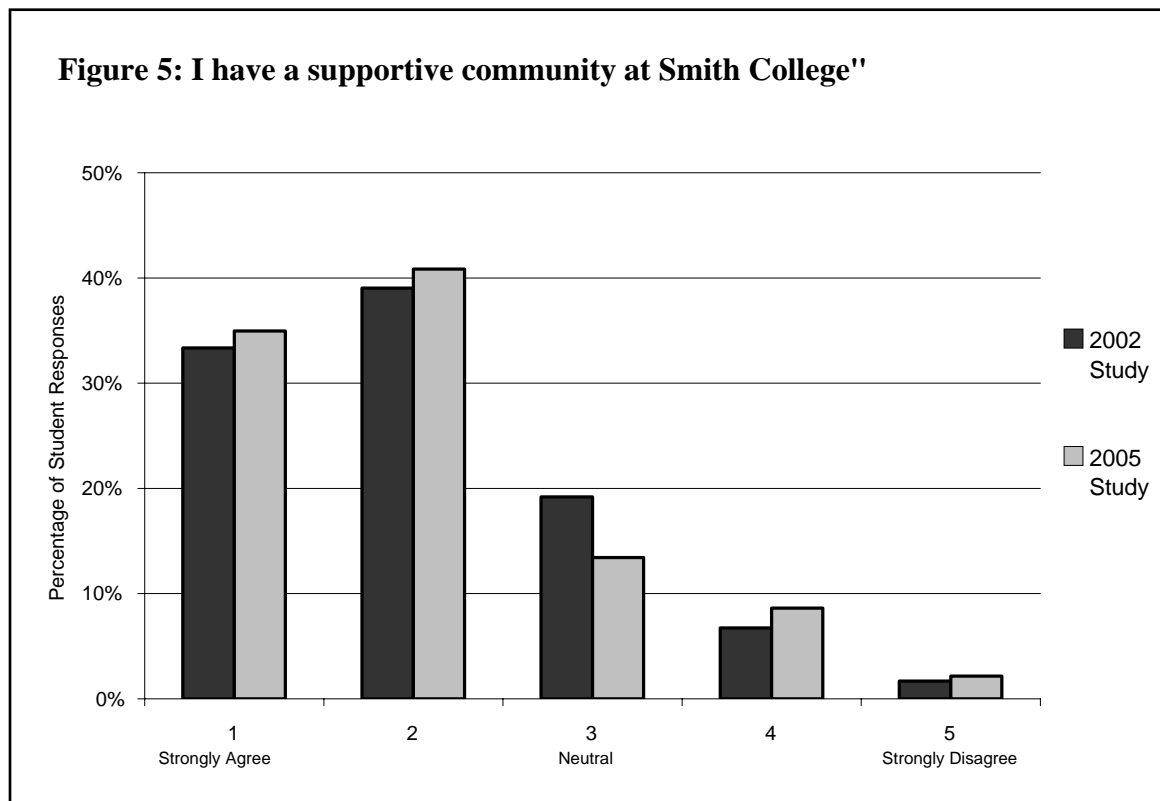
Experience of Socializing

Respondents were asked if there were places on campus outside their residences where they could hang out with friends. From 2002 to 2005 there was marked increase in the student perception that the Smith College campus had places for them to hang out with friends outside their residences, as Figure 4 clearly indicates.



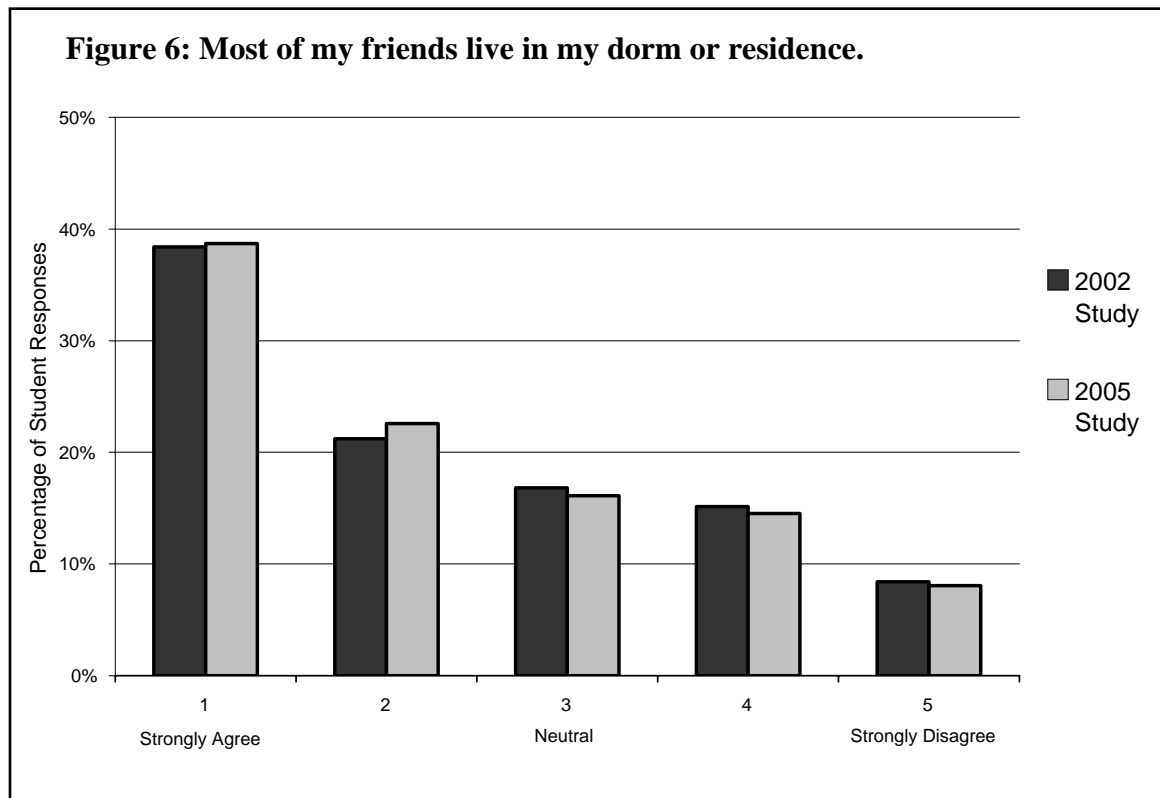
Experience of Community Support

There was a small difference in the ratings between the 02 study and the 05 study regarding Smith College as a community (see Figure 5). While there was a small increase in students' indication of a supportive community at Smith College, there was also an increase in students' indication they did not have a supportive community. However, the majority of students responded that they have a supportive community at Smith College.



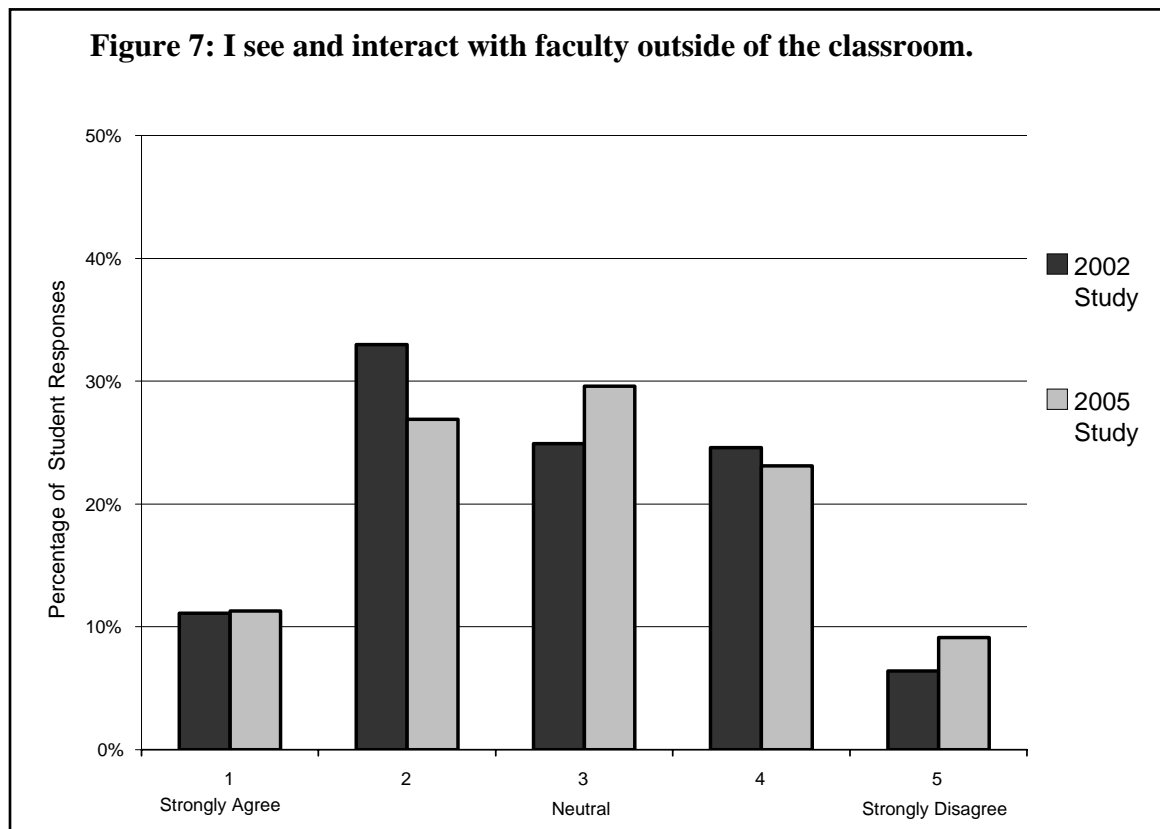
Experience of Residence

Smith college is a dorm-centered campus, meaning most students live on-campus, and the majority of students in both studies indicated that most of their friends live in their dorm (see Figure 6), with a small increase for 05.



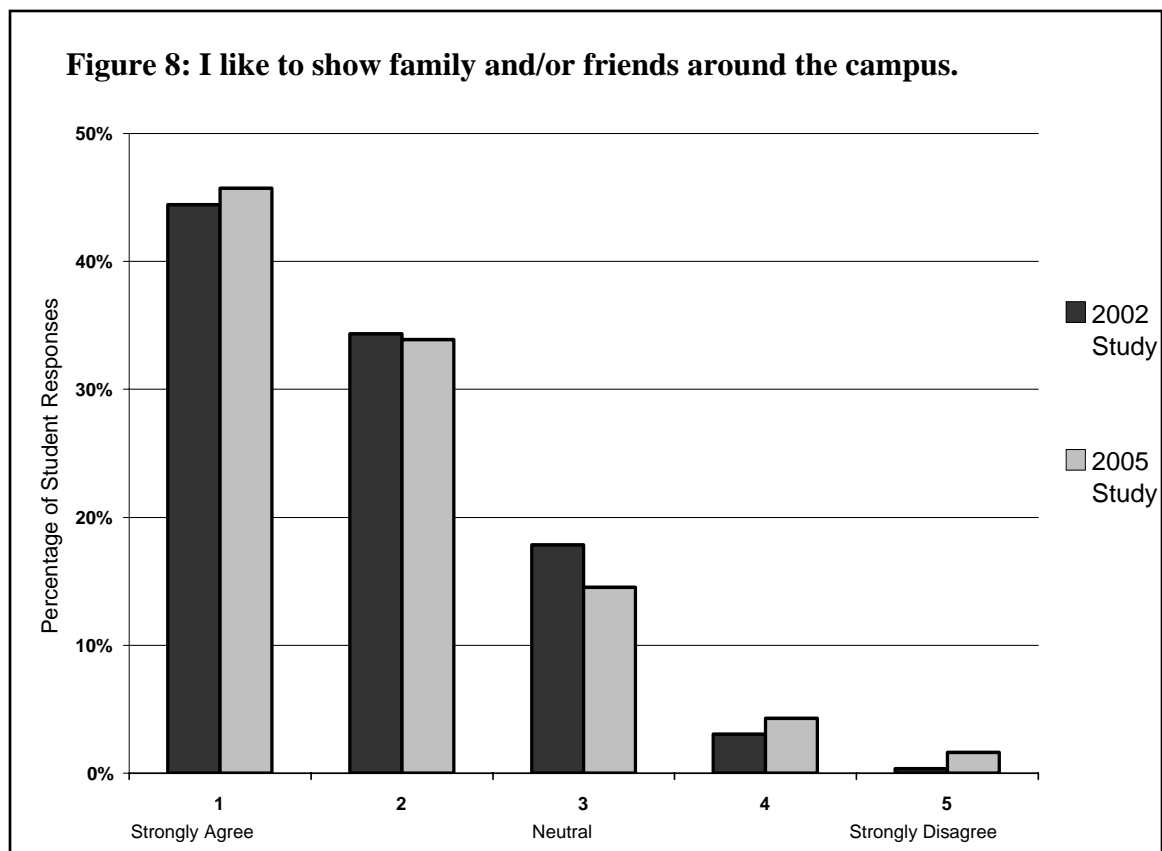
Experience of Faculty Contact

There was a marked decrease in students' responses regarding interaction with faculty outside of the classroom in the 05 study, as is indicated in Figure 7 below.



Experience of Campus Pride

Respondents were asked if they like to show family and friends around the campus. The majority of students in 02 and 05 studies liked showing friends and family around the Smith College campus, as Figure 8 clearly shows.



Findings of Student Response to Campus Space

In the second area of the questionnaire (Appendix C, p.3-4), respondents were asked to read a statement about their relationship to the Smith Campus and match the statement with a location on a map of the Smith College campus. The data points were expressed using a rainfall density, giving each location point an equal value, and therefore, through "hot spots", showing the volume of response. An area that received one to five responses produce a yellow density, moving through orange as the number increase, and finally, a deep red for responses of 25 or greater.

For statement "where I usually go out to hang out with my friends" in the 02 study (see Figure 9, next page), the Davis Center, (the former student center) is the red spot, indicating that it is where the majority of students went to hang out with friends. Other areas highlighted include dorms, the gym, and the libraries. In the 05 study (see Figure 10), the new Campus Center, centrally located, became the red spot, indicating that it had become the new area where the majority of students chose to hang out. Similar to the 02 study, students marked their dorms, the gym, and the libraries as areas where they continued to hang out. The public area for informal socializing shifted from the Davis Center to the new Campus Center.

Please turn over for Figure 9 and 10.

Figure 9: 2002 student response to "where I usually go out to hang out with my friends."

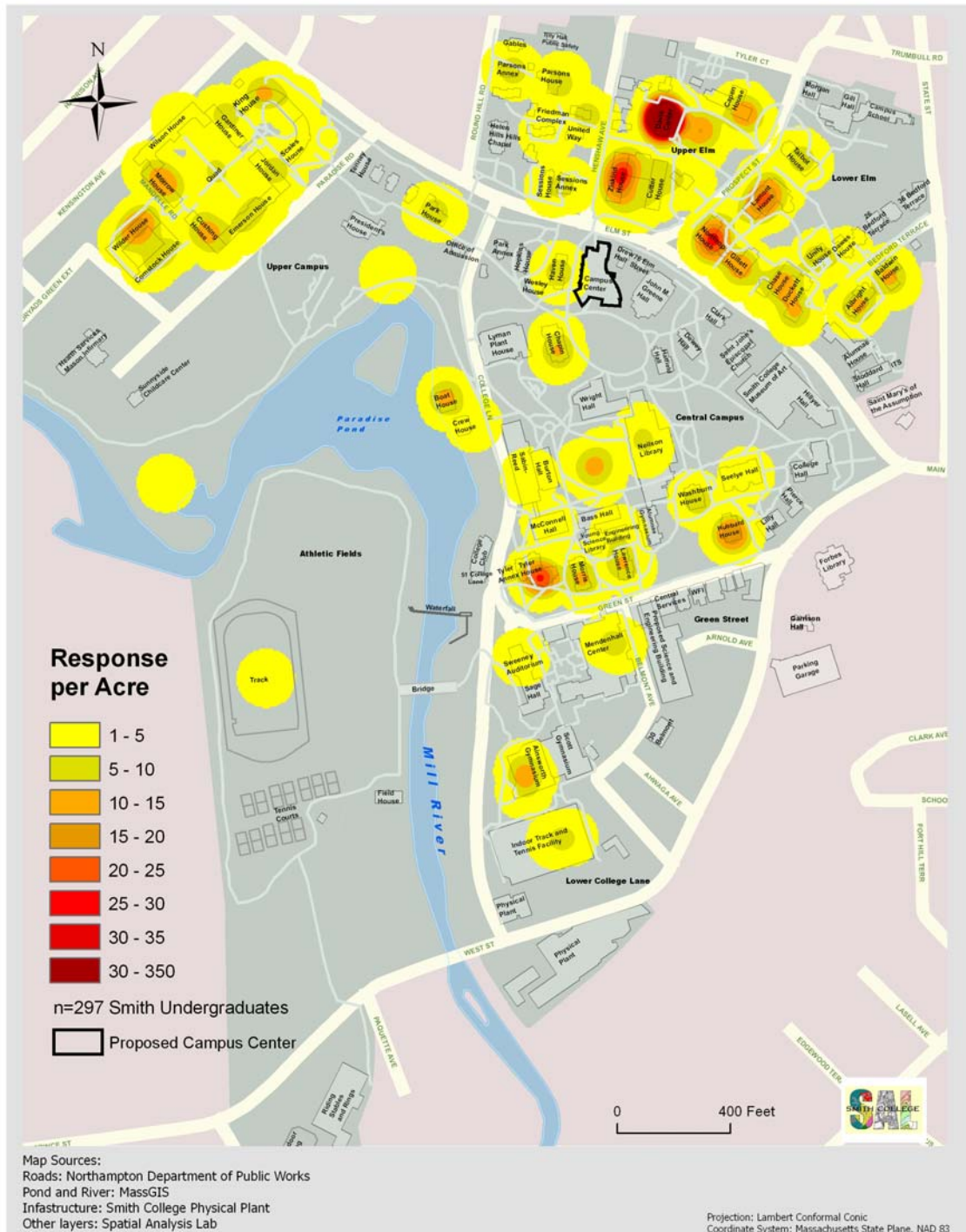
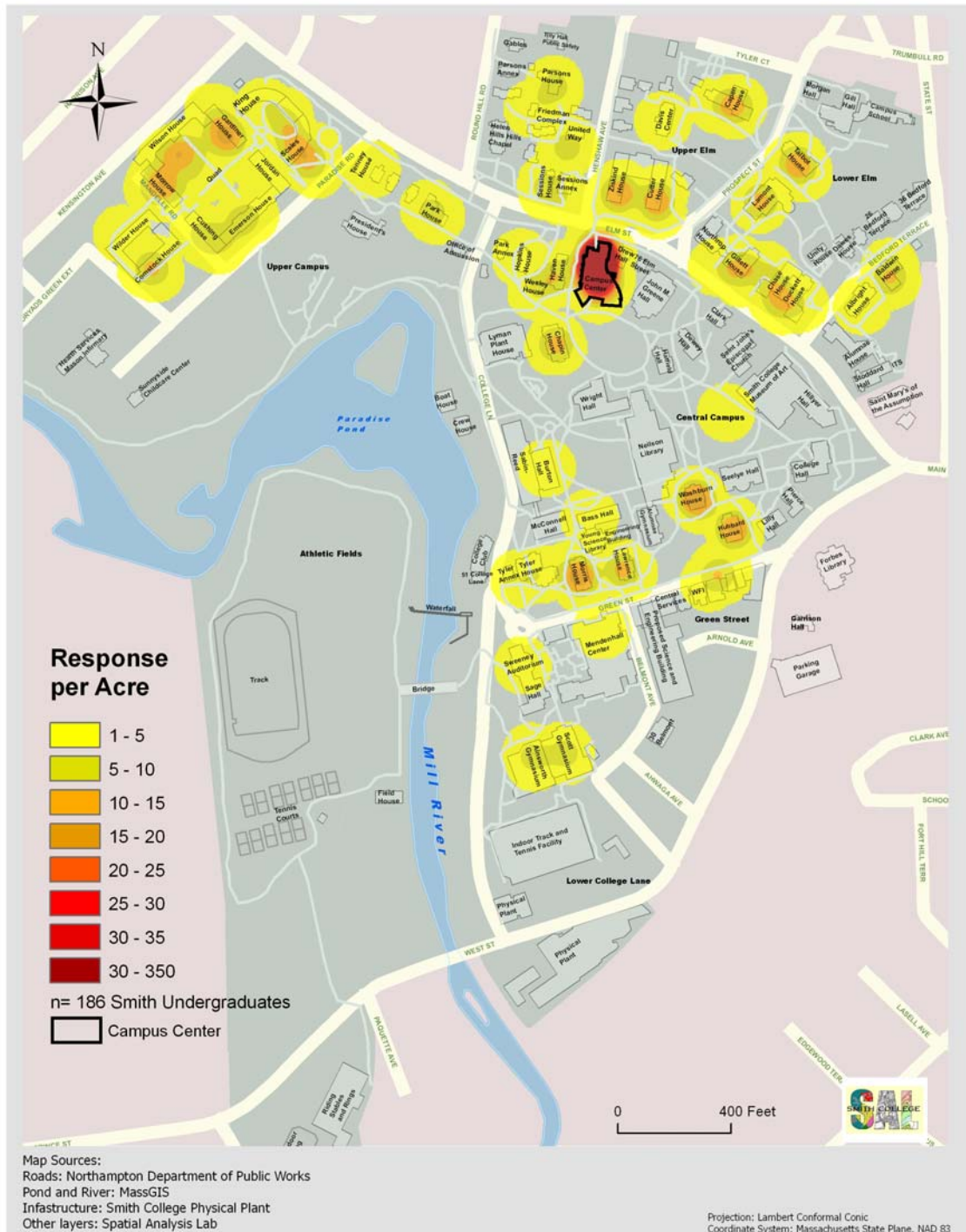


Figure 10: 2005 student response to "where I usually go out to hang out with my friends."



For statement "the area or building that I like to show friends and family when they come to visit the campus" in the 02 study (see Figure 11, next page), the Tea Hut, the Boat House, Lyman Plant House (greenhouse) and gardens, the Science Quad green with was a large new interactive landscape sculpture, and Seelye Hall were the red spots on the map, indicating there were many areas on the central campus that students liked to show friends and family. Other areas include Sweeney Auditorium (music hall), the gym, central campus green, the Josten Library, and Neilson Library.

In the 05 study (see Figure 12, next page), the new Campus Center, centrally located, became a red spot, indicating that it had become the new area that students liked to show their friends and family, along with the Lyman Plant House (greenhouse) and gardens, and the Smith College Museum of Art (under reconstruction during the 02 study). Between 2002 and 2005, the areas that most students liked to show family and friends had shifted from the Science Quad with an interactive sculpture in 2002, Seelye Hall, the Boathouse, and the Tea Hut to the Campus Center and Art Museum, while the Lyman Plant House and garden remained of particular interest to both cohorts.

Please turn over for Figure 11 and 12.

Figure 11: 2002 student response to "the area or building that like to show my friends and family."

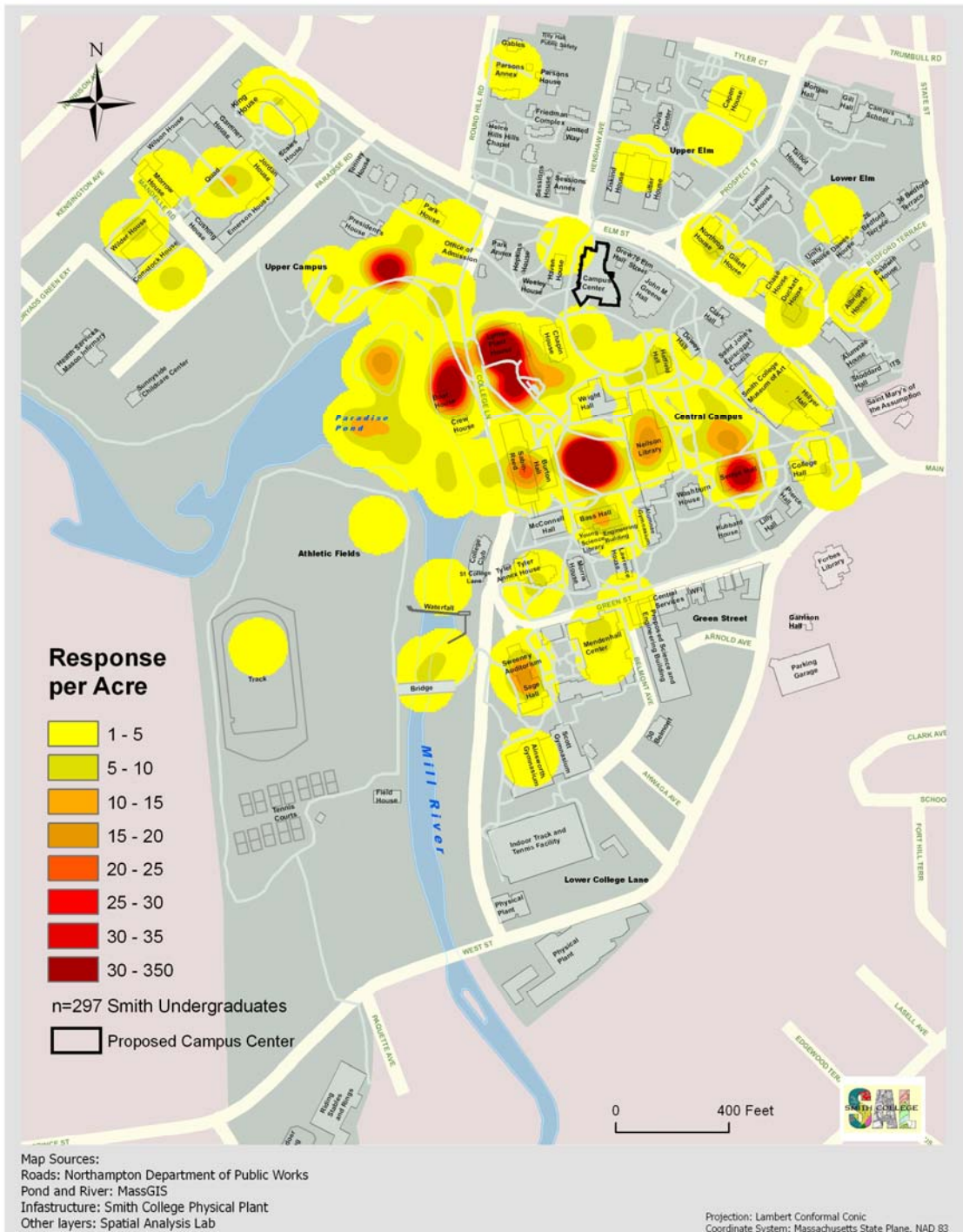
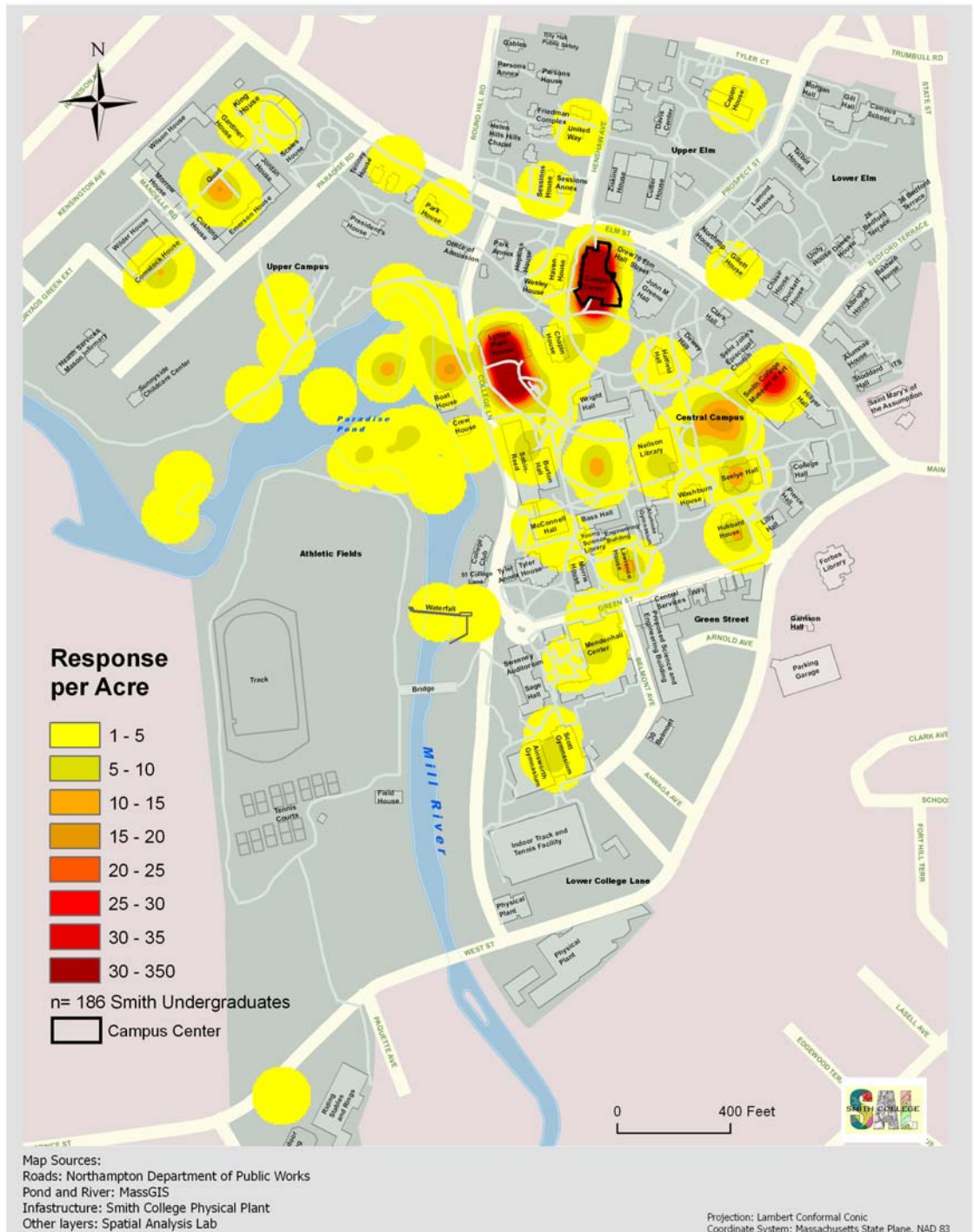


Figure 12: 2005 student response to "the area or building that like to show my friends and family."



For statement "the building or the area where most of the incidences involving Public Safety occur" in the 02 study (see Figure 13, next page), the Quad was the major red spot on the map. The Quad is an aggregate of dorms that has a reputation for throwing the most parties on campus. The other areas include the Neilson Library (which had computer theft that year), Seelye Hall, Public Safety office, Paradise pond path, and Science Quad. During the 02 study, there was an attempt to correlate student perception of incidents with Public Safety records of incidents, but they were not in a computerized, usable format at that time.

In the 05 study (see Figure 14, next page), the Quad again was the major red spot where students believe that most of the incidents occur with public safety. Between 2002 and 2005, there were some additional minor highlighted areas of concern including the parking garage, the Elm Street crosswalk by John M. Greene Hall, the Friedman complex (condo-style dorms), and an area of Paradise Pond near the waterfall. Ideally, these findings should be matched against Public Safety's incident reports to examine whether student perception of their involvement is in line with actual incidents and to see whether the change in more minor highlighted areas is a change in the location of incidents.

Please turn over for Figure 13 and 14.

Figure 13: 2002 student response to "the building or the area where most of the incidences involving Public Safety occur."

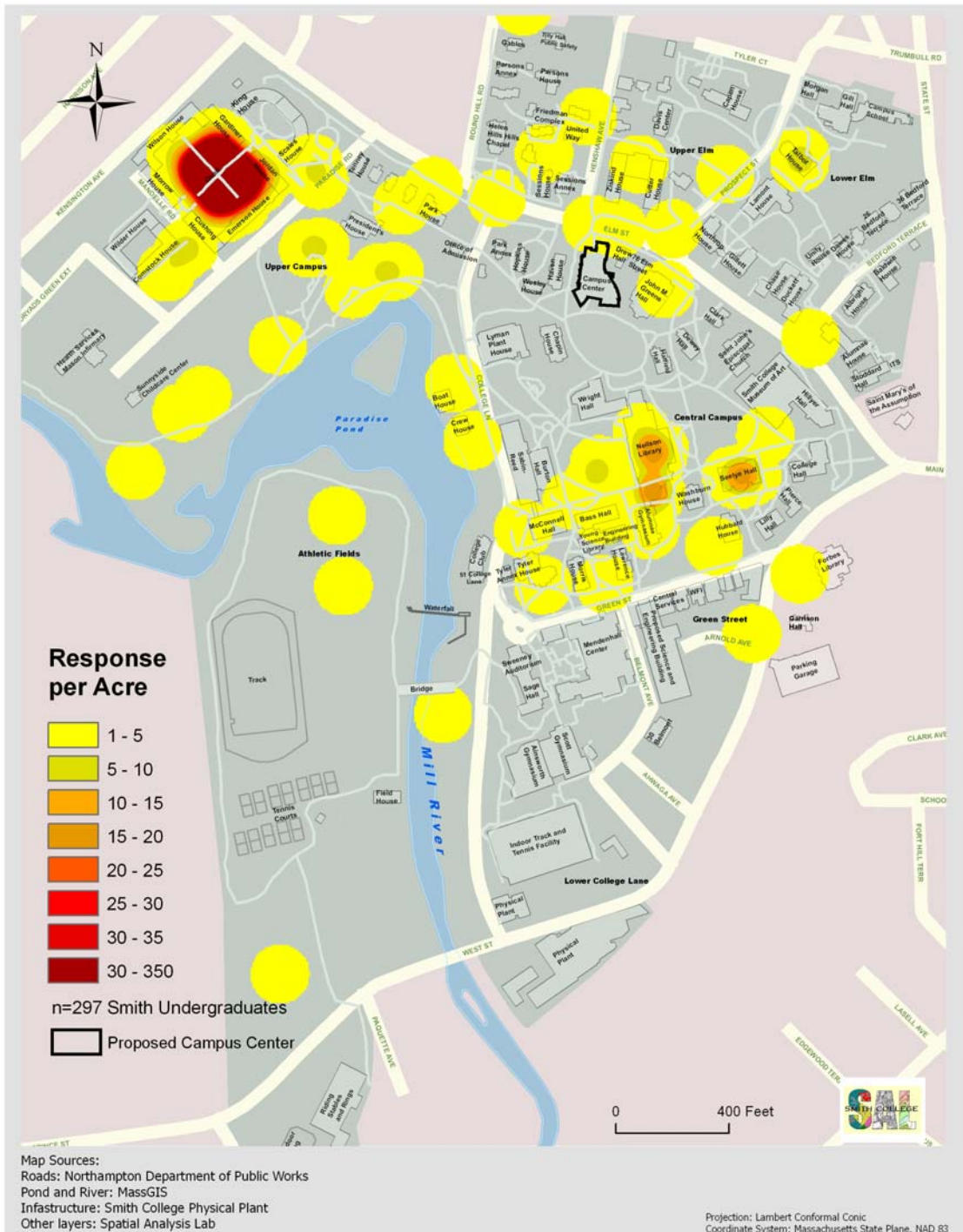
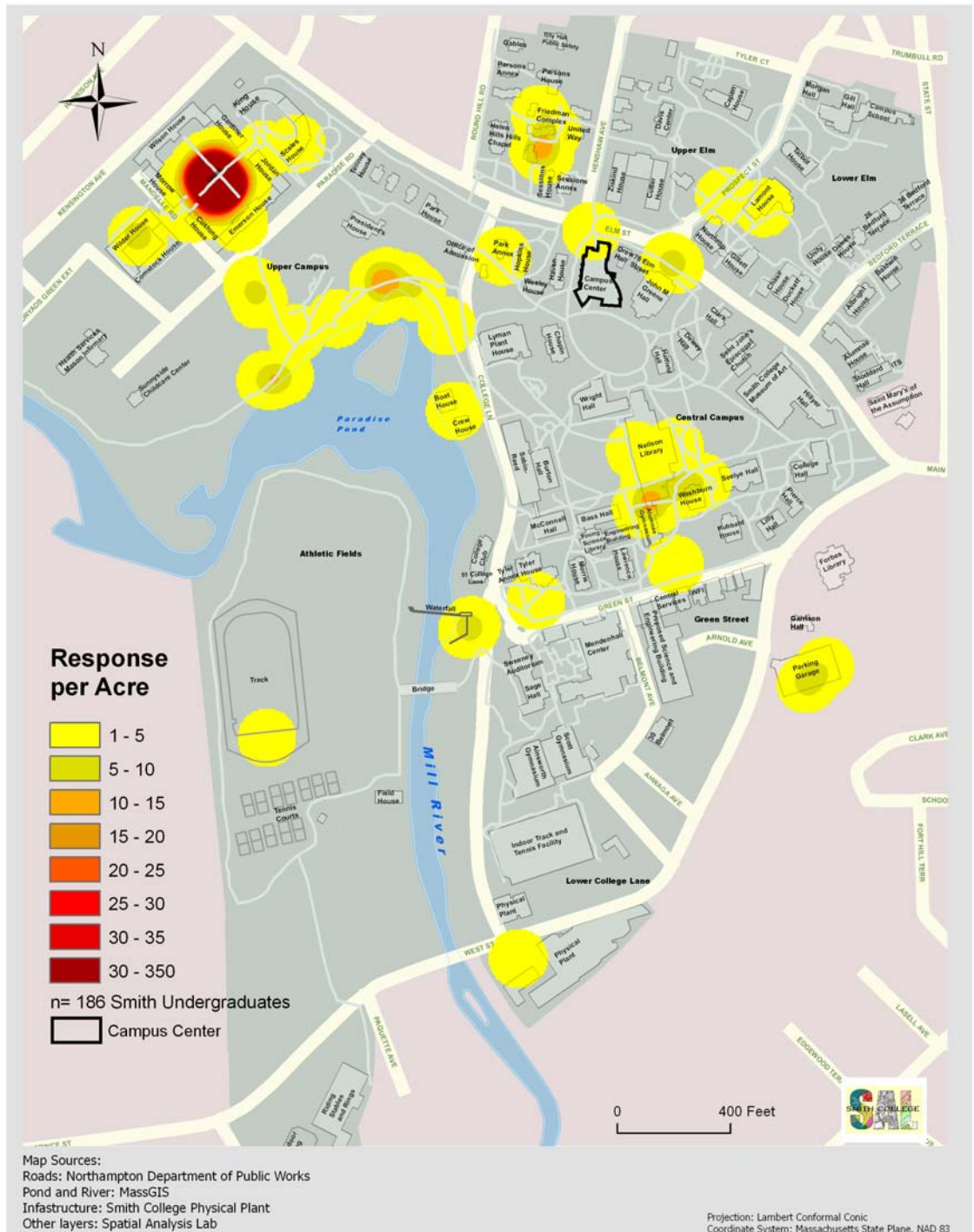


Figure 14: 2005 student response to "the building or the area where most of the incidences involving Public Safety occur."



For statement “where I go to find a quiet area to be in outside of my dorm or residence” in the 02 study (see Figure 15, next page), the Neilson Library, the Young Science Library, Bass Hall, and the Tea House (small outdoor pagoda on Paradise Pond) were the red spots on the map, indicating that these are the areas where the students go to find a quiet space outside their dorms. Other areas particularly highlighted include the Paradise Pond path, the Science Quad, the Josten Library of Performing Arts, Sage Hall (music hall and practice area), the Boathouse, and Seelye Hall (computer lab and classrooms).

In the 05 study (see Figure 16, next page), the new Campus Center became an additional red spot as well as the recently renovated Hillyer Library and Smith College Museum of Art, indicating that in 2005 these sites provided additional quiet space. The 05 map shows that there are many spaces for study, contemplation, and relaxation both indoors and out, but in 2005, the addition of the Campus Center offered a new area. The ability to find quiet space is connected both to student satisfaction, particularly as we look at how the physical layout of the campus supports its community members with both public and private spaces for socializing and for quiet.

Please turn over for Figure 15 and 16.

Figure 15: 2002 student response to "where I go to find a quiet area to be in outside my dorm or residence."

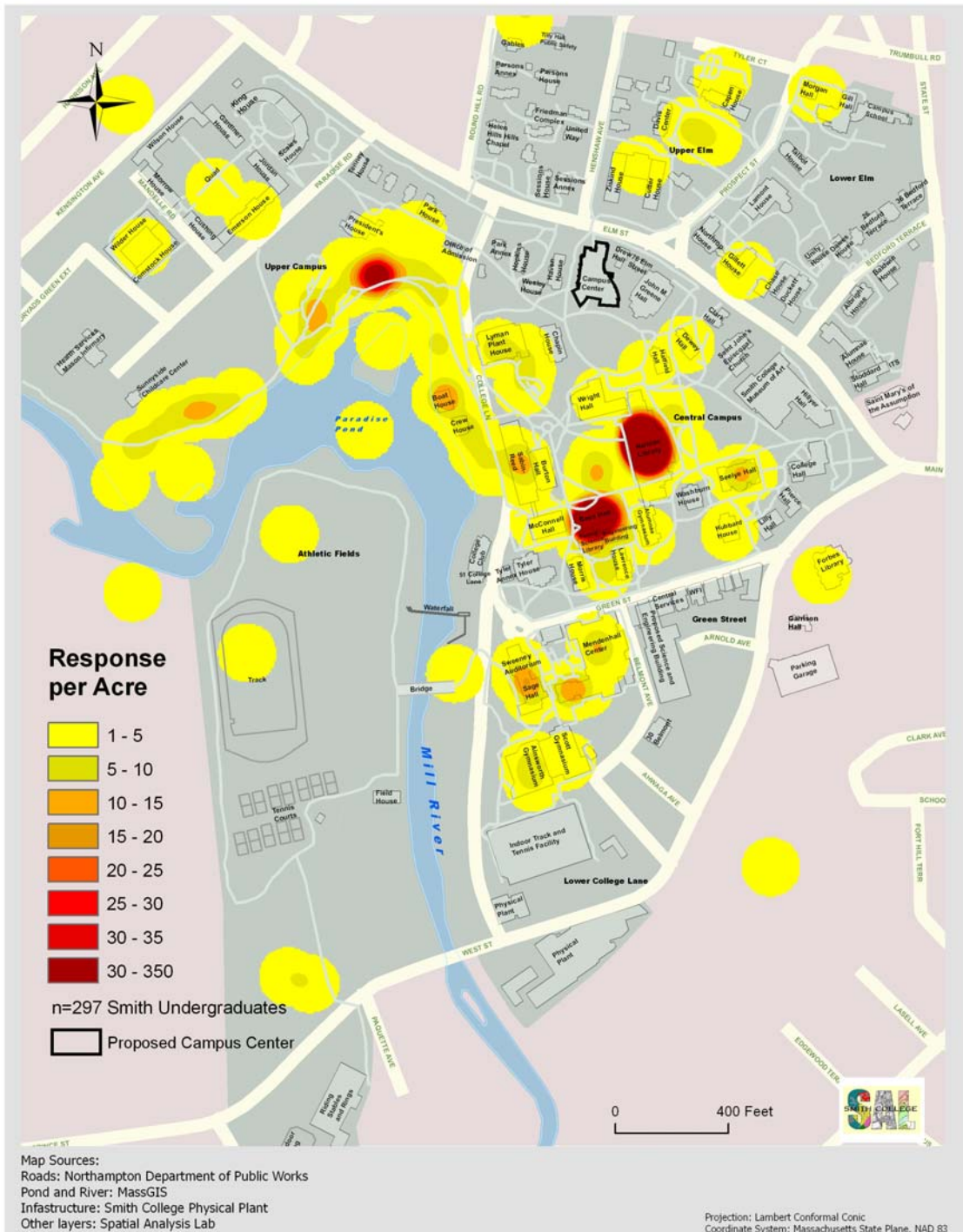
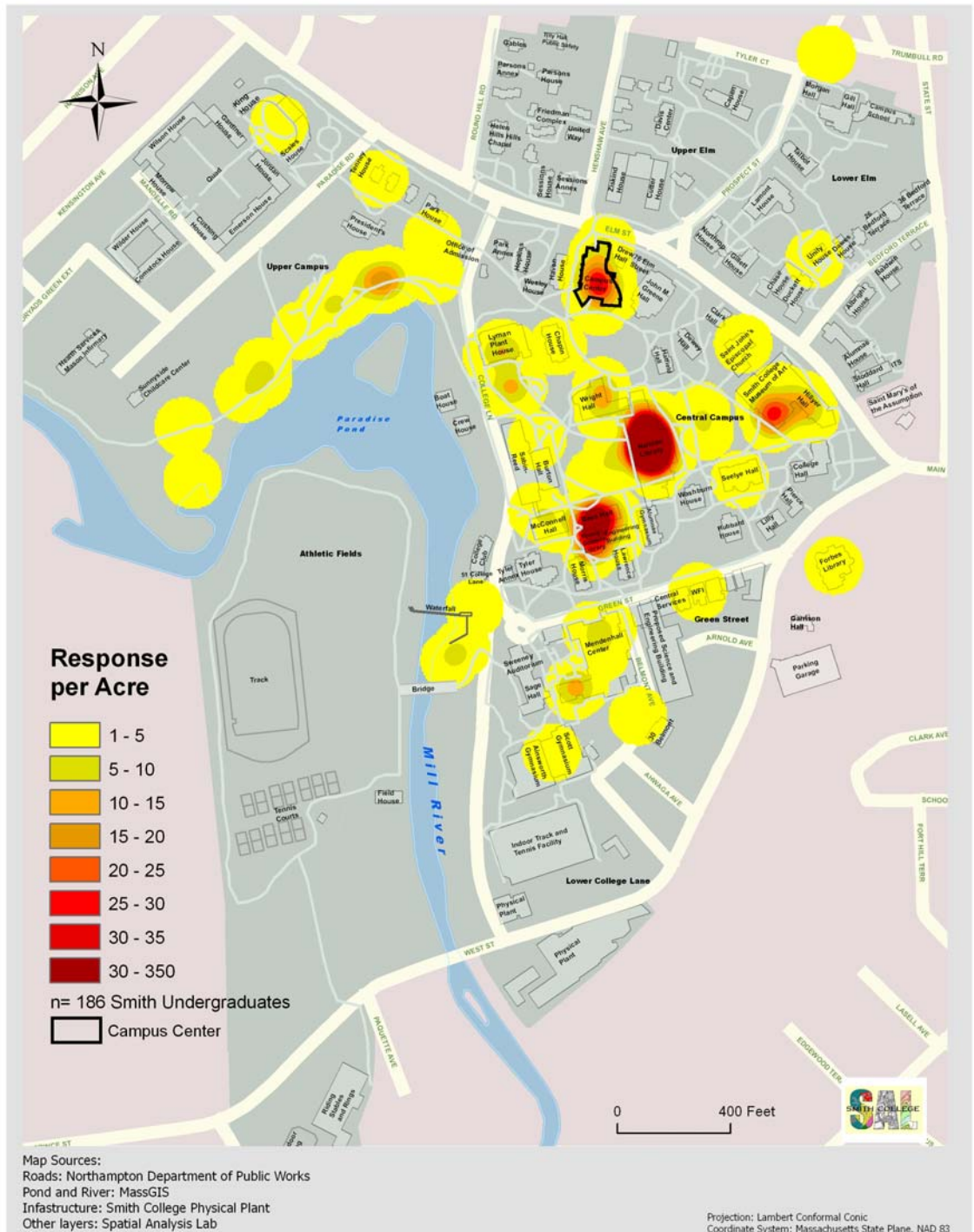


Figure 16: 2005 student response to "where I go to find a quiet area to be in outside my dorm or residence."



For statement "where I go when I want a snack outside of my dorm or residence" in the 02 study (see Figure 17, next page), the Davis Center (former student center with cafe) was the red spot on the map, while the Green Street stores were also highlighted, indicating two main choices for snacks, both outside of the central campus. Since 2002, the convenience store has closed; however, in 2005 there was still a pizza place and a coffee shop on Green Street.

In the 05 study (see Figure 18, next page), the new Campus Center became the only red spot, indicating that it became the most popular place on campus to get a snack. Since Smith College continues to support residence dining, where students eat meals with their housemates, having an inclusive setting where all students can go to eat together is important in terms of student satisfaction and broader community support.

Please turn over for Figure 17 and 18.

Figure 17: 2002 student response to "where I go when I want a snack outside of my dorm or residence."

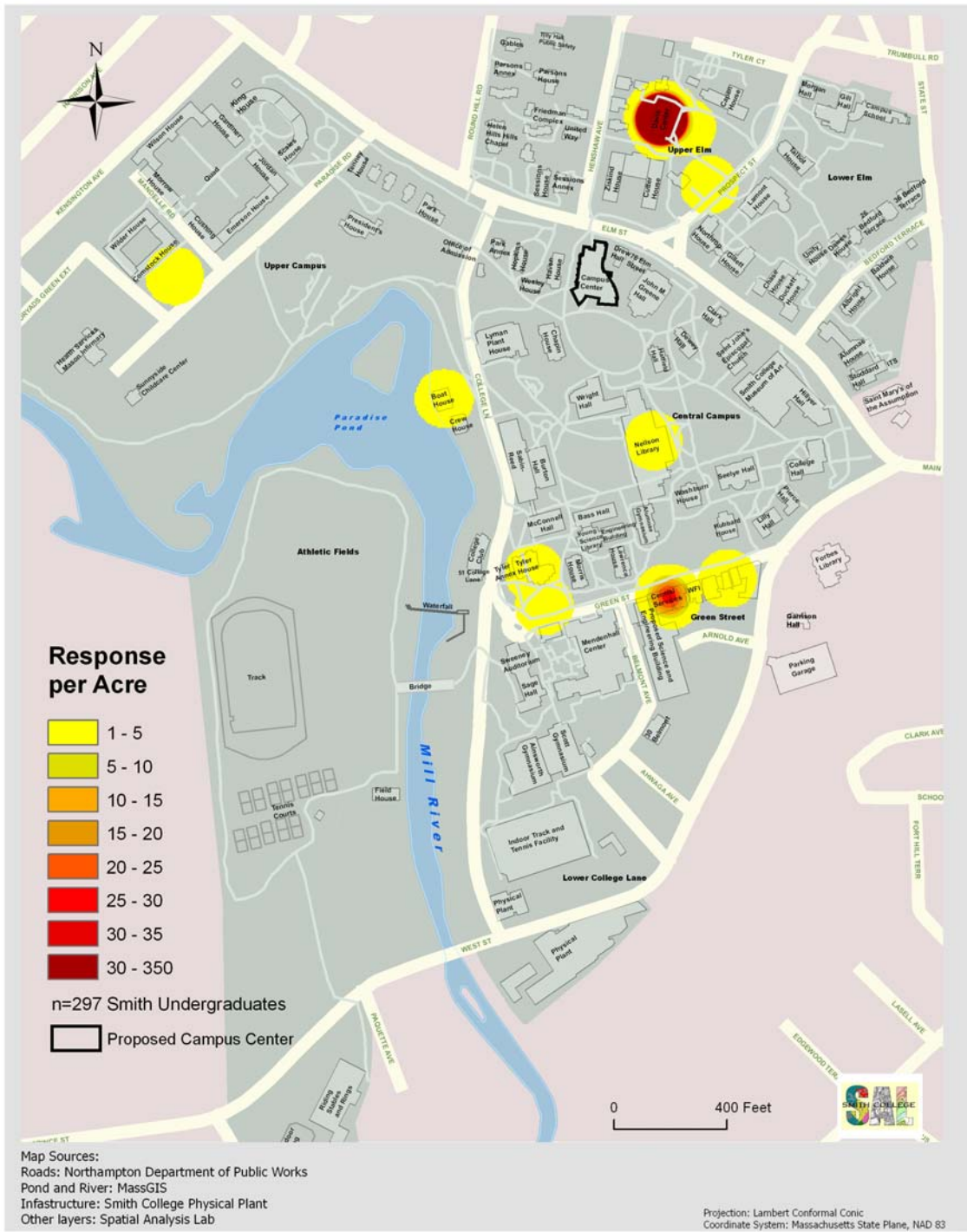
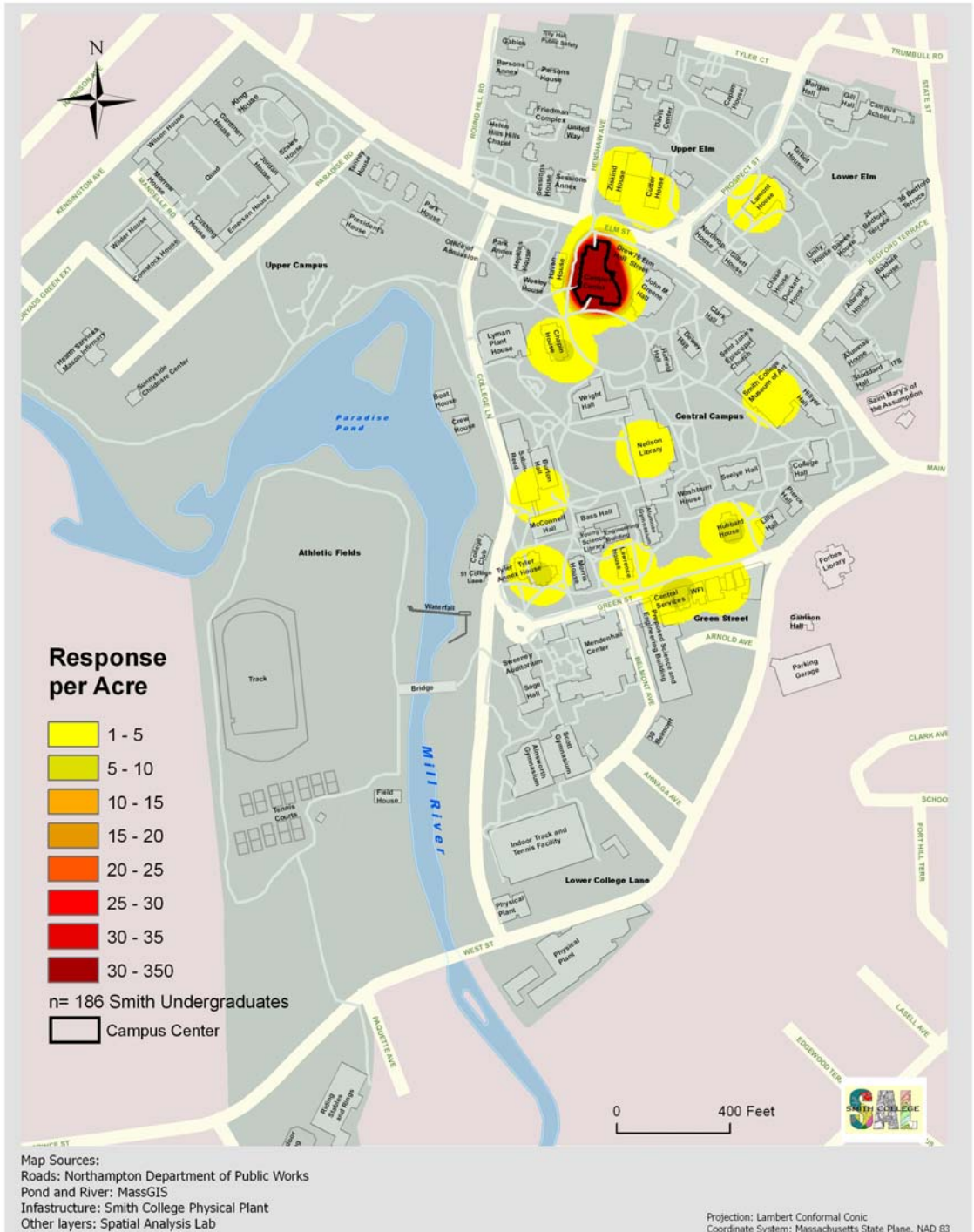


Figure 18: 2005 student response to "where I go when I want a snack outside of my dorm or residence."



For statement "where I feel least safe on-campus" in the 02 study (see Figure 19, next page), there was not one designated hot spot but many highlighted areas, including the Paradise Pond path and surrounds, the Wright Hall path, the bridge near Physical Plant, the parking garage, the path next to the President's House, path between Music Hall and Gymnasiums, the dead end by Health Services, the area behind the Bedford Terrace Apartments, the Elm Street and Henshaw Avenue intersection, Horse stables, the path between the Neilson Library and Wright Hall, Physical Plant, the alley between the Art Museum and the Episcopal church, the Quad, the stables, and the outdoor Athletics areas. It should be noted that many respondents wrote the additional comment to this statement of "at night." Many of the areas highlighted are on campus are poorly lit, so students returning to their dorms at night, may have felt less safe than during the day.

In the 05 study (see Figure 20, next page), most of the same areas were highlighted, and some respondents also qualified the statement with "at night," continuing to support the idea that poorly lit pathways and passages contribute to not feeling safe. There was only a minor change between the 02 study and the 05 study, indicating that students continued in 2005 to feel less safe in many of the same locations.

Please turn over for Figure 19 and 20.

Figure 19: 2002 student response to "where I feel least safe on-campus."

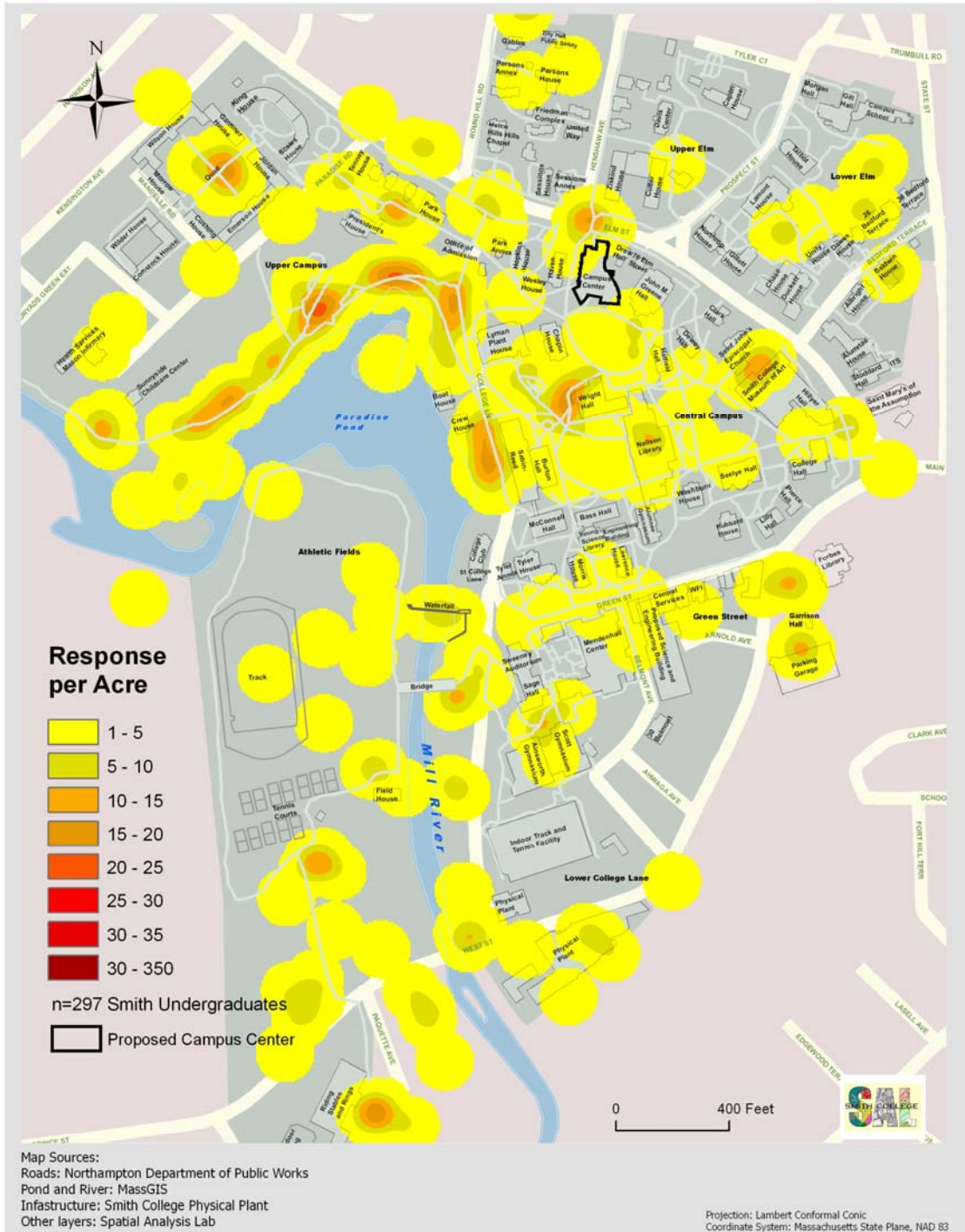
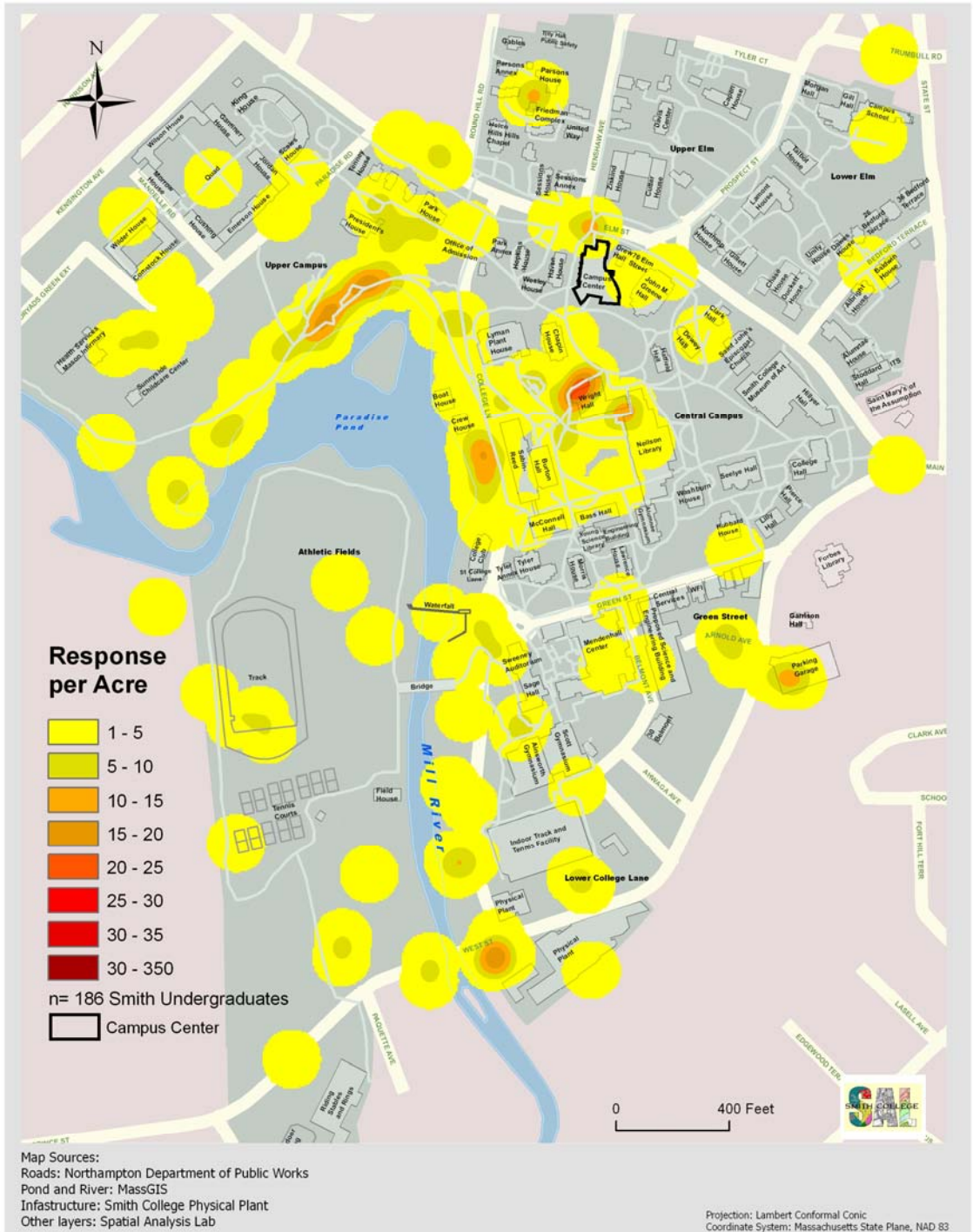


Figure 20: 2005 student response to "where I feel least safe on-campus."



Summary

Overall, these findings suggest that most Smith College students had at the time of the study a high level of student satisfaction with the campus, including safety, places for formal and informal socialization, community support, and pride in campus appearance. Though the level of student satisfaction was high in 2002, there was an increase in overall satisfaction in 2005. In 2002, students' lowest appraisal was for the level of interaction with faculty outside the classroom, which had a marked decrease in 2005, suggesting that students began to have less outside contact with faculty than those three years prior. The findings also suggest that mapping as an assessment tool can show both how students feel about particular areas of the campus and show changes in campus use over time. Most particularly, assessing the campus before and after the Campus Center was built allows us to see whether this change effort (the building of the Campus Center) affected student Campus. This study suggests that the Campus Center has become an important meeting place for the Smith student community.

The following Chapter discusses the findings in light of prior studies. That is followed by implications for practice, a discussion of the strengths and weaknesses of this study, considerations for future studies, and finally, conclusions.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The purpose of this exploratory and longitudinal study was to measure spatially how people perceive their environments as a means to support community planning. The goal of this study was to understand if an environmental change effort, specifically the building of a campus center, could change students' perception of community support, satisfaction, safety, and formal and informal socialization. The key findings of this study are as follows: environmental change efforts can be assessed before implementation to inform planning and after implementation for evaluation; clients' perceptions of their environment, including satisfaction, sense of safety, and sense of community can be spatially qualified, quantified, assessed, and expressed; and mapping questionnaires are an effective, democratic, and inclusive tool in planning and assessment.

Change Efforts

Between 2002 and 2005, students strongly indicated that the new Campus Center had become a social hub for informal and formal socializing, an emblem of campus pride, and a meeting place outside of dorms. The building of the campus center was a change effort, designed with a mission to bring together the Smith College community, which successfully met its primary goal. The current study shows that a change effort can be assessed before and after implementation, and ideally, feedback from the assessment would be used to design the change effort. Many funders, including alumni, are interested

in whether monies given have been used effectively to meet the needs of those for whom a project was designed. The current study is in keeping with the view of Dixon (2003), who says that when planning changes in a campus' community structure, "architects [of college campuses] must consider how their works will be perceived by many constituencies- students, faculty, administration" (p.41) and the view of Saleeby (2004) who asserts that assessing the *person-in-environment* can both inform planning and create change efforts. A change effort can be assessed at the micro level, as in the experience of therapy or at the macro level, as in the experience of a community center.

Another goal put forth in the new Campus Center mission was a commitment to an "environment where students, faculty, and staff can come together socially and for formal and informal programs and activities" (<http://www.smith.edu/campuscenter>). While it is evident when visiting the Campus Center that students, faculty, and staff all actively and simultaneously use the center, this study indicated that in 2005, after the center was built, the students had less interaction with faculty than in 2002, when the students already indicated a low rate of interaction. One explanation could be the change in the physical environment. The building of the Campus Center created a shift from students using Green Street, a typical small town street with stores, which included campus post office, convenient store, and student book store to using the Campus Center, which now houses the book/convenient store and post office. The Green Street environment felt more casual and not within the campus structure, whereas the Campus Center feel is more mall-like (more people and more impersonal) and it is very much within the college campus.

To this end, Goss (1988) questions the ways in which the physical environment can perpetuate relational power structures and reify inequality. This finding suggests that there are barriers, such as power structures or implied etiquette, which promotes the segregation of students and faculty. The Campus Center goal for students and faculty of “coming together socially” has not been strongly indicated as the experience of the students. This social segregation may be purposeful or a reaction to the basic hierarchy of colleges. It would be interesting to assess the perception of faculty and staff to see if they also experienced less interaction with students. Change efforts can be assessed from multiple perspectives of the constituents.

Environmental Assessment

This study shows that it is possible to assess how students perceive their environments as a way to support community planning. Hospitals, colleges, housing projects, community centers, and many other places are designed with a specific purpose and mission to serve a given population. How people experience these environments and articulate the meaning is how we know if that mission has been achieved. Colleges need to be able to assess student satisfaction, sense of safety, and sense of community as these are the factors that build the long term reputation of an institution, indicate areas needing improvement, and provide information about the quality of student life.

In keeping with the studies that suggests the physical layout affects perception of community support (Kim & Kaplan, 2004), Smith College students indicated a high level of satisfaction with the campus and a high level of sense of safety, pride in the campus, and community support. Lounsbury & Deui (1996) found that students reported a higher community sense on smaller campuses, especially when students lived on campus; these

results matched the current study of Smith students who also indicated high levels of community support and who majoritively live on a small dorm-centered campus

Students indicated feeling a high level of safety on the Smith College campus; however, students indicated feeling least safe in the area of poorly lit paths, roads, alleys, and isolated locations such as the parking garage and parking lots. The students also indicated that the Quad (an aggregate dorm known for throwing parties) was a hot spot, a place that had the most incidents involving public safety. The current study differs from the Gidycz et al. study (2001) in looking at safety, as their study focus was on internal qualities of the participants. The current study is closer to the studies reviewed (Astor & Meyers, 1999; Nelson & Baldwin, 2002) that were focused on students' perception of safety and the physical environment. It is important for a college to know where students feel vulnerable in order to meet the safety needs of the students on the campus through campus planning and use of Public Safety officers.

Using Mapping

Using Global Information System (GIS) technology to map data allows a hybrid of a visual medium to represent nonvisual data. Mapping questionnaires are an effective tool in planning and assessment as shown in this study, which used maps in the questionnaire to gather data related to how students interact and feel about their environment. While mapping has been the primary domain of geographers, new GIS technology has opened mapping for studies of permeability, preference, and perception when evaluating a community (Thill & Sui, 1993; Widlock, 1999; Linden & Sheehy 2004). The current study is in agreement with Carver's (2003) new research agenda for Information and Communication Technologies (ICT), which calls for greater use of

participatory approaches (mapping and surveys of the general public) when assessing community needs to "break down barriers to participation" and allow a "two-way flow of information" (p.63), so that all the stakeholders can participate in community planning. Like Widlock's (1999) study of a Namibian community, indigenous information creates "spatial correlates of social organization," thus illuminating how the environment affects behavioral action (p.398). Neighborhood and campus mapping is being used increasingly to assess environmental risks (Astor & Meyers, 1999; Nelson & Baldwin, 2002).

Theoretical Implications

Social theorists raise important questions for social work and for geography: questions of elitism, access to power, whose voice is heard, relativity, as well as challenging the accuracy and subjectivity of representation. This study is an example of how social theory has changed the way many researchers currently research phenomena with increasing acknowledgement of how power structures and dynamics, relationships, and perspectives affect the meaning of the phenomena. Many disciplines, including social work, are interested in critiquing and exploring meaning of space (Davidson & Milkigan, 2004; Dodgshon, 1998; Freshwater, 2005; Goss, 1988; Kemp, 2001). The focus of this study is on the subjective experience of space, agreeing with Kemp (2001) that "No environment... can be understood in isolation from the personal and cultural experiences of the people within it or the larger sociopolitical arrangements that shape and are shaped by this everyday experience" (p.13). This study also supports the views of Goss (1998) who states that "the meaning of a building cannot simply be read without considering the interaction of the subjects who are ultimately the sources of all its functions and meanings"(p.400). This study shares its focus with an expansion in social and cultural

geography studies in the area of the "spatializing of emotions" (Dodshon, 1998, p.4) , where the emphasis is on *meaning* and less with *accessibility* or *use*. Mapping subjective experience falls into the center of a current a debate in the world of geography and cartography about the "relativity" of maps, which challenges if maps are an accurate rendering of physical space or if they are a *social product* (Perkins, 2003). This study explored the meaning of space, by looking at the subjective experience of Smith College students. The participants offered spatial answers to statements like "B is the area or building I like to show friends and family when they visit," which were clustered into rainfall densities and superimposed onto maps. The maps created from this study are certainly a social product, even as they meet the criteria of geographic accuracy.

Social Work Practice and Policy

Social workers, program planners, project managers, and policy makers should include the perspective of clients when planning and implementing a change effort. Additionally, social workers are called to "promote social justice and social change with and on the behalf of clients"(NASW Code of Ethics,1999, p.1). This client focus demands the inclusion of the clients' perspectives, wants, and needs when creating, planning, and implementing an environmental change effort on their behalf.

Social workers use ecomaps and genograms with clients to understand family relationships and community supports. On the micro level of assessment, like Weick(1981) and Gutheil (1992), I am advocating for assessment of clients to further include a map generated with or by the client of their relationship to their physical environment to understand how "people respond to both concrete and symbolic aspects of their physical settings" and "perceive and react to the same environment differently"

(Gutheil, p.391). Kemp (2001) also advocates for social work to regularly examine its own theoretical underpinnings and actively consider the clients' "experienced environment" and perception by using tools like narratives and mapping. Further in keeping with the values of the NASW, it is important to assess the individual perception of clients when planning, creating, and implementing a change effort for which they have been conceptualized as the beneficiaries. At the macro level of assessment, mapping questionnaires should be utilized to gather a large amount of data quickly from a particular group or a whole community.

We are now in a time where there is a greater demand to assess and review the efficacy of treatment modalities, social service programs, and community planning. Social services, which are decreasingly supported through government funds, are under greater pressure to apply for grants. Both for new funders and current funders, agencies must provide evidence of outcomes. Even if controversial, manualized treatments, outcome assessments, empirically supported therapies sometimes called "best practices" are a current part of the social work landscape. This demand for accountability can be met with methods that are not incongruent with theory based clinical practice, such as an environmental assessment of a clients' perception before and after services

Strengths and Limitations

As a longitudinal study, this study was able to explore over time an environmental change effort and the students' perception of community support, satisfaction, safety, and availability of formal and informal socialization on the Smith College campus. This descriptive study was, as designed able "to develop a better understanding of a phenomenon in detail" (Anastas, 1999, p.123). As the study was a repeat of a prior

study, it had a fixed method giving the study tighter boundaries of exploration. This may have impacted the breadth of questions in the survey, but also the strict repetition of the prior study, implies greater reliability over time.

One of the strengths of this study was its attention to the subjective experience of spatial relationships by using a mapping questionnaire. Using a mapping questionnaire was a useful tool in both in ascertaining and representing data. Although this study is exploratory, it is a longitudinal study, and therefore reliability over time is an important factor in assessing confidence in the conclusions. Linden and Sheehy (2004) compared the reliability of verbal questionnaires to map questionnaires and found that the two methods show significant reliability ($p < .001$). Maps provide an interactive and visual modality, and as the literature review highlights the lived-in environment is not a fixed entity, but rather one with subjective reactions from participants. Carver (2003) has raised questions about potential problematic areas in mapping including *who* has access to mapping technology, *what* information is being highlighted, and *how* is the information being represented and used. Another limitation is that a mapping questionnaire is a visual medium, which may be prohibitive for participants with visual impairments, or people who have difficulty with spatial formats.

The participant sample was large and representative of the undergraduate female population of Smith College, and therefore results, even though the study was exploratory in nature, are generalizable to the wider Smith College student population. This study treated the participant group as homogeneous, not identifying or distinguishing socioeconomic, race/ethnicity, sexual orientation, or gender factors amongst the

participants, thus limiting the findings as it did not include how the potential effects of these factors.

Further, there is a notable difference in numbers between the 2002 study that had 297 participants and the 2005 study, which had 187 participants. Anastas (1999) warns that *attrition* rates can be high in longitudinal studies. Finally, although this study used the same setting as the 2002 study but not the same group of students, why there were nearly one-third fewer respondents in the second study remains unknown.

Future Research

There are many studies in related areas of interest, but not any studies found which quantified and mapped peoples' perceptions and feelings of their environment. In prior person-in-environment studies, there has been more focus on individual characteristics of participants (Lounsbury, Loveland, & Gibson, 2003; Bowen, Bowen, & Richman, 2000), but not many studies that focused on the subjective experience of the environment. In respect to social theory, which supports the idea of reality as a social construction, research that includes multiple perspectives, gets nearer to understanding that "reality." More research exploring perception and subjective experience is indicated. A replication of this study could be done to examine the perspective of staff and faculty at Smith College to understand how the whole of the Smith College community experiences the environment or to explore the student body from multiple subgroup perspectives. Another research area for the future is to compare the areas that students have identified as not feeling safe with data from the Smith College Public Safety data of areas on maps where incidents have occurred, thus looking at how perception is or is not affected by actual events.

Based on the current findings, an empirical study could investigate hypotheses like “a physical change effort can positively affect students sense of satisfaction” or “students who report a satisfaction with campus environment will also report a higher level of community support.” As a longitudinal exploration, the design of the study was fixed and therefore organized much like an experimental study.

An empirical study of the use of a mapping questionnaire as an effective assessment tool would also be helpful in hopes of developing a template assessment tool that could be easily modified and used by therapists and community planners. The social sciences have begun to utilize research tools, like GIS technology, that were thought of as primarily the domain of the natural sciences (Thill & Sui, 1993; Widlock, 1999; Linden & Sheehy 2004), which is pertinent to expansions in social work research.

Conclusion

Clinical social workers are trained to assess the person-in-environment to gain a more complete sense of a person's lived experience. From a self-psychology perspective, Donner (1988) writes, “Part of the self is always experientially merged with part of the environment”(p.19). The reflective relationship between a person and her or his environment is consistent with object relations theory, which asserts that humans need a sufficient *holding environment* in order to develop, therefore personal wellbeing is always tied to the well-being of the environment. This connection between a person and the environment has been highlighted by the NASW as a defining perspective of social work. The biopsychosocial lens is important when planning for community development or intervention. As often outsiders, social workers in particular must consider the needs, thoughts, and feelings of the recipients about their own environments. Our perception of

our environment provides a meeting place between fact and fiction, a place we often call reality. I am hoping that an inclusive stance toward clients' thoughts and feelings about their environments will become the norm in social work, whether we are building a therapeutic relationship, a community, a community space, or a policy.

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Appendix A

HUMAN SUBJECTS REVIEW BOARD APPROVAL LETTER

January 17, 2005

Stephanie Keep
39 Western Avenue
Brattleboro, VT 05301

Dear Stephanie

The Human Subjects Review Committee has received and reviewed your amended materials. You have done an excellent job of revision and all is in order. We are therefore now happy to give final approval to your study.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain signed consent documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

The College made such an enormous investment in the Campus Center; it will be fascinating to see what difference it has made, particularly in the historic primary attachment to House. Good luck with your study.

Sincerely,
Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee
CC: Dominique Steinberg, Research Advisor

Appendix B
INFORMED CONSENT

Students and Space: Smith College Campus

Dear Potential Participant,

I am a Masters student at Smith College School for Social Work conducting a study on how students think and feel about the Smith College campus. The purpose of this study is to obtain information about the relationship between students and their campus environment. This information will be obtained through the attached questionnaire. The questionnaire contains questions about your perception of the Smith College campus. This Questionnaire will take approximately five minutes to complete, and any Smith College Undergraduate Student may complete it. The data will be used for my Master's thesis and other professional publications and presentations only.

Participation is voluntary and you may withdraw from the study at anytime. You do not have to answer any question you do not want to answer. Contact information is written at the bottom of this form if you have questions or concerns. There does not appear to be any risk in filling out the questionnaire, but a referral list of mental health providers is included below if needed. Potential benefits of this investigation may include assisting in campus planning. There is no material compensation for completing this questionnaire. This study is anonymous and all data materials will be kept locked for a period of three years and then destroyed, consistent with federal regulations. You may also request a summary of the results to the address below.

YOUR COMPLETION AND RETURN OF THE QUESTIONNAIRE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION, THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS, AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

Please keep this consent form for your records.

Thank you very much,
Stephanie Keep MSW '06

If you have any questions about this study or your participation in it, please feel free to contact me:
skeep@smith.edu
Box 8563
Campus Mail
Smith College, MA -01063
802-254-4711

Referral Resources:

Everywoman's Center Counseling Services

Free counseling for women
in the five-college area
Wilder Hall
221 Stockbridge Road
University of Massachusetts
Amherst, MA 01003-9315
Telephone: 413-577-0077

Smith College Student Counseling Service

Free for Smith College Students
67 Paradise Road
Telephone: 413- 585- 2840
Servicenet
Sliding scale, MassHealth, and private insurance
129 King Street
Northampton, MA 010
Telephone: 413.585.1300

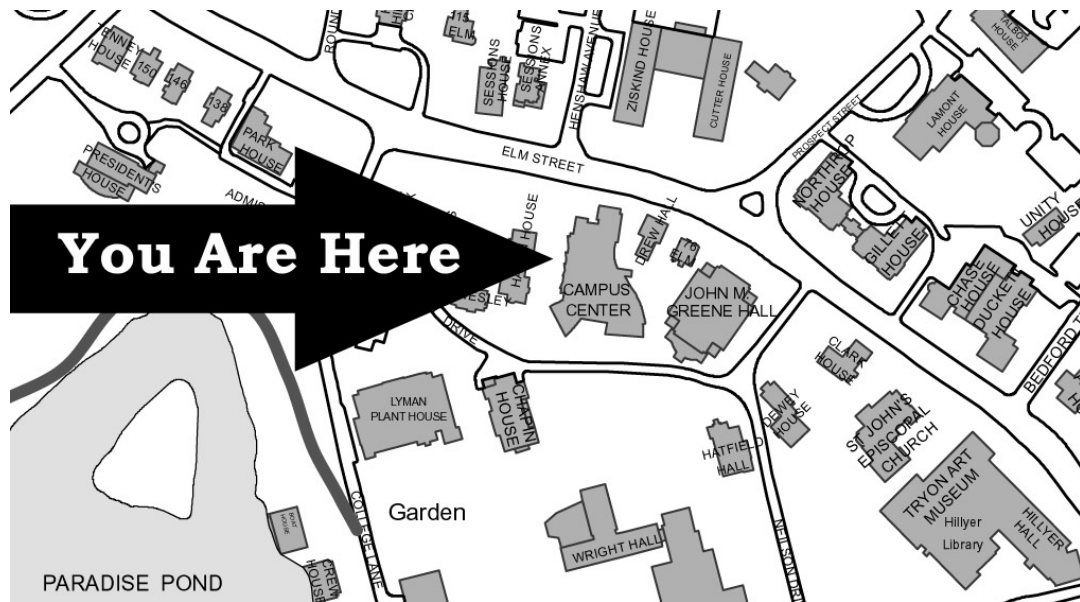
Appendix C
Questionnaire

I need you

to take 5 minutes out of your day to help me
with my thesis project.

Please fill out this quick survey and put it in
Campus Mail by February 12 for:

Stephanie Keep MSW'06
Box 8573
Campus Center
Northampton, MA 01063



Surveys are fun! Quick! and Useful!

Students and Space: Smith Campus

General information: Please circle or fill out the following information.

1) Graduation Year: '04 '05 '06 '07

2) Years in attendance at Smith College: 1 2 3 4 5 6+

3) Present Age: _____

4) Present Residence:

Dormitory or Smith College housing, (name of house): _____

Off campus, (town, state): _____

Survey Questions about Smith campus: Please circle the answer which most closely represents your experience on the Smith College Campus.

	Strongly agree		Neutral		Strongly disagree
I feel safe walking alone after dark.	1	2	3	4	5
There are places on-campus outside my residence where I can hang out with my friends.	1	2	3	4	5
I have a supportive community here at Smith College.	1	2	3	4	5
Most of my friends live in my dorm or residence.	1	2	3	4	5
I see and interact with faculty members outside of the classroom.	1	2	3	4	5
I like to show family and/or friends around the Smith College Campus.	1	2	3	4	5
The majority of my friends live outside of my dorm or residence.	1	2	3	4	5

The following statements are about the Smith College Campus space (**INCLUDING** your dorm or residence). Please write the letter (A, B, C, etc) in the area **on the map** that corresponds with your answer. The area can be any building or outdoor space on the Smith Campus. If the answer is **downtown Northampton**, please put the letter into the box marked downtown. There are no right or wrong answers. Thank you for your time!

A is where I usually go to hang out with my friends.

B is where I often like to go to study.

C is the area I spend most of my time when I spend time outdoors.

D is the area or building that I like to show friends and family when they visit the campus.

E is the building or the area that most of the incidences involving public safety occur.

F is where I go to find a quiet area to be in outside of my dorm or residence.

G is where I go when I want a snack outside of my dorm or residence.

H is where I usually go to exercise.

I is where I feel least safe on-campus.

J is my favorite building on-campus.

Thank you very much for your participation.

Smith College Campus

