MAPPING STUDENTS' PERCEPTION OF THE UNIVERSITY OF OREGON CAMPUS

by

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AN EXIT PROJECT

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"Mapping Students' Perception of the University of Oregon Campus," an exit project prepared by Byoung-Wook Jun in partial fulfillment of the requirements for the Master's degree in the Planning, Public Policy Management. This project has been approved and accepted by:

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Dr. Marc Schlossberg, Chair of the Examining Committee

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An Abstract of the Exit Project of

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Human and places are tied by certain meanings. The meanings can be positive, negative, or neutral, depending on how the individual, group or community evaluates the places. These meanings are premised on human's perception of their environment.

This study was intended to draw evaluative maps based on the students' perception of the University of Oregon, and to examine the characteristics of evaluative perception through the maps. For this study, an interview survey to 225 students was conducted, and ArcMap was used to create evaluative maps and analyze the survey data.

From the data and evaluative maps, this study identified that there are many elements affecting people's image perception, and some elements create positive effects while others have negative effects on people's perception. This study also recognized that meaning of a place plays an important role in a human's memory of a place. This study also discusses several implications of the evaluative maps for planning practice.

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the Committee Chair Dr. Marc Schlossberg and Committee Member Dr. Rich Margerum for their help and guidance with this research. Dr. Schlossberg provided many useful ideas for the frame of this study and methodology. He also guided me to be on the right track by thorough comments on every draft. Dr. Margerum provided the motive for the topic and his acute comments on my drafts guided this study to succeed. I also would like to thank Mr. Ken Kato at UO InfoGraphics Lab and Mr. Andrew Nicholson at UO Map Library for providing maps and other useful information. My most special thanks must go to my wife and two sons. They have always been the fountain of my energy and spirit. This report is dedicated to them.

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CHAPTER 1

INTRODUCTION

1. Background

A place is not merely a physical space which is filled by physical settings but a unique and meaningful space in which people have been living and leaving their footprints through a long history. Since the ways of thinking and living are different from place to place, every place has its own unique features as a consequence of people's unique thoughts and activities in that place. These unique features create the identity of the place. People and place interact and change each other, and, ultimately, they share the same spirit which is unique and distinguishable from other places and people. This shared spirit is created by the consensus of the people living at the place. Thus, a place, as it is, must have its own unique beauty and meaning distinguishable from other places and other time zones in the past. Pocock and Hudson named an awareness of the distinctive character of specific localities as "sense of place."[1]

However, it must be a matter of regret for humans to see the same sense of places at everywhere in the country. The much replicated CBDs (Central Business District), with their characterless skyscrapers and repetitive urban sprawls, with their identical

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[1] Pocock, Douglas and Ray Hudson. *Image of the urban environment*, Columbia University Press, 1978. p80

houses and shopping centers are only two good examples of this. The homogeneity of landscape is not limited to a single country but extends throughout the world. The appearance of Seoul in Korea is just the same as that of New York, in the appearance of office buildings and apartments, in the form of city with its rectangular street network, in the activities of people in the city, and even in the traffic congestion. In a small city preserving historical remnants 1000 years old, it must be an irony to see the 'Golden Arches' of McDonalds identical to America's.

Relph names this phenomenon "placelessness" defining it as "both an environment without significant places and the underlying attitude which does not acknowledge significance in places."[2] He argues that placelessness is a result of excessive emphasis on only the functional side of a place, referring to what he called "kitsch" and "technique and planning."[3]

It is not enough to base planning only on rational and technical analysis. It also must be based on the consensus of those who reside in the place. This is just the reason that the participative planning process is emphasized today. Recognizing the users' perception of the physical environment of their community is good motivation for making a good plan. In fact, as Lynch argues, such a good plan must be devised by knowing how the public evaluates the landscape of a place and what meaning they perceive from it.[4] Indeed, for planners, knowing what is there and what is needed is not enough. Beyond knowing what is there, planners must know how people feel about what

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[2] Relph, E. *Place and Placelessness*. Pion Limits. 1976. p 143

[3] *Ibid*. pp 82-89

exists, and beyond knowing only what is needed, planners must know how it can be incorporated so that people may feel comfortable and please to be there. As Nasar writes: "the measurement of public image, meaning, and community appearance has importance for creating an objective basis for decisions and for policy reasons"[5] because it may be possible to create a better place, where the people and the place become one or, at least closer. This may mean, as Lynch argues, that "the shaping and reshaping of a place should be guided by visual plan."[6]

Many researchers in this field have emphasized finding the places in the country where people most prefer to live.[7] Recently some researchers and planners have focused their attention to examining the public evaluative perception of a city[8] or a district such as a commercial strip or a residential area, using evaluative maps[9]. More recently, some researchers have become interested in examining the characteristics of preference of even smaller areas such as a shopping mall.[10] However there have been only a few attempts to uncover the characteristics of students' perception of their campus where they typically spend their time.

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[4] Lynch, Kevin. *The Image of the City*. The MIT Press. 1960. p 116.

[5] Nasar, Jack L. *The evaluative image of the city*, SAGA Publication, 1998, p 28

[6] Lynch, Kevin. 1960. p 116.

[7] Peter Gould and Rodney White studied people's perception of desirable places to live in England and America. (See Chapter 2 of this paper); Peter Collison and John Kennedy also studied the preferred residential locations of students at 19 universities within England and Wales. (See Collison, Peter and John Kennedy. Residence and Place Image. *Planning Outlook* 32.2. 1989. pp128-133.

[8] The work of Nasar, Jack L. (1998) falls into this category. (See also Chapter 2 in this paper)

[9] Several examples of these categories are explained by Nasar (1998. pp 99-127). Lynch's study of the central areas of Boston, Jersey City and Los Angeles may be classified in this category. He identified five elements of a city form from this study. (See also Chapter 2 in this paper)

[10] In this category are the works of Gregson, et al and Oppewal et al. (See Gregson, Nicky, Louise Crewe, and Kate Brooks. Shopping, Space, and Practice. *Environment and Planning D: Society and Space*. 2002 Vol. 20. pp 597-617. and Oppewal, Harmen and Harry Timmermans. Modeling Consumer perception of Public Space in Shopping Centers. *Environment and Behavior*. Vol. 31 No. 1. 1999. pp45-65.

This project intends to map students' perception of the campus of the University of Oregon and to find the elements of pleasantness and unpleasantness from the evaluative maps and the characteristics of their evaluative perception of the campus. I also intended to examine some implications for the improvement of the physical environment of the campus.

These objectives may be accomplished by answering following questions:

1. What is the image of the University of Oregon?
2. What places make students feel the most pleasant or unpleasant?
3. Why do people feel pleasant or unpleasant at the specific places?
4. How can this evaluative perception be used for real planning?

2. Overview of Project Area

The University of Oregon opened in 1876 with Deady Hall and its first 155 students.[11] As of fall term 2003, the University of Oregon has 19,232 students in total enrolled at eight colleges and professional[12].

Figure 1.1. Deady Hall in 1876
"A photo taken on the opening day of the University of Oregon in October 1876." Source: http://jcomm.uoregon.edu/about/history.html

The University of Oregon campus lies mainly from Moss Street in the east to Kincaid

[11] *http://anniversary.uoregon.edu/history/1early.html*. Access date: 4/29/2003.

[12] Facts at a Glance, Winter Term 2003 Fourth Week. *http://www-vms.uoregon.edu/%7Ereoweb/facts/facts_w03.pdf.* Access Date: 4/29/2003.

Street in the west and from 18th Avenue in the south to the Willamette River in the north. It includes 117 buildings on 195 acres of land.[13] However, some buildings are located outside this area and some properties included in this area are owned privately. An example of such a property is the Pioneer Cemetery located on the southwest side of the campus.

Figure 1.2. Aerial Photo of the University of Oregon campus
Source: UO Map Library

[13] *http://admissions.uoregon.edu/reallife/profile.htm*. Access Date: 4/29/2003.

3. Frame of Study

1) Literature Review

I narrowed the scope of literature review to the characteristics of image perception and the methodology for image perception studies.

The image of a place refers to the perception that an individual may perceive uniquely from his/her experience of that place. Pocock and Hudson suggested that the term 'perception' is "a broad one embedding a multitude of definitions and meanings, whether referring to the actual process of perceiving or to the end product of that process."[14] Of these two definitions of image perception, this paper has focused on the image as an end product of perception, because this project is aimed at mapping an evaluative image of campus as perceived by the students and examining the elements of the image.

Review of some previous studies follows the theoretical review. In previous studies, focus has been put mainly on methods, especially of making and using the evaluative maps, which former researchers used to examine how unique individual perceptions can be drawn out of one's mind and how the various individual perceptions can be combined into a public image.

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[14] Pocock, Douglas and Ray Hudson. *Image of the Urban Environment*. Columbia University Press. 1978. p 19.

2) Survey

Perception data for this project were gained through survey. Thus, the method of survey and analysis has been described. The demographic data of the participants and brief evaluation of the survey also have been included.

3) Analysis of Data

At this stage, focus was put on identifying some elements that make up an image, pleasantness and unpleasantness. Evaluative maps were created as well.

4) Implications for Planning Practice and a Discussion about the Study Method

With some implications for policy and planning of University of Oregon, a short discussion about the methodology ends this paper.

CHAPTER 2

THEORETICAL BACKGROUND

1. Image of a Place

Bolding has defined an image as "a mental picture that is the product of experiences, attitudes, memories, and immediate sensations."[15] What this definition implies is that the image perceived by an individual may be very unique and different from that of others. Since the image of a place is formed initially by individual's direct or indirect experience of the place, the individual's image may differ by the situation, the time, and the way the person experiences the place. Relph refers to it as the "vertical structure of image."[16]

However, researchers seem to acknowledge the existence of a common image shared with others in a certain community. Relph explains that such a common image is formed through the socializing process, during which individual images are applied to a common cultural base.[17] He refers to this as "the horizontal structure of image."[18]

Lynch also concurs. He uses the phrases 'group image' and 'public image' interchangeably. He defines 'public image' as "the common mental pictures carried by

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[15] Recited from Relph. E. 1976. p56.

[16] *Ibid*. p 56

[17] *Ibid*. pp 57-58

[18] *Ibid*. p 56

large numbers of a city's inhabitants."[19] He adds that "such group images are necessary if an individual is to operate successfully within his environment and to cooperate with his fellows."[20]

2. The Elements of an Image

Relph argues that the identity of a place consists of three basic elements: "the static physical settings, the activities, and the meanings."[21] He notes that, of these three elements, the physical settings and activities can be easily explained because they exist clearly as an objective reality. However the meanings, which refer to emotional and mental responses to the physical settings and activities, are not that easy to explain because these kinds of responses are usually very subjective, mainly depending on individual's value system. Thus he writes that "the meanings of places may be rooted in the physical setting and objects and activities, but they are not a property of them – rather they are a property of human intentions and experiences."[22] Relph's explanation of the elements of image is useful to understand the structure of image conceptually.

Lynch examined how people memorize physical settings in the city and identified there were common patterns people read, understand, and memorize a city.[23] According to Lynch, people commonly use five elements – paths, edges, districts, nodes, and landmarks - to read and memorize the physical environment of a city. 'Paths' refers to

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[19] Lynch, Kevin. 1960. p 7.

[20] *Ibid*. p 46.

[21] Relph. E. 1976. p 47.

[22] *Ibid*. p 47.

channels of traffic such as roads, railroads, walkways, canals, and other linear objects people can move through. 'Edges' are other linear elements which are not paths. 'Edges' refer to boundaries, outlines, barriers, or divisions. Fences, walls, and edge lines dividing roads and walkways are included in this category. 'Districts' refer to the feeling of distinct areas. Slums, historical districts, and parks may fall in this category. 'Nodes' are the point elements such as intersections and gathering spots. Sometimes 'nodes' play a prominent role in shaping the image of a place. 'Landmarks' are also point elements physically distinguishable from other features surrounding them. 'Landmarks' are important elements for both residents and visitors to recognize where they are in a place. Some landmarks can be recognized even from a far distance such as big towers, mountains, and very prominent buildings that tower over the others. Meanwhile some landmarks are local, or even private, such as a fire hydrant on a sidewalk, a small tree, or a sign on the road. Lynch's study was weighted on the physical aspect of place, rather than on the meaning of the image of a place.

From the different perspective of Lynch's work on the images of physical reality, many other researchers attempted to identify the meanings and the values of physical settings as perceived by humans.

Of those researchers, Nasar intended to identify dominant descriptors of the evaluative image.[24] Using evaluative maps representing the geographic distribution of residents' and visitors' perceptions of cities, he identified five descriptors forming

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[23] Lynch, Kevin. *The Image of the City*. The MIT Press. 1960.

[24] Nasar, Jack L. 1998.

evaluative images of environmental attributes- naturalness, upkeep/civilities, openness, historical significances, and order.

In this project, besides mapping the evaluative maps of students' evaluative maps of the campus, a careful observation will be paid on testifying these three researchers' perspectives.

3. Previous Methodology Studies

1) Overview

An individual person has his own image of a place, reflecting his value system and his unique experience of the place. One of the most crucial issues in the study of environmental images is how a researcher can draw out the individual images, which "exist as psychological entities inside our heads"[25] rather than as a physical reality in real world. In addition, the "development of a lexicon of environmental descriptors which are meaningful, unambiguous, comprehensive and flexible in operation"[26] is another key challenge in the identification of the elements of environmental assessment. Thus, many studies have been dedicated to developing this methodology.

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[25] Pocock, Douglas and Ray Hudson. *Images of the Urban Environment*. Columbia University Press, 1978. p 37.

[26] *Ibid*. p 69.

2) The Semantic Differential Method and Repertory Grid Method

Pocock and Hudson suggest two major methodologies to investigate environmental evaluation: "the semantic differential and repertory grid approaches."[27] He explains: "the semantic differential technique postulates that meaning can be mapped into a three-dimensional spatial model, in which the dimensions are mutually orthogonal. ··· (This technique) requires prior selection of descriptors to be used. ··· Repertory grid methods, however, ··· have an added advantage over the semantic differential in that there is no required pre-selection of either concepts (elements) or descriptors (constructs)."[28] In sum, the semantic differential method, represented by rank order lists, is intended to examine several pre-defined descriptors more deeply and precisely, while the repertory grid method, represented by open-end questions, may be used to find more general ideas of people's perception of environment. Therefore, the semantic differential method may be advantageous in the depth and data process of research in several specific descriptors while it has the disadvantage of losing the rich information of complex and delicate perception issues. In turn, the repertory grid method may have some advantage in gaining the rich information of people's perception from their free descriptions of environment, though it is at a disadvantage in processing too much rich information of perceptions.

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[27] *Ibid*. p69

[28] *Ibid*. p69.

3) Evaluative Maps

An evaluative map is a map representing the spatial distribution of public perception of a certain geographic area. This term seems to be used interchangeably with 'mental map, or 'cognitive map'. The multiple uses of this term may be due to the fact that the study of perception is interdisciplinary. In general terms, but not always, behavior psychologists seem to prefer to using 'mental map', human geographers seem to like to use 'cognitive map', and planners seem to tend to use 'evaluative map'. 'Evaluative map' will be the predominant term used in this report except when original sources of figures and tables use the term 'mental map'. An evaluative map is constructed based on the fact that there is a common image of a place which accumulates individual, unique images of the same place.

4) Four Methodology Case Studies

Gould and White[29] attempted to discover the geographic space preference and residential desirability patterns. In this work, they derived 'mental maps' from a survey targeting students in beginning geography courses at the state universities of California (Berkeley), Minnesota, Pennsylvania, and Alabama. They were asked to list places in which they desired to live in rank order. The maps derived from these surveys were constructed by lines of equal perception, representing "aggregate preference surface for a population" (Figure 2.1).

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[29] Gould, Peter and Rodney White. *Mental Maps*. 1974. Gould, Peter R. On the Mental Maps. *Image and Environment – Cognitive Mapping and Spatial Behavior*. 1973. pp 182-220.

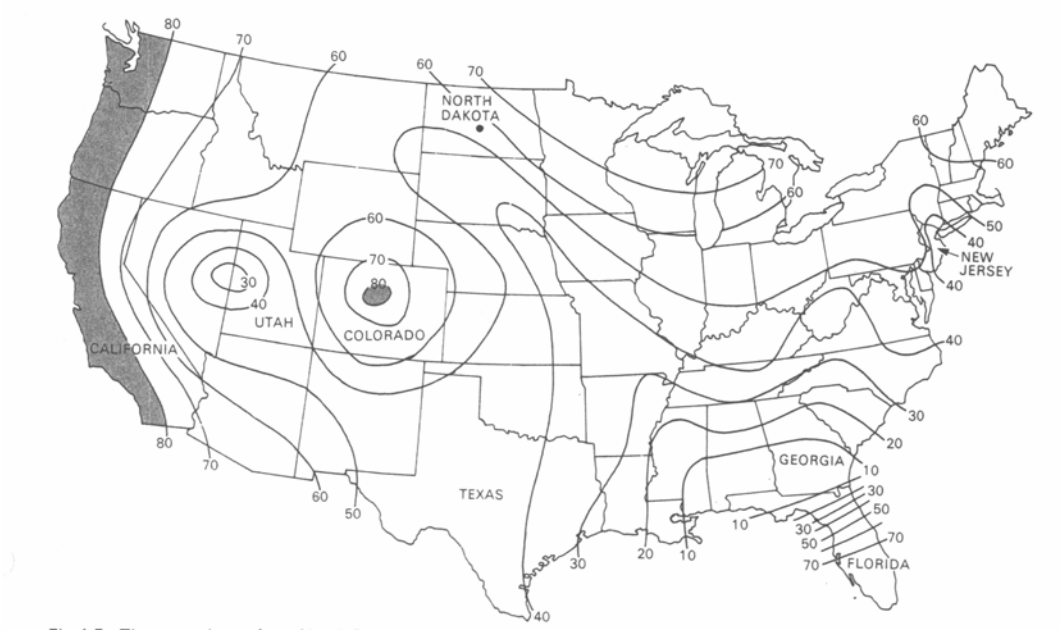

Figure 2.1. Mental Map of America from North Dakota
* The lines represent the equal perception of a place.

Source: Source: Gould, Peter and Rodney White. "Mental Maps." Penguin Book. 1974. p 103.

Kevin Lynch studied to see what forms of city make for strong images.[30] This study is significant for the development of ideas and methods of urban design. His study covered the central areas of three American cities: Boston, Massachusetts; Jersey City, New Jersey; and Los Angeles, California. His study was carried out in two ways: a systematic field reconnaissance by a trained observer and interview with thirty or fifteen residents in each city. The participants were asked to draw a quick map of, for example, central Boston with some other questions. The interview was lengthy, normally lasting one and half hours. Other

[30] Lynch, Kevin. *The image of the city,* The MIT Press, 1960. pp15-90, pp140-159.

supplemental tools, such as photographic recognition tests, field trips, and requests for directions, were used to gain information from passers-by.

He derived a map of each city from the interviews and the quick maps the participants drew. He carefully compared them with the visual reality drawn by a trained observer. Figure 2.2 shows one example of the maps. In comparing those three maps of each city, he found two facts; that people tend to "adjust to their surroundings and extract structure and identity out of the material at hand"[31] and that there seemed to exist a similarity in the "types of elements used in the city image."[32] He classified the elements of the city image into five types: paths, edges, districts, nodes, and landmarks.

He himself points out three problems in this study in respect to the size, the representative, and the method of sampling.[33] First, he points out the "inordinately" small size of the samples. According to him, thirty people in the case of Boston, and half of that number in Jersey City and Los Angeles were too small to generalize a "true public image" of the particular city. The second problem he points out is the "unbalanced nature of samples" composed of primarily middle-class, professional and managerial people. He notes "there is bound to be a strong class bias in the result." He also points out that his samplings did not satisfy the requirement of "truly random distribution" of residence and working place of the subjects. He infers that some biases were resulted from these demographical and spatial biases.

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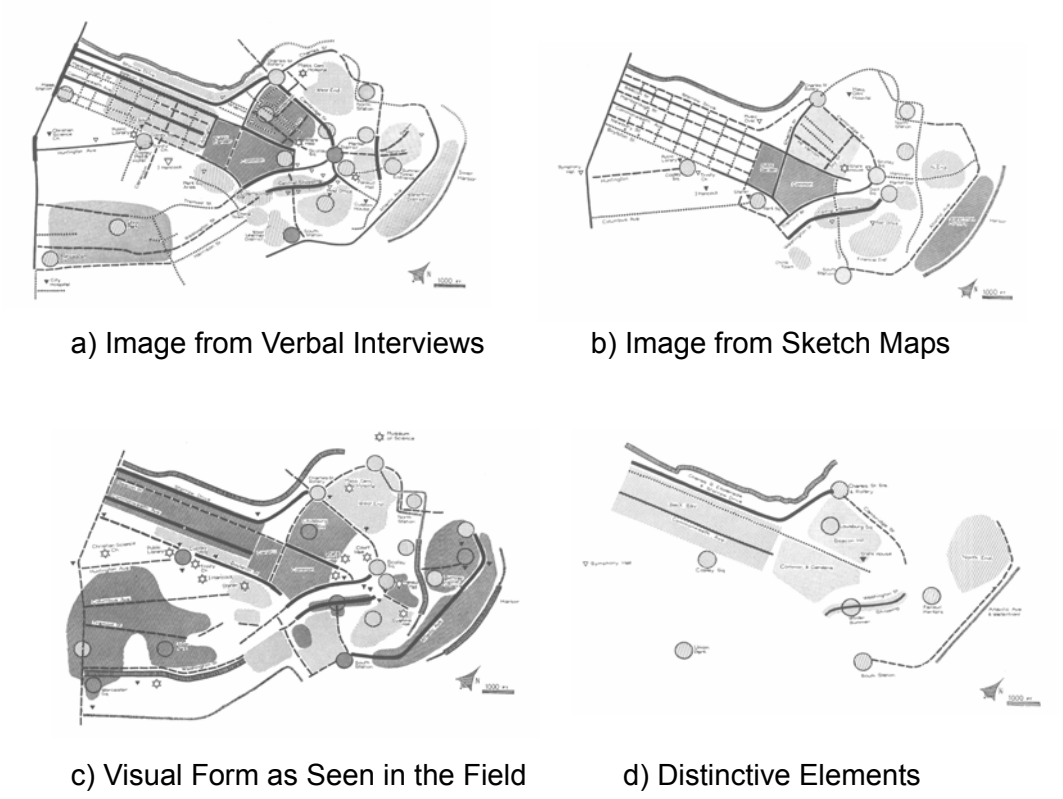
[31] *Ibid*. p 43.

[32] *Ibid*. p 43.



a) Image from Verbal Interviews b) Image from Sketch Maps

c) Visual Form as Seen in the Field d) Distinctive Elements

Figure 2.2. Various Images of Boston
Source: Lynch, Kevin. The Image of the City, 1960. p146-147

Jack Nasar investigated to determine the liked or disliked areas in two cities: Knoxville and Chattanooga, Tennessee.[34] He selected samples out of two groups: residents and visitors. The sizes of samples were 160 residents and 120 visitors in Knoxville and 60 residents and 60 visitors in Chattanooga. Interviewers interviewed the residents group by phone and the visitors group by face-to-face in front of the hotels where they were lodging. The participants were asked to identify up to five areas they considered the most pleasant and

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[33] *ibid*. p152

[34] Nasar, Jack L. *The evaluative image of the city*, SAGA Publication, 1998, pp35-98.

unpleasant visually and the reasons for these. They were also asked to identify one most in need of visual improvement. From each interview, he developed one map, and then overlapped the individual maps (Figure 2.3).

Using the evaluative maps, he found most liked areas and most disliked areas in each city and the physical characteristics of those places. He also found that they tended to choose the well-known places that many observers reported either liking or disliking.[35]

Thomas C. Greene, professor of St. Lawrence University and his team of the St. Lawrence University Environmental Psychology Lab studied "perceived landscape qualities."[36] The main objective of the study was to provide some useful information for establishing the planning goals of local residents in the town of Brillion, Wisconsin for the Brillion visioning project. The target participant group was an already established citizen visioning team made up of residents of the city of Brillion, Wisconsin. The participants for this project included about 50 members of the Brillion Visioning Committee.

The participants were asked to indicate 1) "their most frequent travel path", 2) "pleasant areas", 3) "areas with distinctive characters", and 4) "areas in which they would or would not like to see new commercial and residential growth." They were also asked to draw maps, and 32 maps were gathered.

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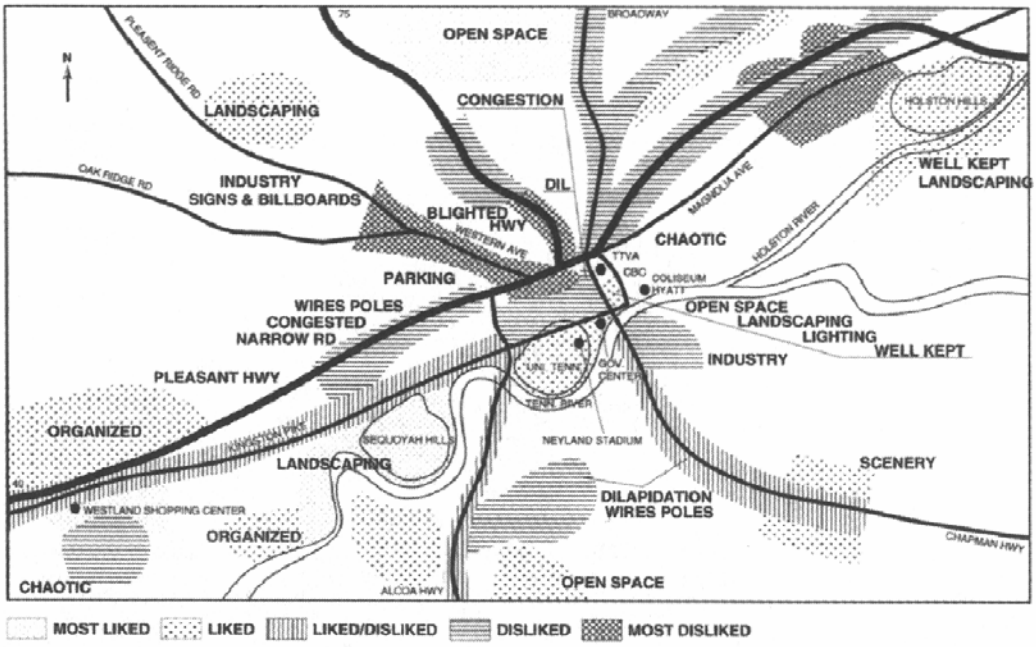
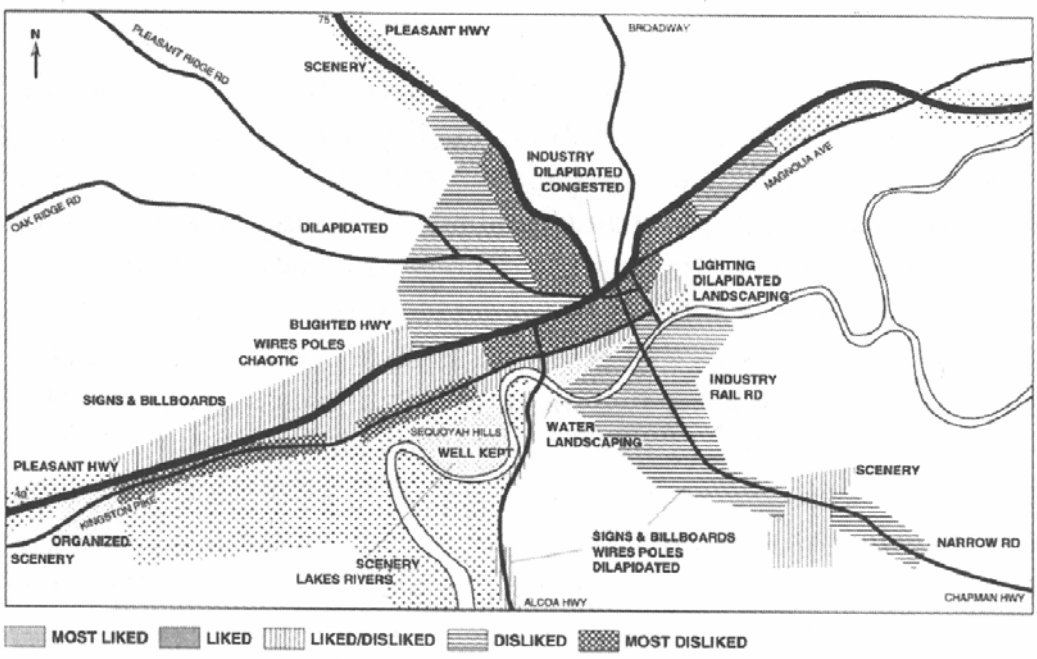
[35] *Ibid*. p41

[36] Greene, Thomas C., *Mental Mapping of Pleasantness and Planning Objectives in the Town of Brillion Landscape*, http://www.nrcs.usda.gov/programs/commplanning/MAPPING.pdf, access date: 02/18/03



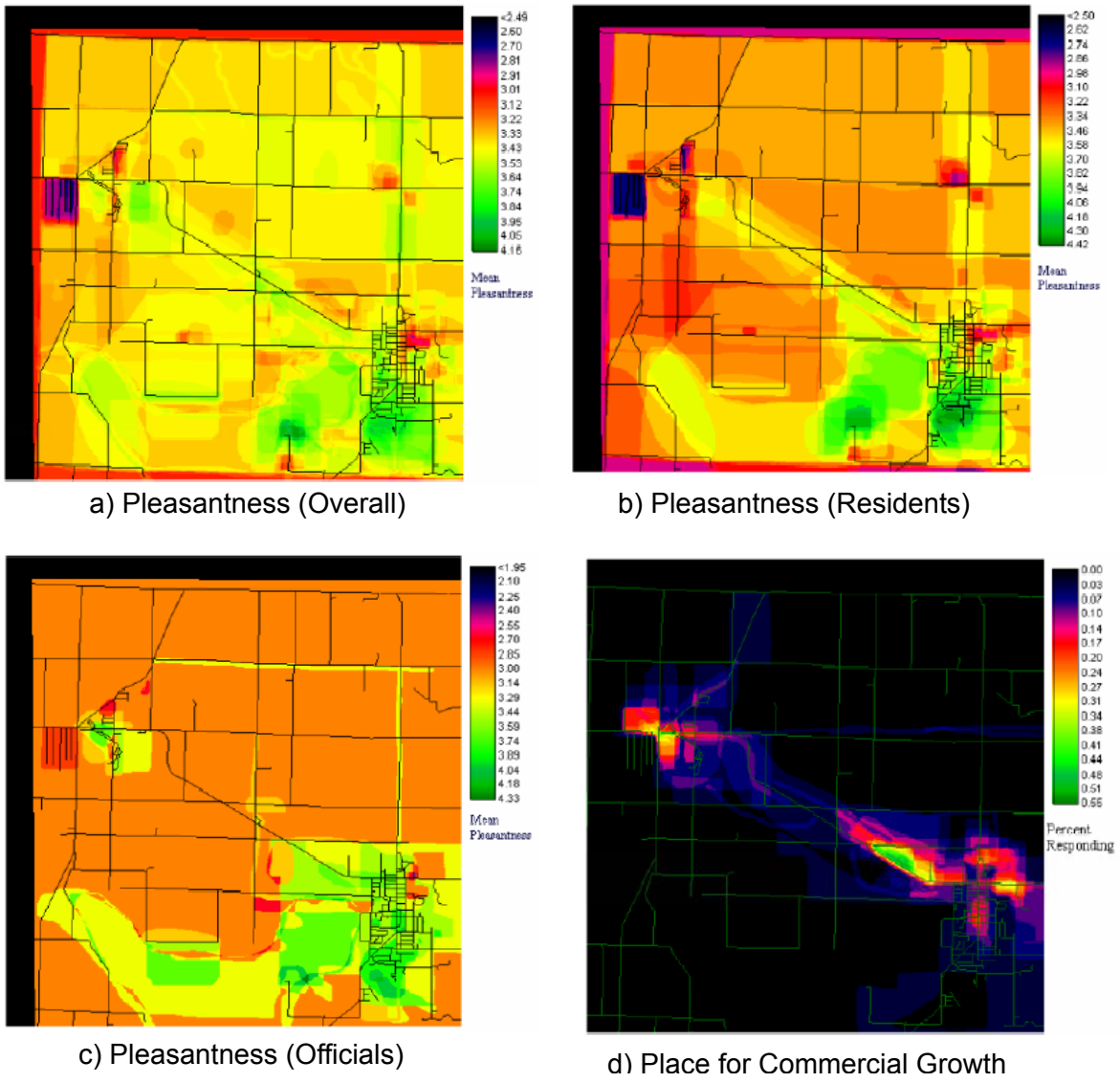
a) From Verbal Description by Residents



b) From Verbal Descriptions by Visitors

Figure 2.3. Evaluative Maps of Knoxville

Source: Nasar, Jack L. The Evaluative Image of the City, 1998. p40.



a) Pleasantness (Overall)

b) Pleasantness (Residents)

c) Pleasantness (Officials)

d) Place for Commercial Growth

Figure 2.4. Maps of Pleasantness and Planning Objectives
Source: http://www.ucgis.org/oregon/papers/matei.htm, Access date: 2/13/2003

From these individual maps, three types of maps were produced by GIS tools: maps of pleasantness, maps of cognitive districts, and maps indicating development goals or common travel routes. Figure 2.4 shows examples of the maps of pleasantness and maps indicating desirable places for commercial development.

However, as Greene himself points out, these outcomes have a crucial shortcoming with regards to the small size of the sampling and homogenous nature of the sample. It may be hard to consider that about 30 members of the Visioning Committee, which consists of mainly community leaders and volunteers, represent all residents of the town of Brillion in all senses. He reports another problem concerning the drawing ability of the participants. He also notes that the research on perception is heavily dependent upon "the ability of the participants to remember the geography" of the study area.

Sorin Matei, professor at University of Southern California, studied the relationship between the geographical distribution of "comfort" image and its influences on housing desirability, racial relations and media connectedness in six residential areas in Los Angeles County.[37] He derived a 'comfort map' from the individual 'comfort maps' collected by telephone interviews of 215 residents and coloring exercises on the maps in-person. Figure 2.5 is an example of the maps he made from the coloring exercise and interview. Two other maps were produced from the interview data: the map of 'weak television connectors' and that of 'strong television connectors'. These two maps were used to identify whether the 'comfort image' of a place had been biased by media or not.

From this study, he found that the comfort map fitted with housing desirability very well. However, like other researchers, he also reports that the quality of data, mainly depending on the drawing ability of respondents and their knowledge of the study area, was the main problem. In spite of this flaw, this research is valuable in the sense that he examined social perceptions by using evaluative maps and GIS tools.

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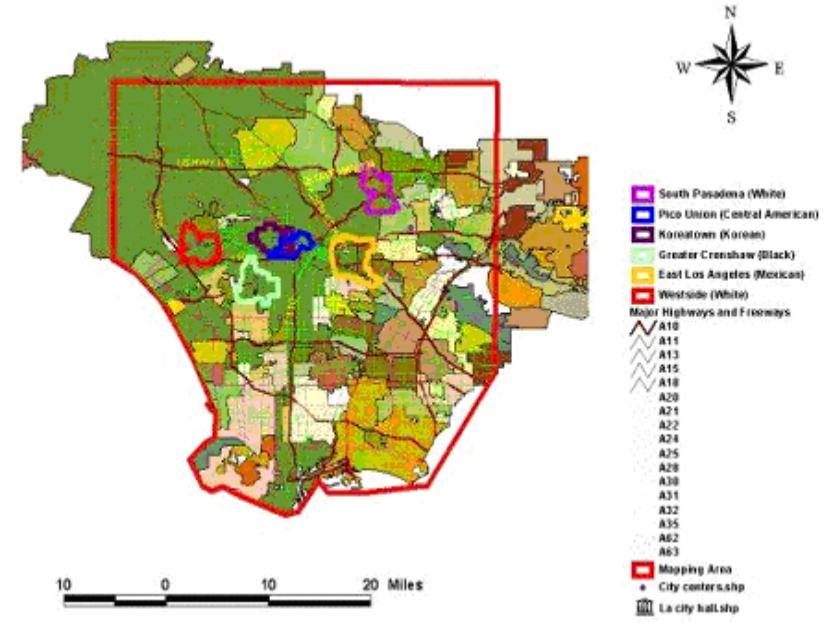
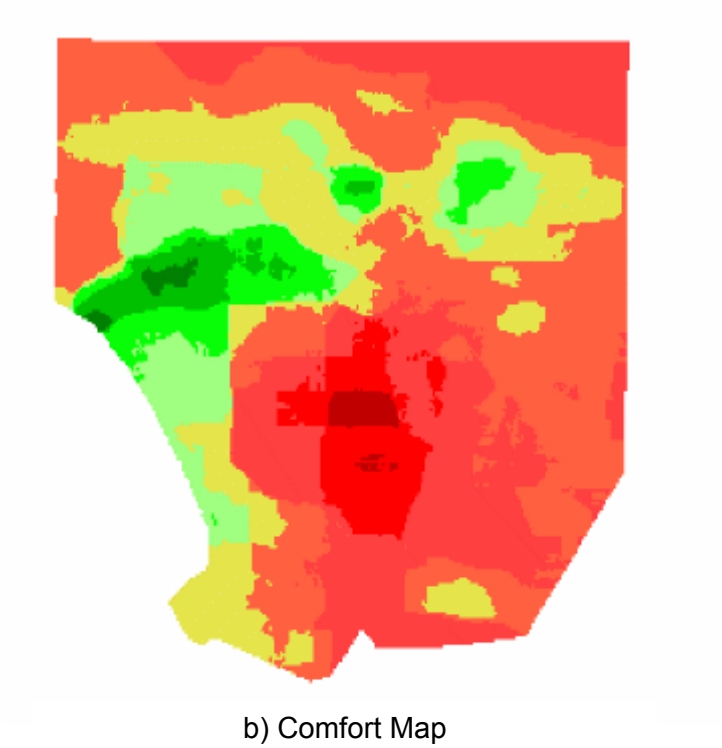
[37] Matei, Sorin. *GIS mapping and modeling of media influence on perception of urban space in Los Angeles*. http://www.ucgis.org/oregon/papers/matei.htm, Access date: 2/13/2003



a) Study Area



b) Comfort Map

Figure 2.5. Comfort Map of LA
Source: http://www.ucgis.org/oregon/papers/matei.htm. Access date: 2/13/2003

From the review of the methods previously used, the following findings may be derived about surveying the perception of a place.

Mapping and verbal interviews were the main tools to be used in the survey for the study of the perception of physical environment. In the case of using the map exercise, the quality of study will depend on the drawing ability of participants. Even in the case of only being aided by a map to help evoke the memory of participants, the quality will depend on the map reading ability of participants. However, using the map to evoke participants' memories may derive better results than it would not be used.

4. Summary and Guidelines for This Study

From the review of previous studies, implications and guidelines for this study may be summarized as follows:

1. Lynch identified five elements of a city form. However these elements only can explain how people recognize the existence of physical settings, which he named 'physical legibility'[38]. They cannot explain how people feel about those physical settings and how these feelings, which Relph named 'meaning', affect their recognition of their own environment. Of course, Lynch himself understands that 'meaning' is an element of the image of a physical setting.[39] However he excludes 'meaning' from his study saying "meaning is also a relation, but quite a

[38] Lynch, Kevin. 1960. p 5.

[39] *Ibid*. p 8.

different one from spatial or pattern relation."[40] Even so, the pattern by which people read and memorize the structure of a city form needs to be examined with consideration of the influence of 'meaning' on their way of recognizing the pattern of physical structure; the images of a specific place may differ in strength due to 'meaning'.

2. Nasar summarized the factors affecting likeability of a place in a city into 5 elements: naturalness, openness, cleanness, historical significance, and order. Then questions arise: "Can these elements be generalized to explain all evaluative perception even of a specified area such as a university?" or "What elements affect students' perceptions of a university, more specifically the University of Oregon?"
3. To investigate environmental evaluation, two major methodologies can be considered; the semantic differential and repertory grid approaches. Of these two methods, the repertory grid methods may be more useful than the semantic differential approach in the respect that the elements of environmental evaluative images can be uncovered through the participants' free statements about the environment.
4. Thus, an open-ended in-person interview, as many researchers have used, may be the best way to recognize people's perception of environment. The length and the depth of the interview may be determined by the affordability, both in time and cost, to the researchers.

[40] *Ibid*. p 8.

5. A mapping exercise can be used for data collection. In this case, the quality of research depends on the drawing ability of participants. However, the mapping exercise may be a useful way for researchers to identify the boundaries of places participants refer to.
6. Care must be paid for sampling to represent the whole community in size, socio-demographic characteristics, and the locations of participants.
7. An evaluative map is a useful tool for studies of people's perception of environment because it represents people's perception in the form of geographical map.
8. To draw an evaluative map, GIS tools may provide a useful and convenient way.

Of the study guidelines shown above, items one and two refer to the survey questions, items three, four, five, and six refer to the method of data collection, and seven and eight relate to the method of data analysis.

CHAPTER 3

METHODOLOGY

1. Survey

1) Survey Instrument

a. Survey questions

The survey instrument was designed to capture the places and reasons that respondents find most imageable, pleasant, and unpleasant in the study area. More specifically, the survey questions were designed: 1) to find most imageable places in campus, to test the five elements of image, which Lynch suggested, and to examine the influence of meaning to the imageability, 2) to find most pleasant and unpleasant places on campus and to examine the elements related to those perceptions, 3) to measure the respondents' knowledge of campus by inquiring about their most frequently visited destinations.

The following were the major questions asked of participants. The actual instrument can be seen in Appendix A.

1. Please identify one physical element or place that you associate first when you hear of or talk about the University of Oregon and why.

2. Please identify two places and or physical subjects you consider the most pleasant visually in the campus and specify why.
3. Please identify two places or physical subjects you consider the most unpleasant visually in the campus and specify why.
4. Please identify two places you go most frequently on campus.
5. Your major, grade, sex, age and the number of months you have been attending the University of Oregon.

b. Using the maps

Pocock and Hudson suggested that "the foundation of environmental evaluation is verbal description, whether by the use of free description, checklist or rating according to a scale of 'betterness' or 'worseness'."[41] However, as shown at the previous chapter, many researchers have used verbal interviews with the aid of maps or mapping exercises to help the participants recall their memories of places or to measure the strength of their image of places. Though the mapping exercise may be important for measuring the strength of their image of a place, as many researchers point out, the quality of the survey using it greatly depends on participants' ability to draw a map. This seems to be a fatal shortcoming for a researcher aiming to identify the precise location of preferred or hateful places. However, using a simple black and white map can not only help respondents recall their memories of places but also can be used effectively to process the boundaries of their liked or disliked places.

[41] Pocock, Douglas *et al*. 1978, p69

Hence, I used a black and white campus map published by UO Info Graphics Lab[42] so that participants could mark the pleasant or unpleasant places. Four maps were given to each participant; the first was for marking the associated image of the campus, the second was for marking pleasant places, the third was for marking unpleasant places, and the last was for marking the places he/she went to most frequently. A complete instrument including questions and maps is attached in Appendix A.

2) Data Collection

a. General method

In-person, structured interviews were used for this study. As discussed in the previous section, letting respondents describe their perceptions of place more freely seemed to be appropriate for this study, which was seeking the elements affecting imageability, pleasantness, and unpleasantness. Mailed survey may have reduced costs or increased sample sizes, but maps and perceptions are better handled with a more active relationship between researchers and respondents. Likewise, handling maps with phone interviews was deemed to be too unreliable. The interviews were done at several places throughout the University campus. Respondents were given instructions and example maps showing how to mark and note their feelings on their maps.

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[42] *http://geography.uoregon.edu/infographics/campusMaps/LineArtMap.pdf*. Access: 4/3/2003

b. Interview locations

Nasar implies that the amount and type of information that an individual has about the physical settings of a place probably will vary according to where he/she lives, travels, and works.[43] Gould and White also agree with the idea[44] that where people live and work will influence their perceptions of a certain place because their levels of knowledge and interest in the place must be different from one person to the next.

In this project, I tried to sample the participants in such a way as not to bias a particular place by interviewing them at various places in campus. This idea is based on the assumption that the place at which an individual is present will hold some significant meaning to the person and this meaning will affect his/her response to the interview. Figure 3.1 shows the survey points (#1 - #7).

3) Sample Size

All four researchers discussed above point out that the sample size is important in order for the results of research to be generalized. Lynch concedes that there is a limit to which the results of his research can be generalized, because of the small size of

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[43] Nasar, 1998, p85

[44] Gould, Peter & White, Rodney, *Mental maps*, Penguin, 1974, p41. They wrote: "We know more about the areas close to us, and they tend to become much more important than others about which we know little. Our emotional involvement with other places changes quite markedly with our subjective estimates of how far places are away from us." (p41)

samples.[45] Greene also points out the same problem.[46] However, as Lynch notes, the larger size of sample will increase time and cost enormously. Balance between sexes was considered at each interview point. The targeted size of the sample for this project was 210 in total (Table 3.1). However, the actual number of collected surveys was slightly changed at McKenzie Hall.

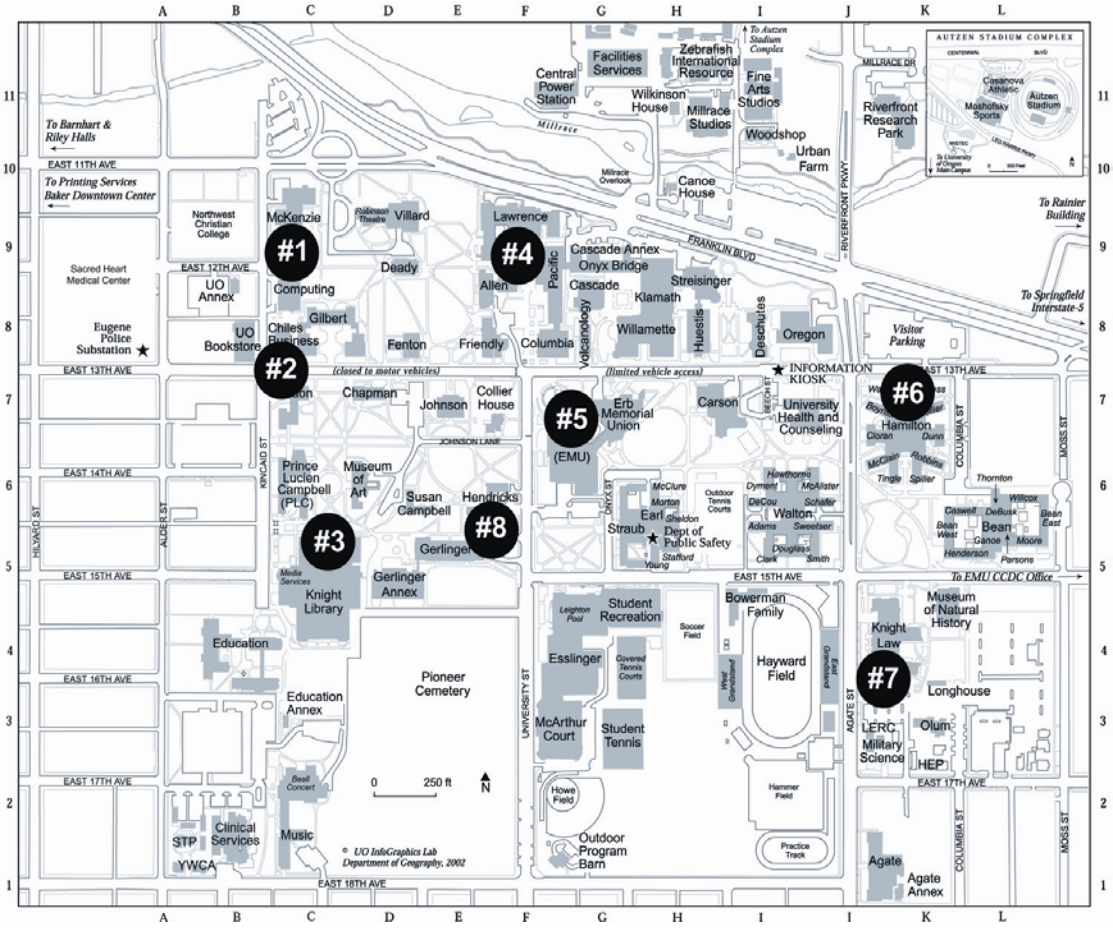

Figure 3.1. Interview Points

[45] Lynch, 1960, p152

[46] Greene, Thomas C., *Mental Mapping of Pleasantness and Planning Objectives in the Town of Brillion Landscape*, http://www.nrcs.usda.gov/programs/commplanning/MAPPING.pdf, access date: 02/18/03

Table 3.1. Targeted Size of Sample

Place	Total	Male	Female
Total	210	105	105
1. McKenzie Hall	30	15	15
2. Gate at 13th Street	30	15	15
3. Knight Library	30	15	15
4. Lawrence Hall	30	15	15
5. EMU	30	15	15
6. Hamilton Hall Entrance	30	15	15
7. Law Center	30	15	15

4) Supplemental Survey

A distributed survey was conducted at the Planning, Public Policy Management Department, targeting the students of this department (#8 in Figure 3.1). This survey was intended to supplement the random interview survey, particularly to reflect the views of students who might have more knowledge of space and planning. Among 100 survey forms distributed through mail boxes in the office, 30 completed forms were collected.

2. The Characteristics of Respondents

Actually, 225 surveys were collected both by interview and distribution. This corresponds to 1.1% of total enrolled students (19,232) in winter term, 2003. The actual number of collected surveys at each place and the demographic characteristics of respondents are included in table 3.2. Figure 3.2 to Figure 3.5 show the composition of the sample by sex, major, year, and age.

Table 3.2. Demographic Characteristics of Respondents

1. By Place of Survey

	Male	Female	Not specified	Total
McKenzie Hall	10	5		15
Gate at 13th	11	19		30
Knight Library	17	11	2	30
Lawrence Hall	12	18		30
EMU	15	15		30
Hamilton Hall	15	15		30
Law Center	15	15		30
Hendricks Hall	13	16	1	30

2. By Major

AAA	6	9		15
Arts & Sciences	38	30	2	70
Business Administration	21	9		30
Journalism	6	14		20
Law	10	8		18
PPPM	13	16	1	30
Others	14	28		42

3. By Class Level

Freshman	18	26		44
Sophomore	24	17		41
Junior	26	20		46
Senior	10	17	2	29
First Year Graduate	7	8	1	16
Second Year Graduate	16	15		31
2+ Years of Graduate	2	2		4
Not Specified	5	9		14

4. By Age

Under 20	18	30		48
20-24	54	57		111
25-29	23	19	1	43
Older than 29	9	7	1	17
Not Specified	4	1	1	6

5. By Period of Time Enrolled at UO

Less than 1yr	37	49	1	87
1-2 yrs	34	30		64
2-3 yrs	20	15		35
3-4 yrs	5	13		18
4-5 yrs	3	1		4
More than 5 yrs	4	4	2	10
Not Specified	5	2		7
Total	108	114	3	225

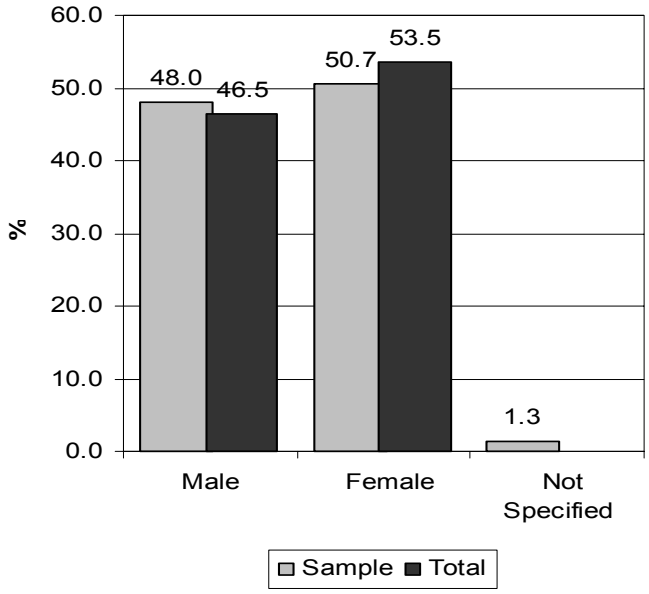

Figure 3.2. Gender Composition Rate of Sample Compared with That of Entire Student Body

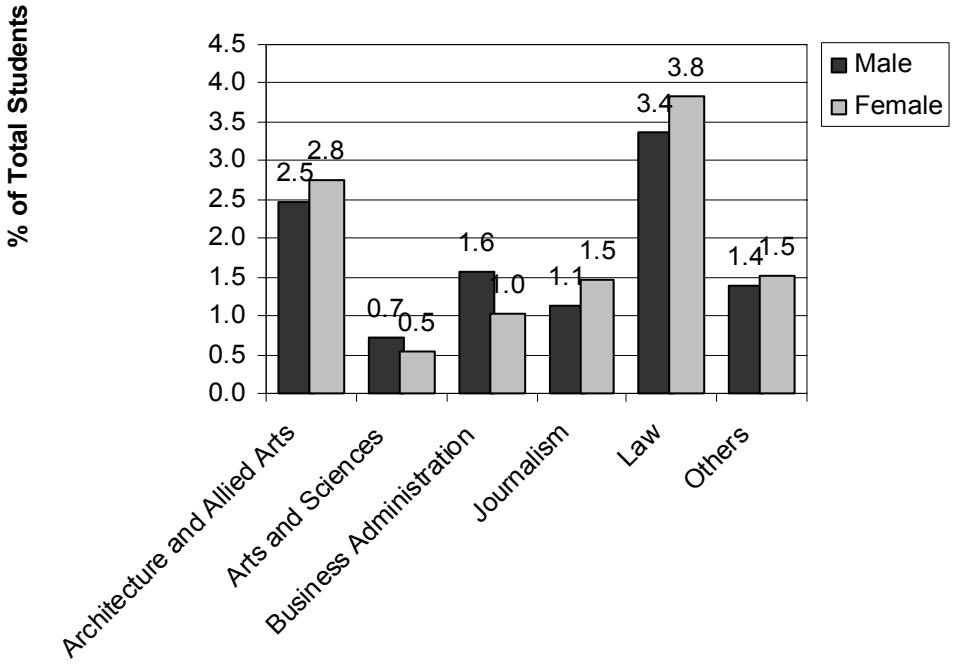

Figure 3.3. Composition Rates of Sample by Major

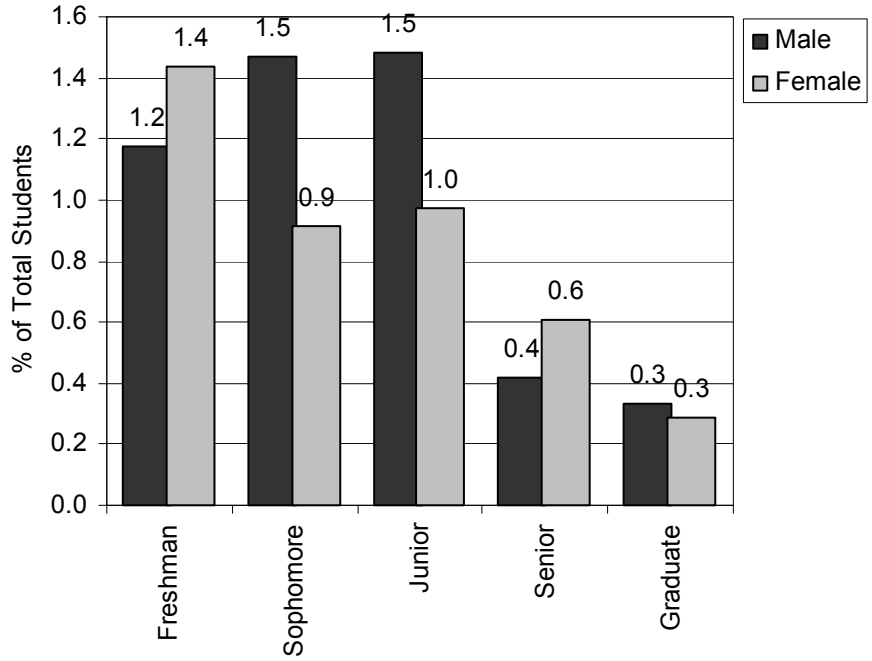

Figure 3.4. Composition Rates of Sample by Class Level

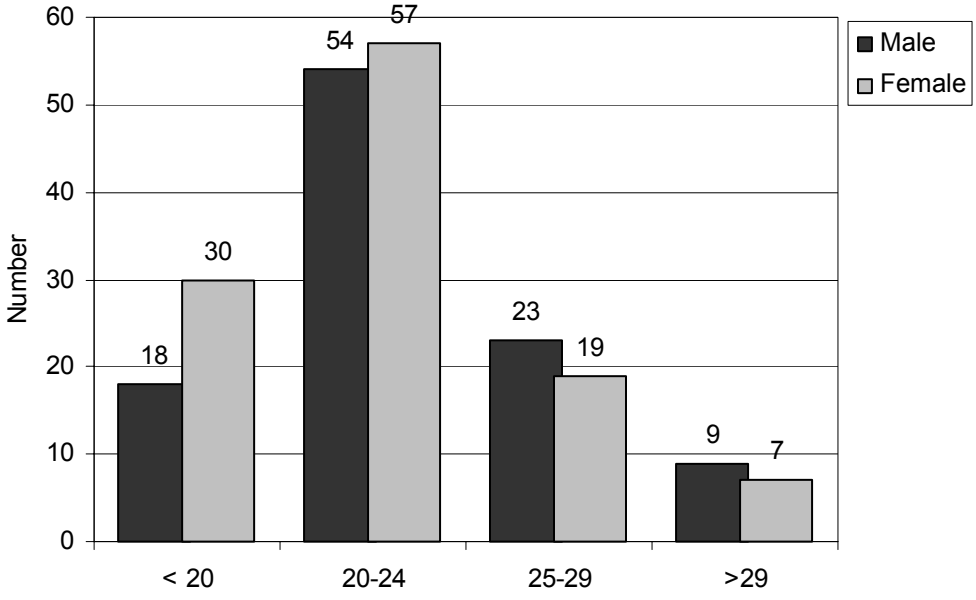

Figure 3.5. Distribution of Age in Sample

3. Data Input and Analysis

1) Overview

The data and maps resulting from the survey were organized into five databases and four types of maps, each of which represents the image of the University of Oregon that comes to mind when they talk or hear about the University of Oregon, pleasant and unpleasant places, and the most frequently visited places. Each map collected from the survey was compiled into evaluative maps representing a common evaluative image of participants' perceptions.

For data input, I used Microsoft Access to build and edit a demography database representing the demographic characteristics of participants and ArcMap to build five types of geographical layers, each of which represents the geographic distribution of each category of students' perceptions of the campus. The demographic database and each of four geographic layers, containing geographic information about imageability, pleasantness, unpleasantness, and the places people most frequently went to, were joined by ArcMap so that the various analyses, which shed light on the characteristics of perception connected with demographic data, were possible. A brief explanation of the process of data input and analysis is shown in Figure 3.6, on the next page.

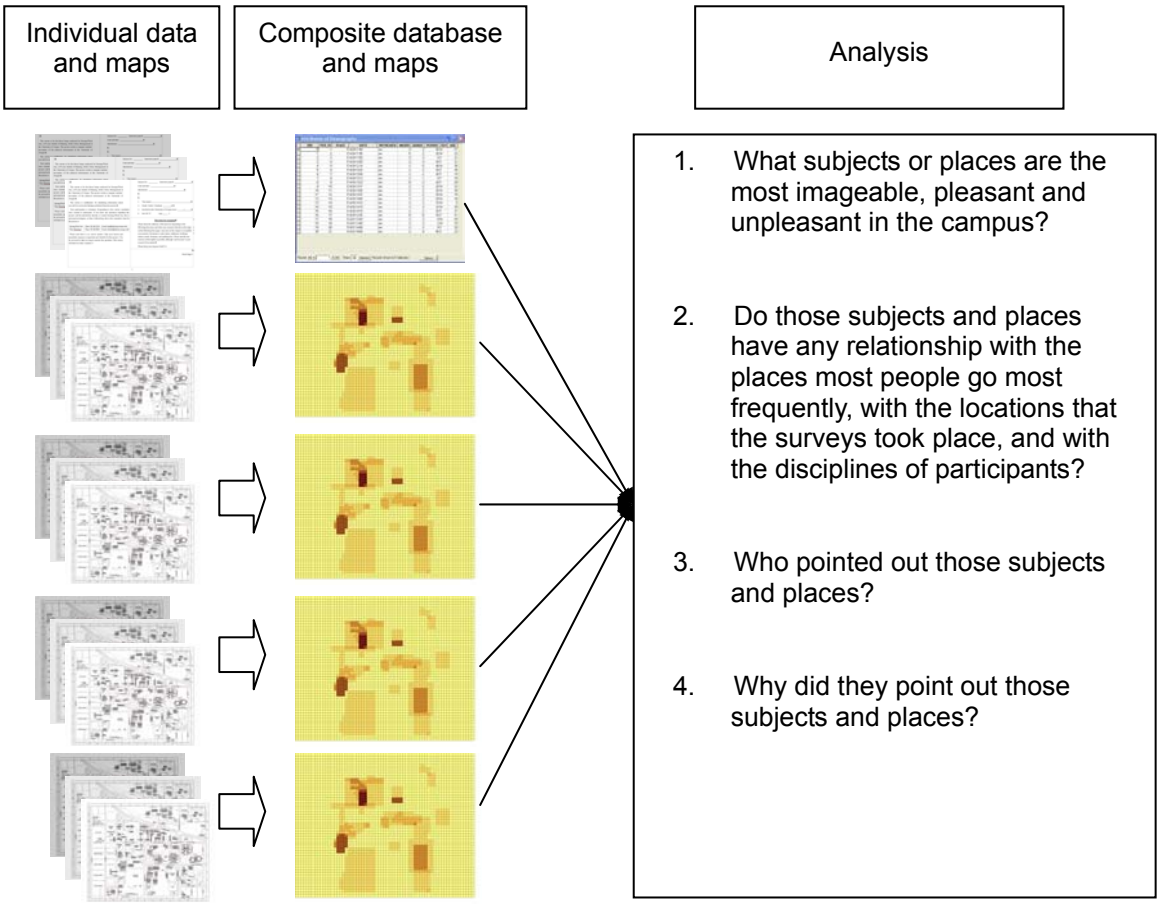

Figure 3.6. Process of Data Processing

2) Coding Demographic Data

To generate the databases and to operate the responses as variables, both the demographic data and the reasons of individuals' specific perceptions were turned into codes. Table 3.3 shows the codes for the demographic data.

Table 3.3. Codes for Demographic Data Input

1. Sex	
Male	1
Female	2
Not Specified	0

2. Place of Survey	
McKenzie Hall	1
Gate at 13th	2
Knight Library	3
Lawrence Hall	4
EMU	5
Hamilton Hall	6
Law Center	7
Hendricks	8

3. Major	
AAA	1
Arts & Sciences	2
Business Administration	3
Journalism	4
Law	5
PPPM	6
Others	7

4. Class Level	
Freshman	1
Sophomore	2
Junior	3
Senior	4
Graduate 1st year	5
Graduate 2nd year	6
Over Graduate 2nd year	7
Not Specified	0

5. Period of Attendance at UO	
Less than 1 Year	1
1 Year	2
2 Years	3
3 Years	4
4 Years	5
Longer than 5 Years	6
Not Specified	0

6. Age	
Under 20	1
20-24	2
25-29	3
Older than 30	4
Not Specified	0

3) Classifying and Coding the Reasons for Perceptions

There were as many reasons for their perceptions as there were respondents. However there were relatively strong similarities amongst their reasons so that they were classifiable to several groups. There seems to be a consensus in their perceptions of a place. The consensus may be concerning an attribute of the place, people, or interaction between the place and people.

a. Places frequently visited

Table 3.4. Classification of Reasons Why People Go to a Specific Place Most Frequently

Examples of Reasons	Classification	Code
- Class. Study. Read. Lab	Study	1
- Work. Department office. - Shopping. Banking. Counseling. - Photo-coping.	Work	2
- Formal meeting	Meeting	3
- Living	Residence	4
- Food. Eating. Measl.	Food	5
- Hang out - Relax - Game - Watch something - Coffee - Meet people - Recreation	Relaxing	6
- Play sports - Work out	Sports	7
- Other responses - Not specified.	Others	9

b. Imageability

Table 3.5. Classification of Reasons Why People Bring Up a Specific Place When They Talk or Hear about the U of O

Examples of Reasons	Classification	Code
- Most classes are there - Place I have spent much time - Place to hang out & eat between classes - Pass by or walk along every day - Department office	Most Frequently Used Place	1
- I ran the track in high school - Attended various social events - It was pointed out on tour before enrolled - The first building that I was introduced to - Orientation - Pay tuition and school fees - have seen it in the news	Special Experiences or Memories	2
- Central spot of campus - The heart of campus - Main building	Geographical Center	3
- Popular place - The place students always hang out - All the student-oriented things happen - Famous among students - Always interesting - Lot of student associations - Social mecca of school - Always interesting with different speakers and bands - Looks like university quad	Social Center	4
- Involving Nike and Mr. Knight - Oregon basketball - Prefontaine Classic - Football - Great track history - The first building of UO - Construction (Negative) - University sign at the gate - Center of academic knowledge - Entrance connecting UO and Eugene - The most expensive building - My aunt's last name	Other Symbols or Historical Significance	5
- Beautiful with combination of buildings and woods - The largest classroom - Pretty - Famous and big - Gorgeous with fir trees, ridgeline view, solitude - Lawn with students on it - Weird to have cemetery on campus	Other Physical Features	6
	Not Specified	9

c. Pleasantness

The numerous reasons respondents had for calling a place pleasant were coded into nine categories referring to Nasar's method of classification. As shown earlier, Nasar has classified the elements of urban likeability into five elements: naturalness, upkeep/civilities, openness, historical significance, and order.[47] All the elements he identified were included in this project. Yet those elements were not enough to cover all the reasons respondents raised. Thus, I put 'order' into the category of 'upkeep' because the frequency of cases was very low, and added 'appearance of built structures', 'function', 'peacefulness', 'activeness', and 'just because'. There is another reason that I put the element 'order' into 'upkeep'. Of course 'order' must be an important element of pleasantness. However, it was very difficult to identify the difference between 'order' and 'naturalness' and between 'order' and 'upkeep' in many cases. A good many respondents reported that certain places were pleasant because old buildings and old tall trees went together harmoniously. In this case, the 'harmony' between buildings and trees must fall into the category of 'order' according to Nasar's classification. However, I put it into 'naturalness' category because I believe the 'harmony' was only possible due to the trees. In cases where respondents reported that a building fit in well with others nearby, I categorized it as 'upkeep' because 'fit well with others' or 'well organized' is associated with 'clean' which belongs under the 'upkeep' category.

Items in this classification and some examples of the items respondents actually reported are shown in Table 3.6.

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[47] Nasar, Jack L. *The evaluative image of the city*, SAGA Publication, 1998, pp 62.

Table 3.6. Classification of Reasons Why People Feel Pleasant at a Specific Place

Examples	Classification	Code
Old & tall trees Flowers Variety of vegetation Nice landscaping	Naturalness	1
Open space Sit by window, read and enjoy the view sometimes Warm Large (huge) grassland Beautiful lawn leading to Library Nice to relax or to suntan Nice place to study and play frisbee Vista- beautiful EMU through the window from Carson at night Nice at night	Openness	2
New building Well organized Clean Well maintained	Cleanness	3
Good looking field Beautiful building and pretty statue Good architecture Classic design of building Nice artwork	Appearance of Built Structures	4
Surrounded by old buildings. Feel history. Deady Hall- Old, beautiful and historic Old buildings	Historical Significance	5
Refresh at Rec Center Nice stadium Good to study	Function	6
Secluded, quiet fountain Comfortable No car	Peacefulness	7
13th Street- Main street in campus Many people walk by Lots of people	Activeness	8
Just because Not Specified	Just Because	9

d. Unpleasantness

Nasar, defining five elements of likeness, argued that the liked areas tend to have the five elements of likeness and disliked areas tend to have the opposites.[48] Thus he did not classify dislikable features. I followed his method of classification for the most part, opposing the elements of unpleasantness against those of pleasantness. However, I discarded 'historical significance' because there was no response indicating 'lack of historic significance' in this survey. I substituted 'congestion' for 'activeness'. In cases where respondents responded that "a building does not fit with other surrounding features," I put this under the category of 'ugly appearance' because in most cases they put the emphasis on the appearance, not on 'disorder'. Indeed, distinguishing 'disorder' from 'ugly shape of building' was not easy in most cases because these two characteristics are intertwined and usually people are confused about which is real reason. Thus, I classified those responses into the 'disorder' category when they stressed a concern about 'fitting with others' instead 'disorder' on case by case basis. In turn, the maintenance issues such as 'too old', 'dark', 'dirty', and etc. were put under the 'disorder' category. In short, in most cases, 'disorder' refers to maintenance, organization, and cleanness while 'ugly shape' refers to structural issues of individual objects. Table 3.7 shows the categories of reasons of unpleasantness and some examples of responses in them.

[48] Nasar. 1998. p 62.

Table 3.7. Classification of Reasons Why People Feel Unpleasant at a Specific Place

Examples	Classification	Code
No Tree Not green	Lack of Naturalness	1
Not open space Too many buildings	Closed	2
Too old Dark (inside and outside) Bad smell Construction Hard to find Not well-kept Trash or dirty Never seem to be used	Disorder	3
Does not fit with surroundings Out of place Too much concrete, cement No character Too huge room. Too tall	Ugly Appearance	4
Too far Have to pay to enter	Inconvenience	5
Scary Unsafe Uncomfortable Depressing Noise	Uncomfortable	6
Careless cars Crowded Congestion	Congestion	7
Just because Not specified	Just because	9

4) The Generation and Operation of Maps

Two kinds of datasets were made: multi-point feature datasets and polygon feature datasets. At first, each raw map was transformed into a multi-point feature data using a transparent plastic grid of 34 columns by 27 rows, each cell of which covered 128 feet by 127 feet in real. Overlaying the transparent plastic grid onto the raw map and

counting the number of cells covering the areas that a participant marked on the map, I inputted the cells into the same grid form, which was polygon features, on the screen. Then each multi-point feature data represents a marked area on each raw map. As the input process is going on, inputted multi-point data overlaps with other previously inputted multi-point data. When the input process has been finished, each cell of the grid contains as many points as respondents marked on the map. When the multi-point datasets join with the demographic database, each data in the demographic database transforms into the attribute of a multi-point feature. These multi-point datasets, which includes demographic attributes, were used for statistical analysis because these datasets could be easily operated as one database with both geographic and demographic data by SPSS, Microsoft Exel, and Microsoft Access.

The polygon feature datasets were made to count the number of points in each cell on the grid and to represent it in the form of maps. The polygon feature dataset could be transformed by union of a multi-point feature dataset with the grid (a polygon feature dataset) which was used for data input. Then, a cell has a value indicating the number of points in it, and the whole area can be represented by cells with various values indicating the number of points in them. Thus, the value of a cell represents the intensity of perceptions, and the maps consisting of cells represent the distribution of perceptions.

Finally, the polygon feature datasets were converted to raster datasets for operation of each dataset and inter datasets. Mean maps were made through the raster operations.

CHAPTER 4

THE CHARACTERISTICS OF STUDENTS' PERCEPTION

1. Overview

From the survey and the maps several interesting facts were identified. First, the objects most respondents pointed to were consistent with the five elements of an image Lynch had suggested. According to the survey, most of respondents pointed to centers, buildings, open spaces or landscapes, vista points, roads, statues, and fountains. Among those, specific buildings, vista points, statues, and fountains are considered as 'landmark' according to the five elements of an image. Open spaces and certain landscapes are interpreted as 'districts' in the five elements. When students point to a certain road, the road can certainly be substituted with 'path'. A majority of respondents thought of the EMU as the center of campus, both physically and socially. This can be taken as evidence that 'nodes' are truly an element of image as Lynch suggested. Respondents also identified 'edges'. For example, some noticed that "the wall of Lawrence Hall, viewed from Franklin Blvd., is plain," and another observed that "the wire fence between the bakery off campus and Hamilton Hall is ugly."

Second, the meaning of a place plays a very important role in people's memorization of a place, and, furthermore, there seems to be a common meaning people perceive from a place or an object. Lynch also emphasized the role of meaning in image

perception, but he excluded it from the objectives of his study. Whatever his reasons were, the fact this survey has shown is that people usually memorize an object with specific meanings attached, which are sometimes very unique to the individual and sometimes common with a group of people. The stronger meanings they have, the clearer and sharper the images are. For example, the EMU is not an outstanding building; it is only the geographical center of campus in the sense of physical structure. However, the EMU houses the offices of many student organizations and unions and other facilities such as meeting rooms, cafeterias, areas and sofas for rest, a ticketing booth, and so on. Due to these facilities and multi-functional structure, students gather there and it becomes a social center to the point that it remains a strong image in students' memories. Another example is Oregon Hall. The Oregon Hall is a really common building located in the north-east part of campus. It houses the office of the registrar and international students. A number of people memorize this building by way of memories which are very individual, but common in a sense. They have memories of it, such as "the place they met an English advisor at their very early days in the university" or "the place they pay tuition and fees." Some students bring up the cemetery first when they think about the University of Oregon because it is "weird that the university has a cemetery on campus." These examples may not be explainable when image perception is separated from meaning.

Another interesting phenomenon is that many people feel pleasant or unpleasant at a specific place without any reason. In many cases, respondents did not specify the reasons why they like or dislike the places they marked on the maps. These cases may be interpreted as the respondents feel pleasant or unpleasant at certain places but found it

hard to specify the reasons. It also was observed at the survey sessions that people sometimes select a place unconsciously. Even after they marked a place on the map easily, many respondents posed for a while to think of why they chose the place. This means that human's responses to an environment are not always explainable. In many cases, they may be somewhat unconscious.

2. Most Frequently Visited Places in Campus

The discovery of the most frequently visited places is not the major object to be analyzed in this research project, but it was surveyed for comparison with other perceptions of campus. Thus, I will limit the discussion of this subject only in summarizing the results of the survey. Figure 4.1 shows the places people go most frequently.

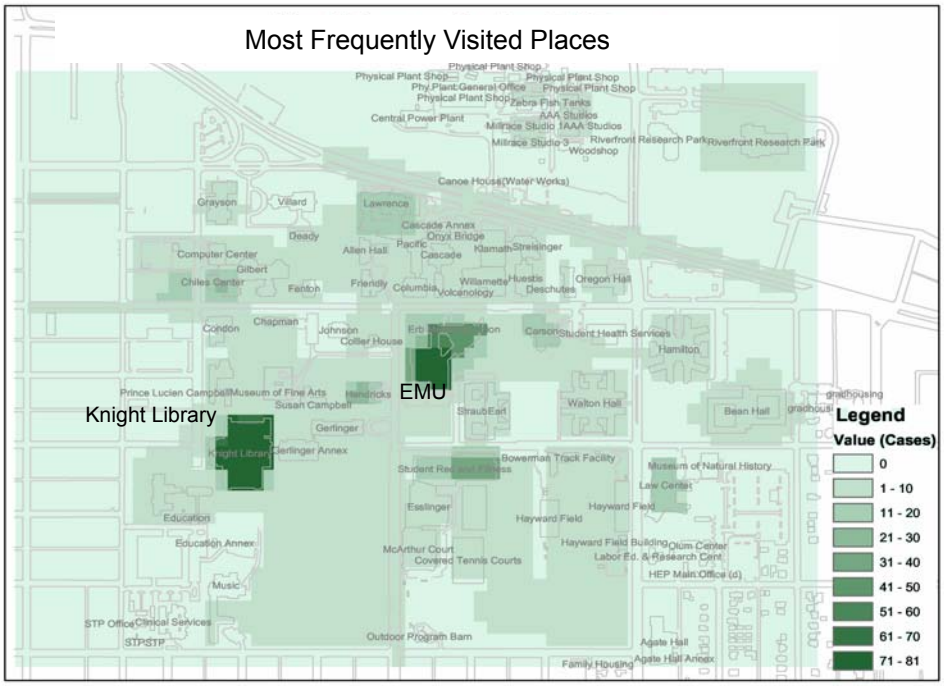

Figure 4.1. Map of Frequently Visited Places

The first place students visit most frequently is the EMU, in 83[49] out of 450 cases. As shown in Figure 4.2, their main reasons for going there were to relax (29.7%), eat (20.7%) and study and read (20.7%). The next most frequently visited place is the Knight Library, which was marked in 78 cases. It is no wonder that the main reasons students go there is to study (81.9%). The third place students pointed out as their most frequently visited place is the Student Rec Center, which was marked in 37 cases. The major reason here, of course, is for exercise (81.1%) and relaxing. Following these three places, the next most frequently visited places are the Hendricks Hall (21 cases), the quad in front of Chiles Hall (21), and the Law Center (20 cases). However, these places serve as local gathering places rather than general gathering places like the above three places.

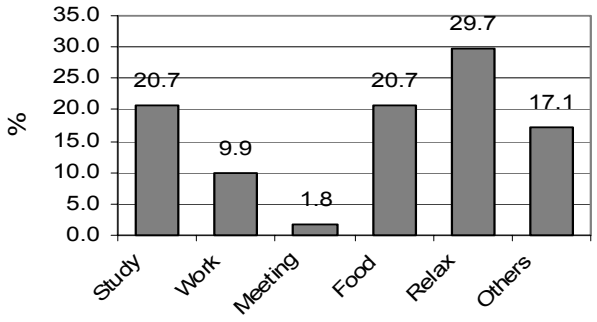

Figure 4.2. Reasons People Go EMU

[49] This number is a little bit higher than that shown at the Figure 4.1. That is because of the difference in the number of cells considered. That is, the number 81 at the Figure 4.1 represents the frequency of cases in a specific cell which was pointed to most frequently by students, and the number 83 represents the number of cases pointing out the entire EMU building, which contains 21 cells. The cases pointing to other cells in the EMU area but not the cells included in 81 are included in the number 83.

3. Imageablity

1) Overview

The places that respondents pointed out responding to the survey question "What physical element or place do you associate first when you hear or talk about University of Oregon?" are, in descending order, the EMU, the Hayward Field, the Knight Library, the gate at 13th street, the junction of 13th street and University St., and 13th Ave. between the gate and the junction. From the Figure 4.3 and Figure 4.4, it is identifiable that the EMU and the amphitheater in front of it, as whole, is the dominant image of the University of Oregon.

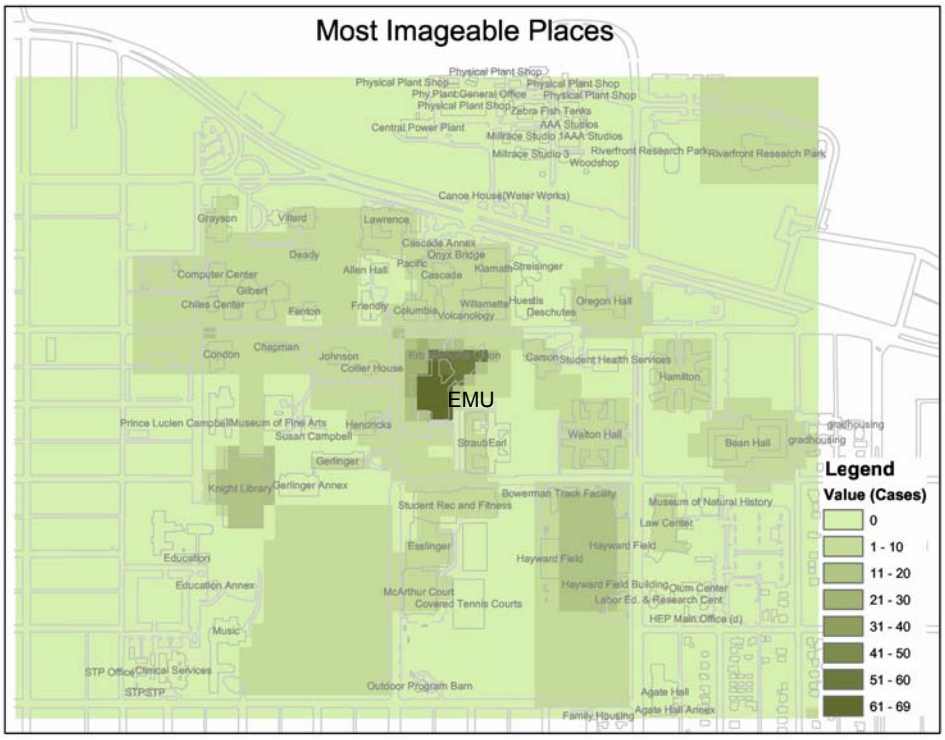

Figure 4.3. Imageability Map

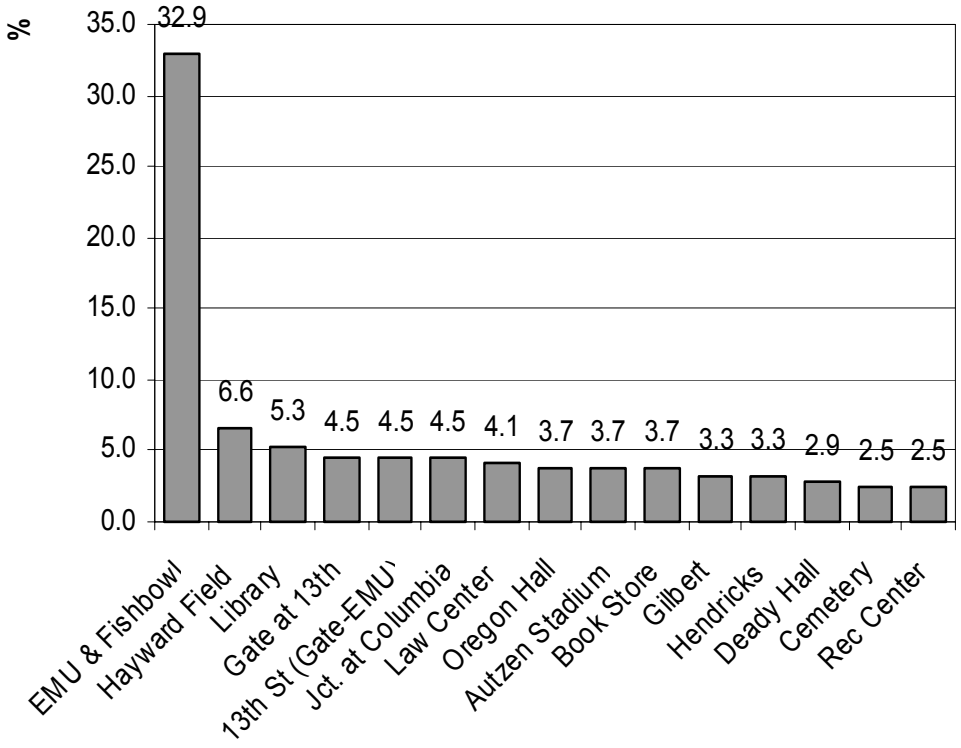

Figure 4.4. Most Imageable Places

2) Characteristics of Image Perception

Respondents' rationales for the places that come to mind when they talk or hear about the University of Oregon were classified into seven categories. The analysis of these reasons shows that most of the students bring up the places they have been using most frequently (27.6%) and the places they think of as the physical (13.4%) or social center (19.1%) of campus (Figure 4.5).

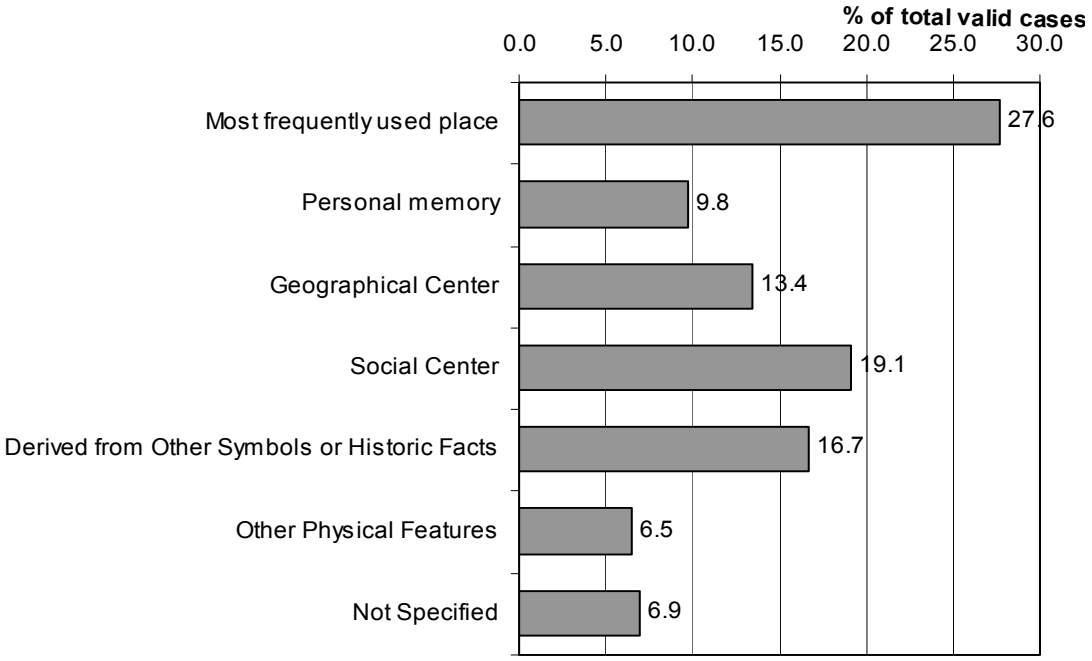

Figure 4.5. Reasons Places Are Imageable

Figure 4.5 also shows that 32.5% of the respondents bring up a place because it is the center both geographically and socially. This implies that image of a place can be strengthened when it has central characteristics. This is the case with the EMU. Respondents responded that they recall the EMU first when they talk or hear about UO because it is a social center (33.3%), geographical center (29.8%) of campus or the place where they use most frequently (16.7%) (Figure 4.6).

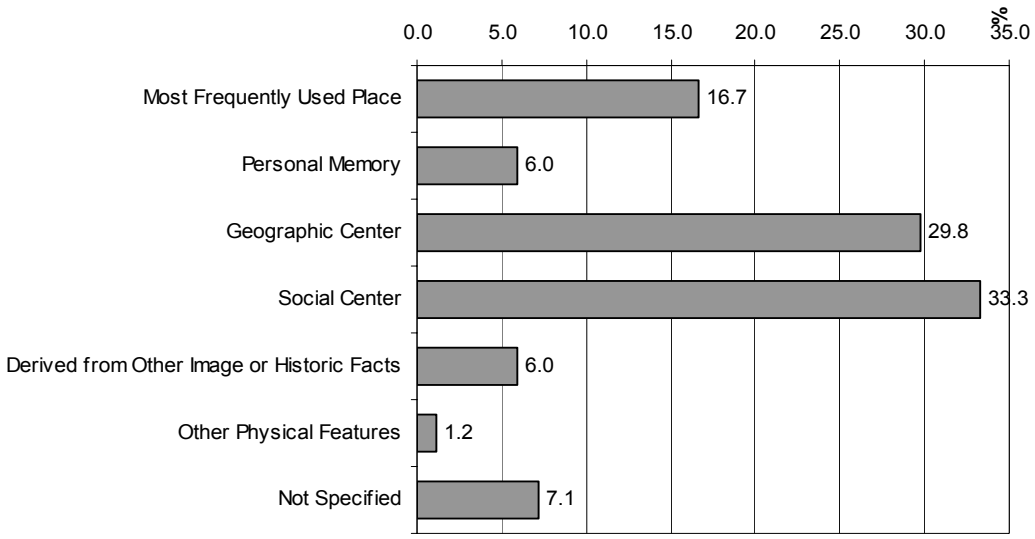

Figure 4.6. Reasons EMU is Most Imageable

Other reasons for strong imageability include knowing a place through mass media, especially through TV, a movie or novel. Also, it may be strongly imageable if a place is very famous, or has significant historic characteristics. According to imagiability analysis, 16.7% of respondents reported that they chose an object as most imageable because they had seen the place on TV, a movie was shot there, a world widely famous athlete ran the track, or the track was very famous amongst coaches and athletes. This was particularly the case with the Hayward Field, where ten out of the sixteen students who pointed it out as their image of campus brought up its historic significance and fame (Prefontaine Classic) as the reasons for choice.

The characteristic differences in image perception between sexes also have been identified. Women tend to bring up a center, either physical or social, while men tend to bring up a place that has an image derived from other symbol, story, or historic fact

(Figure 4.7). Figure 4.8 shows the differences between the sexes in image perception of the three significant places.

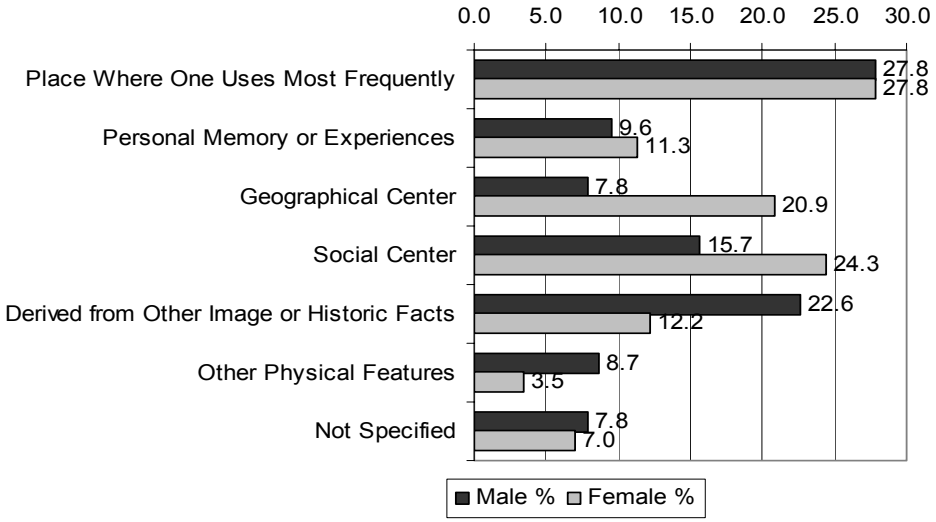

Figure 4.7. Comparison of Image Perception between the Sexes

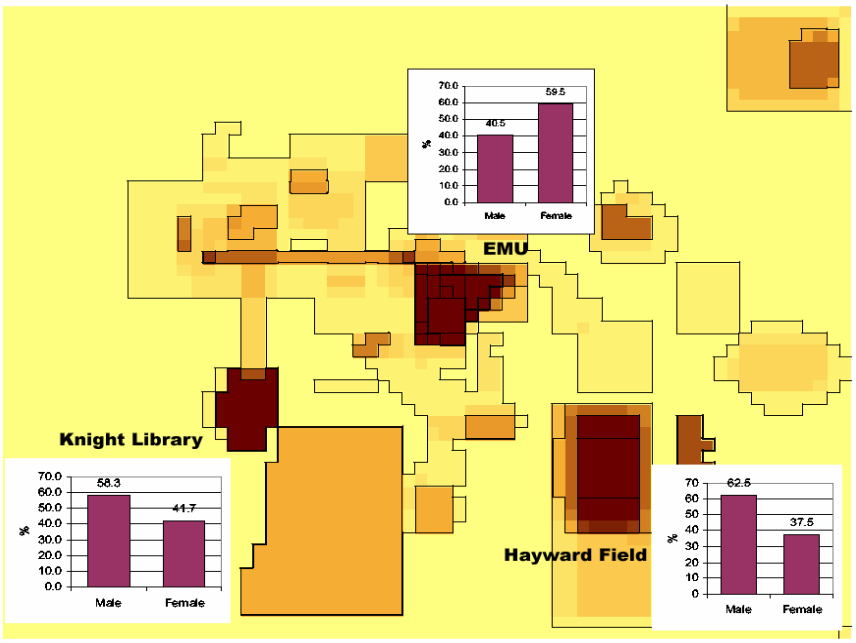

Figure 4.8. Differences in Image Perception between the Sexes

3) Most Imageable Places by Reasons

Figure 4.9 to Figure 4.14 represent most imageable places where respondents chose for certain reasons. As shown above, the EMU is dominant in the respect of the place most frequently used by students and as the central spot on campus in both a physical and social sense. The image of the place one most frequently used or visited seems to be very strong for a person. In addition to the EMU, the Knight and Law Libraries and the buildings housing classrooms and department offices are prominent. The EMU, along with Oregon Hall, is also dominant in the sense of personal memories and experiences. The respondents who chose the EMU reported it as the place where orientation was held, the place they had met someone before they attended the university, etc. The respondents who chose Oregon Hall reported this was the place they, likely international students, met ESL counselors in their very early days on campus. Quite a few respondents even reported that Oregon Hall was the place they had to pay their tuition (negative image). Autzen Stadium was chosen mainly because of the famous football team, and Hayward Field, as shown above, was chosen mainly because of the Prefontaine Classic and the history of the track. The places selected for other physical features make reference to feelings of pleasantness or unpleasantness, but mainly pleasantness.

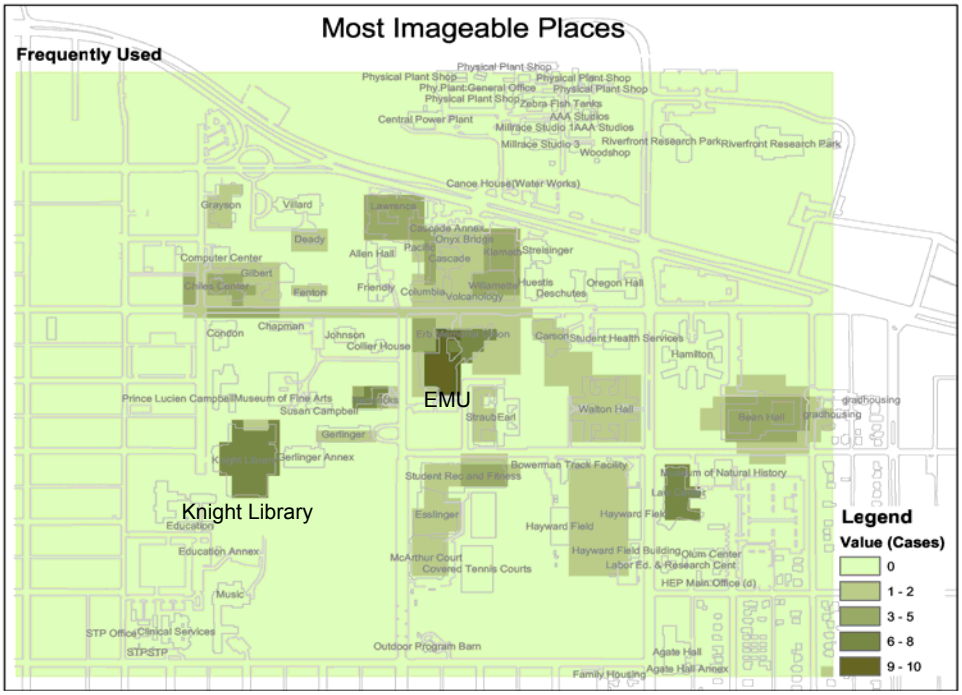

Figure 4.9. Places People Recall Because of Frequent Use

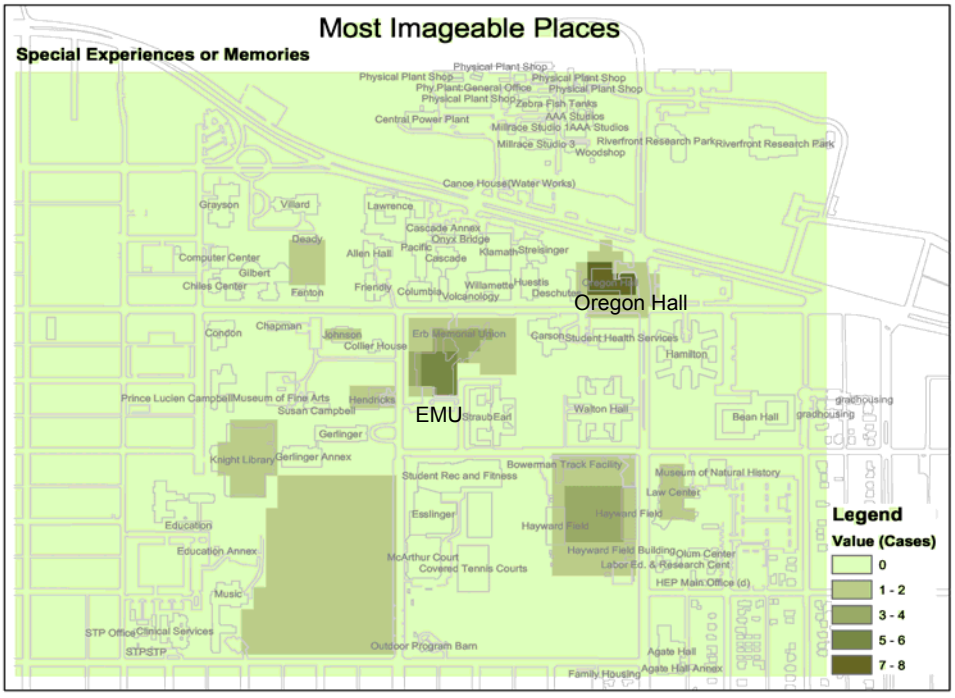

Figure 4.10. Place People Recall Because of Special Experiences or Memories

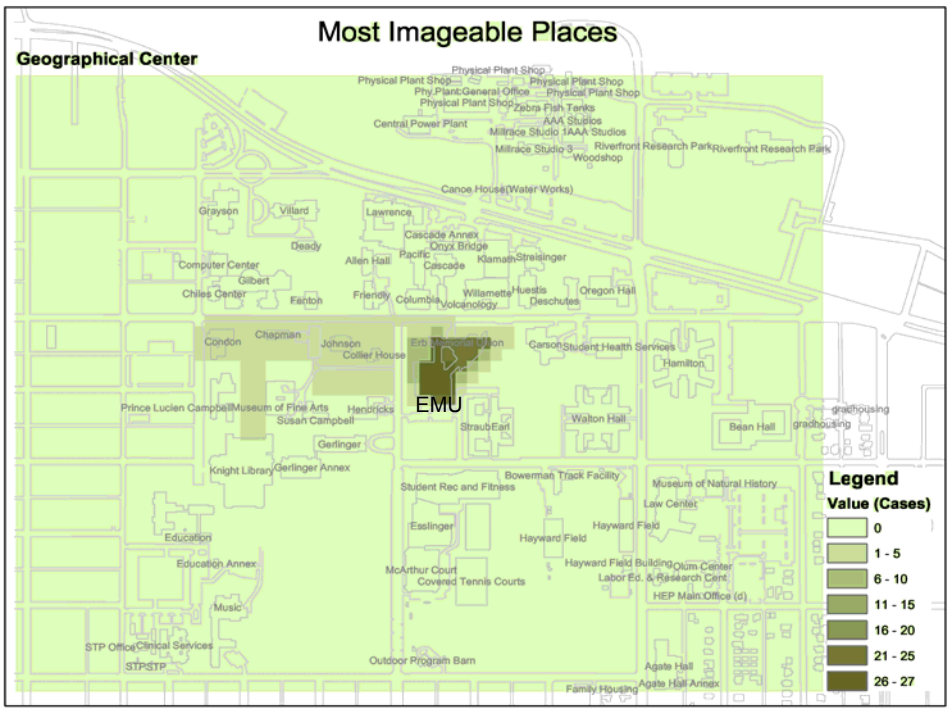

Figure 4.11. Places People Recall Because They Are Geographical Centers

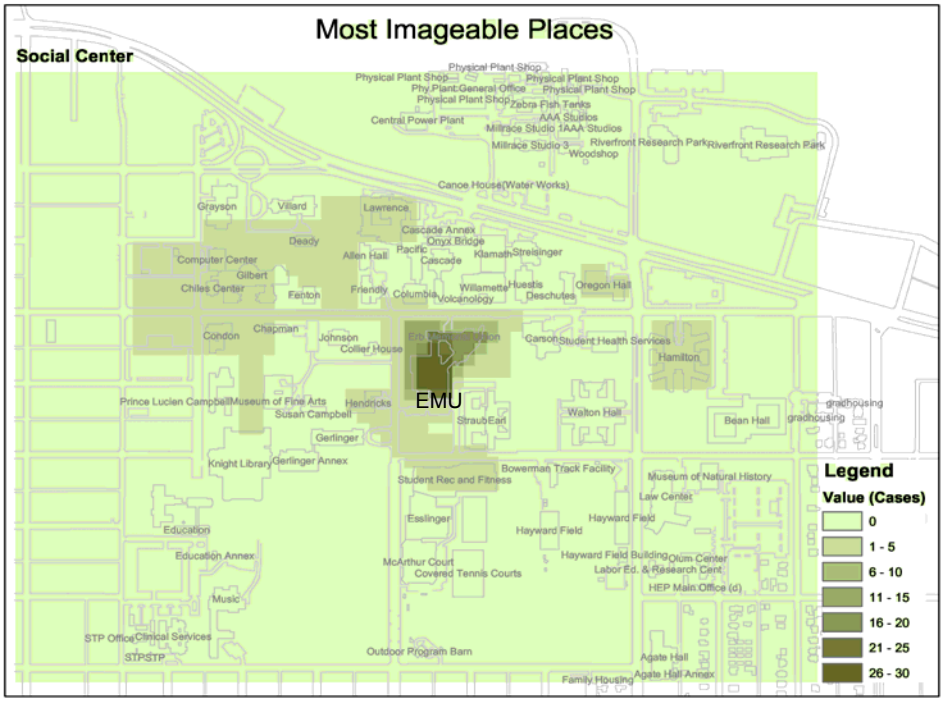

Figure 4.12. Places People Recall Because They Are Social Centers

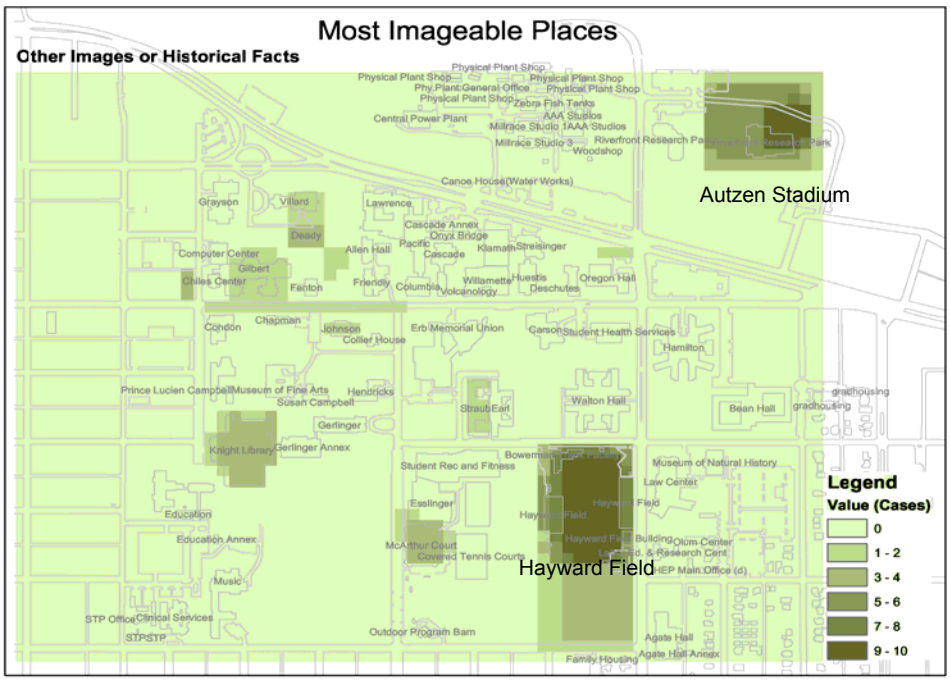

Figure 4.13. Places People Recall Because of Other Images or Historical Facts

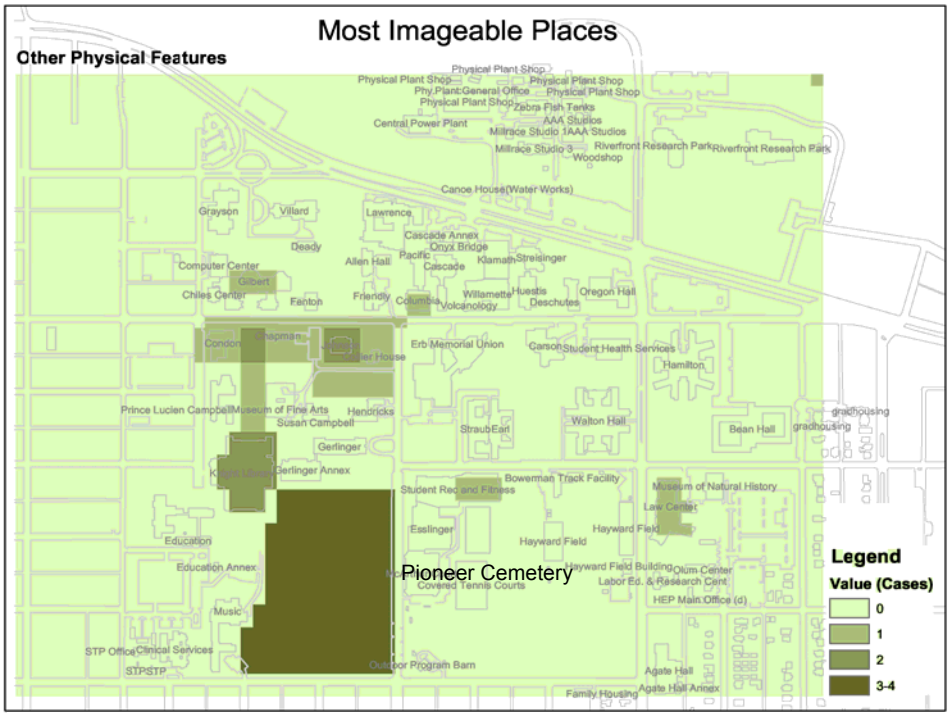

Figure 4.14. Places People Recall Because of Other Physical Features

4. Images of Pleasantness

1) Overview

According to the survey, as shown in Figure 4.15, the most pleasant place on the University of Oregon campus is the Memorial Quadrangle, the lawn stretching from 13th Ave. to Knight Library. In response to the survey question, "Please draw the outlines of two places or physical subjects you consider the most pleasant visually in the area shown on the map (campus area)", of 250 respondents, 60 persons (24.0%) pointed out that lawn as the most pleasant place on campus. The second most pleasant place was the Old Campus Quadrangle, the lawn between Allen Hall and Deady Hall (57 cases, 22.8%). Ranking after the Old Campus Quadrangle, were the Knight Library (46cases, 18.4%), the EMU and Amphitheater (38 cases, 15.2%), the Pioneer Cemetery (27 cases, 10.8%), Willamette Hall (26 cases, 10.4%), Deady Hall (26 persons, 10.4%), the lawn behind Hendricks Hall (24 cases, 9.6%), the Law Center (24 cases, 9.6%), Vallid Hall and surrounding area (19 persons, 7.6%), the lawn between the EMU and Carson Hall (16 persons, 6.4%), and 13th Ave. (14 persons, 5.6%). Figure 4.16 shows nine major places where people feel pleasant in a bar chart.

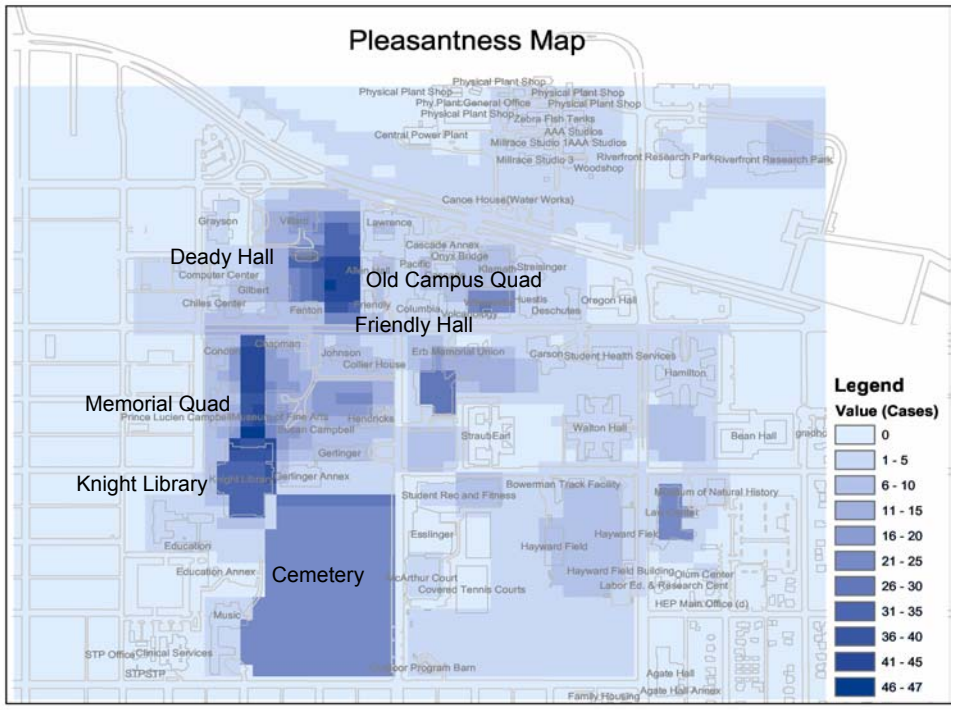

Figure 4.15. Pleasantness Map

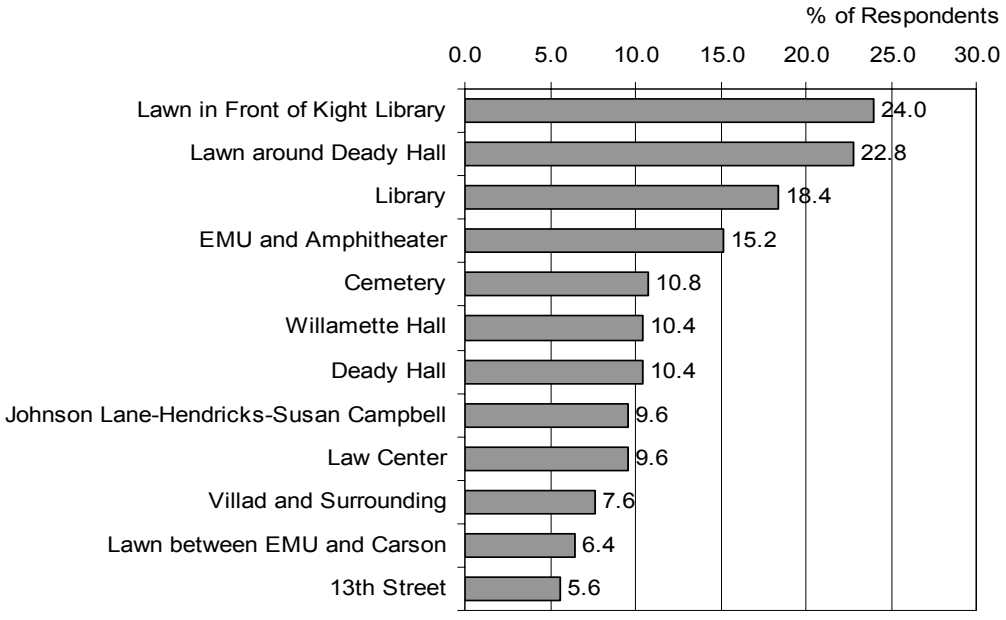

Figure 4.16. Most Pleasant Places on Campus

2) Elements of Pleasantness

Distribution of the categorized reasons is shown at Figure 4.17. Figure 4.17 shows that the most important element of pleasantness for students is the 'appearance of built structures' including buildings, fountains, statues and other artworks (23.4%).

'Naturalness' follows right behind 'appearance of built structures' tallying 22.7%. For students, 'openness' is another important element that adds pleasantness to a place. The majority of what 'openness' consists of is grassy fields. Very many respondents report they like to suntan, play frisbee, read, sit around and socialize with friends on the grassy fields. Many respondents also report they feel pleasant when they are watching other people doing those things on the grass, and some respondents report they feel pleasantness only when they look at the green grass. Other elements - activeness (8.1%), peacefulness (7.2%), function (7.2%), historical significance (6.6 %), just because (6.4%), and cleanness (1.9%) - were observed, too.

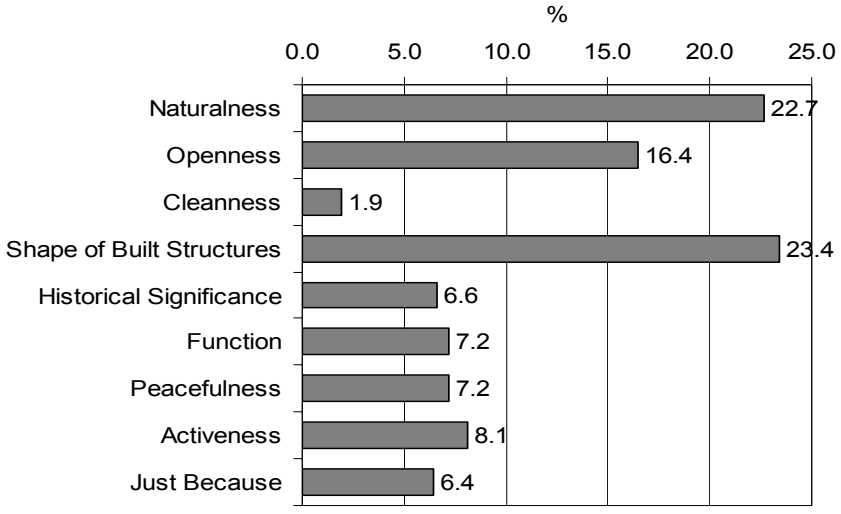

Figure 4.17. Distribution of Reasons for Pleasantness

3) Characteristics of Pleasantness Perception

The result of the survey shows men are more influenced than women by historical significance (male: 7.7%, female: 4.6%) and function (male: 8.4%, female: 6.2%) while women are more influenced than men by activeness (male: 5.4, female: 11.2%) and peacefulness (male: 6.1%, female: 8.1%). Historical significance is a more influential factor for man than for women, as shown in the previous section of this paper. Hence, it is not hard to believe that men are more sensitive than women to historical significance. The result concerning activeness and function is a bit less expected because the idea that men are likely to be more active than women and women are more likely to be more function-oriented is generally accepted.

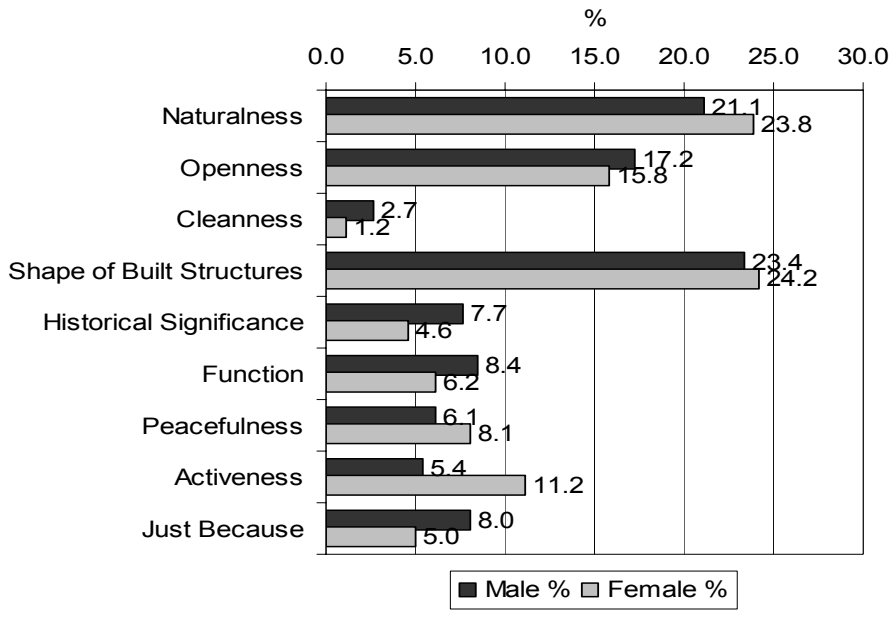

Figure 4.18. Distribution of Reasons for Pleasantness by Sex

However, this may be interpreted as:

> The ‘activeness’ here covers ‘enjoying someone’s act’, and the ‘function’ covers ‘doing something themselves’. What is generally known is that men tend to act themselves and women tend to enjoy other’s acts or performances.

Thus, this result of the survey is coincident with what is generally accepted: men usually like the places functioning well so that they can do something there (‘function’), and women usually like the places where various events are happening for them to watch and enjoy (‘activeness’). This tendency may be connected to the relation between ‘openness’ and ‘peacefulness’. Figure 4.18 shows men like ‘openness’ that is ‘dynamic’ while women like peacefulness which is ‘static’ such as ‘private’, ‘secluded’, and ‘calm’. An example of this tendency can be found in the choice of the Memorial Quadrangle and the Old Campus Quadrangle.

The Memorial Quadrangle, the lawn in front of Knight Library stretching to 13th Ave. is a wide open lawn without trees so that people, especially men, can play frisbee or do other activities, while the Old Campus Quadrangle, lawn between Deady Hall and Allen Hall, provides a more secluded and private atmosphere with lovely benches under many old and huge trees. According to the survey data, among the 33 people who like the Memorial Quadrangle, 18 are men and 15 are women. In turn, in the case of the Old Campus Quadrangle, 6 out of 16 people who like it are men while 10 are women. Though the number of cases is too small to generalize this tendency, this example may be at least a hint of this tendency.

Age also influences the pattern in which people choose the most pleasant places. Figure 4.19 shows that older people like naturalness and historical features more than younger people, while younger people are more sensitive to the appearance of building than older people. It also shows that older people like a more peaceful environment than younger ones, while younger people like a more active environment than older ones. In total, older people tend to prefer a static environment, while younger people tend to prefer an active environment.

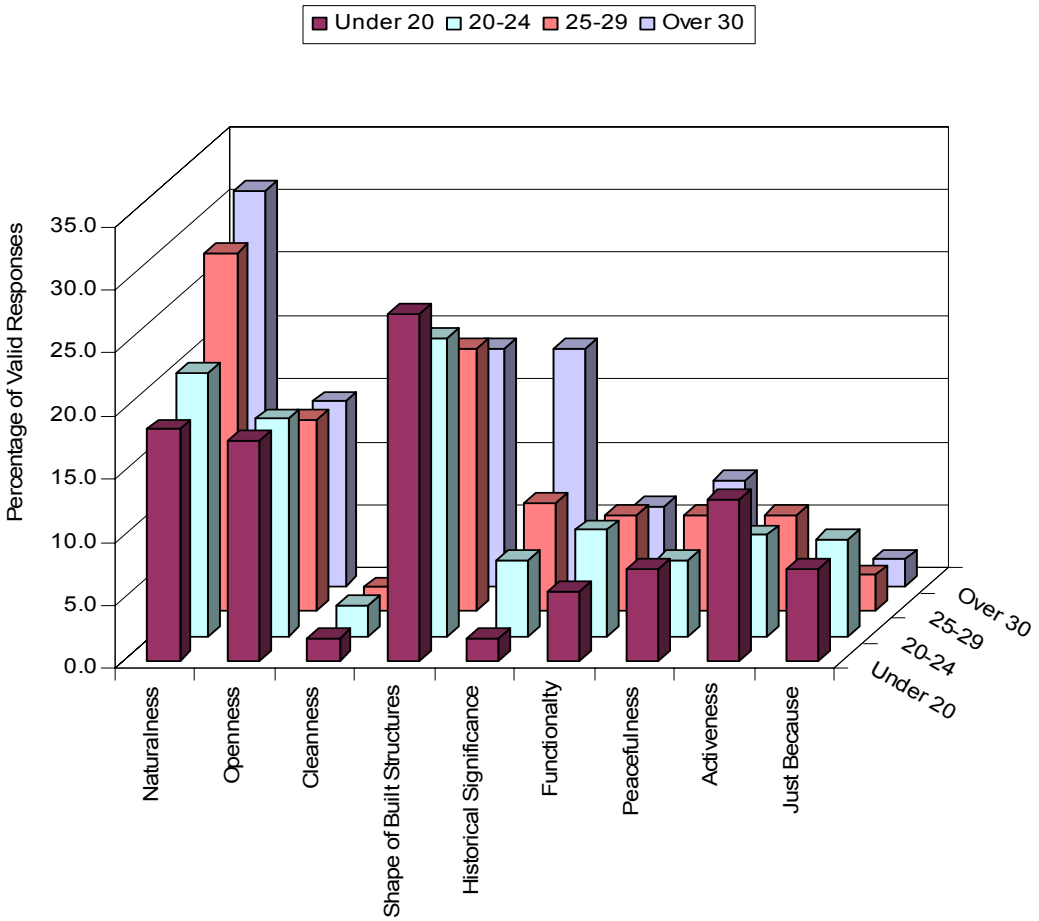

Figure 4.19. Distribution of Reasons for Pleasantness by Age Range

4) Pleasant Images of the University of Oregon

According to Figure 4.20, most pleasant places, in terms of naturalness, are 1) the Old Campus Quadrangle surrounded by Fenton, Deady, Allen, and Friendly Halls, 2) the open space surrounded by Hendricks, Susan Campbell, and Johnsonlane, 3) the Pioneer Cemetery. These three places have overgrown huge trees, and the shade of a tree canopy which provides some good and comfortable rest areas.

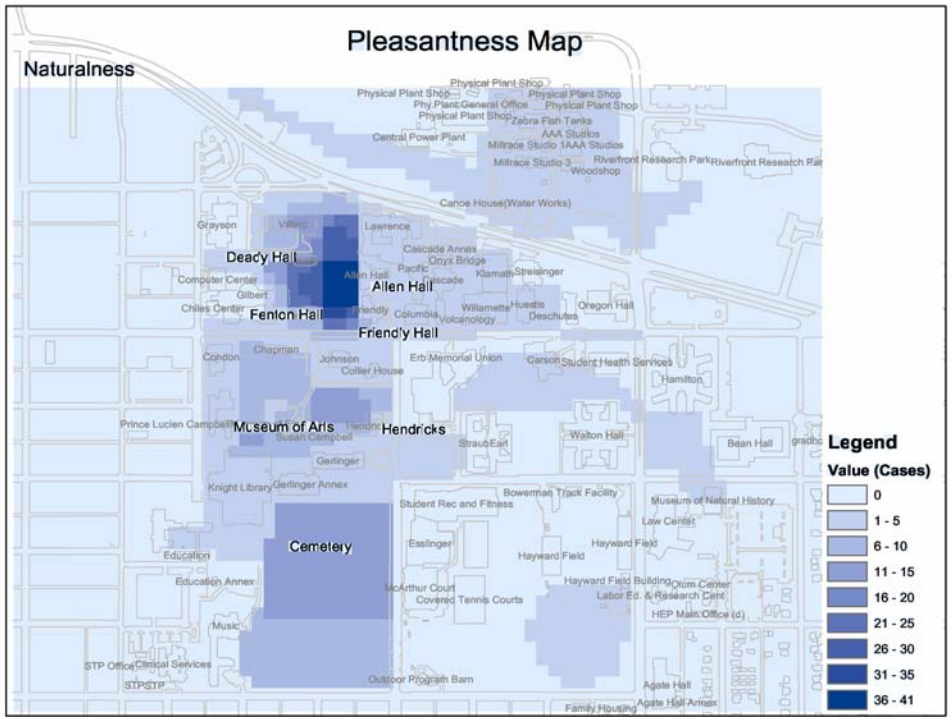

Figure 4.20. Pleasant Places Because of Their Naturalness

The Old Campus Quadrangle is an especially unique place with old trees and old historic buildings including Deady Hall, which is the first building built on campus. It

also has benches on the green grass. Many respondents reported they like there because of the old, huge trees and benches in their shade (Figure 4.21).

Figure 4.21. Old Campus Quadrangle
Photograph by Byoung-Wook Jun

The Cemetery is a more unique place, in a sense. This place is not the property of the University, but I included it into the study area because this area was 'on campus' and students might have some perceptions of it. This area also has a lot of huge trees on it and they provide a calm and peaceful environment. Because of this environment, many respondents pointed out this place as the most pleasant. However, almost the same number of respondents pointed to this area as the most unpleasant place. They complained that they did not like this area because of the stories about the graves. This may be explained by

Figure 4.22. Cemetery
Photograph by Byoung-Wook Jun

the meaning of the place. That is, the former who liked this area saw the natural features while the latter, who disliked this area, imagined the meaning of the place (Figure 4.22).

From Figure 4.20, the Cemetery, the open space surrounded by Hendricks, Gerlinger, Susan Campbell, and Johnson Halls (Gerlinger Hall Axes), and the Old Campus Quadrangle make up a green corridor. This corridor also can be identified in the aerial photo (Figure 4.23). The Campus Tree Plan, created by the Campus Planning Committee in 2001, emphasizes that the corridor from "The Pioneer Mother" through the Johnson Hall lobby to "The Pioneer" and the view north to the Millrace and the river should be preserved.[50]

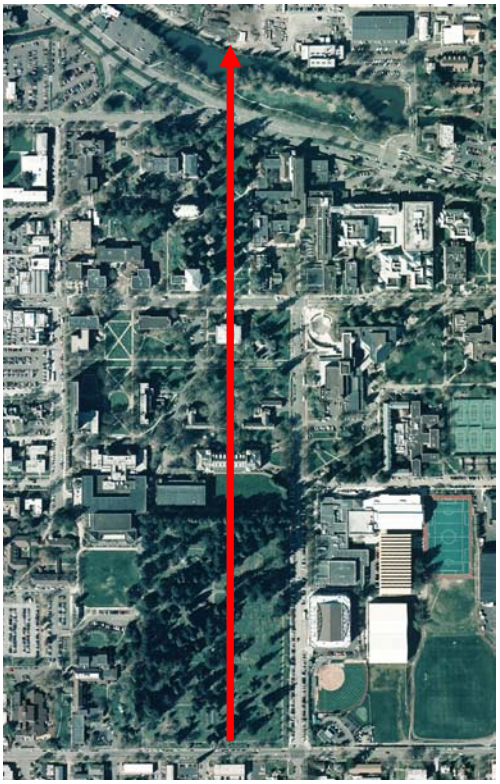

Figure4.23. Aerial Photo Showing the Green Corridor
Source: UO Map Library

Figure 4.24 is showing the places where students feel pleasant because of the openness. Four areas are dominant: 1) the Memorial Quadrangle, 2) the Old Campus Quadrangle, 3) the open space behind Hendricks, and 4) Humpy Lumpy Lawn, which is surrounded by Hamilton, Walton, and Bean.

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[50] *University of Oregon Campus Tree Plan*. Campus Planning Committee. October, 2001. p 26. http://darkwing.uoregon.edu/~uplan/TreePlanFull.pdf, 5/20/2003.

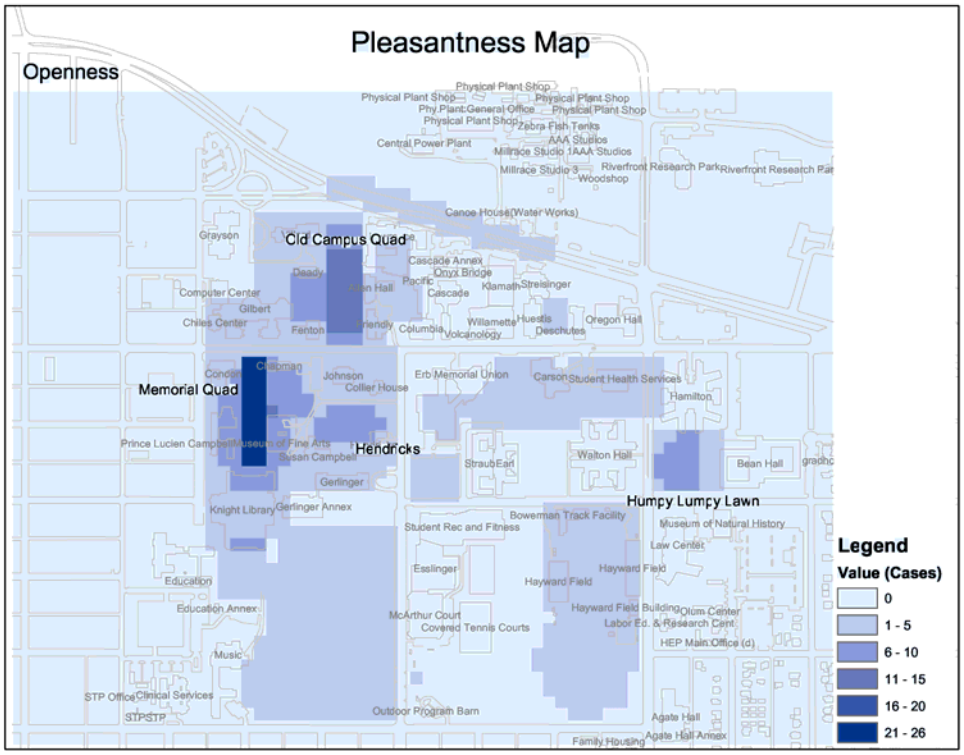

Figure 4.24. Pleasant Places Because of Their Openness

Differently from the Old Campus Quadrangle, the Memorial Quadrangle stretches from 13th Ave. to Knight Library between Chapman and Museum of Art on the left and Condon and PLC on the right. It is a wide open lawn without trees or other obstacles in it, but it is surrounded by the buildings listed above and enough tall trees to feel natural. Many respondents replied in the survey that they enjoyed sun tanning or playing frisbee on green grass. Thus, this area seems to be more active while the Old Campus Quadrangle is more static (Figure 4.25).

The open space surrounded by Hendricks, Susan Campbell, and Johnsonlane offers a very comfortable resting space by providing a similar environment to the Old Campus Quadrangle with plenty of old trees. Humpy Lumpy Lawn, surrounded by Walton, Hamilton,

and Bean which are dormitories for young single students, provides a bit more active and liberal space to the dwellers of those dormitories, similar to the Memorial Quadrangle.

Figure 4.25. The Memorial Quadrangle Viewed from 13th Ave. toward the Library
Photograph: Byoung-Wook Jun

Figure 4.26 shows the places students evaluated as the most well-maintained and clean. However, the number of individuals that chose upkeep as most pleasant feature was only nine. Thus, it may not be reliable to generalize this result. Yet, this result may indicate their perception of the cleanliness of the Law Center with its simple and relatively new (Figure 4.27).

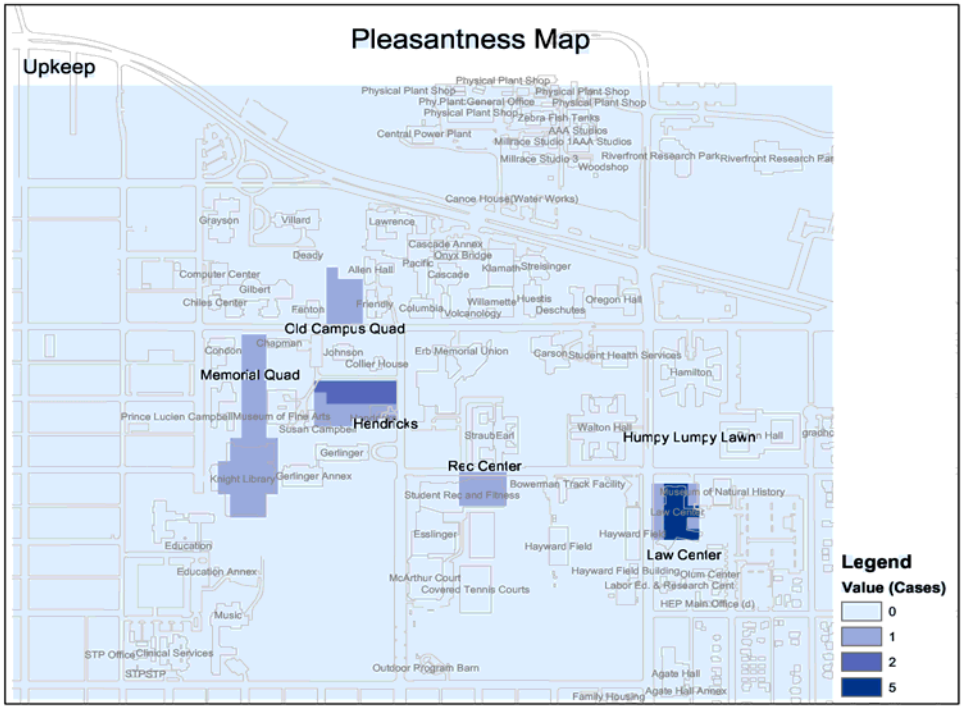

Figure 4.26. Pleasant Places Because of Upkeep

Figure 4.28 shows the places respondents chose as the most pleasant because of appearance. In this category are 1) Willamette Hall, 2) Knight Library, and 3) the Law Center included.

Figure 4.27. Knight Law Center
Photograph by Byoung-Wook Jun

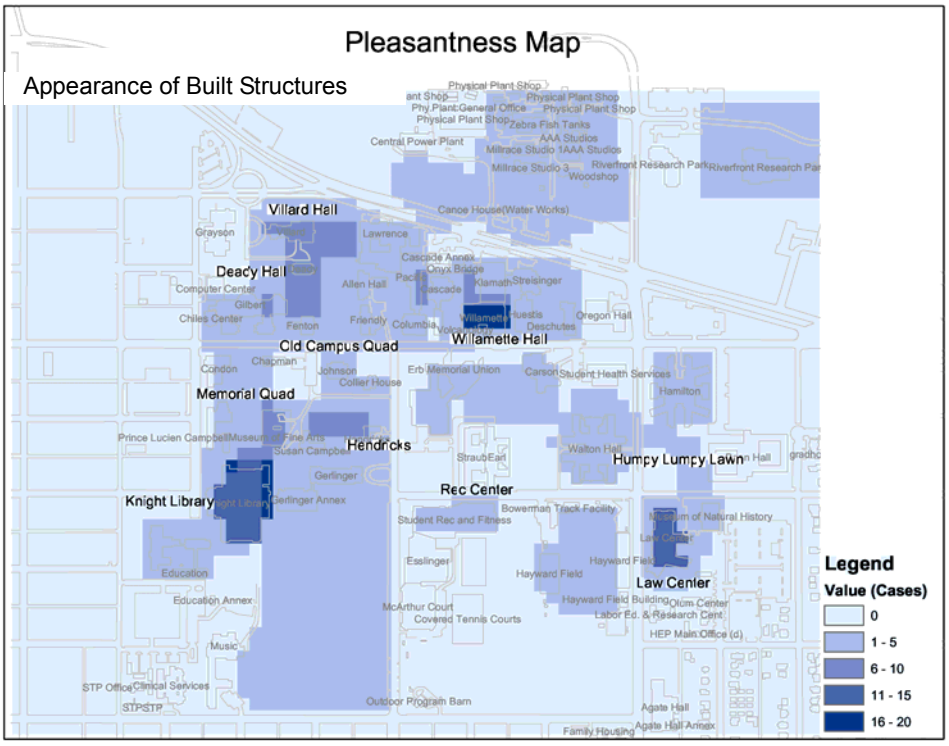

Figure 4.28. Pleasant Places Because of the Appearance of Built Structures

Willamette Hall contains the four-story Paul Olum Atrium.[51] While many students pointed out this building as most pleasant, some other students dislike this building because of this Atrium. This is another example where there can be different perceptions of the same object depending on culture and way of thought (Figure 4.29).

Figure 4.29. Willamette Hall
Photograph by Byoung-Wook Jun

Knight Library, designed by Ellis F. Lawrence, was built in 1937[52]. According to the Web site of the Library, "The Knight Library preserves the beauty of Lawrence's original design" in spite of twice expansions and interior renovation [53] (Figure 4.30).

Figure 4.30. Backside of Knight Library
Photograph by Byoung-Wook Jun

Figure 4.31 shows the places students like because of their historical significance. This category includes Deady Hall and the

[51] http://anniversary.uoregon.edu/tour/frameindex.html; 5/21/2003

[52] http://anniversary.uoregon.edu/tour/frameindex.html; 5/21/2003

[53] http://anniversary.uoregon.edu/tour/frameindex.html; 5/21/2003

surrounding area. Deady Hall, opened in 1876, is the university's first building. "This building is included in the National Register of Historic Places and is a National Historic Landmark."[54]

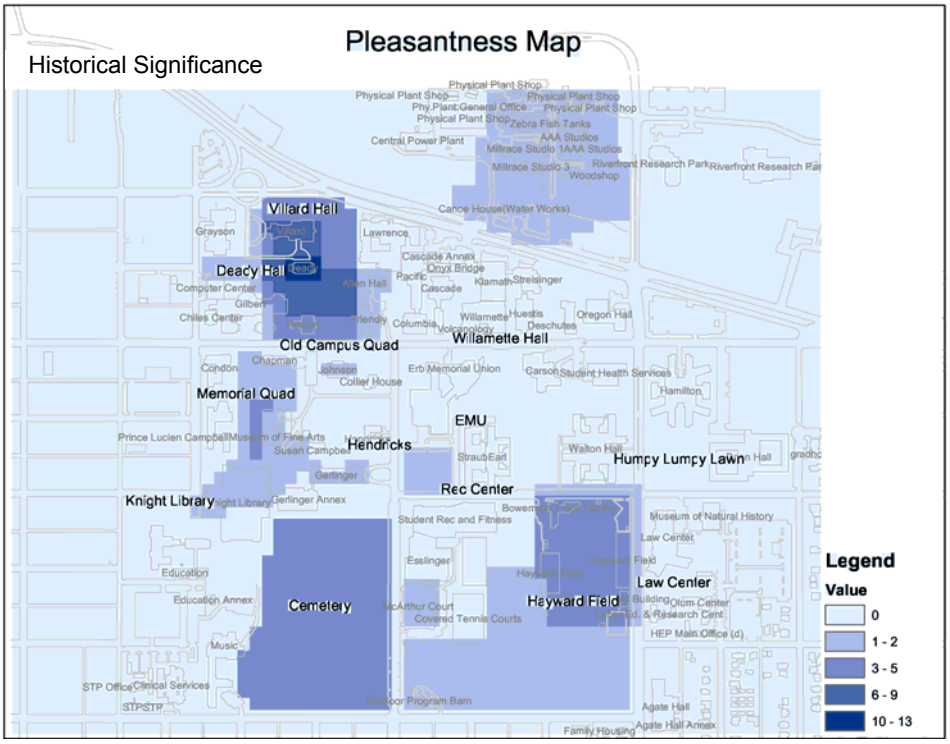

Figure 4.31. Pleasant Places Because of Historical Significance

It is surrounded by plenty of old, big trees. "The European linden located east of Villard Hall, the big-leaf maple near the southeast corner of Deady Hall, and the threadleaf Japanese maple near 13th Avenue northeast of Johnson Hall" have been designated by the Long Range Campus Development Plan (LRCDP) as trees with special significance.[55],[56],[57]

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[54] *Ibid*.

[55] http://darkwing.uoregon.edu/~uplan/LRDPPlantext.html#eight

Figure 4.32 shows the places students feel pleasant because of function. The places students are satisfied in function are 1) Knight Library and 2) EMU.

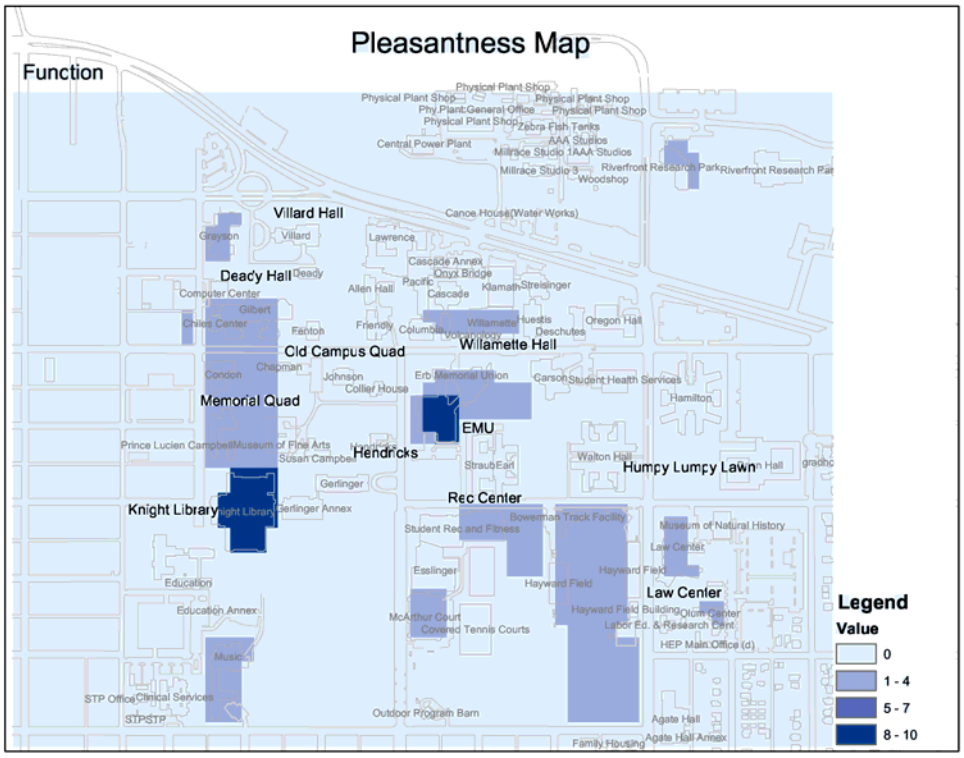

Figure 4.32. Pleasant Places Because of Function

Figure 4.33 shows the places students feel pleasant at because of peacefulness. In this category are 1) the Cemetery, 2) the lawn behind the Hendricks, and 3) the Old Campus Quadrangle. Since the characteristics of these places are discussed earlier in this section, I will abridge further explanation of these places.

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[56] http://darkwing.uoregon.edu/~uplan/graphic%20elements/album/LRCDPmap5.jpg

[57] *University of Oregon Campus Tree Plan*. Campus Planning Committee. October, 2001. p 26. http://darkwing.uoregon.edu/~uplan/TreePlanFull.pdf, 5/20/2003.

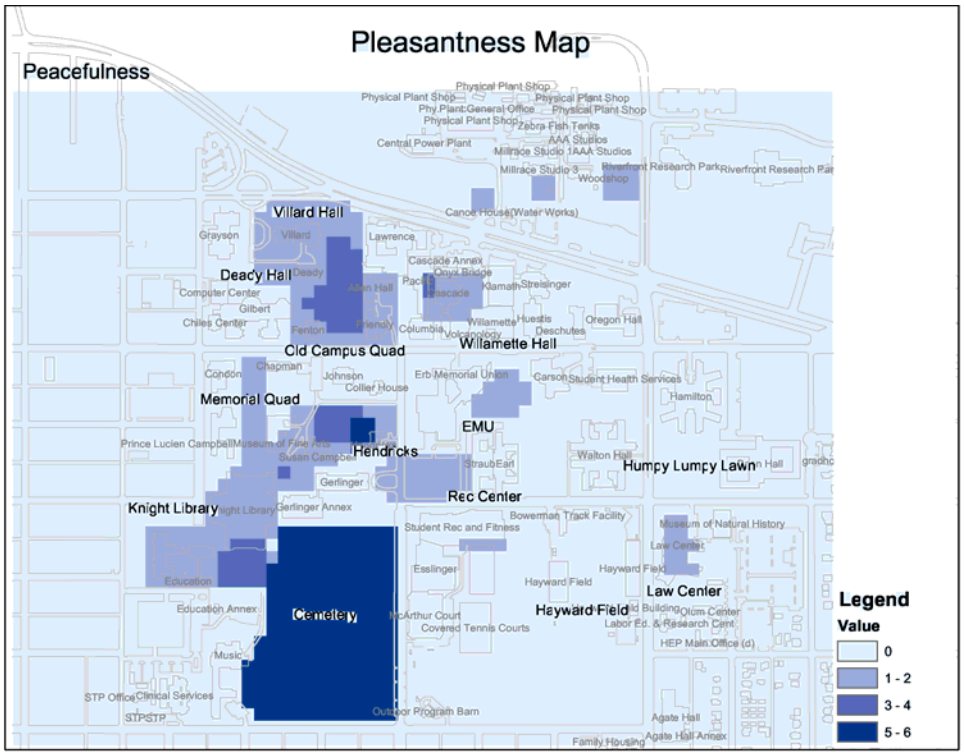

Figure 4.33. Pleasant Places Because of Peacefulness

Figure 4.34 shows the places students feel pleasant at because of the activeness of these places. It shows that the EMU and the Memorial Quadrangle fall into this category. The characteristics of these places have also already explained. Table 4.1 shows these places in a summarized table.

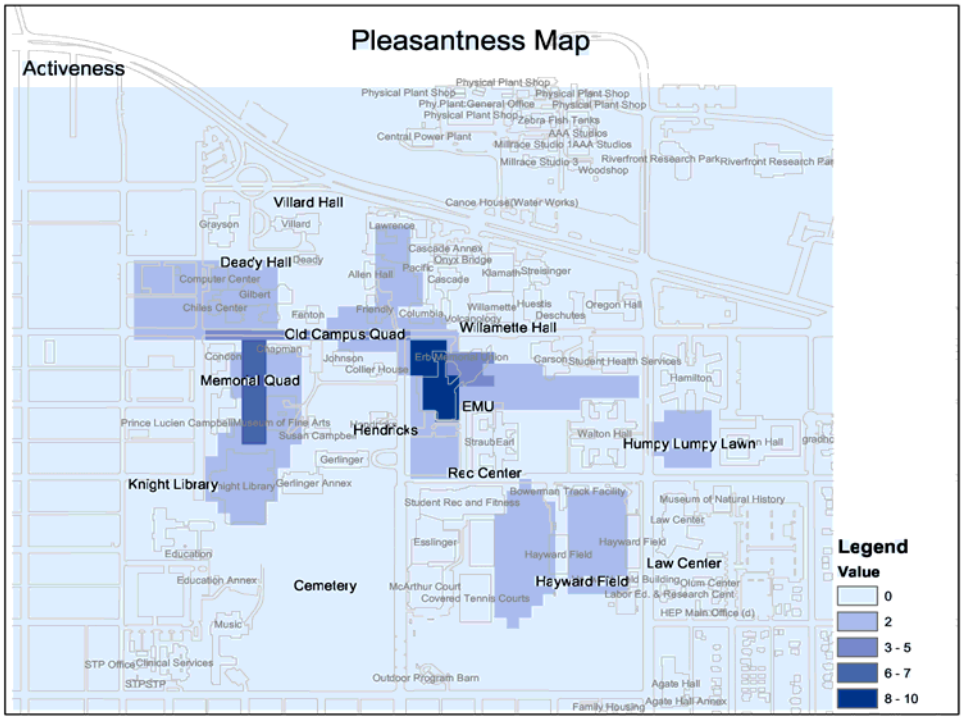

Figure 4.34. Pleasant Places Because of Activeness

Table 4.1. Summary of Most Pleasant Places by Reason

Most Pleasant Place Because of	Places
Naturalness	1. Old Campus Quadrangle 2. Open space behind Hendricks 3. Cemetery
Open Space	1. Memorial Quadrangle 2. Old Campus Quadrangle 3. Open space behind Hendricks 4. Humpy Lumpy Lawn
Upkeep	1. Law Center
Appearance of Structure	1. Willamette Hall 2. Knight Library 3. Law Center
Historical Significance	1. Deady Hall and the surrounding area
Function	1. Knight Library 2. EMU
Peacefulness	1. Cemetery 2. Openspace behind Hendricks Hall
Activeness	1. EMU 2. Memorial Quadrangle

5. Image of Unpleasantness

1) Overview

Figure 4.35 is the unpleasantness map representing the places students most dislike. The result of survey and the evaluative map show that the most unpleasant place on the University of Oregon campus is the Prince Lucien Campbell (PLC) building, which tallied 64 responses out of 250 respondents. Onyx Bridge is the second most unpleasant place; thirty respondents pointed it out. This means that majority of respondents dislike modern looking buildings or they think these modern buildings are out of place. Other unpleasant places are shown in Figure 4.36, in order. Construction sites are also the places they think of as unpleasant. The Business Center construction site seems to be particularly noticeable to people because it is located just beside 13th Ave., where the most students pass by everyday. Therefore, it could bother them more easily. Another notable thing is that the Cemetery, which rates as the fifth most pleasant place in the pleasantness section is also marked as the fourth most unpleasant place here. While people who like the Cemetery seem to like it because it is natural, calm and peaceful, people who do not like the Cemetery seem to dislike the meaning of Cemetery which they have been familiar with since they were children. Dormitories are ranked as unpleasant places, though in low numbers. This might reflect the thoughts of the young people, mostly undergraduate students, and who live in the dormitories on campus, and participated in this survey.

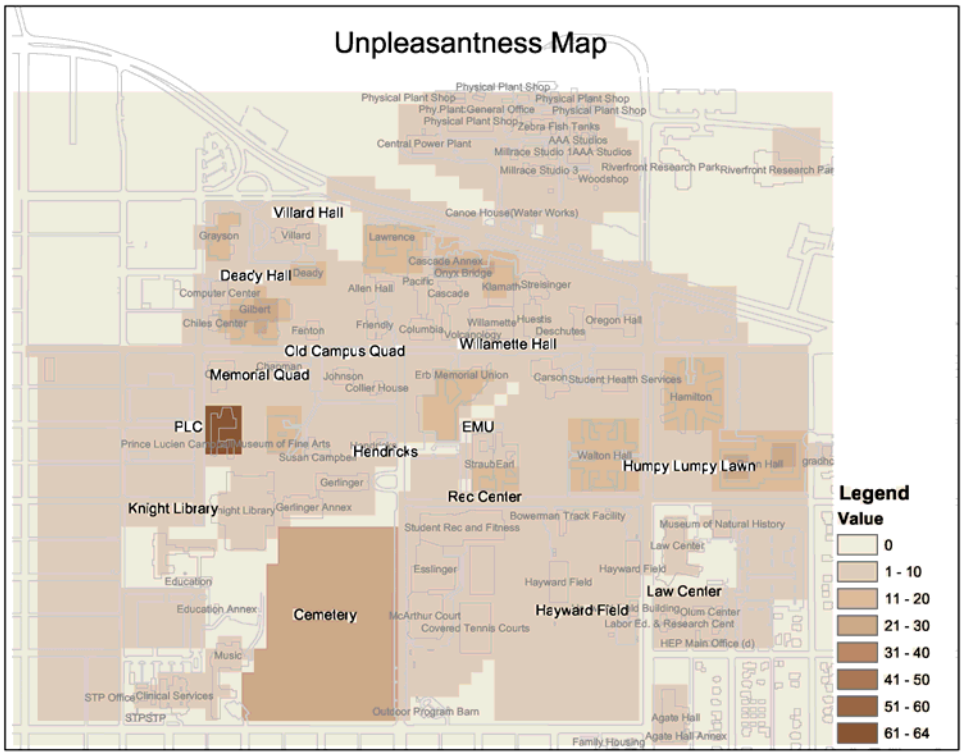

Figure 4.35. Unpleasantness Map

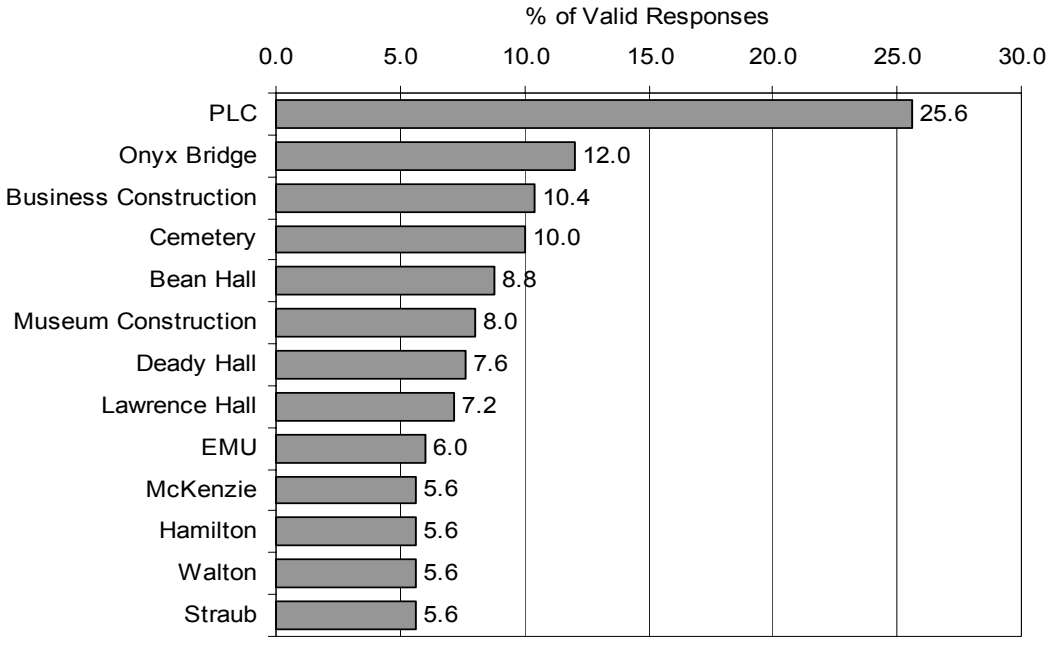

Figure 4.36. Rankings of Unpleasant Places

2) Elements of Unpleasantness

The most prominent reason students find a place unpleasant is the 'ugly' appearance of the constructed environment, marking 44.3% of total valid responses. 'Old and disorderly' follows next after ugly shape of a construction, at 28.2%. Comparing the information in Figure 4.35 with that in 4.36, it seems that students have strong complaints about the incongruous shapes of PLC and Onyx Bridge and the inconvenience and visual disorder of the construction sites of the business complex and the Museum of Arts. What is notable is that the cases pointing out a lack of naturalness (2.4%) and cramped (0.9%) are extremely few in relation to other reasons noted. This, with the results of the previous analysis about the reasons for pleasantness, may mean that the University of Oregon still has such plentiful greenery and open spaces that most students can feel pleasant there. Figure 4.37 shows these trends of unpleasantness.

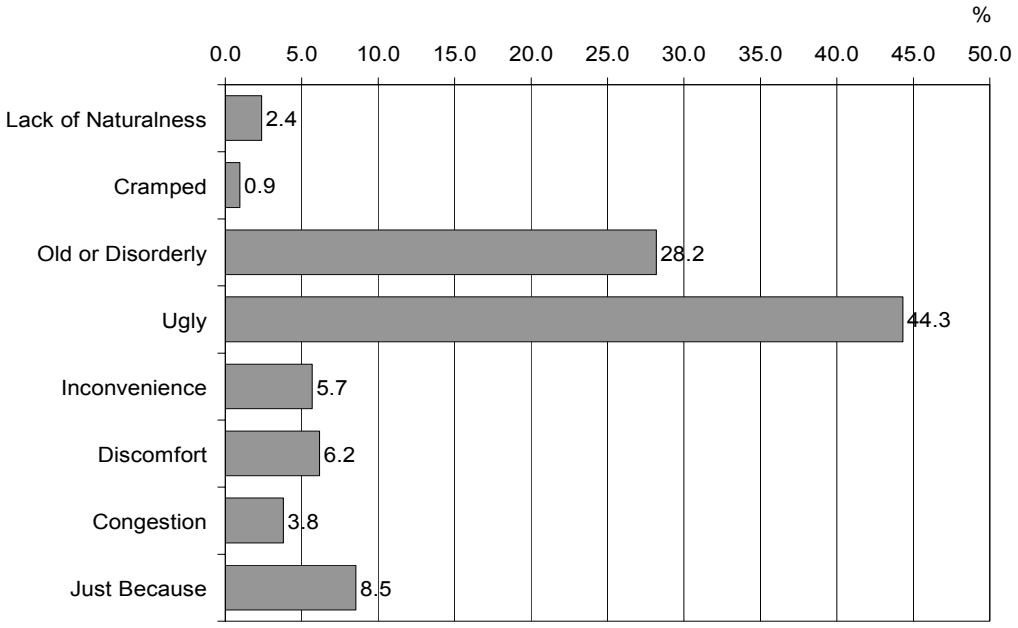

Figure 4.37. Distribution of reasons people dislikes a place

3) Characteristics of Unpleasantness Perception

Interestingly, the patterns of unpleasantness perception are almost same between the sexes as that of pleasantness perception, thought two exceptions exist (Figure 4.38). In terms of natural environment on campus, the trend of perceived unpleasantness resulting from lack of naturalness is higher on the female side (3.8%) than on the male side (1.0%). This trend echoes that of pleasantness perception, in the part about naturalness. Out of total responses by women respondents, 23.8% marked specific places because those places had naturalness while 21.1% of man respondents responded that they liked specific places for the same reason. (See Figure 4.18 in the previous section). Women also tend to evaluate built structures with the measurement of 'pretty' or 'ugly' while men tend to evaluate them by the condition of management or maintenance, in both perception of pleasantness and unpleasantness. On the other hand, men tend to feel pleasant or unpleasant depending on whether or not a place is convenient for them to do something at, while women tend to feel pleasant or unpleasant depending on whether the places are comfortable or uncomfortable. What is valuable to note is that women tend to like places that are vibrant with life and energy, and they also have more tolerance than men for a congested environment. Another notable thing is that men are more likely to be instinctive or unconscious in selecting places than women. The response rate, without specifying any reasons, was higher in men than in women, in both cases.

Differences between age groups in unpleasantness perception, unlike in pleasantness perception, was not significant. As shown in Figure 4.39, the only trend was that the older the students were, the less tolerant they were to inconvenience and congestion.

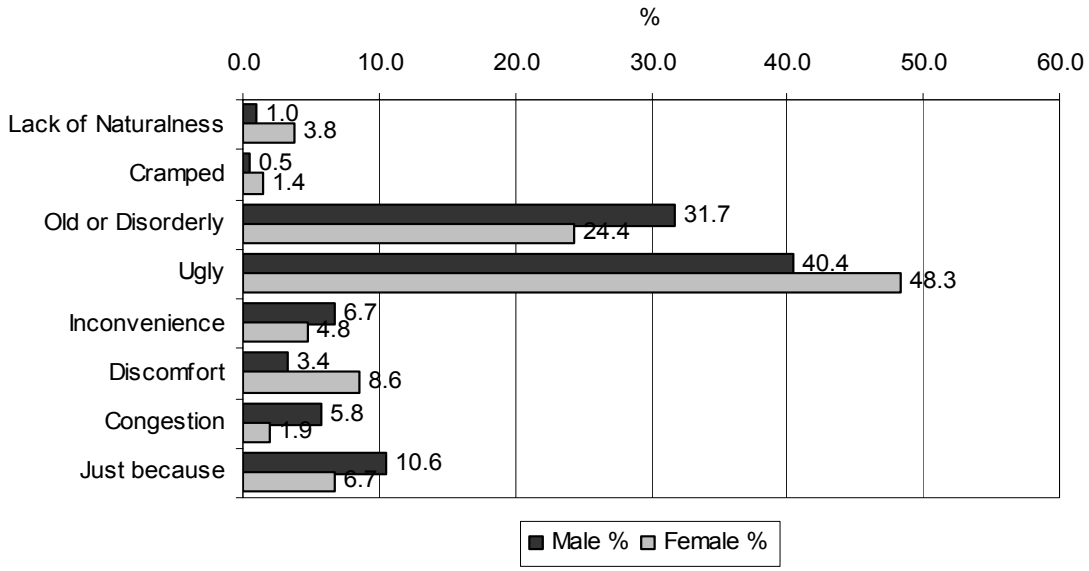

Figure 4.38. Differences between Sexes in Unpleasantness Perception

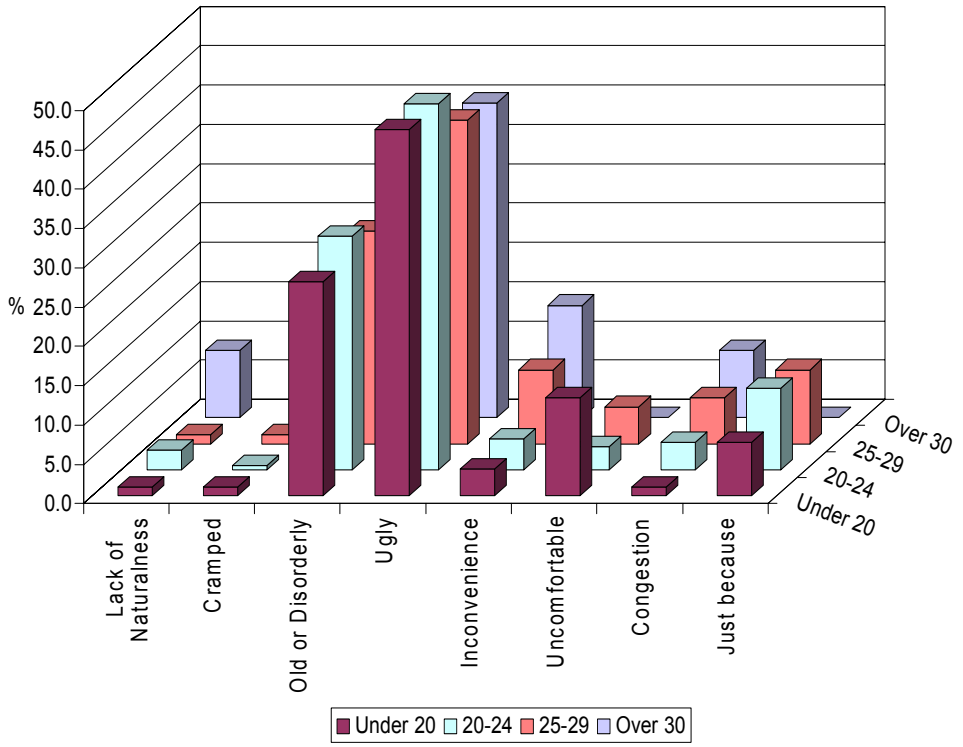

Figure 4.39. Comparison of Unpleasant Perception between Age Groups

4) Unpleasant Images of the University of Oregon

a. Lack of naturalness

The evaluation of naturalness on the University of Oregon campus seems to be rated highly. While 22.7% of total valid responses replied that naturalness is the cause of pleasantness on campus, only ten cases out of 422 valid responses (2.4%) pointed out some places as unpleasant because of lack of naturalness. Figure 4.40 shows the places students perceived as lacking naturalness.

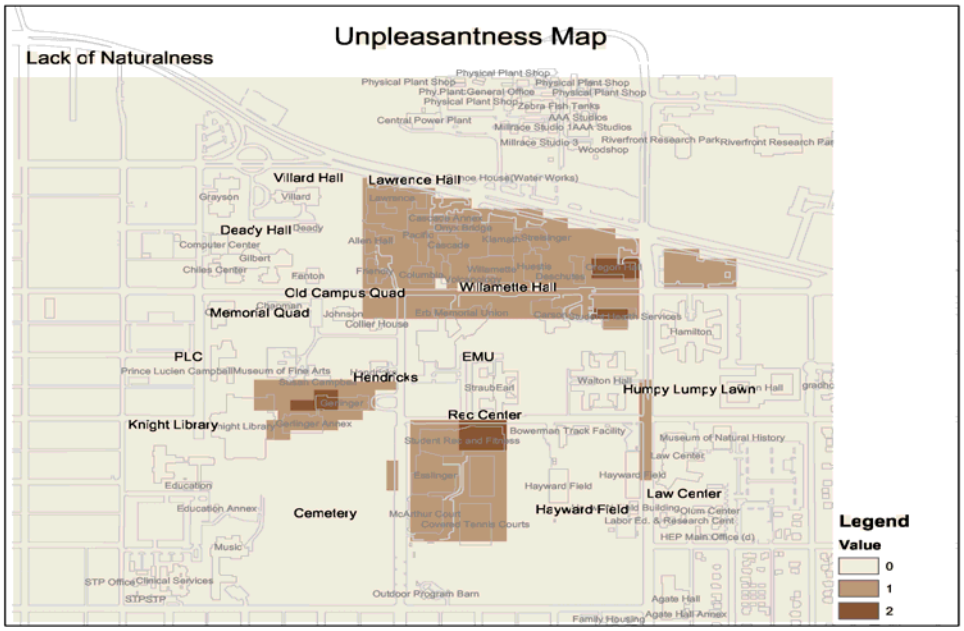

Figure 4.40. Unpleasant Areas because of Lack of Naturalness

They complained that there are only a few trees in 1) the area around Oregon Hall and the University Health Center, 2) the area of the Student Rec Center, McArthur Court, and the Student Tennis Courts, 3) the area between Knight Library and Gerlinger Hall.

These areas are actually building complexes and there are relatively few trees. The strip of Agate St. from the Law Center to Hamilton Hall and the parking lot in front of Hamilton were pointed out to be lacking naturalness.

b. Cramped areas

Students' perception of cramped areas seems to be similar to that of lack of naturalness. Very few (4 cases, 0.9% of total responses) pointed out the three places cramped: 1) the building complex from Lawrence Hall to Agate St., and 2) around Hamilton Hall. Figure 3.41 shows these areas.

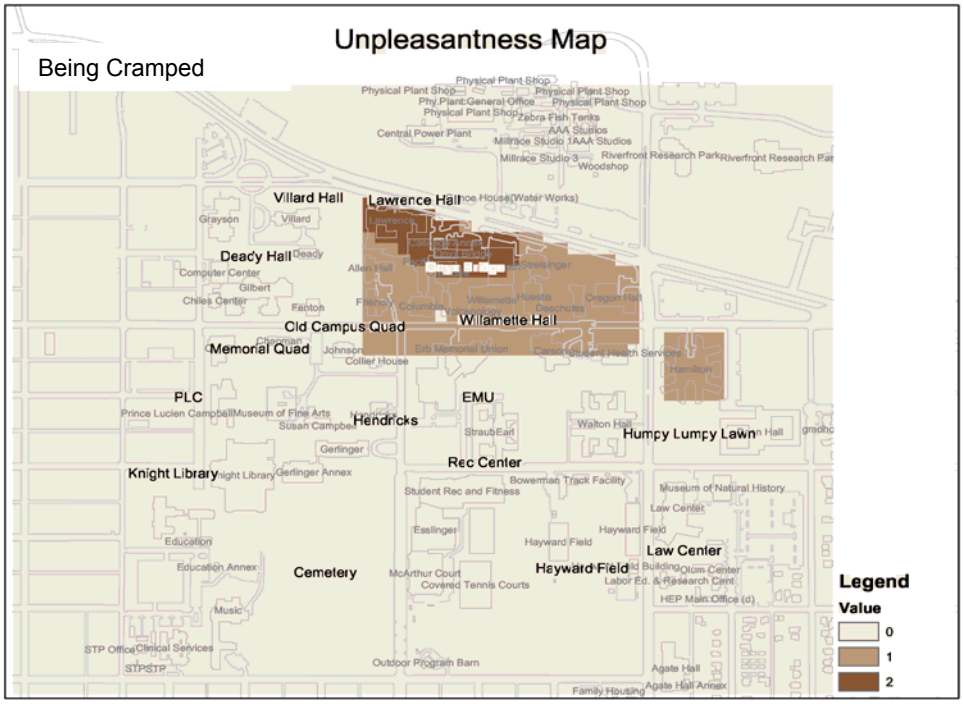

Figure 4.41. Unpleasant Places Because They Are Cramped

c. Oldness or disorderliness

Oldness, Disorderliness, unkempt, and dirtiness are the major reasons students perceive a place as unpleasant one. Figure 4.42 shows the places that students feel unpleasant for these reasons.

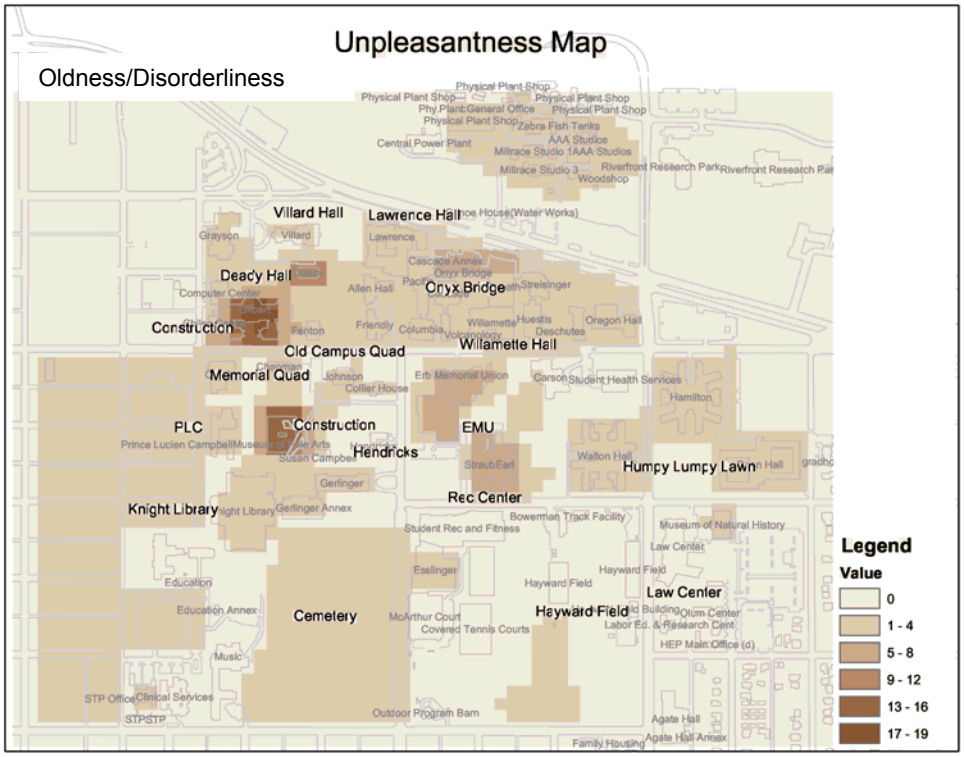

Figure 4.42. Unpleasant Places because of Old or Disorder

On campus, students chose two construction areas – the business complex (19 cases) and the Museum of Arts (15 cases) – as the most unpleasant places for oldness and disorderliness. Repeated inconvenience to the students' everyday life and visual confusion may be reflected in this perception (Figure 4.43 and 4.44).

Figure 4.43. Business Complex Construction
Photograph by Byoung-Wook Jun

Figure 4.44. Museum of Arts Construction
Photograph by Byoung-Wook Jun

Deady Hall is the third most disliked place (11 cases) following those two construction sites. The major reason they dislike this building is that it is 'too old'. Some students brought up the condition of the inside, mainly too dark, as the reason. The other reasons mentioned by students are "nice outside, but not inside", "hard to find", and "not organized". Here again, two different perceptions exist of the same object. Deady Hall (Figure 4.45) was lauded as the most historic site of this campus and this historic significance is the reason they like it most. Yet, it is interesting that there is another group of people who dislike this building because of its being too

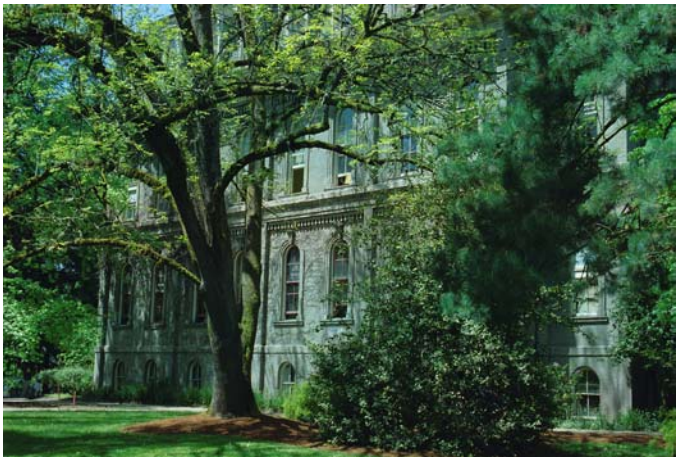

Figure 4.45. Deady Hall from South
Photograph by Byoung-Wook Jun

old. Some people who like it may see the meaning of this building, while another group of people who dislike it see the appearance itself.

Seven cases pointed out the building complex including Lawrence, Onyx Bridge, Klamath and Willamette Hall as an unpleasant place. The reasons they raised are “too complex and hard to find”, “old” or “outdated”, and “dull”.

d. The ugly appearance of built structures

Ugly and inharmoniously shaped feature, especially of buildings, strongly affects the perception of a place in negative way. Figure 4.46 shows the places considered unpleasant because of their ugly or inharmonious appearances either in the sense of a single structure or district of campus.

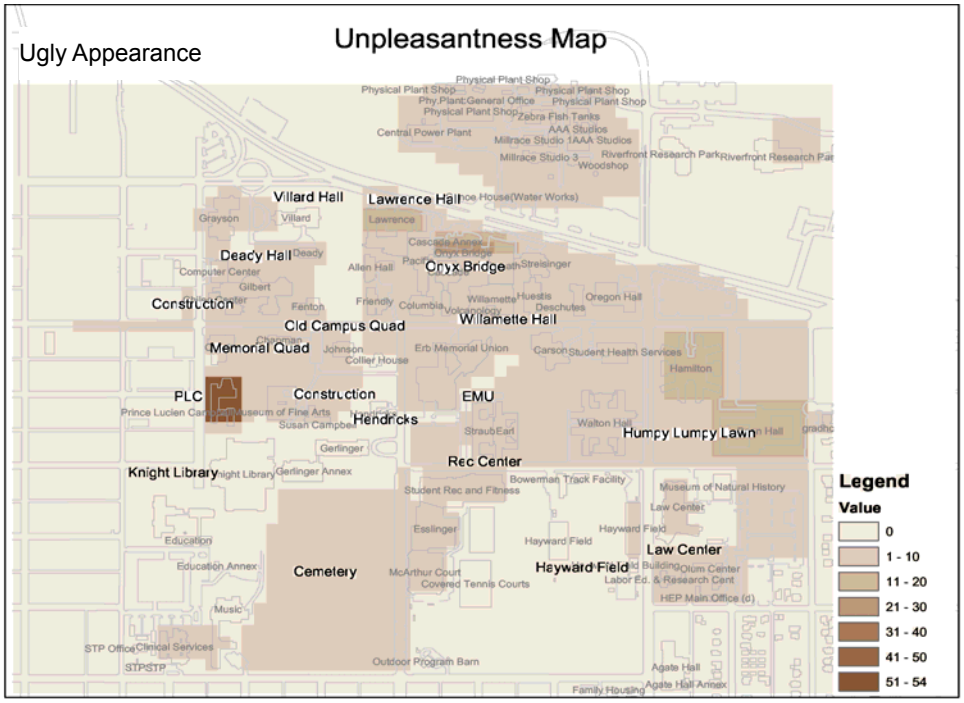

Figure 4.46. Unpleasant Places because of Ugly Appearances

Prince Lucien Campbell Hall, in front of Knight Library and opposite from the Museum of Arts across the Memorial Quadrangle, is a typical example of this case (Figure 4.47). Among 422 cases where students described reasons for unpleasantness, 186 cases (44.3%) were related to this category, and 54 cases of this category (29.0%) pointed out the PLC building, which is the tallest one in the campus. This ten story building, built in 1967, houses the offices of eight departments and many classrooms and related laboratories.[58] Many students refer to the height and box shape of this building as "ugly", "office-looking", or "incongruent with other surrounding buildings".

Figure 4.47. PLC from Kincaid St.
Photograph by Byoung-Wook Jun

Another one which has a negative image of its appearance is Onyx Bridge, which is one of the science complexes in north campus (Figure 4.48). The Onyx Bridge building connects Klamath Hall and Cascade Hall, and

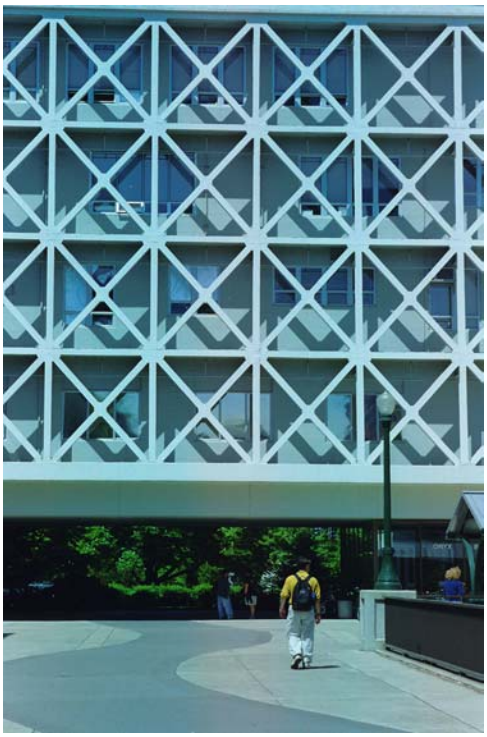

Figure 4.48. Steel Structure of Onyx Bridge
Photograph by Byoung-Wook Jun

[58] http://admissions.uoregon.edu/visit/qtvr/plc.html. Access 5/21/2003.

houses faculty offices and the science library. Many students who pointed out this building as the most unpleasant one refer to the steel diagonal structure on the building's exterior as “ugly”, “revolting”, and “ugly industrial.” Other buildings students dislike are Lawrence Hall (21 cases), the dormitory buildings (13 cases at Bean), the EMU (6 cases). The Cemetery also was pointed out as an ugly or out-of-place feature (8 cases).

e. Unpleasant places because of inconvenience

Out of 422 cases, 23 cases (5.7%) fell into this category. Only a few students feel inconvenient, and the objects mentioned are spread all over campus. Figure 4.49 shows the uncomfortable places because they are inconvenient. Three cases pointed out McKenzie Hall, mainly because it was too far away. Maybe this is a complaint for some students living at dormitories.

f. Unpleasant places because of discomfort

The places that are unpleasant because of discomfort are shown in Figure 4.50. According to this map, the Pioneer Cemetery was ranked as the most unpleasant place in terms of discomfort. Out of 24 cases which pointed out ‘discomfort’ as the reason for unpleasantness, 12 cases were included in this area. Especially women dislike this area. Of twelve students who dislike this area, 11 students are women and only one student is a man. The reasons they dislike this area are mainly that it is scary, bad feeling, dark, and that there are bad stories related to it. As previously mentioned, this result is opposite of the fact that many students refer to this place as pleasant because of its naturalness. Knight Library and the Autzen Stadium are also listed as unpleasant places, with two respondents for each place.

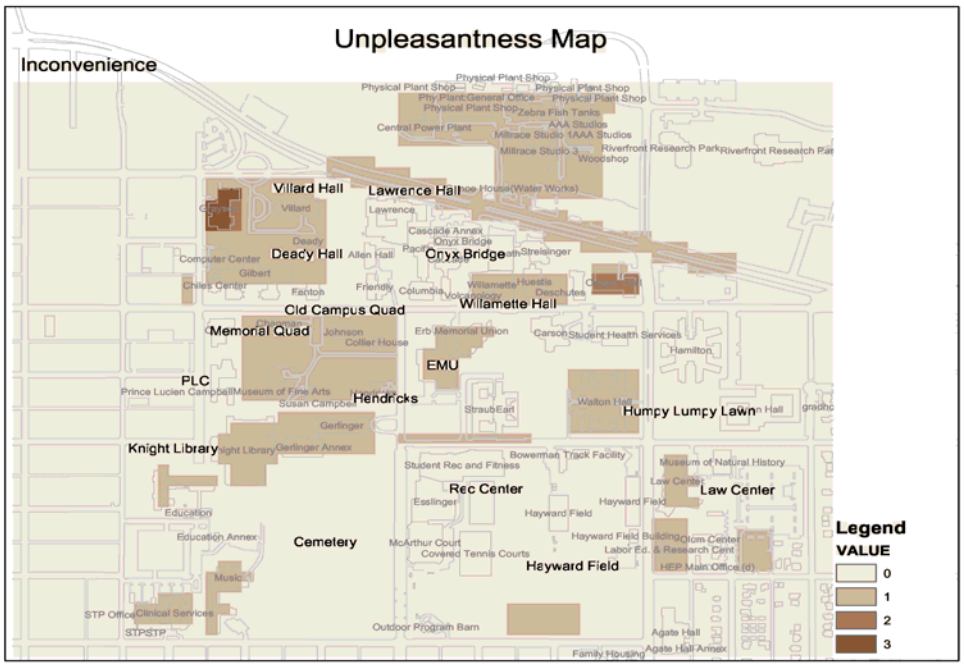

Figure 4.49. Unpleasant Places Because of Inconvenience

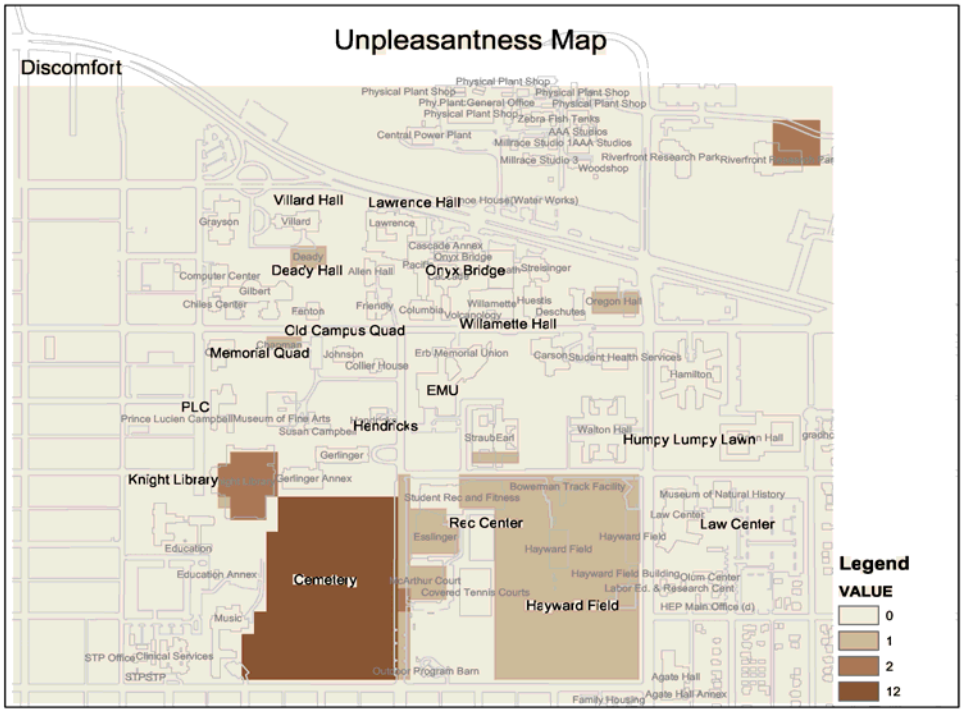

Figure 4.50. Unpleasant Places Because of Discomfort

g. Unpleasant places because of congestion

Congestion is another minor reason that students perceive the campus as unpleasant. Figure 4.51 shows the places that are unpleasing because of congestion. Only eighteen cases pointed out congestion as the reasons for unpleasantness on campus. Most cases were pointing out dormitories. The corner near the amphitheater was also listed because it is “too busy”.

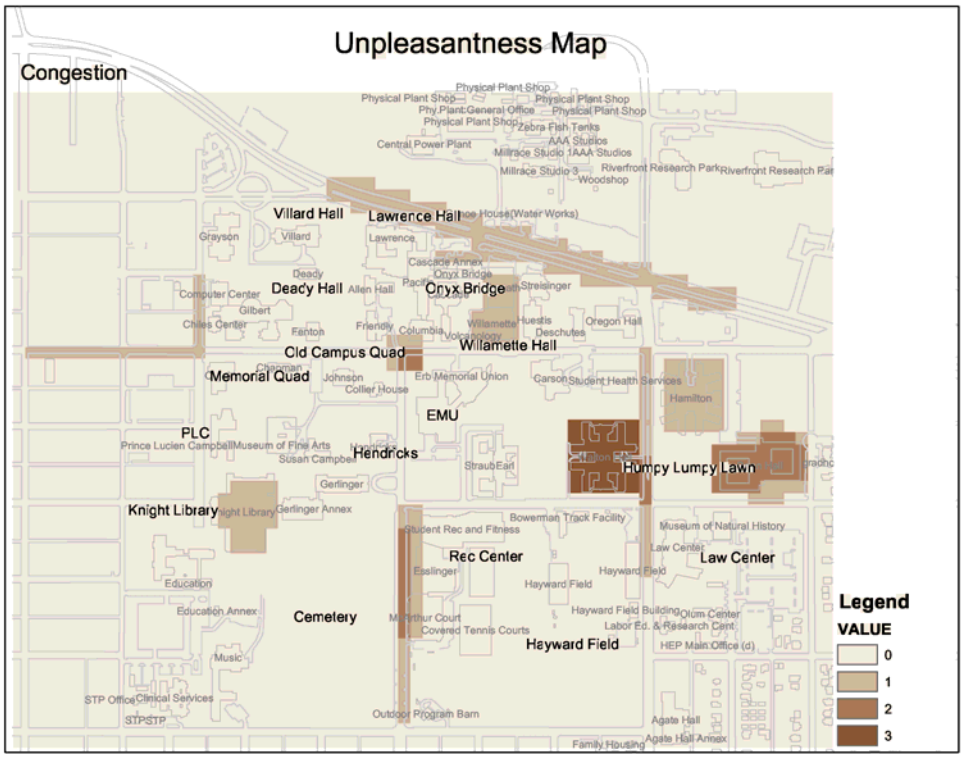

Figure 4.51. Unpleasant Places because of Congestion

CHAPTER 5

IMPLICATIONS AND DISCUSSION

1. Mean Maps

The basic concept of a mean map is the rationale of the majority. This means that a place is pleasant if more people like it than dislike it. For example, if thirteen people like a place while five people dislike it, the place would be considered pleasant overall within the community. Thus, mean maps are derived by the subtraction of the number of cases disliking the spot (cell in this project) from the number of cases liking the same spot. This operation is possible by converting the polygon format into raster format. Figure 5.1 shows the basic concept of raster operations and mean maps. The negative values in the cells of a mean map mean a negative or unpleasant perception.

13	25	42	34	29
34	21	16	38	41
37	25	18	21	48
27	50	21	28	36
23	41	16	63	27

<Cell Values of Pleasantness Map>

−

23	36	13	42	59
53	69	24	30	52
14	28	53	26	35
22	53	13	17	32
45	36	62	12	53

<Cell Values of Unpleasantness Map>

=

-10	-11	29	-8	-30
-19	-48	-8	8	-9
23	-3	-35	-5	13
5	-3	9	11	4
-22	5	-46	51	-26

<Cell Values of Mean Map>

Figure 5.1. Basic Concept of Mean Map

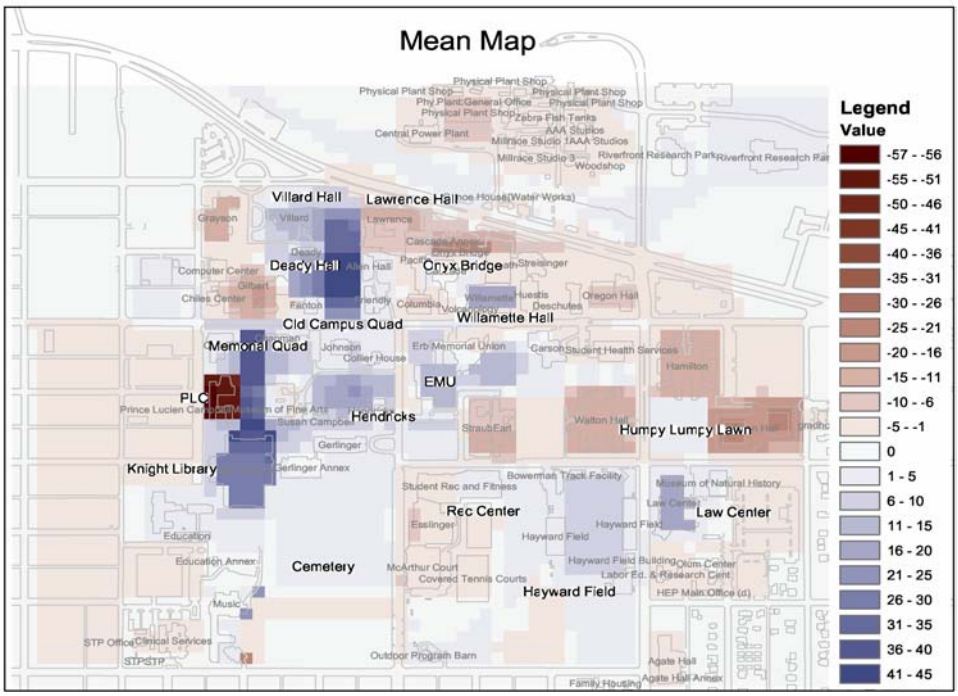

Figure 5.2. Mean Map

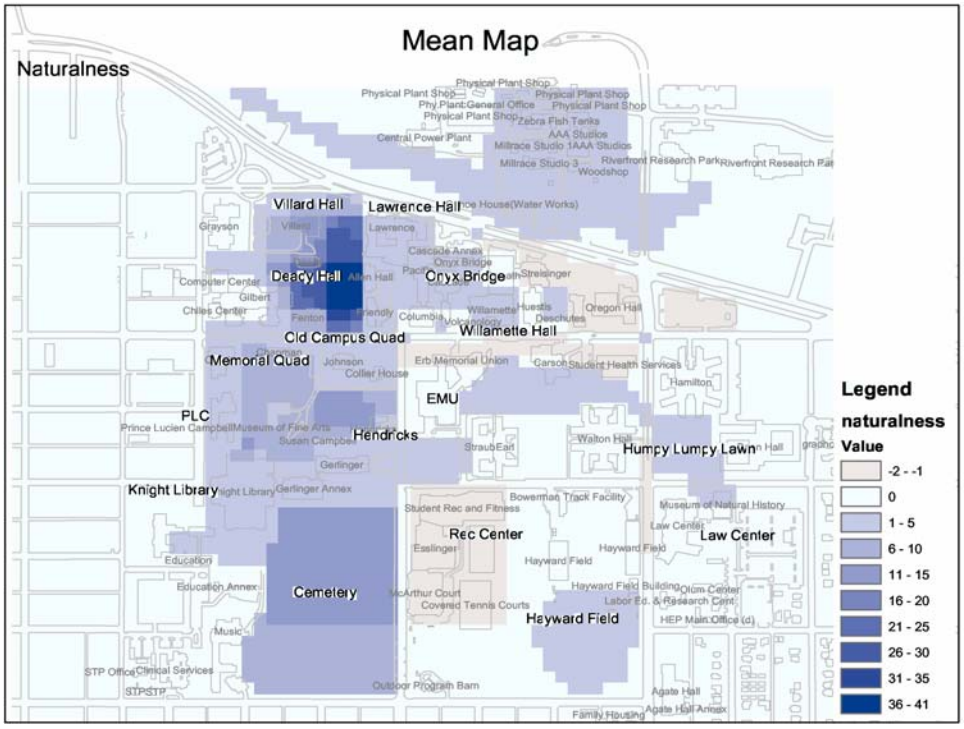

Figure 5.3. Naturalness Mean Map

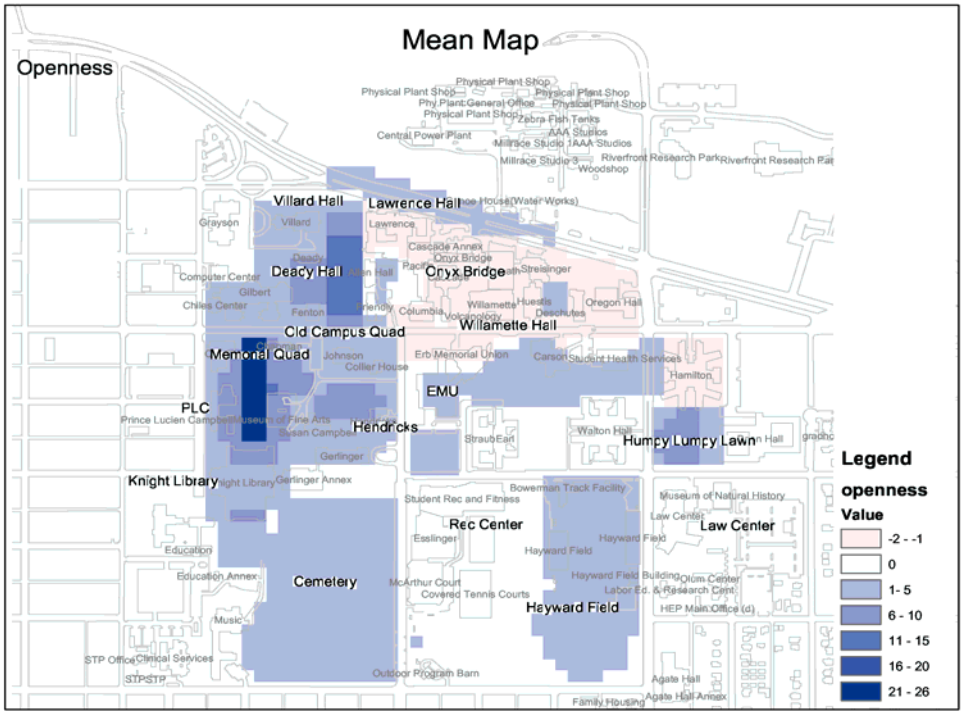

Figure 5.4. Openness Mean Map

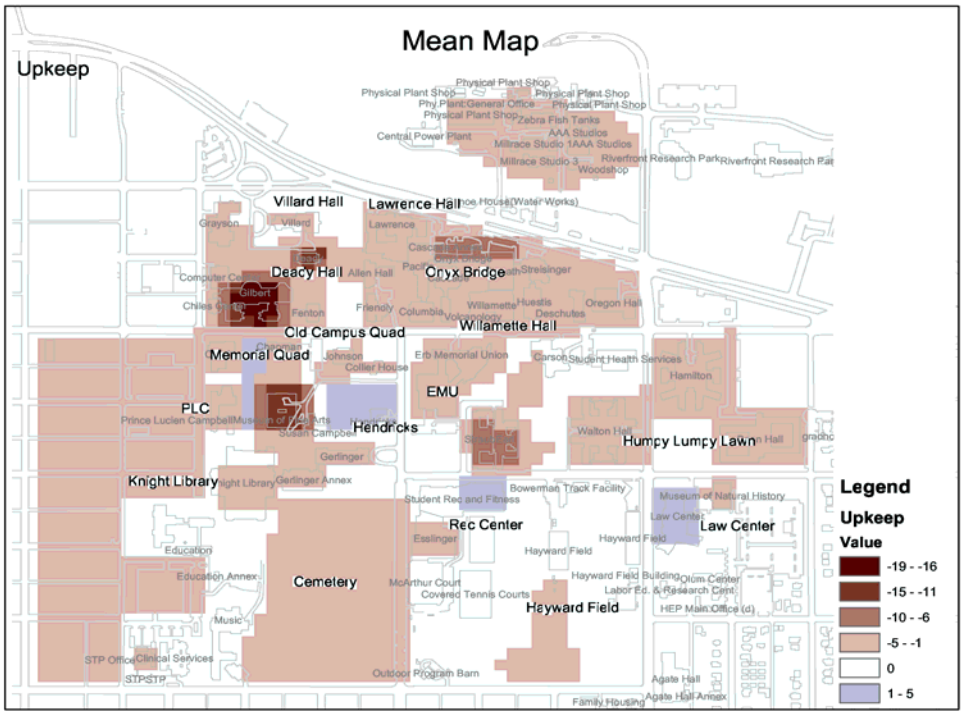

Figure 5.5. Upkeep Mean Map

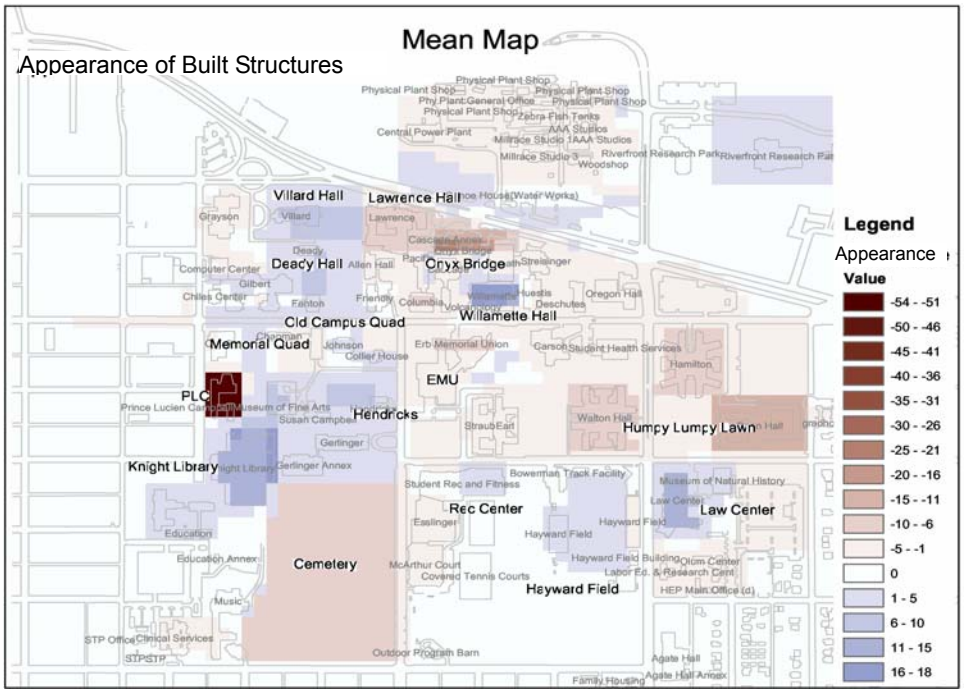

Figure 5.6. Mean Map of Appearance of Built Structure

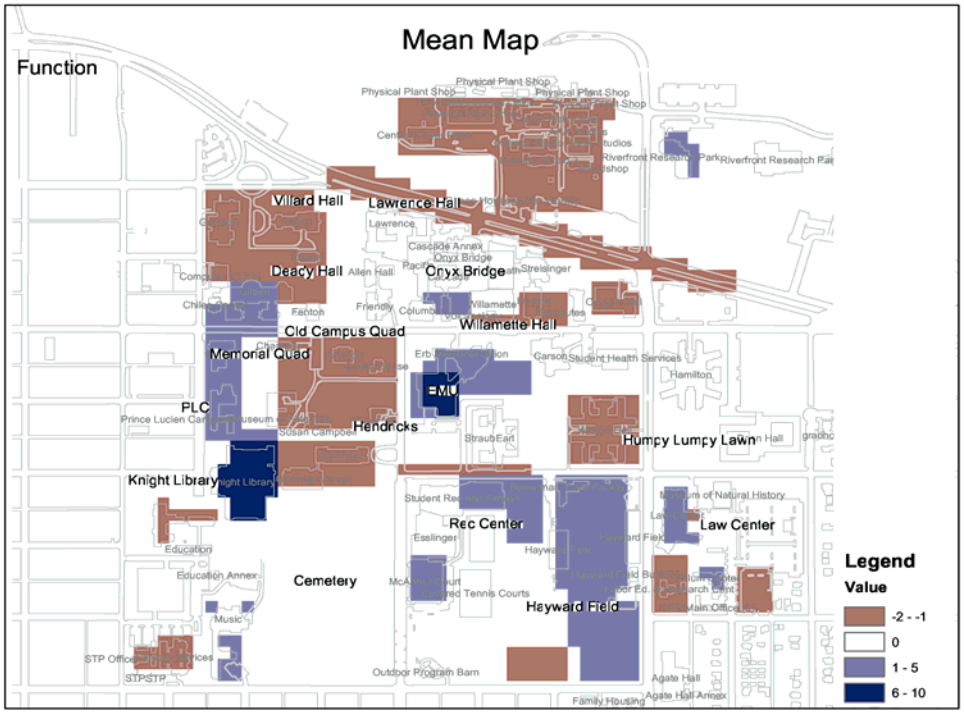

Figure 5.7. Function Mean Map

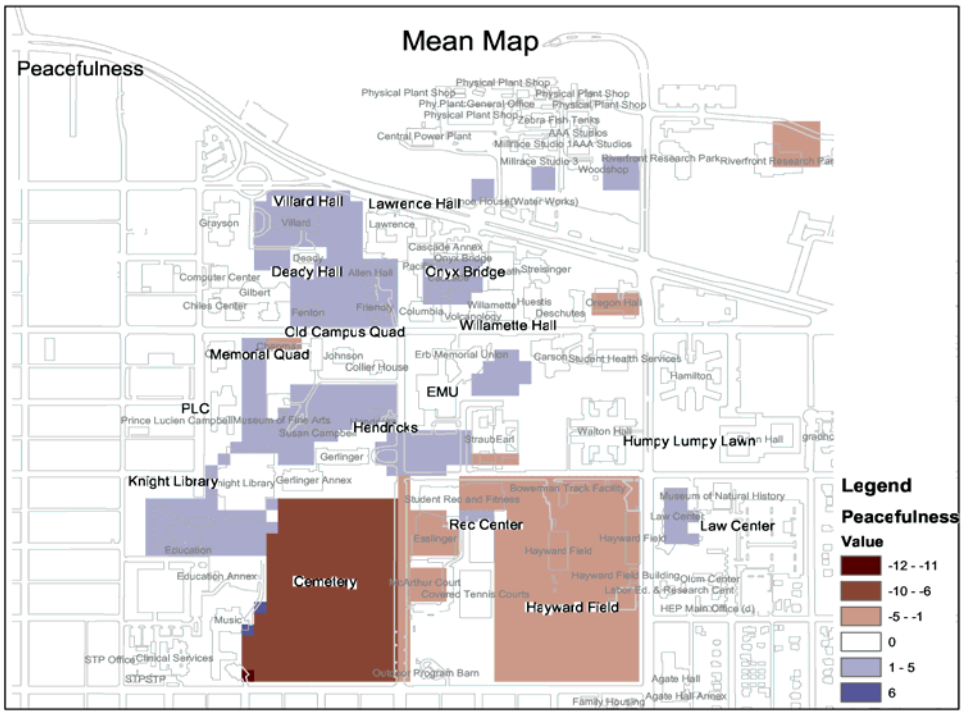

Figure 5.8. Peacefulness Mean Map

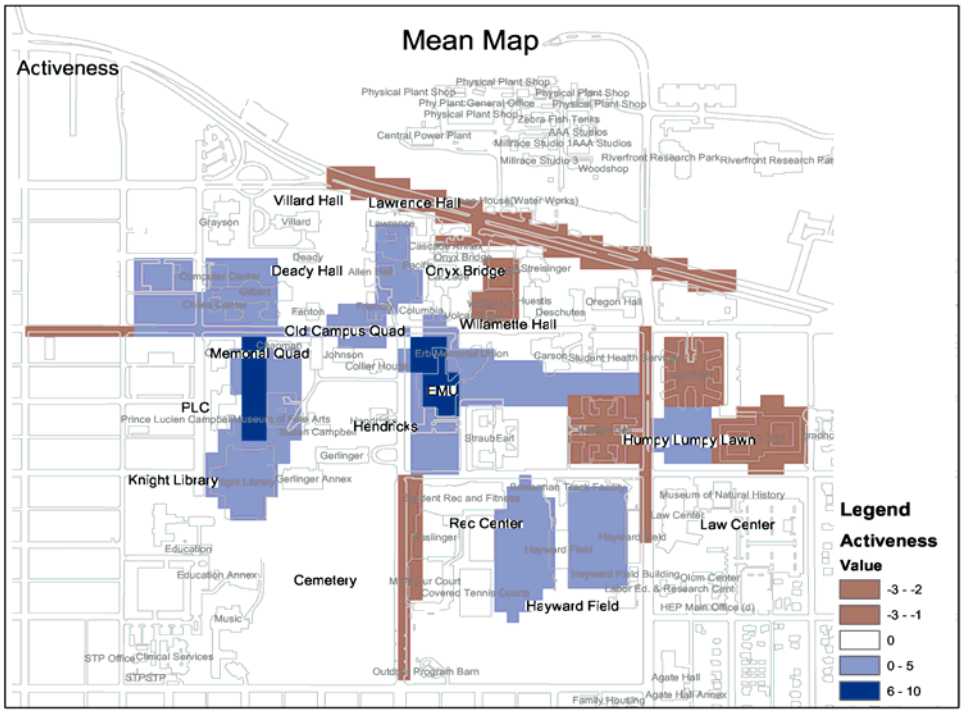

Figure 5.9. Activeness Mean Map

2. Implications of Mean Maps

According to the maps, the campus west of the University St. is shown to be perceived well in terms of naturalness and openness. However, the places around the Rec. Center, around Oregon Hall, along Franklin Blvd to Onyx Bridge, the visitors parking lot in front of Hamilton Hall, and the Agate St. strip from the Law Center to Franklin Blvd need more naturalness. Figure 5.5 shows that the overall condition of upkeep, which includes maintenance, cleanness, and order, is perceived as bad almost all over the campus. Students' perception of the two construction sites of the business center and the Museum of Arts is identified as extremely bad. The perception of the appearances of buildings is also negative. 'Function', which refers to 'convenience' is relatively good even though not many respondents responded in this category. In terms of peacefulness, Figure 5.8 shows that the positive colors are greater than the negative colors while the negative colors are more intense than the positive ones. The main reasons for this negative perception pertain to the Cemetery, Autzen Stadium, and Hayward Field. To erode the students' negative perception of the Cemetery, planting foliage along University St. may be needed to hide the Cemetery. The issues concerning Autzen Stadium and Hayward Field are related to the investment policy of the University. The perception of activeness is positive almost all over the campus. Yet, the perception of the vicinity of the dormitories and Agate St. which runs through campus, is negative.

As shown above and on the maps, the conjugated mean maps may have value in that they show, at a glance, what users perceive about the places they use and what should be done about it.

From the maps, several guidelines for the planning of the University of Oregon can be recommended as follows:

1. Naturalness and openness must be preserved.

2. Buildings must be designed in harmony with other buildings and surrounding nature. The buildings on campus would better to have identity as a whole rather than as individual buildings. The general shape of buildings students prefer can be drawn from the fact that students like the buildings on west campus more than the buildings on east and northeast campus. It also can be implied by the fact that they like the Law Center within their not-preferred area and they dislike the PLC amongst their preferred area.

3. Summary of Findings

1) Characteristics of Image Perception Found

1. The five elements Lynch suggested explain the physical structure and identity of the objects very well. However, people memorize not only the physical structure and physical identity but also usually they memorize it with its meaning. The meaning tends to make the visual memory of a physical setting much stronger. The meaning comes from the individual's experiences of the place, which can be made either by accident or induced with intent.

2. The elements related to pleasantness and unpleasantness are more than the five that Nasar suggested. In addition to 'naturalness', 'openness', 'cleanliness', 'historical significance', and 'order', five more elements were identified: 'appearance of physical structures', 'function', 'peacefulness', 'activeness', and 'just because'.

3. Among those elements, ‘naturalness’, ‘openness’, and ‘good appearance of built environments’ are the dominant elements leading to positive image while ‘ugly shape of built environment’ and ‘dirtiness’ or ‘disorder’, the opposite of ‘cleanness’ or ‘order’, are the dominant elements of a negative image.

4. The ‘appearance of built environment’ is a leading element of both positive and negative images. However, its influence on the negative image is much stronger than to the positive image.

2) Findings about Students’ Perception of the University of Oregon

1. Students are satisfied with naturalness and openness of campus. However, they have a negative image in regard to the shape of certain buildings and the cleanness, which refers to cleaning, maintenance, organization, and management.

2. Especially in regard to the shape of buildings, they prefer the buildings in west and central campus to those in east and northeast campus. It seems to be because the buildings in west and central campus are more classic while those in east and northeast campus are more modern, with concrete structures. From this, it may be inferred that the students prefer the old and classic design to the modern design of buildings. Their dislike of the PLC and the Onyx Bridge may be a product of this.

4. Discussion of Methodology

1) Relationship between Knowledge of a Place and the Image of It

One of this project's objectives was to find out what influence the places students most often go have on their evaluative images. For this purpose, the question about the most frequently visited places was included in the survey. This was based on the hypothesis that there might be a relationship between the places where people most frequently go and the places people most easily recall when they are asked to point out places that are most imageable and where they feel most pleasant or unpleasant. This hypothesis was also based on the other hypothesis that imageablity might be affected by an individual's knowledge about the places and that knowledge of a place might depend upon frequency with which the person visits it. However, significant relationships between the places were not found from the students' evaluative images of the campus. I believe this was not because there is no relationship between the knowledge of a place and people's perception, but because the method of extracting information about places they know or places they know most about was wrong.

With regard to knowledge of a place, the question might have been asked: "Which is more affective to knowledge - the destination an individual most frequently goes to or the path the person most frequently passes through?"

2) Relative Values of Pleasantness and Unpleasantness

This project did not reflect the relative values of pleasantness and unpleasantness. It is expected that there are obviously differences in the values between them. For instance, if someone evaluated the existence of enough naturalness and openness as more valuable than the existence of the ugly features of buildings such as PLC and Onyx Bridge, and if the survey considered these relative differences, the resulting evaluation maps might have been different from those shown in this project.

To avoid this shorthand, it would be helpful for researchers to ask participants to specify the degree of pleasantness and unpleasantness at the time of survey. However this may require much more time and effort for both researchers and respondents.

The rank order listing method that Thill and Sui suggested also may be helpful to avoid any type of shorthand. They suggested "the ranking operation is intended to reflect individual perceptions of the entities, from the first choice where one would wish to live if no constrains were to interfere to the very last choice from the supplied list."[59] Actually, much research on perception is conducted by this method of survey. However, it also seems to be unable to overcome the limitation of accuracy of the maps to be used for practical purpose.

Dividing the survey into two stages also would be helpful to promote the accuracy of research. The purpose of the first stage is to find several broad elements of people's evaluative perception of a place using the 'repertory grid method'. The main concern at

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[59] Thill, Jean-Claude and Daniel Z. Sui. Mental Maps and Fuzziness in Space Preference. *Professional Geographer*, 45(3) 1993. pp 264

this stage is: “What specific places or subjects in the study area do people like or dislike?”, and “Why?” For this purpose, a lengthy and in depth interview with a small number of people may be appropriate. From the data resulting from these interviews, several places and other physical objects people usually like or dislike will be listed, as well as the reasons they like or dislike the places. Focus groups and brain storming may be used, though these methods, which are all forms of meeting or conference, may not be desirable because a person may be affected by the others’ opinion, though the perception of a place is extremely individual matter based on his/her unique experiences of the place.

At the second stage of the survey, using the ‘semantic differential method’, a more structured instrument could be designed. The main object at this stage is to more deeply and precisely identify the characteristics of particular places and physical subjects listed from the first stage of the survey. At this stage, participants may be asked to specify the degree of pleasantness or unpleasantness regarding given places or physical subjects. The degrees of pleasantness or unpleasantness will be weighted, and ultimately very precise evaluative maps of the study area and maps of specific places or subjects may be created. For this purpose, a survey using a structured instrument targeting as many people as possible may be appropriate.

The survey conducted for this project was essentially the first stage of the survey discussed above. Thus it was intended to find the places students most like and dislike in broad terms. However, in spite of this purpose, this project used the methods for the second stage of survey - a rather structured instrument targeting relatively many people - although open-end questions and map marking were used.

3) Selection of Interview Locations

At first, seven interview points were selected to avoid the biases of location. I expected two kinds of biases: bias due to circumstance and bias due to major. Bias due to circumstance refers to the influence of the place where the interview was held. The specific place a person is present in at the time the interview is done might have a relationship with the person which might affect his/her response. The first intent to interview at several selected places was to avoid this influence. The selection of specific places is also affected by bias in major. The EMU, Knight Library, Hamilton Hall, and the gate at 13th Ave were selected by all majors while McKenzie Hall, Lawrence Hall, and the Law Library were selected more by geography major students, AAA students, and Law School students. Hendricks Hall was added to reflect the view of students who are believed to have general knowledge of the space. This consideration, which was made to avoid the biases seems to fail. As shown in Figure 3.3 on page 33, the composition ratio of students of the AAA College and Law School was excessively high compared to the students of Arts and Science College. The composition ratio in class level was also not balanced. The ratio of freshman, sophomore, and junior students was too high, while the ratio of senior and graduate school students was too low. There was an especially unbalanced ratio of men and women amongst the sophomore and junior students. The bias in students' majors may affect their perception, as they may have limited knowledge of places unrelated to their own studies. However, the bias in perception caused by respondents' limited knowledge is likely to be a characteristic of perception.

5. Conclusion

An evaluative map is based on the memory and feelings of respondents. Thus, it may be different from that of real world. However, as long as this perception is a common one in a community, it would be valuable for planners to consider it seriously as a potential opinion of the people. Planners often spend much time gathering information about what people think and what they want. There must be sufficient grounds for a common image of a place, whether it is positive or negative, and one of the most important roles of a planner may be to find that common image. It is not enough for a group of professionals to make a plan using technology. The plan must embody people's feelings based on their common values, which sometimes can not be determined by only professional technology. The evaluative map represents the feelings of people in a place, and it also includes their hopes and vision. This is how this evaluative map could be used as a tool for citizen involvement.

This study also has identified that people usually memorize a place with a kind of meaning which comes out of his/her experience of the place. This implies that a place must be one that people enjoy and always remember so that they may want to come and enjoy it again. Creating a memorable place may be another important role of a planner. The memorable place cannot be created using only physical or functional techniques. However, through mining, creating, and redefining the meaning of a place, it is possible.

APPENDICES

APPENDIX A: SURVEY INSTRUMENT

This survey is for the thesis being conducted by Byoung-Wook Jun, a 2nd year student of Planning, Public Policy Management at the University of Oregon. This project seeks to examine students' perception of the physical environment at the University of Oregon.

This survey is confidential. No identifying information about you will be used in the findings published from this project.

Your participation is voluntary. Responding to this survey constitutes your consent to participate. If you have any questions regarding this project, ask the interviewer directly, or contact Byoung-Wook Jun, who is principal investigator, or Marc Schlossberg, who is the committee chair for this project.

Byoung-Wook Jun	Phone: 541-346-7310	E-mail: bjun@darkwing.uoregon.edu
Marc Schlossberg	Phone: 541-346-2046	E-mail: schlossb@darkwin.uoregon.edu

Please note there is no correct answer. Only your honest and immediate response is important and valuable for this project. You do not need to take too long to answer the questions. This survey will take less than 5 minutes.

Subject No. _____ Interview point #

Date and time:

Interviewer:

1. Your major:_____
2. Grade: Under / Graduate ____yr.
3. Involved in the University of Oregon since ___/____
4. Sex: M / F Age:___

Direction for mapping

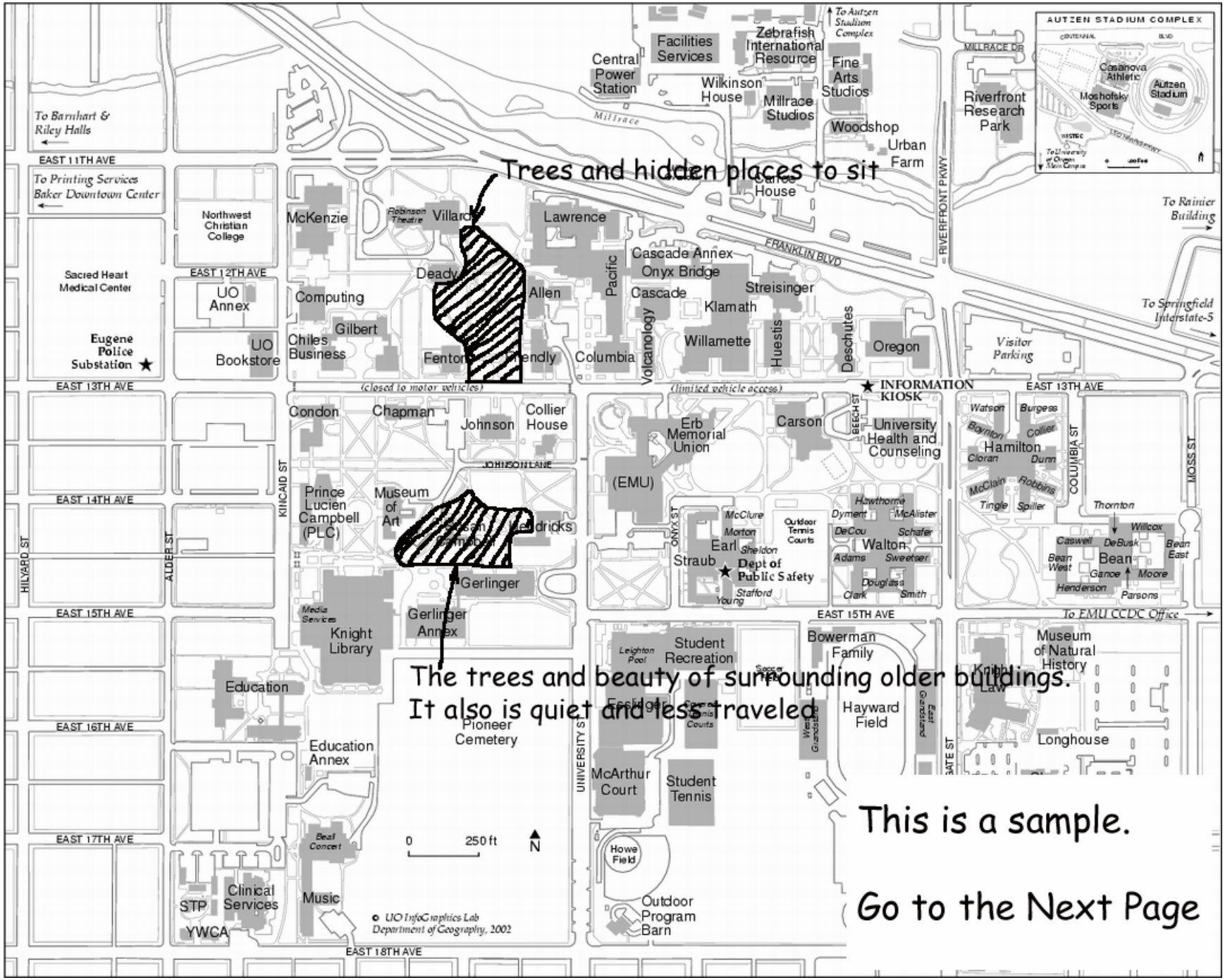
Please draw the outline(s) of the place(s) responding to the following directions and write your reason(s) directly on the maps on the following four pages. Any area on the campus is acceptable as an answer; for instance, roads, lawns, walkways, buildings, statues, ponds, fountains, and anything else. Please specify your reasons as thoroughly as possible, although "just because" is just as good of an answer.

The next page is an example to show how to draw the outlines and write down the reasons on the maps.

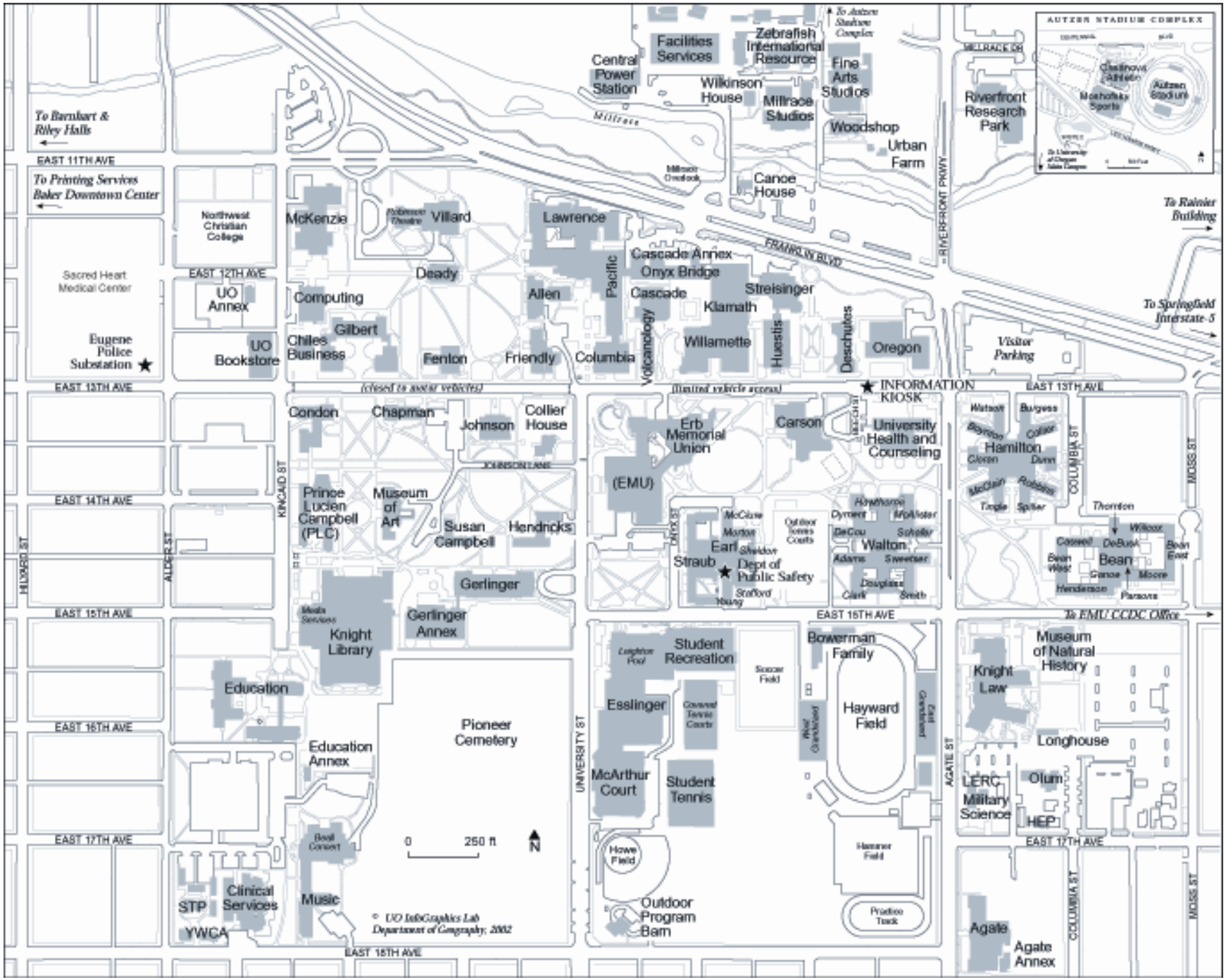
Please keep your response brief!!!

<Next Page>

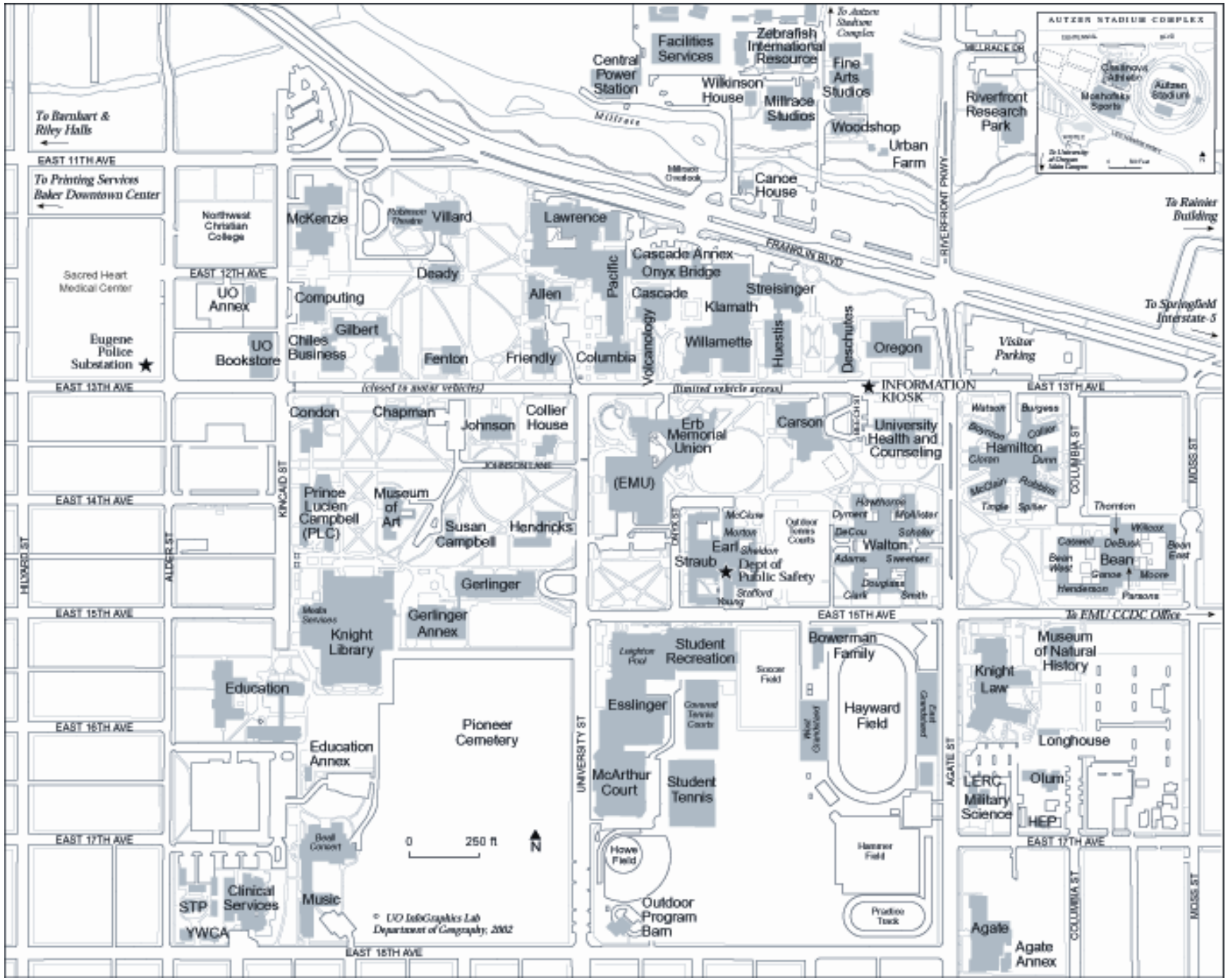
An Example for Mapping



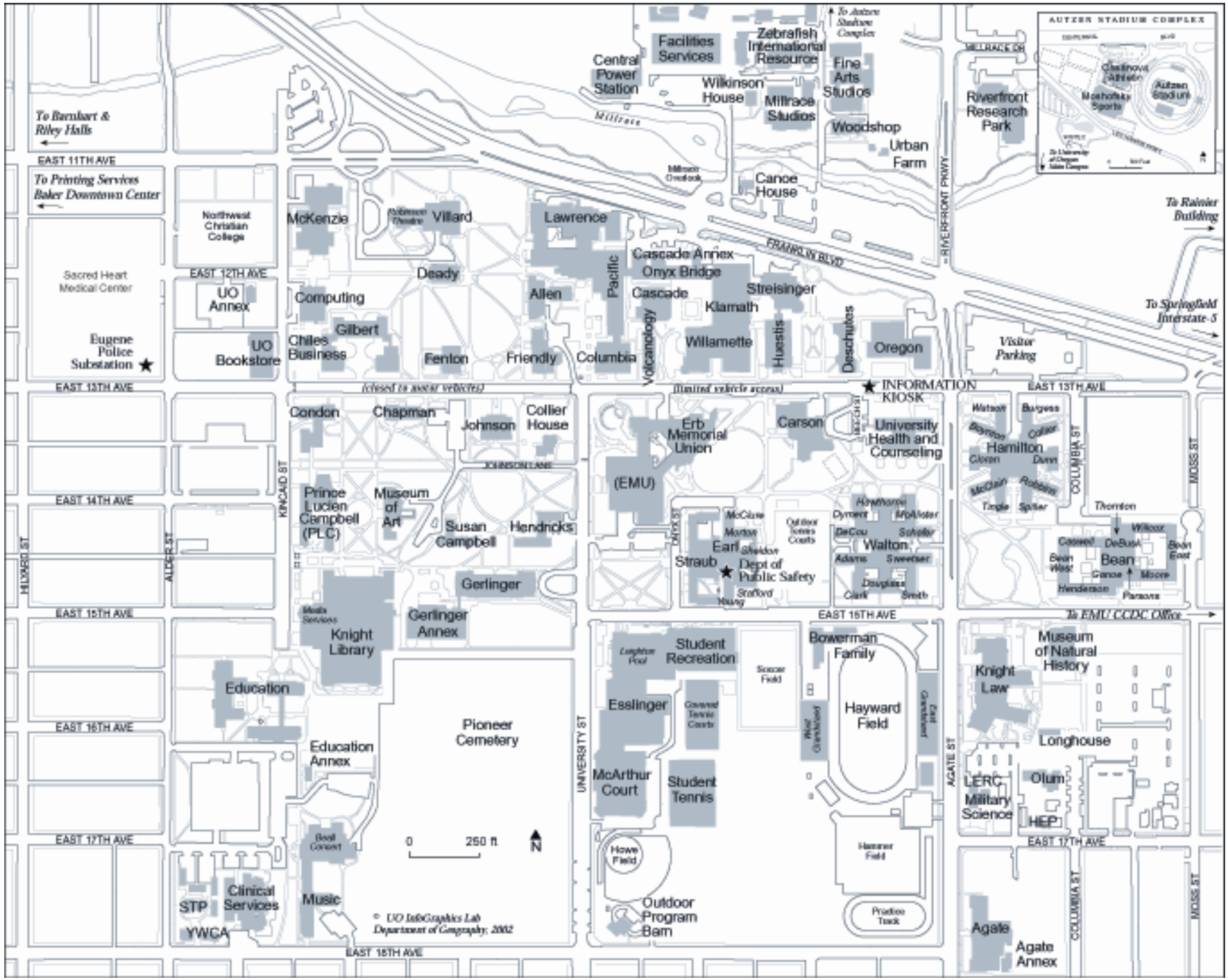
5. Please mark one physical element or place that you associate first when you hear or talk about University of Oregon and write down the reason(s) on the map.



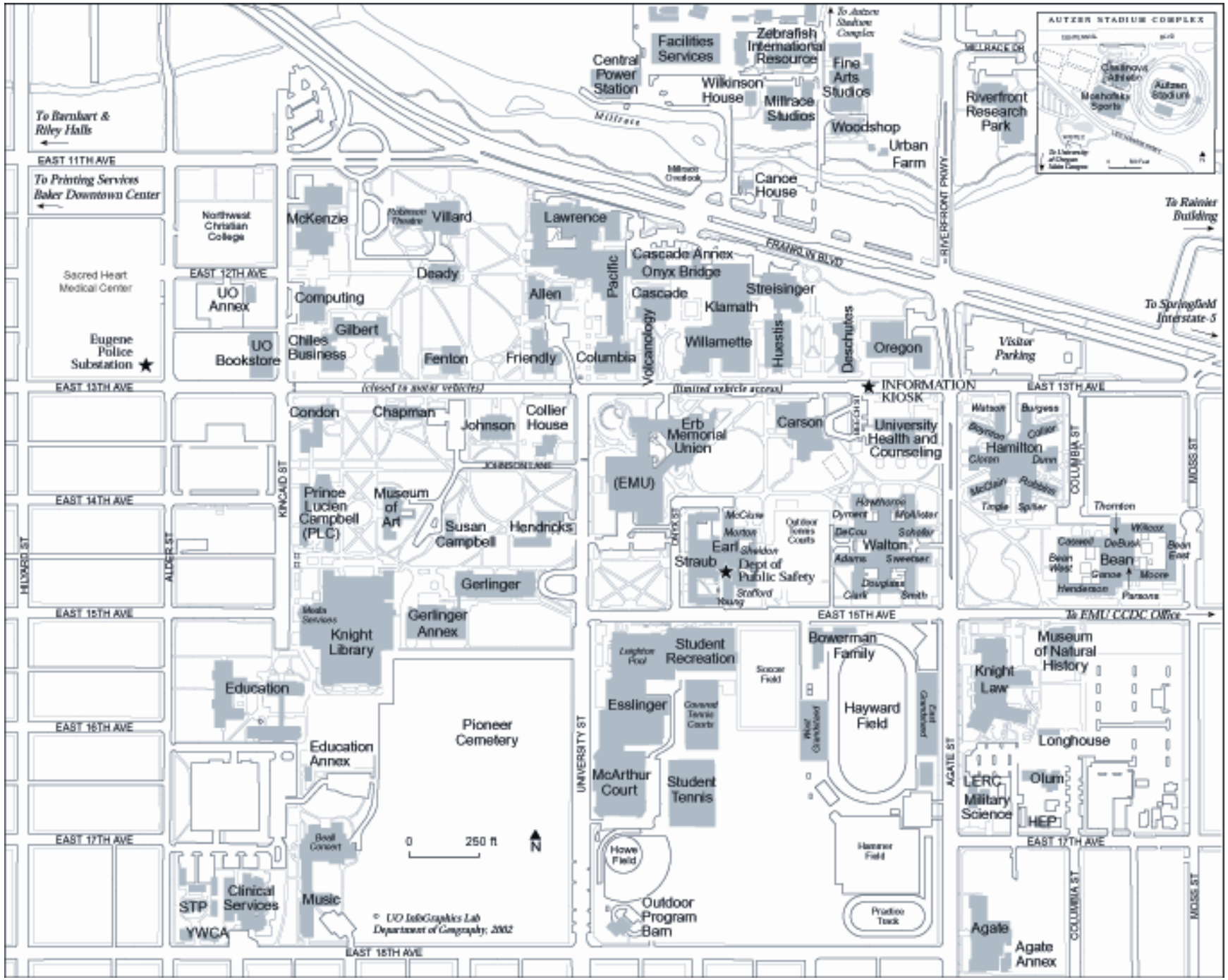
6. Please draw two places or physical subjects you consider the most pleasant visually in the area shown on the map, and specify why.



7. Please identify two places or physical subjects you consider the most unpleasant visually in the area shown on the map, and specify why.



8. Please identify two places you go most frequently in the area shown on the map and specify why.



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