University of California, Davis

Campus Outdoor Spaces
A Senior Project presented to the faculty of the program of Landscape Architecture at the University of California, Davis in partial fulfillment of the requirements for the degree of Bachelors of Science of Landscape Architecture.

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Campus Outdoor Spaces
The idea of taking a look at favorite open spaces on campus came from People Places. Claire Marcus Cooper has a chapter about campus design and within that chapter there is a section about favorite spaces on campus. I began to think myself, “What is my favorite space on campus? What would I be sad to see gone if I came back to UC Davis 10 years later?” These questions and more lead me to think do people on campus have their favorite spots or a place to call their own. Patsy Owens reminded me of the episode of Gilmore Girls where the main character is at college and hasn’t been able to find a place to study. Finally she finds a tree that fits perfectly to her back. She finds her study tree, a spot to call her own. Where are the spots on the UC Davis campus where students call it their own? Why?
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Introduction

What makes a college campus? Is it the buildings? Is it the people? Is it the atmosphere? Campus design can be used to create well-used favorable spaces. Elements in the landscape can either make or break an outdoor space. This study takes a look at what makes a space a usable, favorable outdoor campus space.

This report study summarizes the result of an in-depth study of favorite open spaces of the University of California, Davis Campus. This study was conducted during the Spring 2008 by myself for the UC Davis Landscape Architecture Department. The purpose of this study was to document favorite open spaces on campus for students and faculty.
Study Approach and Methods

This in-depth study of open space focused on the favored spaces on the UC Davis campus. The study mapped survey responses, graphed survey responses, and identified important findings of the survey responses. Data was collected during Spring quarter 2008. The study approach included the following steps:

Physical Mapping

The image of the campus base map was pieced together in Adobe Photoshop using GIS quads from the City of Davis website and images from Google Earth. The positive and negative space map was created from a 2005 AutoCAD file imported into Adobe Illustrator. Modifications were made with new additions to the campus since then using the Adobe PDF from the UC Davis campus website as another base map.

Questionnaire Survey

The survey was conducted through the internet and on paper. The internet surveys were through the website http://www.surveymonkey.com. Facebook, a social utility that connects people with friends and others who work, study and live around them (Zuckerberg), UC Davis listservs, email, and in classes, were the main modes of distributing the surveys through the internet.

The responses on the internet were collected by downloading them in an Microsoft Excel spreadsheet. The paper surveys were handed out, collected, and added to the Excel spreadsheet.

One hundred and thirteen surveys were conducted during April 2008 and May 2008. These composed of undergraduate students, graduate students, faculty, staff, and alumni.
The survey results were mapped as a dot density map or also called dot distribution map. “Dot density maps use dots or other symbols to represent the number of occurrences of a given data characteristic in a particular location. Each dot or symbol used on the map may represent a single entity (one dot= one person) or a group (one dot=1000 people)” (Map Types). In this case, each dot represents a response. Respondents were not limited to one response. The dot density map was created using circle shapes on top of the base map in Adobe Illustrator.

The survey results were also graphed in pie charts. The pie charts were created using percentages of the one hundred and thirteen respondents. These were created in Microsoft Excel.

**Analysis and Findings**

The data collected in each of the previously mentioned steps was analyzed by myself. The full analysis and findings are discussed later in the document.

**Limits to Study**

This project will be limited to the central campus of University of California, Davis due to time constraints, funding, and resources. The surveys are not guaranteed to reach all demographics. In this mixed methods study, the findings could be subject to other interpretations.
Site Boundaries

Figure 1

Campus Outdoor Spaces
Positive vs. Negative Space

Figure 2
The survey consisted of twelve questions, nine open ended questions and three multiple choice questions. The open ended questions were designed into the survey to draw responses out of the respondents. This allowed the respondents answers not to be influenced.

The next two pages was the survey that was given to the respondents.
Favorite Outdoor Spaces on Campus

I would like your help in answering some questions. This should only take a couple minutes of your time. I am conducting a study for my senior project for the UCD Landscape Architecture Department on favorite spaces on the UCD Campus. This information will be used to develop a detailed guideline for creating more favorite spaces on campus. The area that I am studying is from Russell Boulevard to A Street to Union Pacific Railroad to 113.

1. What is your favorite outdoor space on the UC Davis campus? Describe the area.
2. How do you use it? What do you do there?
3. How often do you use it?
   - Daily
   - Weekly
   - Monthly
   - Yearly
4. How many hours do you spend there a week?
   - 0 (1 or less)
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6 or more
5. Are there any outdoor spaces on campus that feel like they belong to you?
6. If you could imagine any place on campus what would be your ideal?
7. Are there outside spaces beyond campus that are important to you?
8. What place would you hate to see gone if you came back to the campus 10 years later?
9. Who are you?
   • UCD Undergraduate
   • UCD Graduate
   • UCD Faculty
   • UCD Staff
   • UCD Alumni
10. What is your gender?
11. What is your age?
12. How many years have you been in Davis?
Findings

1. Naturally, the two top spaces on the UC Davis campus were the arboretum and the quad. Even though the natural spaces with greenery were the top choices the two main spaces were different. The quad is a large manicured lawn with mature cork oak trees bordering it. It is right next to the Memorial Union, one of the central hubs of campus. It funnels students from the nearby Coffee House and dining options in the Memorial Union and the nearby Unitrans bus station. It is a high traffic area. The arboretum, however, is a living museum of plants. It has a section of Putah Creek and meandering pathways throughout the space. The creek is bordered by an assorted collection of mature trees and plants and sections of lawn areas. It is located along the entire south end of central campus, essentially the edge of campus. What is common among all the favorite spaces is the natural elements—trees, shrubs, and grass. These natural elements soften and block out nearby urban elements, such as buildings and roads. Activities in these spaces include relaxing, reading, biking, people watching, and many more (See Figure 15).

2. Respondents gave several reasons for using these favorite spaces:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relax</td>
<td>53</td>
</tr>
<tr>
<td>Walk or Jog</td>
<td>50</td>
</tr>
<tr>
<td>Eat</td>
<td>24</td>
</tr>
<tr>
<td>Study</td>
<td>16</td>
</tr>
<tr>
<td>Greenery</td>
<td>11</td>
</tr>
<tr>
<td>Read</td>
<td>10</td>
</tr>
<tr>
<td>Exercise</td>
<td>10</td>
</tr>
<tr>
<td>People watch</td>
<td>8</td>
</tr>
<tr>
<td>Bike</td>
<td>8</td>
</tr>
<tr>
<td>Picnics</td>
<td>8</td>
</tr>
<tr>
<td>Teach</td>
<td>3</td>
</tr>
<tr>
<td>Events</td>
<td>3</td>
</tr>
</tbody>
</table>

Clearly the top reasons for being in their
Campus Outdoor Spaces

favorite space are to relax and take a stroll. Users are seeking relief from the daily grind of campus life. Undergrads to faculty are using these natural spaces as a retreat, a solace.

3 & 4.

The favorite spaces are frequented by users mainly on a weekly basis (See Figure 16). Respondents spend less than an hour to two hours in the space, enough time to relieve the stress of school or work (See Figure 17).

5.

By spending a few hours on a weekly basis in these spaces, the respondents feel these places belong to them. They have a sense of ownership of their favorite space. It is important to note that 51% percent of the respondents believe that the open space on campus is precious (See Figure 18).

6.

The ideal space for respondents on campus is the arboretum (See Figure 19). Other elements that were mentioned are in the arboretum spaces:

- Water: 11
- Seating: 11
- Trees and shade: 9
- Diversity of greenery: 5
- Private and calm: 5

Elements like these should not only be in the arboretum, but implemented throughout the campus and maintained in the favorite spaces.

7.

These ideal elements are reflected in important places beyond campus. The number one place respondents felt was important beyond campus were the local parks and greenbelt in Davis (See Figure 20). The local greenspace is very similar to the top choices for favorite spaces on campus, arboretum and quad. The greenbelt like the arboretum has meandering pathways with a...
variety of plant life. There are spots along the meandering path to stop and rest or have a picnic. The local parks and quad also are similar in that they have large grassy areas with mature trees bordering them. 8.

When asked the question, “What place would you hate to see gone if you came back to the campus 10 years later?” respondents overwhelmingly answered the arboretum (See Figure 21). Although some users have answered differently for their favorite space. The arboretum is important to all users of the campus. It reflects that this large open space is incredibly important to the campus and its users. It is extremely similar to the important spaces beyond campus and includes the ideal elements for a successful space. The arboretum is the place to be on campus.

9, 10, 11, & 12.

The respondent mixed sample was (See Figure 27):

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>31%</td>
</tr>
<tr>
<td>Graduate</td>
<td>20%</td>
</tr>
<tr>
<td>Alumni</td>
<td>9%</td>
</tr>
<tr>
<td>Faculty</td>
<td>21%</td>
</tr>
<tr>
<td>Staff</td>
<td>19%</td>
</tr>
</tbody>
</table>

The respondent’s gender sample was (See Figure 28):

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>58%</td>
</tr>
<tr>
<td>Male</td>
<td>42%</td>
</tr>
</tbody>
</table>

The respondent’s age sample was (See Figure 29):

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 24</td>
<td>37%</td>
</tr>
<tr>
<td>25 to 34</td>
<td>19%</td>
</tr>
<tr>
<td>35 to 44</td>
<td>7%</td>
</tr>
<tr>
<td>45 to 54</td>
<td>15%</td>
</tr>
<tr>
<td>55 and up</td>
<td>22%</td>
</tr>
</tbody>
</table>
The respondent’s years spent in Davis, CA sample was (See Figure 30):

<table>
<thead>
<tr>
<th>Years</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or less</td>
<td>9%</td>
</tr>
<tr>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>5</td>
<td>11%</td>
</tr>
<tr>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>7 or more</td>
<td>39%</td>
</tr>
</tbody>
</table>

The evenness in the respondent sample allowed the survey results to be more accurate. It also gave the survey the range that it needed.
1. Campus Outdoor Spaces
Top 6 Favorite Spaces by campus users

- Arboretum: 61%
- Quad: 25%
- Top of MU: 5%
- Front of Wellman: 3%
- Silo: 3%
- Bowley Center Garden: 3%

Figure 4
Campus Outdoor Spaces
UCD Graduate's Favorite Spaces

- Arboretum: 34%
- Quad: 18%
- PES: 14%
- Front of Wellman: 7%
- Robbins Courtyard: 7%
- Student Farm: 7%

UCD Alumni's Favorite Spaces

- Arboretum: 46%
- Quad: 18%
- Top of MU: 18%
- Between Olson and Library: 7%
- Silo: 9%

UCD Faculty's Favorite Spaces

- Arboretum: 70%
- Quad: 10%
- Bowley Center Garden: 5%
- Front of Wellman: 5%
- Front of Wickson: 5%

UCD Staff's Favorite Spaces

- Arboretum: 70%
- Quad: 5%
- Silo: 5%
- Front of Wellman: 5%
- Parking lot: 5%

UCD Undergraduate's Favorite Spaces

- Arboretum: 36%
- Quad: 34%
- Top of MU: 9%
- Between Bainer and Ressler: 8%
- Between Atmospheric Science and Hutchinson: 3%
- Between Science Lecture and Lab: 3%
- Space around TBs: 3%
- Path between Tennis courts and PES: 3%

Campus Outdoor Spaces
How do you use it? What do you do there?

- Jog or Walk: Undergraduate, Graduate, Alumni, Faculty, Staff
- Study: Undergraduate, Graduate, Alumni, Faculty, Staff
- Relax: Undergraduate, Graduate, Alumni, Faculty, Staff
- Eat: Undergraduate, Graduate, Alumni, Faculty, Staff
- People Watch: Undergraduate, Graduate, Alumni, Faculty, Staff
- Teach: Undergraduate, Graduate, Alumni, Faculty, Staff
- Exercise: Undergraduate, Graduate, Alumni, Faculty, Staff
- Bike: Undergraduate, Graduate, Alumni, Faculty, Staff
- Events: Undergraduate, Graduate, Alumni, Faculty, Staff
- Read: Undergraduate, Graduate, Alumni, Faculty, Staff
- Plants: Undergraduate, Graduate, Alumni, Faculty, Staff
- Picnics: Undergraduate, Graduate, Alumni, Faculty, Staff

**Figure 15**
How often do you use it?

- Daily: 47%
- Weekly: 20%
- Monthly: 21%
- Yearly: 12%

**Figure 16**
How many hours do you spend there a week?

Figure 17

Campus Outdoor Spaces
5. Are there any outdoor spaces on campus that feel like they belong to you?

![Pie chart showing 51% Yes and 49% No.](image)
6. Characteristics of Ideal Places

- Trees and Shade: 27%
- Diversity of Green: 10%
- Seating Tables Furniture: 15%
- Indoor Spaces: 12%
- Water Pools Fountains: 7%
- Private and Calm: 7%
- Arboretum is Ideal: 7%
- Other: 7%

Figure 19

Campus Outdoor Spaces
7.

Important Places Beyond Campus

- Local Parks and Greenbelt: 13%
- Private Garden or Backyard: 12%
- National Parks and Wildlife: 3%
- Farmers Market: 3%
- Coffeeshops and Bookstores: 3%
- Other: 2%

67%

Figure 20

Campus Outdoor Spaces
Campus Outdoor Spaces

Figure 21
Campus Outdoor Spaces

Figure 22: Undergraduate
Figure 23: Graduate
Figure 24: Alumni

Figure 25: Faculty
Figure 26: Staff
9.

Who are you?

- Undergraduate: 31%
- Graduate: 20%
- Alumni: 19%
- Faculty: 21%
- Staff: 9%

Figure 27

Campus Outdoor Spaces
10. Gender

Figure 28

Campus Outdoor Spaces
What is your age?

- 37% 18 to 24
- 22% 25 to 34
- 15% 35 to 44
- 7% 45 to 54
- 19% 55 and up

Figure 29
12.

How many years have you been in Davis?

- 1 or less: 2%
- 2: 11%
- 3: 17%
- 4: 17%
- 5: 8%
- 6: 9%
- 7 or more: 14%

![Pie chart showing the distribution of years spent in Davis](image-url)
Guidelines

These guidelines are suggestions for the University of California, Davis campus according to the results of the survey and analysis.

- Preserve and protect the arboretum. The arboretum is the top favorite and scared space. Maintain what students, alumni, faculty, and staff all love.

- Frame a plan for variety of spaces throughout campus. Continue to create more natural spaces for users to do a variety of activities.

- Incorporate ideal elements in new spaces. Place elements such as water, seating, and trees to encourage use of the space.

- Ensure trees and shrubs are present to soften the urban environment. Block the sights and sounds of the urban environment to create a retreat.

- Maintain the spaces that people treasure. Make sure the trees, shrubs, and lawn are being cared for. Make sure the pathways are constantly being improved. Look after what students, alumni, faculty, and staff treasure.
Conclusions

Favorite spaces were not about spaces areas around their department, but rather a place to relax and escape the urban environment. The arboretum was the number one favorite space because of the variety of spaces with in it and variety of activities it allowed. Its mature trees, diverse plant collection, meandering paths, creek, and pocket spaces made the arboretum the ideal space. Campus users cared about the space and felt as if the spaces belonged to them. They maked it part of their week. They need to be identified to preserve and maintain their charm. Without spaces like these where would campus users go to relax rejuvenate themselves from the urban environment?
References


