
Exploring Campus Open Space Qualities: Identifying the U.P. Diliman Academic Core's Predominant Qualities in its Physical, Social and Psychological Aspects

Brian Alan L. Sabido¹
balsabido@gmail.com

Grace C. Ramos, PhD.²
grace.arkisec@gmail.com

Abstract

The University of the Philippines (U.P.) Diliman is taking steps in its development towards a more self-sustaining community. Measuring the adequacy of the U.P. Diliman campus' amenities is an important step towards this goal. This paper measures the adequacy of the Academic Core, as the central open space amenity of the U.P. Diliman Campus through a survey that aimed to identify its predominant qualities. The qualities identified served as indicators of how adequate the Academic Core is in meeting the needs of the Diliman community. Findings reveal that the Academic Core is predominantly grounds for passive recreation and the identified predominant qualities may provide insight and basis for design considerations in developing new amenities and enhancing existing ones in the process of planning a self-sustaining community

Keywords: Passive recreation, Open space amenity

I. Introduction

The University of the Philippines (U.P.) Diliman is a planned academic community complete with support facilities such as student and faculty housing, churches, and an infirmary. Defeo states that the "University of the Philippines Diliman, in a limited sense, is a modern-day monastery – self-contained and in a manner of speaking, self-sustaining" (as cited in *Sites & Symbols*, 2000, p. 5). With the growing population of U.P. Diliman's academe and the current trend of sustainable development, U.P. Diliman is once again pressured to further develop sustainably to address the needs of a growing academic community. In the effort of the university to further develop sustainably to address the needs of a growing academic community, there is a need to evaluate the quality of its amenities to determine its adequacy in meeting the needs of its users.

The Academic Core is the central major open space amenity of the U.P. Diliman campus where there is a notable concentration of recreational activities. The land use pattern and development of the campus is concentric, with the Academic Core as the center. The Academic Core plays an important role as a component of the self-sustaining community of the U.P. Diliman campus, providing an outdoor venue for social interaction, cultural expression, exercise, as well as a healthy ambiance with fresh air and visual relief conducive for academic activity. To evaluate the Academic Core in terms of how successful it is in meeting its users' needs is a big step in the continuing development of the university to address the needs of a growing academic community.

The Academic Core is a 20-hectare botanical reserve embedded with landmarks of recreational value. The landmarks are Quezon Hall (the university system's central Administration Building), Oblation Plaza, the Amphitheater, the Lagoon, Gonzalez Hall (the Main Library), and the Sunken Garden. The Oblation Plaza and the Sunken Garden are among the famous landmarks of the university. The Oblation Plaza, located in front of the Quezon Hall, is home to the sculpture "Oblation" – a masterpiece cast in bronze – by Guillermo Estrella Tolentino, the country's first National Artist for Sculpture

¹ Brian Alan L. Sabido graduated from University of the Philippines Diliman – College of Architecture with a degree in Bachelor of Landscape Architecture in 2008 and currently working on a master's degree in Architecture – Community Architecture. He is a licensed landscape architect and currently working as a senior designer.

² Grace C. Ramos is a professor from UP College of Architecture. She was the former UPCA Research Program Director and the Editor-in-Chief of the previous issue of Muhon journal.

Exploring Campus Open Space Qualities: Identifying the U.P. Diliman Academic Core's Predominant Qualities in its Physical, Social, and Psychological Aspects

Sabido and Ramos

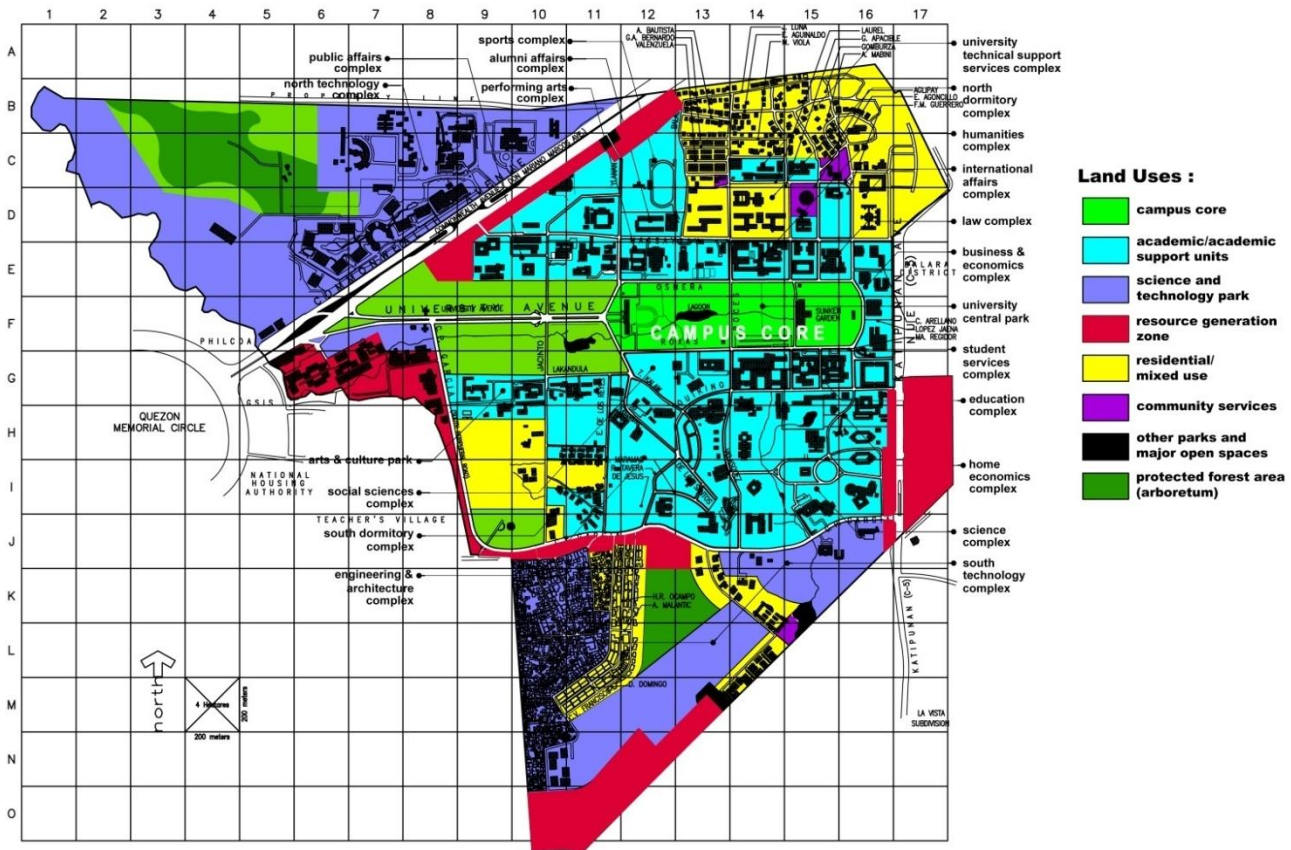


Figure 1. Approved University of the Philippines Diliman Land Use Plan 2012. The Academic Core is referred to as the Campus Core. (Source: Adapted from U.P. System Office of Design and Planning Initiatives/Office of the Vice President for Development, 2012).



Figure 2. Satellite Image of the Academic Core. Source: Adapted from Google Maps (2015). Retrieved from <http://maps.google.com>.

(*Sites and Symbols*, 2000, p. 18). The Oblation symbolizes the University's "commitment to serve the people" and stands for "academic freedom and excellence, and the search for truth" (p. 19) The Sunken Garden, located behind Gonzalez Hall, is a 5-hectare multipurpose sunken grass expanse where various field games and other recreational activities and outdoor concerts, such as the famous annual U.P. Fair, are held (*Sites and Symbols*, 2000).

As a university campus amenity, the U.P. Diliman Academic Core is known for active and passive recreational uses not only for the students but for the public as well. The presence of both students and public users is an indication of the quality of the Academic Core environment. This is also an indication that self-sustaining communities such as U.P. Diliman are beneficial to other communities or non-U.P. Diliman communities.

There are certain qualities of the Academic Core that motivate the students and the public to use it. Identifying the predominant qualities can help evaluate its adequacy as a recreational amenity as a component of a self-sustaining community.

II. The Research Problem

A. The Setting of the Problem

1. Rationale

To enhance U.P. Diliman's amenities so that benefits spill over to the non-U.P. Diliman communities, it is important to evaluate each existing amenity's adequacy in meeting the needs of the academic community and determine its areas for improvement. In line with this, the research aims to study the Academic Core as the central open space amenity that hosts a concentration of active and passive recreational activities.

To help evaluate the Academic Core's adequacy in meeting the needs of the academic community, the research identifies the predominant qualities of the Academic Core's physical and social characters and the meanings endowed upon it that motivate the university's students to use it and invite public users.

2. Delimitation of the Problem

The study focuses on the university student users of the Academic Core, preferably of junior or senior standing. Student users of junior and senior standing may have frequented the Academic Core landmarks more than student users of freshman and sophomore standing thus keener on identifying predominant qualities of the Academic Core.

The study also focuses on which predominant qualities of the Academic Core identified by the student users serve as motivation to invite public users to be able to capture the 'public' as a unit of study.

3. Significance of the Study

The study of the Academic Core's quality¹) helps pinpoint and identify certain qualities needed for user satisfaction of a place and 2) gives insight into the needs of the two types of users - students and the public. Knowing the needs of the two types of users would be helpful to indicate distinct traits of the Academic Core in comparison to off-campus recreational open space amenities that distinguish U.P. Diliman as a self-sustaining community.

Identifying the Academic Core's qualities and giving insight to the needs of the students and the public are also helpful to the university's campus planners, architects, and landscape architects to determine design considerations and guidelines needed in developing new open space amenities or enhancing existing ones in the process of planning a self-sustaining community.

B. Theoretical Framework

1. Theories Bearing on the Problem

According to Madanipour (1996), "urban space is the material space with its social and psychological dimensions, and urban form is the geometry of this space" (p. 87). Urban form is defined as "geometry of a socio-spatial continuum" (p. 33). It is composed of two major dimensions that are interwoven with each other - the physical and social dimensions. Physical dimension deals with the built environment - its visible elements and spatial forms - while the social dimension deals with how people build, use, and value the built environment. This views physical space as being produced by social processes and at the same time, the physical space influences social processes as they recur. It is a dynamic process where space is made and remade (Madanipour, 1997, p. 33).

The two major dimensions are evident in Jarvis' (1980) "Urban environments as visual art or as social settings? A Review." He argues that there are two broad traditions of urban design seen in the classic urban design canon - the 'visual artistic' tradition emphasizing visual form and the 'social usage' tradition, which is concerned with "public use and experience of urban environments" (Carmona & Tiesdell, 2007, p. 7).

The "Urban Design Reader" recognizes that urban design literature can be structured into interrelated dimensions; morphological, perceptual, social, visual, functional, and temporal. The social aspect of urban space can be seen in the social dimension, which deals with the relationship between space and social experience, and the functional dimension, which focuses on how spaces function in relation to users' needs. The physical aspects of urban space are emphasized in the morphological and visual dimensions. The morphological dimension deals with the layout and configuration of urban form while the visual dimension deals with the aesthetic character of urban space (Carmona & Tiesdell, 2007).

Exploring Campus Open Space Qualities: Identifying the U.P. Diliman Academic Core's Predominant Qualities in its Physical, Social, and Psychological Aspects

Sabido and Ramos

To reinforce Madanipour's (1997) notion of urban form as 'geometry of a socio-spatial continuum,' Carmona and Tiesdell (2007) claims that "it is difficult to conceive of 'space' as being without social content and, equally, to conceive society without a spatial milieu" (p. 141).

The Academic Core, as a component of the U.P. Diliman campus in an urban setting, is recognized as an urban form - an agglomeration of urban spaces such as the Oblation Plaza and Sunken Garden. In recognition of the two major dimensions of urban space - physical and social, the qualities of the Academic Core that motivate student's to use it and invite public users can be categorized into qualities of the physical and social aspects.

The psychological dimension of space is seen in how people give meaning to it. Goodall (1987) and Mayhew & Penny (1992) states that 'Space' becomes a 'place' once it is "endowed with meaning and value" by people (as cited in Madanipour, 1997, p.23). Relph (1976) defines places as "essentially centres of meaning constructed out of lived experience" (as cited in Carmona & Tiesdell, 2007, p. 101). The psychological dimension was stressed through a certain set of urban design literature where it recognizes that the city (urban form) has the capacity to "exhibit history, tradition, nature, nationality, or other themes that heighten meaning and solidify identity" (Sternberg, 2000, p. 38).

Norbert-Schulz is known to stress the psychological dimension of the built environment through his use of the concept of "genius loci" (as cited in Sternberg, 2000, p. 39; Jiven & Larkham, 2003, p. 70). Norbert-Schulz (1980) describes *genius loci* as "representing the sense people have of a place, understood as the sum of all physical as well as symbolic values in nature and the human environment" (as cited in Jiven & Larkham, 2003, p. 70). It is also acknowledged that Norbert-Schulz (1980) gave emphasis on the natural environment as being the "basis for people's interpretation and it is in the relation to nature that places and objects take on meaning" (as cited in Jiven & Larkham, 2003, p. 71).

The Place-Identity theory recognizes the psychological link to the physical environment. Proshansky, Fabian and Kaminoff, (1983) states in the Place-Identity theory that a person incorporates 'place' into a larger concept of self. Meaning, 'place' is a "substructure of self-identity." Place Identity is described as a "pot-pourri of memories, conceptions, interpretations, ideas, and related feelings about specific physical settings, as well as types of settings" (as cited in Hauge, n.d., p. 4).

The psychological dimension relates to the identity of places. According to Relph (1976), the identity of places has three components that are interwoven: the physical setting, the activities, and the meanings (as cited in Carmona & Tiesdell, 2007). Here, three aspects are mentioned in analyzing a place - the physical, the social, and the psychological.

Kevin Lynch (1960), in his famous "The Image of the City", implies a psychological dimension when he states that there are three components to analyze in an environmental image; identity, structure, and meaning.

The identity deals with its distinction from other things, the structure deals with its spatial character, and lastly, he states, "this object (environmental image) must have some meaning for the observer, whether practical or emotional" (p. 8)

In recognition of the psychological aspect of urban space, the study of the qualities of the Academic Core assumes that both its physical and social character evokes meaning to the students. It is in these meanings, rooted in its physical and social character, which gives motivation to the students to use it and invite public users.



Figure 3. A diagrammatic representation of the characteristics of a place.

Source: Adapted from Goodchild, B. (n.d.). Retrieved from <http://extra.shu.ac.uk/ppp-online>

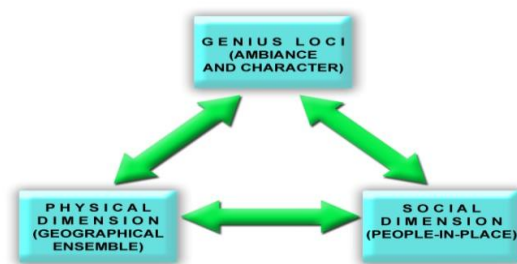
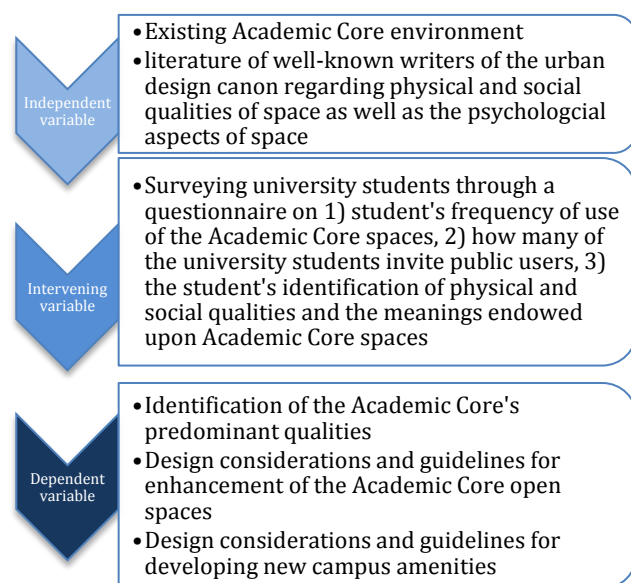


Figure 4. The People-Place Triad.

Source: Adapted from Seamon, D. (2011). Retrieved from http://www.academia.edu/763574/Place_Place_Identity_and_Phenomenology

2. Conceptual Framework



3. Hypothesis

The Academic Core creates a special character resulting from an agglomeration of qualities in its physical, social, and psychological aspects. Out of all contributing qualities to the special character, there are certain predominant qualities that motivate students to use it and to invite public users. Thus, these predominant qualities determine the amenity's adequacy in meeting the needs of its users from the academe as well as from non-U.P. Diliman communities.

As a U.P. Diliman campus component, the Academic Core's predominant qualities that motivate students to invite public users may distinguish U.P. Diliman as a self-sustaining community.

C. Methodology

To identify the qualities of the Academic Core's physical, social, and psychological aspects that motivate students and the public to use it, a survey was conducted among the U.P. Diliman students. The survey presented predetermined qualities of space wherein the respondents can choose to identify predominant qualities. The selected predetermined qualities were based on selected literature on space of well-known writers of the urban design canon. Physical aspects were based on Cullen's (1995) *The Concise Townscape* regarding visual experience. Social aspects were based on essays in *Urban Design Reader*, an anthology edited by Carmona and Tiesdell (2007) namely; *Needs in Public Space* by Carr, Francis, Rivlin, and Stone (1992) and *Three types of outdoor activities; Outdoor activities and quality of outdoor space* by Jan Ghel (1971). The qualities on the psychological aspect were based on the personal perceptions of the survey respondents.

In addition, the survey results reveal data regarding what activities the university students do in the Academic Core spaces and how frequent do they use each of the spaces. The survey presented a selection of spaces within the Academic Core based on the published work by the university's Office of the Chancellor *Sites and Symbols: U.P. Diliman Landmarks* that recognized areas with clearly defined functions and historical significance (2000, pp. 1-53). For example, the Quezon Hall & Amphitheatre functions as the university's general commencement exercises and was the venue of the famous Cadena de Amor Festival in 1953 (p. 29).

The survey also revealed how many students invite public users and how many do not. Data collected on how the Academic Core is used and the frequency of use was correlated to the identified qualities of the Academic Core. Photos were taken to capture field observations on how the Academic Core was used by the students and the public as supporting data and was also correlated to the identified qualities of the Academic Core.

III. Results

A. Field Observations

Photos were taken to capture the different kinds of activities done at the Academic Core. Two Tuesdays and a Friday were chosen to represent the weekdays and a Sunday to represent the weekend for days of photo documentation. It is observed that most users can be seen at the Academic Oval, whether for active or passive recreation. The Sunken Garden also has a notable number of users. This may be due to the fact that the Sunken Garden is adjacent to the Academic Oval with no physical or visual barriers between the two spaces and that there is a transport hub adjacent to the area.



Figure 5. Active recreation of biking and jogging are commonly observed at the Academic Oval.



Figure 6. The Sunken Garden provides opportunities for both passive and active recreation as it provides both a large open field for sports activities and vantage points for spectators.



Figure 7. A few users engaged in both passive and active recreation are observed at the U.P. Amphitheatre in comparison to the Academic Oval and Sunken Garden.

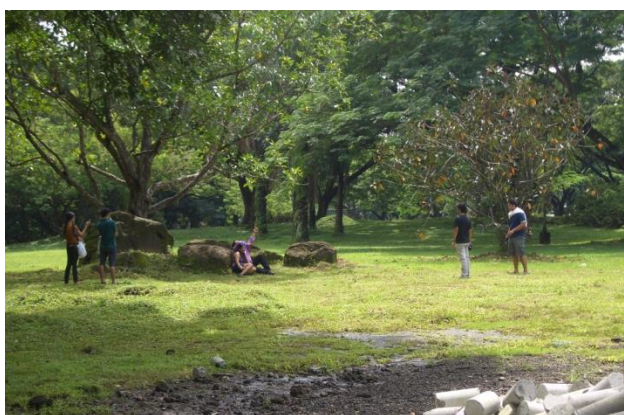


Figure 8. Passive recreation is generally observed at the U.P. Lagoon area.



Figure 9. Students from other colleges and universities occasionally visit the Oblation Plaza and exercise activities are generally observed.

the College of Social Sciences and Philosophy. Out of 225 survey respondents, a total of 213 respondents had valid responses. Forty-seven (22.06 percent) respondents were freshmen, 33 (15.49 percent) were sophomores while 30 (14.08 percent) of them were in junior standing and 50 (23.47 percent) in senior standing. Thirty-eight (17.84 percent) respondents were beyond their senior year and 13 (6.10 percent) respondents did not reveal their year standings.

1. Frequency of Use and Activities

The questionnaire provided a selection of predetermined frequencies of use for each area of the Academic Core. Each frequency corresponded to a numeric value as follows: Daily (six points), five to six times a week (five points), three to four times a week (four points), one to two times a week (three points), one to four times a month to rarely (two points), and a few times every year or never (one point). Survey results show low score averages ranging from a score of 1.9 to 2.5 for all areas except for the Academic Oval, which refers to the road corridor or right-of-way that encompasses all other Academic Core areas in a loop. The Academic Oval is the most frequently used area, scoring a 4.4 average. According to the survey, 37 percent of the respondents claimed to use the Academic Oval on a daily basis.

Table 1. Frequencies of use of Academic Core spaces.

Frequency of use of Academic Core Spaces	Oblation Plaza (persons)	Quezon Hall & Amphitheatre (persons)	Lagoon (persons)	Sunken Garden (persons)	Academic Oval (persons)
Daily	2	0	0	4	79
Five-six times a week	0	2	2	4	23
Three-four times a week	6	10	6	33	64
One-two times a week	61	53	46	64	23
One-four times a month to rarely	83	86	80	68	17
A few times a year or never	60	62	78	36	7
Average score	1.2	2.0	1.9	2.5	4.4

Despite the relatively low average scores in frequencies of use of most of the spaces of the Academic Core, the survey reveals a high percentage (86 percent) of students inviting public users. Among those students who have invited public users, 61 percent have invited at least one

B. Survey Results and Analysis

The survey questionnaires were distributed to students of several classes, organizations, and a group of varsity students where respondents represented different year levels of different colleges such as the College of Arts and Letters, School of Economics, College of Engineering, College of Architecture, College of Human Kinetics, and

to five family members, 67 percent have invited one to five friends, and 36 percent have invited one to five persons from non-U.P. Diliman groups and organizations (Table 2).

Table 2. Percentage of students who invited public users.

Invited Public Users	6-10 persons invited	1-5 persons invited	None invited
Family & relatives	4.8%	61%	49%
Friends	19.4%	67%	27%
Groups (sports team, church interest group, etc)	19.4%	36%	56%

The relatively low score averages of the frequency of use as compared with the high percentage of students inviting public use may suggest that even though most students do not frequent the Academic Core open spaces, the quality of these spaces motivate students to invite public users. Thus the low frequency of use by students may imply a student's lifestyle that is more indoor-oriented than outdoor-oriented and that the students still appreciate the value of the Academic Core open spaces even though they do not frequent them often.

According to the survey, most students are more inclined to passive recreational activities at the Academic Core open spaces. Ninety-two percent of respondents said that they take leisure walks (including sitting and eating) and 58 percent said they like to watch people and their activities. Exercising, sports activities and group activities are only secondary. Similarly, the survey reveals that taking leisure walks is the predominant activity of public users as well. However, active recreation of public users shows a higher level of incidence compared to the level of incidence for students. Seventy-one percent of public users exercise and do sports activities while only 55 percent of students do the same (Figure 5).

2. Predominant Qualities

The questionnaire provided two sets of six predetermined qualities wherein each respondent is asked to rank five out of the six as the most predominant. The first set is a selection of physical qualities extracted from Gordon Cullen's (1995) *The Concise Townscape* where he identifies visual characteristics pertaining to the presence of people, scale, sense of position, and the uniqueness of content. The second set is a selection of social qualities extracted by the essays *Needs in Public Space* by Carr, Francis, Rivlin, and Stone (1992) and *Three types of outdoor activities: Outdoor activities and quality of outdoor space* by Jan Ghel (1971) from the anthology *Urban Design Reader*, edited by Carmona and Tiesdell (2007), wherein social qualities involved two basic categories: opportunities for passive recreation and opportunities for active recreation. Passive recreation connotes resting or relaxing activities that usually involve people watching or observing activities such as sporting events and enjoying natural scenery.

Active recreation connotes energetic activities such as jogging, bicycling, and sporting activities.

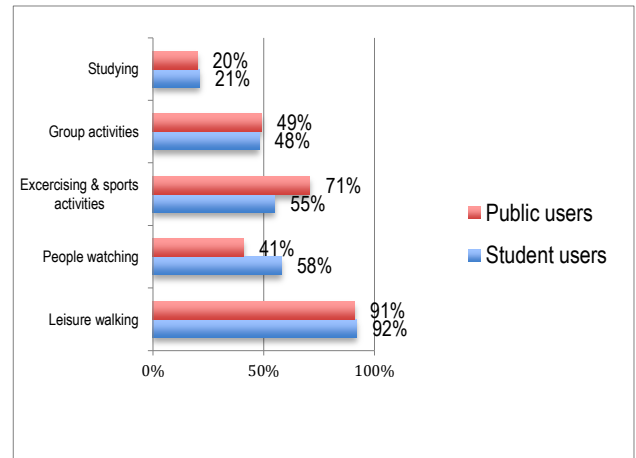


Figure 10. Chart on Recreational Activities of Student and Public Users of the Academic Core spaces.

The ranking is analyzed into two categories. The first category is the ranking from the students who frequent the Academic Core open spaces the most and the second category from students who rarely go to the area. The averages of the scores of the respondents derived from the data on the frequency of use of the Academic Core spaces served as basis to differentiate the students who frequent the area from students who rarely go. Students who frequent the open spaces the most are identified as those with an average score of three points or above (equivalent to a frequency of use of at least one to two times a week) while students who rarely frequent the area are identified as those with an average score below three points (equivalent to a frequency of use on a monthly basis or have rarely used the areas). Thirty-six percent of the students were identified as those who most frequent the area while 64 percent were identified as those who rarely use the Academic Core.

Ranking of both categories of students resulted in the same top two qualities for both sets of predetermined qualities. For physical qualities, natural scenery ranked first while view corridor of the Acacia-lined Academic Oval ranked second. For social qualities, opportunities for relaxation and contemplation ranked first while opportunities for leisure walking, eating, and sitting ranked second. The differences of ranking for the remaining qualities of both categories of students are by one ranking position (Table 3 & 4). This may suggest that students who frequent the area and students who do not appreciate the same predominant physical and social qualities.

Exploring Campus Open Space Qualities: Identifying the U.P. Diliman Academic Core's Predominant Qualities in its Physical, Social, and Psychological Aspects

Sabido and Ramos

Table 3. Ranking of Physical Qualities.

Physical qualities	Frequent users rank average	Non-frequent users rank average	Overall ranking
Natural Scenery	2.33 (1 st)	2.02 (1 st)	1 st
View corridor of the Acacia-lined Academic Oval	3.25 (2 nd)	3.02 (2 nd)	2 nd
Largeness or large scale of spaces	3.5 (3 rd)	3.38 (3 rd)	3 rd
Scenery of social gatherings and sports recreation	3.75 (4 th)	4.21 (5 th)	4 th
Diversity or variety of scenery from the different places of interest	3.94 (5 th)	4.1 (4 th)	5 th
Enclosure of neoclassical buildings	4.24 (6 th)	4.33 (6 th)	6 th

Table 4. Ranking of Social Qualities.

Social qualities	Frequent users rank average	Non-frequent users rank average	Overall ranking
Opportunities for relaxation & contemplation	2.83 (1 st)	2.48 (1 st)	1 st
Opportunities for leisure walking, eating, and sitting	2.97 (2 nd)	2.97 (2 nd)	2 nd
Changing landscapes of seasonal interactive social events	3.24 (3 rd)	3.35 (4 th)	3 rd
Opportunities for exercise & sports	3.45 (4 th)	3.28 (3 rd)	4 th
Opportunities for watching & observing activities	4.01 (5 th)	4.46 (6 th)	5 th
Opportunities for group meetings & activities	4.50 (6 th)	4.42 (5 th)	6 th

The ranking of both categories of students supports the survey data on the predominant activities identified

earlier wherein most students are inclined to engage in passive recreation. Natural scenery, view corridor of the Acacia-lined Academic Oval, opportunities for relaxation and contemplation, and opportunities for leisure walking, eating, and sitting have the highest ranking and all relate to passive recreation.

Furthermore, the survey on the qualities that motivate students to invite public, natural scenery was mentioned the most. The closely related qualities to natural scenery - largeness or large scale of spaces ranked second and opportunities for relaxation and contemplation ranked third (Table 5).

Table 5. Qualities that motivate students to invite public users.

Qualities	Ranking (no. of responses)
Natural scenery	1 st (72)
Largeness or large scale of spaces	2 nd (34)
Opportunities for relaxation & contemplation	3 rd (33)
Opportunities for exercise & sports	4 th (26)
Opportunities for leisure walking, eating, and sitting	5 th (21)

3. Associated Meanings and Feelings

A section of the survey is provided to openly write down the meanings to which the students associate the top qualities identified with or the strongest feelings evoked from them with no provision of predetermined answers. Answers varied from meanings such as "academic freedom" "closeness to nature", and "abundance" to feelings such as "sense of relaxation" and "refreshing feeling." Other answers were both meaning and feeling such as "calmness and tranquility" and "peace or peaceful environment."

The survey reveals that natural scenery is associated by most while the view corridor of the Acacia-lined Academic Oval comes in second. The most mentioned meanings or evoked feelings associated with natural scenery are the sense of relaxation or easy feeling, peace or peaceful environment, and refreshing or relief while sense of relaxation or easy feeling, closeness to nature, and uniqueness of U.P. were associated with the view corridor of the Acacia-lined Academic Oval. There were respondents who opted to mention meanings or evoked feelings without indicating its association with any particular quality. The most mentioned meaning or evoked feelings from these respondents were sense of

freedom or liberating feeling, peace or peaceful environment, and sense of relaxation or easy feeling.

Overall, sense of relaxation or easy feeling, sense of freedom or liberating feeling, and peace or peaceful environment are the most mentioned meanings or evoked feelings (Table 6). Notably, these meanings or evoked feelings that are mentioned the most are closely associated with passive recreation as passive recreation involves rest or relaxing activities.

The resulting data on associated meanings and evoked feelings further support the earlier data on the survey on activities and qualities where all data point out that passive recreation is the predominant type of activity at the Academic Core open spaces.

Table 6. Most mentioned meanings and feelings associated with the Academic Core qualities

Meanings & feelings	Natural scenery	View corridor of the Acacia-lined Academic Oval	Meanings & feelings with no particular association
Sense of relaxation or easy feeling	36	1	11
Peace or peaceful environment	14	2	13
Sense of freedom or liberating feeling	7	0	17
Calmness & tranquility	7	2	6
Refreshing or relieving	11	1	2
Escape from urban setting	6	2	4
Closeness to nature	3	3	1
Uniqueness of U.P.	1	4	0

IV. Conclusions

Survey results show that the predominant physical qualities of the UP Diliman Academic Core are natural scenery and the view corridor of the Acacia-lined Academic Oval while the predominant social qualities are opportunities for relaxation and contemplation and opportunities for leisure walking, eating, and sitting. Both physical and social qualities relate well to one another since natural settings are most conducive for relaxation and contemplation as well as opportunities for leisure walking, eating, and sitting. This is because natural

settings have restorative capacity (Sustainable Sites Initiative, 2014).

The survey on activities done at the Academic Core reveals that both student and public users mostly take leisure walks – which compliments the identified predominant qualities since both data suggest that passive recreation is the most dominant type of activity in the Academic Core. Furthermore, out of the 12 predetermined qualities, both of the identified predominant physical qualities were associated with the most meaning and feelings that suggest an atmosphere of passive recreation - meanings such as: sense of relaxation or easy feeling, refreshing or relieving, and peace or peaceful environment. Furthermore, results on the top qualities that motivate students to invite public users also suggest an atmosphere of passive recreation wherein the natural scenery, largeness or large scale of spaces, and opportunities for relaxation and contemplation were ranked the highest.

Identifying the Academic Core as mainly grounds for passive recreation may suggest that design considerations for the enhancement of the Academic Core should be based on provisions for better leisure walking experiences. Design solutions can include paving access to natural scenery.

Survey results on frequency show that the Academic Oval is the most used area of the Academic Core. This may be because it is the most accessible area as it forms the perimeter of the Academic Core while other areas of the Academic Core are located within. Unlike other areas of the Academic Core identified in the study, the Academic Oval functions as a main pedestrian route of the university, therefore providing the opportunity for one of the most enjoyed passive recreational activities: people watching (Carr, Francis, Rivlin, and Stone, 2007, p. 233; Gehl, 2007, p. 144; Whyte, 2007, p. 227). In relation to design considerations regarding passive recreation experience, design solutions for the Academic Oval may include improving planting designs framing natural scenery viewed from the Academic Oval.

Low frequency of student use of the Academic Core open spaces revealed in the survey, together with the high percentage (86 percent) of students inviting public users may suggest that students do appreciate the recreational value of the Academic Core even though they do not frequent it. There may be other factors that need to be considered in the user analysis on students such as lifestyle – whether most students are indoor-oriented or outdoor-oriented, for example. Survey also reveals that according to the students who invite public users, a significant percentage (71 percent) of public users use the Academic Core open spaces for exercise and sports activities. This may suggest a difference in the inclination of needs of the two types of users – student users are into passive recreation while the public users are into active recreation. This may be an indication that there may be a lack of quality public parks for active recreation in UP Diliman's metropolitan setting. This is because, metropolitan settings such as Manila, is known to lack open space such as public parks (Calthorpe, 2000, p. 15).

Exploring Campus Open Space Qualities: Identifying the U.P. Diliman Academic Core's Predominant Qualities in its Physical, Social, and Psychological Aspects

Sabido and Ramos

Lastly, the identified predominant physical and social qualities may serve as insight in planning new amenities within the campus and more importantly, in preserving the naturalistic character of the scenery of the Academic Core as well as the rest of the university campus spaces that carry similar settings. The identified predominant physical and social qualities may reflect the need for or the lack of opportunities for passive recreation such as relaxation and contemplation in public spaces outside the campus. This emphasizes the fact that the naturalistic environment reflected in the Academic Core's natural scenery is a contrast to its metropolitan setting of Manila. As urban settings are typically stressful, offering minimal natural scenery to enjoy, this may be the main reason why the physical qualities of natural scenery and view corridor of the Acacia-lined Academic Oval as well as the social qualities of opportunities for relaxation and contemplation and opportunities for leisure walking, eating, and sitting are most valued by the students. This is reinforced by the findings that the top qualities that motivate students to invite public users are similar qualities that also suggest an atmosphere of passive recreation.

The notable influx of public users at the Academic Core as reflected in the high percentage of students who invited public users suggests that the Academic Core is attractive for public use. As the Academic Core provides opportunities for recreational activities to compensate the lack of public parks in the metropolitan setting of Manila, the Academic Core is beneficial even to non-UP Diliman communities.

In light of self-sustaining communities benefiting its surrounding communities and the Academic Core as UP Diliman's major open space amenity, the identified predominant physical and social qualities of the Academic Core are not only the distinguishing characteristic which is in contrast with the metropolitan setting, they are also considered as traits of a self-sustaining community.

Thus, in planning new amenities for a more self-sustaining campus, preserving, creating, and enhancing natural scenery as well as provision for opportunities for passive recreation should be a principal consideration.

References

- Calthorpe, P. (2000). The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality. In Leccese M. & McCormick K. (Eds.), *Charter of the New Urbanism* (pp. 155-159). USA: McGraw Hill.
- Carmona, M. & Tiesdell, S. (2007), *Urban Design Reader*. Great Britain: Elsevier Ltd.
- Carr, S., Francis, M., Rivlin, L. G., Stone, A. M. (2007). *Needs in public space*. In Carmona, M., & Tiesdell, S. (Eds), *Urban Design Reader* (pp. 230-32). Great Britain: Elsevier Ltd.
- Cullen, G. (1995), *The Concise Townscape*. Oxford: Butterworth-Heinemann Ltd.
- Defeo, R. (2000). Introduction. In *Sites & Symbols: UP Diliman Landmarks* (pp. 3-7). Quezon City: Office of the Chancellor University of the Philippines.
- Gehl, J. (2007), *Three types of outdoor activities; Outdoor activities and quality of outdoor space*. In Carmona, M., & Tiesdell, S. (Eds), *Urban Design Reader* (pp. 24-32). Great Britain: Elsevier Ltd.
- Goodchild, B. (n.d.), *Triadic Classifications and Triangular Thinking: Their use in Urban Planning and Urban Design*. Retrieved from Sheffield Hallam University, Sheffield, United Kingdom, Centre for Regional Economic and Social Research. Website: <http://extra.shu.ac.uk/ppp-online>.
- Hauge, A. L. (n.d.), *Identity and Place*. Retrieved from repository.tudelft.nl/.../Conference_paper_Lappegar_d_Hauge.pdf.
- Jarvis, R. K. (2007), *Urban environments as visual art or as social settings? A review*. In Carmona, M., & Tiesdell, S. (Eds), *Urban Design Reader* (pp. 24-32). Great Britain: Elsevier Ltd.
- Jiven, G. & Larkham, P. (2003), *Sense of Place, Authenticity and Character: A Commentary*. *Journal of Urban Design*, Lynch, K. (1960), *The Image of the City*. USA: Massachusetts Institute of Technology and Harvard University.
- Madanipour, A. (1996), *Design of Urban Space: An Inquiry into a Socio-spatial Process*. Chichester: John Wiley.
- Relph, E. (2007), *On the Identity of Places*. In Carmona, M., & Tiesdell, S. (Eds), *Urban Design Reader* (pp. 103-107). Great Britain: Elsevier Ltd.
- Seamon, D. (2011). *Place, Place Identity, and Phenomenology: A Triadic Interpretation Based on J.G. Bennett's Systematics*. Retrieved from http://www.academia.edu/763574/Place_Place_Identity_and_Phenomenology.
- Sternberg, E. (2007), *An integrative theory of urban design*. In Carmona, M., & Tiesdell, S. (Eds), *Urban Design Reader* (pp. 33-42). Great Britain: Elsevier Ltd.
- Sustainable Sites Initiative. (2014, May 20) *HUMAN HEALTH*. Retrieved from <http://www.sustainablesites.org/benefits/hhwb>. August 22, 2015.
- University of the Philippines Diliman [Map]. (2012). Retrieved from GoogleMaps. Website: <http://maps.google.com/8,67-81,10.1080/1357480032000064773>.
- Whyte, W. H. (2007), *The life of plazas*. In Carmona, M., & Tiesdell, S. (Eds), *Urban Design Reader* (pp. 33-42). Great Britain: Elsevier Ltd.