DESIGN CHARACTERISTICS of RESTORATIVE SPACES

A Manual for College Campuses

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Natural scenery, “employs the mind without fatigue and yet exercises it; tranquillizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system.”

— Frederick Law Olmsted
# Design Characteristics of Restorative Spaces: A Manual for College Campuses

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Part I:

Introduction

Purpose of this Study

The purpose of this research project is to identify the characteristics that contribute to a space of restorative value and to create this manual for use by campus planners and college administrators. This manual aims to increase awareness of the benefits of restorative/healing environments on college campuses.

According to the 2013 National College Health Assessment, the majority of college students felt overwhelmed and stressed (Seitz, Freese, Strack, Frantz and West, 2014; DeRosier, Frank, Schwartz, and Leary, 2013). These feelings were primarily caused by the challenges of transitioning into college life.

The relationships between humans and their physical environment has been a topic of research for many years. Attention Restoration Theory (ART) was developed by Rachel and Stephen Kaplan after analyzing these relationships (Kaplan, Kaplan, & Ryan, 1998). Directed attention may best describe the experiences of students and scholars. A student must expend energy to direct their focus on their studies while additional life demands (i.e. work, relationships, etc.) compete for their attention. The brain becomes fatigued and requires restoration so that they can once again direct their attention for optimal performance. Research indicates that outdoor natural spaces can produce restorative environments to rest and recuperate that may be beneficial to college students.
Sources

This interdisciplinary study focuses on sources in the fields of Environmental Psychology, Higher Education, and Landscape Architecture. I have consulted the following sources: *With People in Mind* by R. Kaplan, S. Kaplan, and R.L. Ryan in which the authors discussed the relationship between a person and their environment and their perspectives of restorative environments. I have also referenced studies published in the *Journal of Environmental Psychology; American Places in Search of the Twenty-first Century Campus* by M. Chapman and *Mission and Place: Strengthening Learning and Community Through Campus Design* by D. R. Kenney, R. Dumont, and G. Kenney. *Landscape Design: A Cultural and Architectural History* by E.B. Rogers and the writings of Frederick Law Olmsted, American Landscape Architect were also valuable sources.

In addition to these sources, interviews were conducted with experts in the fields of architecture and landscape architecture; Elizabeth Long, Associate Architect and Planner at George Mason University and Reuben M. Rainey, Co-Director and Professor Emeritus, School of Architecture, University of Virginia.
Part II

Glossary of Terms

design - the creative illustration, planning and specification of space for the greatest possible amount of harmony, utility, value and beauty

designed landscape - a site that might appear to be natural but has elements and features that were planned and specified by a landscape architect

environmental design professions - landscape architecture, civil engineering, suburban planning, suburban design, and architecture

landscape - narrowly defined, the amount of countryside and/or city that can be taken in at a glance. Also, an area of land or water taken in the aggregate

landscape architect - a professional who designs, plans, and manages outdoor spaces ranging from entire ecosystems to small scale residential sites and whose media include natural and built elements; also referred to as a designer, planner, consultant

landscape architecture - the science and art of design, planning, management and stewardship of the land

Landscape architecture involves natural and built elements, cultural and scientific knowledge, and concern for resource conservation to the end that the resulting environment serves a useful and enjoyable purpose. Successful landscape architecture maximizes use of the land, adds value to a project and minimizes costs, all with minimum disruption to nature.

natural resources - the elements of supply inherent to an area that can be used to satisfy human needs, including air, soil, water, native vegetation, minerals and wildlife

open space - a relatively clear or forested area left untouched in or near a city. It may be active open space, such as a baseball field, or passive open space, such as an area of natural woodland
**site plan** - a dimensioned drawing indicating the form of an existing area and the physical objects existing in it and those to be built or installed upon it

**view** - narrowly defined, an extended view or prospect from a site which, many times, is as important as or more important than the site itself
Part III

Benefits of Restorative Spaces

Kaplan, Kaplan, and Ryan (1998) described a restorative environment as a place to rest and recuperate. In their study of restorative environments, they posited that "natural settings are particularly effective for R&R" (p 67). To understand how the physical environment can affect a person’s well-being, the disciplines of Environmental Psychology and Psychology may shed light on this phenomenon. Gifford (2014) explained that environmental psychology examines the relationship between a person and their environment, whether it is a private or public space or a natural or built space. Environmental psychologist Rachel Kaplan and psychologist Stephen Kaplan have indicated that a natural landscape can produce a restorative experience and can renew a person’s cognitive powers (Kaplan, Kaplan, & Ryan, 1998).

The definition of the verb “heal” is to make whole (Rainey, personal communication, October 17, 2014). It comes from Middle English words – holy, wholesome, and sound. The process of making whole involves a wholeness that is physical, social, and psychological. Health is often misunderstood to be the absence of disease, but that is only one dimension. The social and psychological dimensions are also important. Spaces on a campus can be conducive to reinforcing all three kinds of health; physical, social, and psychological.

Young adult college students spend much of their time engaged in demanding and competitive activities at a critical time in their lives when they are in a transition from youth to adulthood. Students are immersed in a new environment with the added challenge of completing assignments and studying for exams. Restorative environments are described as spaces with the following characteristics: "quiet fascination; wandering in small spaces; separation from distraction; wood, stone, and old; and the view from the window (Kaplan, Kaplan, & Ryan, 1998). These design elements are discussed further in the section, Design Characteristics of Restorative Spaces.
An important source for this research is the work done by Banning, Clemons, McKelfresh, & Gibbs, 2010. In their study, they found that American college students were more likely to find restorative places on the college campus that were both built environments as well as natural spaces. Participants also described favorite hiking trails, lakes, water features, and mountain scenes as restorative.

Continuing with the theme of restorative natural environments, a study by Hartig and Staats (2006) was designed to distinguish between natural and urban environments. The research subjects were 103 college students who were asked to evaluate the restorative value of a walk in the park and a walk on a city street in the morning and again late in the day after a lecture. It is not surprising that the subjects chose a walk in the park as more restorative. What may be surprising is that at the end of the day when the students were more fatigued, they were even more likely to find restoration in the forest. These studies reemphasize the importance of providing a variety of spaces for college students to be together as a larger community or in small groups, for teaching and learning, and for private reflection and meditation.

Research on restorative environments includes a study by Hartig, Mang, and Evans (1991). In this study, a group who had been in a wilderness environment performed better at proofreading than the control group that had not experienced the wilderness environment. Felsten (2009) conducted studies that focused on recovery from mental fatigue. Felsten writes, “According to attention restoration theory (ART), directed attention is voluntary, central to maintaining focus, controls distractions through inhibitory mechanisms, and requires effort” (p 160). In this study, people who focused a great deal of attention toward sustained activities became more fatigued. To recover from mental fatigue, ART identifies four properties that make settings restorative environments: being away, extent, fascination, and compatibility (Being away can be described as a secluded space. Extent is a space that is small and contained. Fascination is the anticipation of discovering the unexpected within a space. Compatibility is a space that provides natural characteristics.)
Restorative and healing are adjectives that have been used to describe places from restorative environments to healing gardens. Studies have shown that natural environments offer great benefit to individuals with mental fatigue and physical illnesses. Cimprich (1992) conducted research with cancer patients and found that patients who participated in nature activities had better recovery rates than those cancer patients in the control group who did not participate in nature activities.

The site plan of a college campus can have park-like spaces that renew cognitive abilities. The psychological benefit of special places for people of all ages and in all stages of health has become a popular topic in design, psychology, and well-being.

The following list highlights benefits of restorative spaces:

- Renew a person’s cognitive powers (Kaplan, Kaplan, & Ryan, 1998)
- Produce a restorative experience (Kaplan, Kaplan, & Ryan, 1998)
- Improve recovery after illness (Cimprich, 1992)
- Enhance physical and mental well-being (Olmsted, 1870)
Part IV:

Restorative Landscapes in America

Early historical examples of the disposition of America’s landscape design are the plans for Savannah, Georgia; Mount Auburn Cemetery in Boston; and Central Park in New York. They were designed and built to offer green spaces to people in cities to relieve stress or assuage grief (Rogers, 2001).

- Historic downtown, Savannah, Georgia
- Mount Auburn Cemetery, Boston, Massachusetts
- Central Park, New York City, New York

Savannah, Georgia. In early American town designs, green spaces were used for utilitarian gardens. In addition, early site planners realized the necessity of providing green spaces for public use. An example of restorative green spaces in early city planning is James Oglethorpe’s Savannah, Georgia (Rogers, 2001). Oglethorpe’s plan for Savannah was a group of forty house lots with the blocks arranged beside a central green with two large lots reserved for public buildings.
The following map of Savannah, Georgia as it stood on March 29, 1734, retrieved from the Library of Congress, shows how the design of the city included green spaces.
Savannah, Georgia
Plan of Savannah and its environs in 1782.
Savannah, Georgia

The four original squares:

- Johnson Square
- Wright Square
- Market Square, also known as Ellis Square
- St. James Square
Johnson Square

Johnson Square was established in 1733, and named in honor of South Carolina’s colonial governor Robert Johnson.
Wright Square

The second square was laid out in 1733 and originally named Percival Square. It was renamed Wright Square in 1763 to honor James Wright, the last notable of Georgia’s royal governors. It is sometimes referred to as Court House Square.
This square was designed in 1733 and was originally known as Market Square. In 1954 the square was demolished to make room for a parking garage, and in 2005 the parking garage was destroyed so Ellis square could be restored.
St. James Square

St. James Square was named in honor of a green space in London, England and marked as one of the most fashionable neighborhoods in early Savannah. It was renamed in 1883 to honor the Telfair family.
Mount Auburn Cemetery. Developments in seventeenth and eighteenth century garden design laid the groundwork for American cemetery design (Linden-Ward, 1989). The English landscape gardens served as attractive retreats for those with various new religious, philosophical, and political tendencies. The taste for nature had revolutionary implications, involving first the effort of individuals to find a proper place for melancholy contemplation outside of the established church and later the desire of the literate elite to create places representative of a number of new ideas of “natural law,” national history, and the relationship between civic virtue and cultural forms, material as well as literary. The melding of a new commemorative sensibility with neoclassical forms set in picturesque places occurred in the design of English “landscaped gardens,” which subsequently inspired built garden designs in America.

Johann Georg von Zimmermann, an eighteenth-century Swiss physician and author wrote that he found relief from suffering by taking walks in a garden (Schuyler, 1986). Zimmermann advised his readers to seek solitude in nature, where they could as it would relieve a broken heart. Several editions of Zimmermann’s book, Solitude Considered, were published in America between 1796 and 1840. This book was also popular with Transcendentalists who believed that being in nature was very important for well-being. Several transcendentalists were influential promoters of Mount Auburn Cemetery. Mount Auburn Cemetery was used by people to promenade and picnic and was Boston’s chief leisure attraction during this time.
Mount Auburn Cemetery

Mount Auburn Cemetery was designed to complement the picturesque beauty of the wooded site with meandering roads and paths. The site was laid out by Henry A.S. Dearborn.

Image 10
Mount Auburn Cemetery

A painting of Mount Auburn by Thomas Chambers (1808 – 1869).

Image 11
Mount Auburn Cemetery

Image 12

Image 13
**Frederick Law Olmsted.** When writing about public parks, Frederick Law Olmsted Sr. described park spaces as necessary for physical and mental well-being. Olmsted’s and Calvert Vaux’s design called for a sufficient number of trees for shade and places to walk within a bustling city. Frederick Law Olmsted stated, “What we want to gain is tranquility and rest to the mind” (Public Parks and The Enlargement of Towns, p 23). Olmsted, the first American landscape architect, wrote these words in the Nineteenth Century, but the elements that transformed a space into a place of tranquility to rest the mind can be used today in the Twenty-first Century when designing college campus spaces.

**Central Park.** Olmsted and Vaux won the design competition to create a public park in New York in 1853. This public park would later be called Central Park (“Central Park,” n.d.). Olmsted’s Greensward plan created a place to restore the body and mind. Olmsted believed that people in an urban environment need a distraction from stress to restore the body and mind (Rogers, 2001).
Central Park

Perspective map of Central Park 1860 showing meandering paths and lakes.

Image 14

Plan view of Central Park drawn in 1880.
College campuses with beautiful, historical landscapes emphasize their landscapes and gardens in their literature (Kenney, Dumont & Kenney, 2005). The spaces created by planners and landscape architects on a college campus have a significant impact on the students who live and learn on the campus. The landscape defines the space by providing outdoor rooms for the campus community. It is important for the campus plan to include outdoor spaces for classrooms, meeting places, and quiet places for contemplation. The culture of the university should also be reflected in the landscape design and campus plan. In addition, a college campus needs meaningful places that define the college campus. It should have places where alumni will want to revisit and places where visitors, faculty, and staff recognize the campus’s institutional significance.

Chapman (2006) posited that there are four distinct place characteristics for understanding the American college campus environment:

- Nature and Openness
- Inclusiveness
- Suburbanity and Civic Character
- The Strength of the Campus Idea

**Nature and Openness.** A campus that is sited in a natural and open landscape is open to nature and the natural world around the campus. This campus has spaces for openness, water bodies, and vegetation and offers a variety of private and public garden spaces. This campus provides “repose, respite, and aesthetic pleasure” to the user (Chapman, 2006, p 25).

**Inclusiveness.** The Land Grant Act and the community college movement changed the American college campus to a more inclusive environment with more student diversity.
Urbanity and Civic Character. College campuses became places with a civic order to encourage interaction among their users.

The Strength of the Campus Idea. An historic campus plan or a significant event, building, or landscape characteristic was often preserved and subsequently became the strength of many campuses. According to Chapman, hundreds of university campuses were preserved due to the original, significant site plan. A few examples are the University of Virginia, Princeton University, and Stanford University.

The University of Virginia

While researching campus design, one must study the site plan of the University of Virginia. Thomas Jefferson envisioned an “academical village” instead of large individual buildings as was the design of his alma mater, The College of William and Mary, and other colleges and universities of his time. At the center of the “academical village” is a large green space with five pavilions on each side.

On the following page is an image of the ground plan of the University of Virginia as commissioned by Thomas Jefferson and engraved by Peter Maverick. In addition, a modern plan of the university’s rotunda, pavilions, and gardens show that the gardens have been designed and planted. Three images of the pavilion gardens on page 38 highlight public and private garden spaces, meandering walks, and walls.
Ground plan of the University of Virginia

Thomas Jefferson commissioned this engraving of the University of Virginia

Image 18

The Rotunda

spaces for gardens
University of Virginia Lawn

Image 19

![Image 19](image19.png)

University of Virginia Lawn

Image 20

![Image 20](image20.png)
Part VI

Cultural Similarities and Differences

**Designing for a Diverse Campus.** When designing a site plan for a university campus, consideration must be given to the diversity of the student population. Studies conducted in other countries seem to agree with studies conducted in the United States. For instance, Lau and Yang (2009) conducted research at Hong Kong University, located within a densely populated urban environment. The case study asked college students three questions related to their perception and usage of green space. Although about 60% of the students visited a green space fairly often, it was the lily pond that was a preferred space among the students tested. The study also revealed that students did not visit the green spaces and lily pond more often because they were busy, the spaces were small, and they had to travel long distances to reach the gardens. These limitations are significant and could be used to inform the location and design of restorative spaces on college campuses. Since students have limited free time, restorative spaces that are conveniently located and adequately sized may be better utilized. Designers must create more easily accessible green spaces. Spaces that are convenient and easily accessible may be visited more often and allow students to seek restorative places routinely.

A study conducted in Finland suggested that college students in other countries preferred the qualities of natural environments. In this study by Korpela, Ylen, Tyrvainen, and Silvennoinen (2009), respondents' favorite spaces had natural environmental qualities that consisted of trees, water, and green space rather than those in urban settings. This research suggested that restorative qualities may be similar across cultures because these findings corroborate studies of the preferences of American students. Environmental benefits of spaces were researched in 2004 by Staats and Hartig. The participants for this study were 106 college students from a university in the Netherlands. In this study, students preferred natural environments over urban environments to enhance restoration.
Diversity at Mason. George Mason University is a diverse campus with faculty and students from all over the world. The total number of countries and regions represented at George Mason University is 122 with a total of 1,979 international students enrolled in 2013 (“GMU Factbook,” n.d.). This number will likely increase significantly over the next decade as the 2014-2024 Strategic Plan includes accessibility by creating a welcoming and open community (“2014-2024 Strategic Plan,” n.d.). In addition, George Mason has recently partnered with INTO University Partnerships Limited to increase international student enrollment over the coming years. The suburban environment coupled with an increasingly diverse population is an opportunity for Mason to explore its campus plan and create a well-being university for a growing international population (“About INTO George Mason University,” n.d.).

The challenge is to create gardens and open spaces that are cross-cultural and that meet the needs of all students on a suburban campus. A well-being campus should also include spaces to meet the spiritual needs of a diverse student body. The need for restorative places in American landscape design also applies to college campuses.

Spaces for Meditation and Prayer. Meditation spaces do not have to be related to a specific religion but can be a technology-free zone, a momentary escape from the craziness of college demands (Long, personal interview, October 16, 2014). An accessible space that could be used for religious purposes or meditation is an important space for the well-being of college students.

The meditation space should serve the entire university community and could be used for religious meditation as well as non-religious meditation or reflection. Due to Mason’s diverse population, a meditation space should consider the orientation it faces and provide flexible seating as well as ground space for prayer. By providing spaces throughout the campus with a variety of designs, students will be more likely to find a space that meets their needs.
**Nature.** A look back at the history of landscape design shows that nature and the design of outdoor space have had significant historical and cultural meaning (Rogers, 2001). Outdoor natural spaces have been used for ritualistic processions and elaborative garden design with grids to memorialize royalty and honor kings and popes. In addition, outdoor spaces were created to instill religious thought and contemplation.

**Water.** Water may be the most cross-cultural garden characteristic. The use of water has often been used in cultural religious garden design (Rogers, 2001). The Quran refers to four rivers originating from paradise. In the Bible, Genesis describes a river in Paradise flowing from Eden that branched into four streams. Reflecting pools for contemplation are seen in garden design throughout many cultures. The stillness of a quiet pool evokes reflection and contemplation. Fountains and rushing water create a dynamic space that produces a different atmosphere (Long, personal interview, October 16, 2014).

Life cannot survive without nature and water, nature to grow food and water to sustain life. Perhaps this is why humans and animals are drawn to nature and water. College campuses could include a variety of natural outdoor spaces for large gatherings and small intimate reflection and use water in these spaces to provide more variety within the spaces.
Part VII

Design Characteristics of Restorative Spaces

In With People in Mind, Kaplan, Kaplan, and Ryan, discuss the design characteristics and their qualities that contribute to a restorative space. Design characteristics such as walls, canopy, shrubs, lighting, and topography create the following spatial qualities:

- Quiet fascination
- Wandering in small spaces
- Separation from distraction
- Wood, stone, and old

**Quiet fascination.** When one is mentally and physically exhausted, passive activities in outdoor spaces include: sitting by a fire, absorbing the natural colors of trees and flowers, feeling a cool wind, smelling the fragrance of flowers, and hearing the sounds of wildlife. Fascination does not require physical or mental effort. It allows one to recover from mental fatigue.

**Wandering in small spaces.** This refers to a space that evokes a feeling of discovery, more than meets the eye, or a space where the mind wanders easily and wonders what is beyond. The space should not be large; a small space is better as a larger space may interfere with restoration.

**Separation from distraction.** Enclosures are helpful in an outdoor space to create a feeling of separation from distraction. This can be achieved by creating outdoor rooms. Tree canopy, shrubs, walls, and water can create outdoor rooms.

**Wood, stone, and old.** Outdoor spaces should use materials that are appropriate for the specific space. Materials such as stone steps and wood benches may be appropriate for some outdoor spaces. These materials fit in with the surrounding natural landscapes and gardens.
The view from the window. A variety of restorative spaces should be available throughout a college campus. There will be instances where an outdoor space is not available. In these cases, views from windows can provide a momentary fascination, wandering, and separation for an exhausted or weary mind. Take into consideration the views from windows to allow more opportunities for restorative spaces (Kaplan, Kaplan, & Ryan, 1998).

The following pages are examples of restorative spaces on college campuses.
Peace Chapel, Juniata College, Huntingdon, Pennsylvania, evokes a restorative space. The college is set in the rolling hills of central Pennsylvania. The Peace Chapel was designed by Maya Lin, the designer of the Vietnam War Memorial in Washington, D.C.

This outdoor space has natural stones and a feeling of enclosure that creates a restorative space. Even though the enclosed space is only a 40-foot-wide circle, the view allows the feeling of more than meets the eye. The space could be used for classes, worship, quiet meditation, and community gatherings.
Jessica’s Labyrinth was designed by a third year Landscape Architecture graduate student who won the landscaping design competition. This labyrinth measures 60 feet in diameter and is located on a small hill. The labyrinth is hidden behind flora and is at eye level so that the discovery of the labyrinth is a surprise. Labyrinths have been used in landscape design throughout the world.

The design qualities of this outdoor room use all four characteristics of restorative spaces (quiet fascination, wandering in small spaces, separation from distraction, and wood, stone, and old) as described by Kaplan, et al. (1998).

Image 23
The pavilion gardens at the University of Virginia also use all four of the restorative characteristics of outdoor spaces (quiet fascination, wandering in small spaces, separation from distraction, and wood, stone, and old).

Image 24
Pavilion Garden VII is one of the smaller gardens. The lawn is conducive to large gatherings but the garden also has spaces for intimate groups and secluded areas offering solitude.

Image 25
Pavilion Garden III is one of the largest remaining gardens. The garden has a meandering walk and areas to sit and enjoy the beauty of the garden. This garden could be used for a group or class meeting.

Image 26
This image of Pavilion Garden I shows a close up detail of the serpentine wall that surrounds the pavilion gardens at the University of Virginia.
The following images are garden spaces at the Sarah P. Duke Gardens at Duke University. These restorative spaces have four of the restorative characteristics of outdoor spaces.

Image 27

Image 28
Sarah P. Duke Gardens, Duke University

Image 29

Image 30
The Root Glen offers quiet fascination, wandering in a small space, although not an enclosed room, and distraction in a natural environment.
Carleton College’s Japanese Garden is named as one of the 50 best meditation spaces. The college boasts that the *Garden of Quiet Listening* has served thousands of students since it was designed and created in 1974. This restorative space is used for meditation and quiet reflection. All four design elements as described by Kaplan, Kaplan, and Ryan are utilized in this garden: quiet fascination, wandering in small spaces, separation from distraction, and stone, wood, and old.

Image 32
Part VIII

Conclusion

Research indicates that restorative spaces are beneficial because they renew a person’s cognitive powers, produce a restorative experience, offer better recovery after illness, and are necessary for physical and mental well-being. Research also indicates that the qualities of restorative spaces include: quiet, secluded spaces that are small and enclosed with natural elements. In looking back over the history of American garden design and American landscape architecture, the designs of Savannah, Georgia, Mount Auburn Cemetery, and Central Park are three examples of spaces that include restorative qualities.

In addition to the restorative qualities identified by Kaplan, Kaplan, and Ryan (1998), restorative spaces include water. Water has been used in garden design for many years throughout the world for reflective pools and fountains. The use of water in garden design is cross-cultural and therefore an important characteristic of a restorative garden space.

Deciduous canopy trees, coniferous trees, understory trees, shrubs, and groundcover offer restorative qualities to garden space design. Trees and plants offer quiet fascination by creating interesting spaces throughout the year. While deciduous trees offer an array of colors in Autumn and reveal the beauty of their trunks in Winter, coniferous trees create private spaces year-round. Trees attribute to privacy and beauty as they change and grow. Shrubs create private spaces and also provide habitat and food for animals and birds, quiet fascination in garden spaces. Flowers add more interest to gardens with color and fragrance.

Frederick Law Olmsted believed that all people, regardless of socioeconomic status, would benefit from nature. Restorative gardens are needed in hospitals, nursing homes, AIDS facilities, urban spaces, and college campuses.

Research indicates that both American students and international students seek restorative spaces. College students may seek restorative spaces for spiritual meditation, reflection, growth, and enrichment. Restoration may include sitting quietly beside a reflective pool or sharing a moment with a friend. College students often seek spaces that provide a connection to nature.
On a suburban, diverse, research university campus, a variety of spaces is essential to meet the restorative needs of all students. Students will use natural restorative spaces more often if they are made available throughout the college campus and offer a variety of spaces and seating options.

As a culmination of this research, a walkway of well-being has been identified at George Mason University. In addition, a restorative space within the original quad (Finley, Krug, East, and West) has been designed to implement the design characteristics identified in this study.

In addition to the above, a video was created by the author and can be found at https://www.dropbox.com/s/l6aaslqtwzhyzz/Restorative_Places.mp4?dl=0
As a culmination of this research project, a pathway of well-being has been identified at George Mason University, a large suburban research university in Fairfax, Virginia.

The pathway includes the four design elements of restorative spaces specified by Kaplan, Kaplan and Ryan: quiet fascination, wandering in small spaces, separation from distraction, and stone, wood, and old. The purpose of the pathway is to offer choices to its users. By identifying a pathway of well-being, students may utilize parts of the pathway or the entire pathway as time allows. The pathway leads to the original quad which is transformed into a restorative garden.

The three main components of the Pathway of Well-Being will include:

- the Art & Design Building
- the Mason Pond
- the original quad
The Walkway of Well-Being is highlighted in aqua and red. Red shows a dynamic pathway choice that leads to the quad while the aqua pathway remains more seclusive.
Mason Pond Walk

The walk around Mason Pond has natural trees and offers seclusion. There are benches beside the pond. The area could be improved by adding more canopy, shrubs, and ground cover as well as comfortable seating choices.
Mason Statue

One choice of the user is to walk by the Mason Statue and the fountains, a dynamic and active area of the campus or to walk through Harris Theater toward the quad, a more seclusive path.
College of Visual and Performing Arts Building

Well-Being Walk from Parking Lot A to the College of Visual and Performing Arts Building

Image 40

Image 41
The Well-Being Walk continues from the College of Visual and Performing Arts to the Johnson Center. This walkway has natural trees and gardens.
A Designed Restorative Space at George Mason University

The site chosen for the design of the restorative space is the original quad bounded by Finley, Krug, East, and West Buildings. This area was chosen because it is a space where alumni will want to revisit and remember. This space can be easily accessed but is also not a space that one would walk through routinely as it is somewhat secluded.

The quad is enclosed by the four original buildings, and the garden design includes additional shrubs and trees, which provides more seclusive and private outdoor rooms. The addition of a reflecting pool in this area is a contrast to the fountains near the Johnson Center. The fountains create an active space and are surrounded by daily campus activities and events. The reflecting pool in the quad would give the campus community the option of going to a quieter space for reflection or meditation.

The four original buildings should be preserved for their historical value and connection to Mason alumni. This project proposes that the walls facing the interior of the quad garden would be replaced with glass and railings to create a feeling of privacy inside the open buildings away from the quad garden. Glass would allow the inside spaces to be used throughout the year. An ample number of comfortable chairs and yoga mats will be provided.

The main feature of the quad garden is the reflecting pool in a 4-river motif design, which is cross-cultural. The reflecting pool will not end at the entrance to Krug but will continue inside the building. The pool inside Krug would allow for religious customs and privacy.

Native flowers and shrubs will be used to minimize the need for watering the plants and also provide food and shelter for butterflies, birds, squirrels, and other animals. Shrubs are added to the perimeter of the garden to create a feeling of privacy. Scrubs are also used in a variety of configurations to allow for small pockets of privacy for the user.
The Quad

Plan View of the Original Quad

Image 44
The Quad

Plan view of the original quad as designed by Deborah Mitchell. Shrub configurations are designed to provide nooks for individual privacy and small groups.
Part XI

References


Long, E. (Personal communication, October 16, 2014).


Rainey, R. (Personal communication, October 17, 2014).


Part XII

Images in order of appearance

Image 1: Cover photo of the grounds of the Biltmore Estate. Photographed by Deborah Mitchell


