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An Analysis of Techniques Used to Manage Historic Open Spaces on Two Suburban American University Campuses

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A thesis in Historic Preservation Presented to the Faculties of the University of Pennsylvania in Partial Fulfillment of the Requirements of the Degree of Master of Science in Historic Preservation 2008.
Advisor: David Hollenberg

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Abstract
As more and more Americans are attending higher educational institutions, the built environment of these places is becoming relevant to a larger number of people. To many graduates familiar with a university, its ensemble of buildings and spaces have the ability to stir up a sense of personal meaning associated with a past era in their life. It is important to preserve these campuses, by maintaining resources that already exist and protecting them from inappropriate change that would diminish their integrity.

The physical environment of a university is often an icon of the school. The school's community as well as the public associates the architecture and landscape of a school as part of its identity. In fact, the emblem of many universities is an historic architectural landmark, open space or ensemble of buildings that can be found on their campus. Such buildings and spaces are often used by the school to create a distinct identity.

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A Thesis

in

Historic Preservation

Presented to the Faculties of the University of Pennsylvania in Partial Fulfillment of the Requirements of the Degree of

Master of Science in Historic Preservation

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To my grandparents, Carmine and Mary LoDico, who I know would be extremely proud

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INTRODUCTION

As more and more Americans are attending higher educational institutions, the built environment of these places is becoming relevant to a larger number of people. To many graduates familiar with a university, its ensemble of buildings and spaces have the ability to stir up a sense of personal meaning associated with a past era in their life. It is important to preserve these campuses, by maintaining resources that already exist and protecting them from inappropriate change that would diminish their integrity.

The physical environment of a university is often an icon of the school. The school's community as well as the public associates the architecture and landscape of a school as part of its identity. In fact, the emblem of many universities is an historic architectural landmark, open space or ensemble of buildings that can be found on their campus. Such buildings and spaces are often used by the school to create a distinct identity.

In an era when many American universities are rapidly expanding, planning and the design approaches that result from it are often the most important tool in preserving the historic integrity of campuses. The intent of this thesis is to identify and evaluate planning and design techniques used to preserve the historic buildings and spaces significant to the identity of universities while appropriately managing inevitable change. These techniques can take a variety of forms, extending from the creation of specific preservation plans to the use of creative designs. In this sense, preservation can mean maintaining historic resources and protecting them from further inappropriate change.

Chapter One discusses the form of the American university campus- what makes it a distinct building tradition. A characteristic fundamental to the designs of American universities is the generous use of open space. This document focuses research on the preservation of open space on campuses. This inevitably requires consideration of building preservation as well- open space and buildings are too closely intertwined to separate. Landscapes alone can not form a campus until architecture enters to complete the picture. In addition, the reuse and rehabilitation of older buildings can contribute to the preservation of open space. If a new building does not need to be constructed because rehabilitation of an existing one satisfies the need, then more space is left untouched. For this reason, Chapter One discusses the importance of preservation on college campuses in general as well as the more specific advantages of conserving open spaces.

Chapter Two explores the challenges to preservation on American campuses, examining the major issues such as those that stem from the growing needs of these institutions due to increased enrollments and diversity of academic disciplines. Because of this, universities are forced to grow using either infill or expansion. Each of these methods has the possibility to support or counteract preservation efforts. Some of the issues discussed in this chapter are also identified in the case studies of Chapter Four.

Chapter Three provides a broad overview of techniques identified in planning literature for preserving open spaces on university campuses. This chapter focuses on landscape preservation techniques that have already been identified. The case studies build upon these techniques and identify additional ones.

Chapter Four uses two university campuses as case studies to analyze the problems facing preservation on campuses and the solutions that individual schools have been able

to utilize. The two universities chosen are both public schools in the Commonwealth of Virginia: the University of Mary Washington and the University of Virginia. The University of Mary Washington was selected because, even though it does not have a formal preservation plan, it has a distinct tradition of stewardship for those open spaces that have become closely identified with the image of the school. The University of Virginia was chosen as an example of a school with significant architectural legacy that includes perhaps the most important open space on any American campus, the Lawn. The University of Virginia is also able to support a full architectural staff and has a distinct preservation ethic identified in each of its planning documents. These universities were chosen for comparison based on their physical size-one large, one small; their human resources- one supports a full time architectural and planning staff, the other contracts out their planning and architectural needs and their similar locations on the outskirts of small cities in Virginia. Despite some differences, both of these universities have been successful in retaining their built environments and use some similar techniques to achieve this result.

Through the analysis of the nature of university campuses and an investigation into the building and open space preservation management approaches utilized by the University of Mary Washington and the University of Virginia, this thesis identifies some of the problems and solutions associated with the preservation of open spaces on suburban American university campuses. The techniques identified in the case studies apply primarily to suburban campuses, as urban universities face a different set of problems when managing growth due to an increased level of site restrictions.

CHAPTER 1- WHY IS PRESERVATION ESSENTIAL FOR COLLEGE AND UNIVERSITY CAMPUSES?

The Form of the American University Campus

Despite steady expansion and change, most older colleges and university campuses have an identifiable individual character. This may be associated with a distinctive pattern of buildings and open spaces (quadrangles and malls), an individual building, an architectural style; or unique topographical features or dramatic siting. Character could also derive from a less easily defined quality embedded in the overall form of the campus. These characteristics often originated as expressions of the educational ideals or character of the school, and acquired special significance that endured for successive generations of students and faculty as a physical embodiment of the school. They are among the most valuable assets of an institution, and their identification, evaluation and preservation ought to be a major goal of the planning process.[1]

The academic campus has become a uniquely American place. Those that began in the colonial era had a distinctive feel and appearance which sets them apart from European institutions. American higher educational institutions have their architectural roots in medieval English universities where students and teachers lived together and studied in tightly regulated colleges. Unlike their English predecessors, which were generally constructed in an urban environment, most early American schools were located in the countryside or wilderness, which promoted the isolation of the academic community. Additionally, American college planning is distinctive in its spacious designs that are open

[1] Paul Venable Turner, *Campus: An American Planning Tradition (New York: Architectural History Foundation, 1984),* 305.

to the world. Due to the amount of land available, early American universities openly rejected the European tradition of the cloister-like structure in favor of separate buildings set in a green space. Over the last few centuries, well manicured landscapes have become central to the image of the American university campus. This image is so strong that many urban campuses go to considerable expense and inconvenience in order to evoke if not simulate the ideal of rural spaciousness. Lawns, greens and quads have often reached iconic status at many universities and colleges.[2]

After 1817, many of the other character defining elements of American universities have their roots in Thomas Jefferson's vision for the University of Virginia. Jefferson's goal was to create an "Academical Village." This term summarizes a basic trait of American higher educational facilities from the colonial period to the present: the idea that colleges and universities are communities within themselves. The notion of the "Academical Village" reflects educational patterns and ideals derived from European patterns but developed in a distinctly American way.[3]

The architecture and planning of many American universities, reflecting Jefferson's idea of the independent learning community, provides facilities for a spectrum of activity. In addition to academic buildings, today's college and university campuses provide dormitories, dining and recreational facilities. The job of the collegiate architect and planner today is not only to design individual buildings but to sustain and enrich a physical ensemble supportive of a whole community. This involves the use of structures, natural

[2] Richard P. Dober, *Campus Design* (New York: John Wiley & Son, Inc., 1992), 185-192; Turner, 4.
[3] Turner, 3.

and designed landscapes, outdoor furniture, statuary and other elements commonly seen on campuses.[4]

Why is Preservation Important to Universities?

Colleges and universities are unique in that they are the stewards of personal and collective memories as well as a rich architectural legacy. Uncountable amounts of alumni, faculty and visitors connect their personal experiences with the physical environment of a campus. In addition, universities can strongly contribute to the surrounding community's sense of place. Universities are in the extraordinary position of being able to preserve the memories of thousands of people by maintaining their physical assets.

To those who are familiar with a campus, its landmarks are not just buildings but structures and features which provide a connection to a formative period of time in their lives. For many, the most vivid memories of their college experience include mental images of their alma mater: the buildings, landscape and other tangible features. The familiar physical features of a campus thus allow an individual to connect with a personal past. The design of a school can form an emotional connection to an academic experience as much as the people and ideas associated with it.[5]

Over time, architecture can become a symbol of an institution. The visual image of a school is usually associated with its oldest buildings and spaces. This is because the earliest erected structures and landscapes generally have an associative quality that exceeds more modern construction. Even an older structure that is a mediocre example of design

[4] *Ibid*, 3.
[5] Allen S. Chambers, "Establishing a Historic Preservation Framework Plan within Campus Management and Planning," *Planning for Higher Education* 18, no. 44 (1989): 4; Barry Munitz, "Place and History Matter on All Campuses," *The Chronicle of Higher Education* 51, no. 9 (2004): B15.

can be held in the same, if not higher, esteem as the most brilliantly designed building of today. These features have a certain character that becomes synonymous with the institution and a sense of permanence that accompanies antiquity. The oldest features of a campus are often considered "sacred" and held in high esteem by students, faculty, staff and visitors.[6]

The built environment of college campuses not only enriches personal and collective memories but our shared architectural heritage as well. When the whole spectrum of campuses in the country is looked at almost every architectural style popular in America is represented. These places have the ability to serve as museums of great architecture. In addition, higher educational institutions have attracted some of the nation's most talented architects. Buildings are not the only physical manifestations of the work of great architects; their designs can be seen in campus plans and open spaces. Many campus plans display the work of notable landscape architects such as Frederick Law Olmstead. Other institutions, such as Columbia University's Morningside campus, are defined by their Beaux Arts plans, a style which greatly relies on tightly defined relationships between buildings and spaces. The presence of such a large number of important architectural and landscape designs on college campuses is grounds for the argument in favor of campus preservation.[7]

Universities and colleges are in a unique position to help enrich a preservation ethic, tying physical stewardship to their intellectual and educational mission. These institutions serve as both educators and caretakers of some of America's finest examples of

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[6] Charles Z. Klauder and Herbert C. Wise, *College Architecture in America* (New York: Charles Scribner's Sons, 1929), 1-2; Chambers, 4-5.
[7] Lawrence Biemiller, "Preservation Decisions Vex Campus Planners," *The Chronicle of Higher Education* 48, no. 43 (5 July 2002): A24- A26; Munitz, B15.

architecture. Educational institutions can take the lead example by wisely planning and maintaining their physical assets. Colleges and universities are thus in an ideal position to teach students that place and history matter. Also, they can teach that architectural conservation is a civic responsibility by caring for their resources. Educating students about preservation can ensure that future generations can experience great architecture for years to come.[8]

Why are Open Spaces important?

It is impossible to imagine a campus without a landscape. Aesthetic reasons alone may be enough to justify the preservation of green spaces on a college campus, but these spaces also serve a variety of other needs including economic, social, functional, architectural, and spiritual. Preserving these spaces can harvest immeasurable benefits for the institution.

From a design standpoint, open spaces frequently constitute the unifying element on a college campus. Organizing elements need to exist to draw the campus together and make various elements a cohesive whole. Landscapes can serve as the skeleton for the overall campus plan and interior circulation systems. .For example, Beaux Arts plans arranged buildings along an axial boulevard or around city squares. This brought buildings into a pattern as well as produced visual harmony and order. Frequently, open spaces were designed to accentuate a buildings and landmarks or create a focal point. Open spaces are

[8] Munitz, B15.

often an important architectural element of the campus and their loss could disrupt the balance of the whole design.[9]

The presence of well maintained open spaces can also be beneficial for future development. As campuses expand, a sequence of open spaces can be used to integrate the many diverse areas that comprise the modern campus, as well as spatially separate them. The best campus designers seek unity by visually connecting the work of earlier generations with new construction. Defining characteristics of historic green spaces can be used to link new areas to old ones. Also, consistency in other characteristics such as paving materials, signage or lightening can help to create a visually unified community. Open spaces can be manipulated in a variety of ways to unify a constantly changing campus.[10]

Formally designed landscapes are not the only type of open space that can contribute to the design of a campus. Natural features are important as well. Attractive areas left in their natural form, such as woods and ravines, can help establish a campus identity.

Open spaces can also promote mental health by providing relief from a densely built environment. The central cores of many larger universities have reached densities of urban proportions, which promotes physical and mental stress. If contrasted properly, open spaces can provide a place of relief from heavily developed academic cores, even if the area is not that large. An example of this is the Biopond at the University of Pennsylvania, which is situated amid a complex of research laboratories. The area serves as

[9] Janice C. Griffith, "Open Space Preservation: An Imperative for Quality Campus Environments," *Journal for Higher Education* 65, no. 11 (1994): 646-648; Dober, 167.
[10] *Ibid,* 648-649.

an oasis for the students, faculty and researchers that work in these buildings. Open spaces can provide much needed relief from building density.[11]

There are many functional needs associated with campus open spaces. Pedestrian corridors make possible fast circulation as well as provide aesthetic pleasure. Many colleges use axes to connect different parts of the campus to one another. Other outdoor areas must be maintained for recreational purposes including playing fields which promote active sports and areas which provide a place for passive activities such as courtyards and other small spaces.[12] In addition, many universities use their open spaces as outdoor science labs. Trees, shrubs and other plants in arboretums, natural areas and gardens are often labeled for teaching. Landscapes and their plant life can also be formed to serve much more practical reasons such as buffering noise, diverting traffic, creating privacy and securing boundaries.[13]

A well planned, maintained and aesthetically pleasing campus with sufficient open space can also reap economic benefits for the institution. For a prospective student, the perception of how a campus looks and feels plays a critical role in their choice of college. In some cases, donors are more likely to invest in an institution with a pleasant environment contributed to by the presence of open spaces. This is especially the case on campuses such as the University of Virginia where open space is fundamental to the school's identity. A visually harmonious campus also provides a sense of longevity and helps a donor feel that he or she will be giving to an institution that will last many years

[11] *Ibid*, 649.
[12] *Ibid*, 649.
[13] Dober, 167, 193-201.

into the future. In addition, well maintained and preserved places are likely to stir alumni sentiments and lead to donations.[14]

Socially, open spaces on campuses can help to create a feeling of community and a sense of place. Formally designed open spaces are frequently the site of communal experiences shared by the student body such as commencements, fairs, and traditions unique to each school (for example Fountain Day[15] at SUNY Albany). Everyday experiences that typically occur in open spaces also foster the community atmosphere that has become synonymous with American universities. Paths, greens and plazas are the site of social contact between people who may otherwise never come in contact with one another. After many casual interactions, people begin to be more aware of one another and a sense of trust and community is developed. This leads students, faculty and staff to form a public respect for one another and creates the foundations for community. Public open spaces on campuses are thus key to developing a sense of community on campus.[16]

[14] Michael Vergason Landscape Architects and Ayers Saint Gross Architects and Planners, "University of Virginia Landscape Master Plan," (1997): 4; Griffith, 648-650.
[15] Fountain Day is celebrated each spring when the main fountain on the Academic Podium of the University's Uptown Campus is turned on for the season.
[16] Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage Books, 1961), 56.

CHAPTER 2- WHAT ARE THE PROBLEMS FACING PRESERVATION ON COLLEGE AND UNIVERSITY CAMPUSES?

Universities are unique institutions with varying problems that can counteract or hinder preservation activities. The necessity of new facilities due to increased enrollments can threaten the preservation of irreplaceable buildings and open spaces. Approaches to managing growth and change, including infill and expansion, can create an opportunity to either compromise the integrity of historic resources or avoid such compromise with preservation sensitive planning and design. Although some university administrations may realize the benefits of historic buildings and landscapes on their campus, there are several reasons why preservation might not be commonly practiced.

Negative Attitudes and Problems Facing Preservation on University Campuses

The receptivity to historic preservation on American college campuses has been somewhat mixed, as it has been in other planning arenas. At some colleges, relationships with preservationists have been marked with disagreements, strife, and law suits. On the other hand, several colleges have warmly greeted and profited from well thought out preservation planning.[17] The problems that face preservation at many schools can be related to economics, conflict between new program requirements and existing structures and open spaces, university politics or simply just a negative attitude incited by members of the administration. Whatever the issue, preservation can have a hard time becoming a fundamental component of the planning and design practices of some universities.

[17] Chambers, 5.

Preservation on higher education campuses is often a highly political matter. At any given time there are a number of parties competing for funding, resources and space. The needs of the school's academic departments often outweigh preservation activities. Most universities are more likely to allocate funds to new science research facilities than to the rehabilitation of a historic building or landscape. In addition, imperative requirements for new facilities sometimes conflict with the siting of historic resources or require them to be significantly altered. For example, if an academic building requires an addition and the only way to accomplish this is to compromise the integrity of a historic building or landscape, the historic resource is likely to be infringed upon. [18]

It is common knowledge among campus planners that many of America's higher education institutions struggle with their financial situation. Preservation is often seen as a luxury not a necessity and already strained funds are less likely to be spent on the maintenance of historic resources. At a recent conference sponsored by the J. Paul Getty Trust on protecting colleges' historic and architecturally significant buildings and landscapes, many administrators admitted that preservation is perceived as being costly or at least more expensive than new construction. In many cases, this is not true, but this perception is a common mental block that works against preservation.[19]

Finding a funding source is a common problem for the preservation of historic collegiate resources. State legislators and donors are more likely to taken an interest in new construction than in the rehabilitation of existing structures or landscapes. Private donations are also harder to collect because patrons are generally more willing to donate to

[18] Biemiller, A24-A26.
[19] Chambers, 5; Biemillller, A24-A26.

more high profile projects than replacing window frames or repointing.[20] In addition, it is not always possible to rename a historic building after a donor, a major incentive for donors. Preservation projects can have a difficult time finding financial support from the university, public and private funds.

Campus planners and architects also often encounter technical problems that make it hard to work with historic resources. Often, the structures themselves are the source of troubles. Older buildings may be too small to accommodate expanded programs or may be structurally difficult to adapt to other uses. The need for modern technology such as internet and electrical access can cause a historic building that is not well equipped to be challenging to adapt for certain uses.[21]

Libraries and science centers often have the most problems adapting to technological advancements. Many university libraries were constructed to follow the old system of circulating books and other resources. The old system involved a separation between stacks and reading rooms, with access to the former being restricted. When the popular system of material circulation began to allow library patrons into the stacks, the physical layout of many university libraries proved to be inflexible and in recent years, the problem with older libraries stems from their inability to be wired for internet access and power sources for computers. Many other older academic buildings and dormitories have similar issues with wiring.

Science centers tend to have problems comparable to those of libraries. It is difficult to shift uses around inside of a science building as each department and researcher requires different machinery and resources to fit their needs. An example of this is the

[20] Biemiller, A24-A26.
[21] *Ibid*, A24-A26.

Richards Medical Research Laboratories designed by Louis Kahn at the University of Pennsylvania. This building, designed to perform a specific function is highly inflexible, and many lab spaces inside of the building are unused today. Libraries and science facilities are often the most difficult to adapt to other uses or retrofit for a similar use due to their specific physical requirements and inflexible physical design.

Planning for preservation can be a sticky situation because many people fear that once a plan is written it will need to be strictly adhered to. At a recent conference sponsored by the J. Paul Getty Trust, planners and architects admitted that preservation is such a challenging topic that many colleges avoid writing preservation plans for fear that they will have to follow them. Some that do have plans or historic structures inventories keep them hidden away.[22]

In a similar fashion, many universities are reluctant to have historic designations given to buildings and landscapes on their campuses. Inclusion on national or local registers creates an apparent obligation to protect and preserve that historic resource. In addition, the nature of the designation can restrain the university's right to physically alter the resource. Prospective changes to designated resources, even if not technically prohibited by the designation, can attract attention from outside parties and hinder the university from continuing the project.[23]

Other preservation decisions, both pro and anti, have the ability to attract a fair amount of attention. For alumni, because of their strong attachments to both campus buildings and the outdoors spaces they help define, changes can be controversial. Matters

[22] *Ibid*, A24-A26.
[23] Dober, 17.

concerning the work of a well known architect are even more dangerous because the proposed alterations can attract national attention.[24]

In addition to these problems, the J. Paul Getty Trust began to realize that many constituencies including administrators, facilities managers, faculty, students, alumni, and donors, were interested in preservation but were not always communicating with each other about it. This meant that historic resources were not able to receive proper attention. The Getty also heard from college officials that they were struggling with finding ways to incorporate preservation into their campus master plans.[25]

Issues Affecting Open Space Preservation

Expansion on American campuses, attributable to steady post World War II enrollment increases, depleted sizable portions of open space. In addition, building expansion and other infill projects gradually caused the loss of open spaces that were a contributing part of the original plans of many campuses. These spaces, in cooperation with buildings, were part of a planned ensemble which is clearly important to the sense of a campus. The loss of a significant landscape, which is often made to do the principal work of tying the whole together, is detrimental to the institution.[26]

Janice C. Griffith, currently a Professor of Law at Georgia State University College of Law and former Dean of the school, has identified the main threats to the preservation of campus open spaces. She notes that institutions often suffer from the following problems or situations:

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[24] Biemiller, A24-A26.
[25] Munitz, B15.
[26] Frances Halsband, ed., *Places: A Forum for Environmental Design: Considering the Place of Campus* 17, no.1 (Spring 2005): 6; Griffith, 651.

1. the pressure to build additional facilities due to larger student enrollments,
2. the demand for improved facilities to correct existing deficiencies,
3. the need to incorporate new technology into research laboratories and campus libraries,
4. the preference to group related disciplines together in order to encourage interdisciplinary interaction and to decrease walk times between classes,
5. the ongoing need to facilitate campus access by providing additional vehicular traffic circulation routes and parking spaces,
6. the placement of greater value upon buildings than the open space they use,
7. the attachment to a higher education value system that rewards administrators for the amount of space occupied and used for construction rather than for the efficient use of space, and
8. pressures from the surrounding community that block outward expansion.[27]

All of these threats, in some way, relate to the physical growth of the campus. These problems, if addressed correctly, do not necessarily have to negatively affect the amount of valuable green space.

The Problems of Infill and Expansion

Inherently, academic campuses face unique problems related to growth and expansion. As enrollment increases, there is a demand for more academic buildings, residence and dining halls, and student centers. Furthermore, as schools broaden their academic offerings they create a need for additional facilities. For example, if a university begins a law or business school it will most likely need to construct a complex of buildings

[27] Griffith, 652.

to house it. Almost every university expands in some form, and campus planners and architects are faced with the grueling task of physically managing growth.

Expanding academic institutions can choose between two options: infill development on existing land or new development on space that is already owned or newly purchased. Infill projects mean increasing the density in an already crowded academic core, which can threaten significant open space. Alternatively, development could mean sacrificing natural landscapes on the periphery in order to save significant spaces inside the academic core. The choice between the two is often determined by what the individual institution is capable of doing.

Institutions often chose to construct new buildings within the existing campus or academic core for a variety of reasons. One of the most popular reasons is to keep academic buildings of a similar program within proximity to one another (For example, constructing the chemistry lab near the biology building to promote interaction between the departments). In addition, many schools choose to keep academic buildings in proximity to each other so that they are in easy walking distance of one another. This helps to eliminate the presence of the automobile on campus and promotes a feeling of community. Infill is also a popular option for urban campuses that are physically restrained from expanding. [28]

Infill is not necessarily a threat to significant open spaces if done correctly and with a bit of creativity. In fact, infill architecture can be used to help define an outdoor space. Infill becomes dangerous when its incremental effects are not monitored. The cumulative effects of many years of infill practices can destroy an enjoyable campus environment. When the integrity of a green space is infringed upon by successive infill projects, a domino

[28] Biemiller, A24-A26; Griffith, 654.

effect might follow, slowly eating away at the important spaces that make the campus environment enjoyable. Infill can be harmless to open spaces if done correctly but must not be an abused option.[29]

However, often infill is an option that cannot be used. For example, the footprint of a new research lab is about 60,000 square feet. A building as large as this does not easily fit onto a historic campus. In a case such as this, a university is forced to expand onto undeveloped lands already owned by the university. This type of expansion alleviates the problem of density within the academic core, but can impinge upon land that has remained open for scenic enjoyment, recreational or scientific use. This land might otherwise remain a land bank or, in other words, an open space reserve.[30]

Expansion of a campus onto newly acquired lands can be a good method to keep a historic core free of infill, but it can also cause problems with the outside community. Adjacent neighborhoods may be full of historic resources that an expanding institution would need to destroy to meet their needs. An example of this is George Washington University which expanded into dozens of blocks in Washington, D.C. where turn-of-the-century townhouse and homes once stood.[31] A more recent example is Columbia University's planned expansion into West Harlem, where a new campus will cover and significantly change 17 acres of an existing neighborhood, according to the proposed plan developed jointly by Skidmore, Owings & Merrill and Renzo Piano. The creation of this

[29] Phillip Acidi, "Inquiry: Campus Infill," *Progressive Architecture* 71, no. 4 (April 1990): 100; Griffith, 654.
[30] Griffith, 655; Halsband, 7.
[31] Chambers, 7.

new campus will preserve Columbia's historic core of buildings and spaces but may destroy another neighborhood.[32]

Infill and expansion are necessary for growing academic universities. Each method has advantages and disadvantages and universities must decide what works best for their situation. Often a creative blend of the two options can be the best solution to the problem.

[32] Dorian Davis, "Piano, SOM's Columbia Plan Stirs Controversy," *Architectural Record* 195, no. 7 (July 2007): 36.

CHAPTER 3- PREVIOUSLY IDENTIFIED TECHNIQUES FOR PRESERVING OPEN SPACES ON UNIVERSITY CAMPUSES

Sensitive planning is the key to the preservation of open spaces on university campuses. The designs of architects and planners have the greatest influence over what happens to an institution's historic resources, especially if university leadership does not have a strong preservation ethic. A good plan will balance the current and projected needs of an institution with existing structures, landscapes and features.

Managing the growth of a campus is comparable to managing the growth of a city or town. Campus planners must coherently organize an ensemble of buildings while considering many site-planning and architectural issues, including relationships between buildings and open spaces, mass, scale, pedestrian connections, vehicular accesses and the school's academic, administrative, athletic and residential needs. In addition, universities face problems of intense growth pressures, traffic congestion, deteriorating infrastructure, aging and obsolete buildings and environmental degradation. It is the job of the planner or architect to correct all of these problems. In addition, many universities have gone through various periods of development, each with a different approach to managing growth. Universities often face the task of having to correct problems caused by past phases of planning.[33]

Although campus planners have to balance a variety of different issues, it is still possible to meet current needs while being sensitive to existing open spaces. After studying planning documents from several well known American universities such as Ohio

[33] Roger K. Lewis, "Bricks, Mortar and Vision: A Guide for Campus Planning," *The Chronicle of Higher Education* 50, no. 29 (2004): B20.

State University, the University of Iowa, the University of Michigan, Columbia University, Purdue University, the University of Wisconsin- Madison and Kenyon College, Professor Janice C. Griffith (already cited in Chapter 2 above) has identified thirteen techniques used to preserve campus open space, summarized below.

The Treatment of Open Space as Sacred Ground

The treatment of certain high profile open spaces as "scared ground" has maintained the presence of open space even in the absence of a master plan. A tradition of veneration for the natural and designed landscape for long periods of time self-enforces preservation activities. Alumni, students, faculty and administrators are more likely to protect "sacred ground" when it is threatened. Protests would occur if anyone mentioned destroying these places. Spaces that are considered sacred ground often become a symbol of the school and have strong emotions attached to them. These spaces become untouchable because of their iconic status.[34]

Designation of Open Space Preserves

A useful technique for open space preservation is the official setting aside of major pieces of the landscape in an official document or designation. Spaces that enhance monumental buildings, provide view corridors, add significantly to the campus's image, or make the campus aesthetically pleasing, may be officially preserved by master plan or board of trustees designation. Institutions can set aside major portions of land that contain a significant landscape feature or resource. This may include the ranking of significant spaces in a master plan, the highest ranking going to space that should not be violated.[35]

[34] Griffith, 659-660.
[35] *Ibid*, 660.

Open Space Land Banks

Some institutions may choose to place land in reserve for a definite period of time until it is needed for significant development. Because the land is not readily available for most projects, smart infill and redevelopment are encouraged. This conserves remaining open lands and prevents haphazard and premature development. The land is therefore conserved for larger development that is more likely to be well thought out and designed.[36]

Creation of an Open Space Land Use Category

The creation of an open space land use category in planning documents allows open space to achieve greater importance as a functional element that must be addressed when other elements encroach upon it. If green space is designated as a significant design element it is more likely to be considered as important as other elements such as buildings and circulation routes.[37]

Percentage Open Space Set Asides

Universities can adopt tools similar to zoning that regulate the intensity of development by setting aside percentages of land as open space. This will restrict building densities and thwart infill development.[38]

Ground Area Coverage Restrictions and Floor Area Ratio Requirements

Ground area coverage restrictions and floor area ratio requirements are frequently used by municipal zoning ordinances to control density and building mass. They can also be applied to university campuses to manage development. Ground area coverage (GAC) restrictions regulate the percentage of a lot that can be occupied by a building. In municipal zoning, floor area ratio (FAR) limitations regulate building bulk by specifying the

[36] *Ibid*, 661.
[37] *Ibid*, 662.
[38] *Ibid*, 662.

permitted ratio of the total square footage of all the floors in a building to the total square footage of the building's lot. On campuses, where there are no building lots, lot size may be expressed as a ratio of the total floor area on all floors of all buildings to the total ground area in a given district. Institutions can establish GACs and FARs for the entire campus or potions of it in order to control building density and bulk.[39]

Setback Requirements and Building Height Restrictions

Setback requirements and building height restrictions also have the ability to control campus density by leaving more air and space around buildings. Setback requirements ensure that buildings are constructed at appropriate distances from curbs or sidewalks. Building height restrictions can limit the size of buildings and maintain the feel of open spaces.[40]

Density Management Policies

Some institutions choose to forego campus wide measures of density in favor of a density management plan that is specific for individual campus areas. This technique is slightly weaker than others because restrictions may be waived if a proposed new use of space outweighs the loss of it.[41]

Impact Statement Requirements

The national government uses environmental impact statements to increase environmental awareness and to check against environmental abuse at all levels of government. At least two higher educational institutions have adopted a similar approach into their planning process. At Kenyon College, proposed physical changes must be measured against their contribution or impact within the campus environment. The

[39] *Ibid*, 662-663.
[40] *Ibid*, 663.
[41] *Ibid*, 663-664.

University of Iowa requires a careful evaluation of the impact that a new facility will have on each of the functional elements they have specified (circulation, green spaces, building sites, parking and utilities). According to the institution's planning framework, development should not proceed if the evaluation shows that these elements cannot continue to coexist and function well together after the proposed development project is completed. In theory, impact statements should assist in protecting open spaces and other functional elements because planning staff is required to think about what will happen to these places before new development is implemented.[42]

Removal of Surface Parking and Roadways

The creation of green spaces by the removal of surface parking and the closing of streets and roadways in central campus areas have recaptured open spaces on many campuses in the last several decades. The growth in student enrollment following World War II has made it an impossible task to provide enough parking in the central campus area. This has spurned a more pedestrian oriented approach to planning. In addition, parking lots are often potential building sites due to their location in proximity to major areas of the campus. Development on former surface parking sites means that development is not occurring on green spaces and protects them by default.[43]

Construction of Underground Facilities

Underground construction is a creative way to preserve valuable green space. This technique allows development to still occur without compromising open space in an already densely packed campus core.[44]

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[42] *Ibid*, 664.
[43] *Ibid*, 664-665.
[44] *Ibid*, 665.

All of these are good techniques for the preservation of open spaces. The case studies in the following chapter will illustrate some of these practices and identify further ones. In addition, these studies will identify specific problems facing universities in regards to the care of their significant open spaces.

CHAPTER 4- CASE STUDIES: THE UNIVERSITY OF MARY WASHINGTON AND THE UNIVERSITY OF VIRGINIA

Introduction and Methodology

In order to illustrate how several techniques are used to preserve open spaces on university campus and to identify new techniques, two higher educational institutions were chosen as case studies. The University of Mary Washington (UMW) and The University of Virginia (UVA) are both public schools in the Commonwealth of Virginia. Although UVA is much larger than UMW, both schools are known for the beauty of their campus grounds and historic buildings. In addition, both schools have become closely associated with the architectural vocabulary of their campuses, which happen to have a similar appearance based in the use of red brick and white trim. UVA's Jefferson designed buildings had a great influence on the colonial revival structures of UMW constructed about a hundred years later. The symbol of each school is an illustration of a familiar form on the campus; UVA uses the image of one of its most important structures, the Rotunda, and UMW uses a series of columns. Both schools take their architectural legacy seriously and have done relatively well in preserving it.

UMW is a school that is not well known for its distinguished architecture, nor does its campus contain any significant individual works. What is important about the buildings and spaces of the UMW campus is their cohesiveness which provides a sense of place and community. Preserving and continuing this legacy is important to maintaining the school's identity, which has become closely connected with its physical appearance.

In contrast, UVA is a school well known for its many significant works by well known architects and its signature open space. The initial buildings of the campus, Thomas Jefferson's "Academical Village," are the source of a rich architectural legacy. Within the last century, the care of these school's significant buildings and landscapes has become an important undertaking for each university administration.

Both of these universities contain landscapes that are significant features of their campus. A cohesive element of the design of the UMW campus is the setting of buildings around large green spaces open on one end. These spaces are an important feature of the campus, and the school has recently made choices involving the siting of buildings which saved these fundamental spaces from losing integrity. Open space preservation is slightly different at UVA. The school's campus contains possibly the most significant open space on any American university campus, the Lawn. The University considers this space as "sacred" and advocates the creation of other open spaces that can continue the traditions and ideals embodied in the Lawn. The reasons for preserving the open spaces on both campuses are different, as are the techniques used to achieve this result, but the importance of the landscape is recognized by both institutions.

These two universities were chosen because of their similarities and differences. The schools are both in a similar suburban setting on the outskirts of small Virginian cities. They each have room to expand, and have done so, when necessary, often on behalf of preserving open space in their academic core. This greatly affects the type of planning techniques used to manage change; urban campuses would not be able to use all of the same techniques due to site restrictions. Differences in physical size and architectural and planning staff numbers between the two universities helped to evaluate whether the

identified techniques could work on a variety of suburban campuses, or only for specific universities. Several of the techniques have been applied to both the University of Virginia and the University of Mary Washington, suggesting that they could be adaptable for other suburban institutions.

For the two case studies that follow, in order to identify planning techniques used to manage the historic resources of each university it was first necessary to investigate the physical development patterns of each institution to identify which open spaces were important historic resources, and why they had been determined to be so. At the University of Mary Washington, significant open spaces were classified as important because of their contribution to the overall design pattern of the school. The important open spaces of the University of Virginia either relate back to Jefferson's original intent for the institution or are a reflection of the development patterns of the campus over the past one hundred and eighty years.

Finally, building on this investigation of open space development patterns, the two case studies that follow analyze planning documents to identify the problems facing each university and those techniques used to correct them that resulted in the preservation of historic open spaces as well as buildings. Most of the problems identified related to increased enrollments that placed stress on the existing building stock. Once problems and their solutions were identified, the two universities were compared and contrasted to determine what techniques could feasibly be used on other campuses.

Case Study: The University of Mary Washington

The University of Mary Washington (UMW)is located in Fredericksburg, Virginia about halfway between the cities of Washington, D.C. and Richmond. Fredericksburg is a small city with a vibrant downtown sector and residential core. Most retail is segregated to the fringes of town or nearby Spotsylvania County in the form of big box stores and national chains.

UMW does not dominate Fredericksburg, but it is a major component. The town has strong historic ties to both the Revolutionary and Civil Wars. The Battle of Fredericksburg was fought in December of 1862 in and around the downtown and the town saw action associated with the Chancellorsville campaign in April and May of 1863. Portions of both battles occurred on land that is part of UMW's campus.[45]

UMW occupies a large portion of the heights that overlook Fredericksburg's downtown area. Most of the undergraduate campus is bordered by Route 1 (Jefferson Davis Highway), College Avenue, William Street and Sunken Road. The athletic fields are located a few blocks away on Hanover Street. Because the main portion of campus is located on the heights, there are several sharp changes in topography. A ravine runs through the central portion of campus and during periods of heavy precipitation a stream flows at the bottom of it. The edge of campus that runs along Sunken Road is mostly wooded (see Figures 1 and 2).

The architectural vocabulary of UMW's campus is similar to many other southern institutions. Dominated by red brick and white columns, most buildings are three story

[45] Noel Harrison, *A Walking Tour of Civil War Site on the Campus of Mary Washington College* (Fredericksburg, Virginia: Center for Historic Preservation Mary Washington College, 1993), passim.

interpretations of neoclassical designs. Brick pathways crisscross the green lawns of the campus and colorful flowers are present at almost all times of the year (see Figure 3).

Brief History of the University of Mary Washington

In 1908, the Virginia General Assembly passed legislation to begin construction of the Fredericksburg State Normal and Industrial School for Women after a long debate over where the institution was to be located. The establishment of the school was a response to an urgent need for well prepared teachers throughout the commonwealth. The Board of Trustees selected a wooded area on the heights west of the city to construct the first college buildings. This site offered an attractive view of the city as well as beautiful surroundings for the new school. Ground-breaking ceremonies took place in December of 1909 and the school's first session began in September of 1911.[46] The school's first of several name changes occurred in 1914 when it became the State Normal School for Women at Fredericksburg.[47] Another change in name occurred in 1924 (State Teachers College at Fredericksburg) and the name Mary Washington College, for the mother of George Washington, was adopted in 1938. The college became part of the University of Virginia in 1944 and served as the Women's College of Liberal Arts and Sciences.[48] In 1972, the school began to admit males and separated from the University of Virginia, which had also become co-ed in 1970. That same year the name changed back to Mary Washington College and the institution became autonomous, with its own governing

[46] Edward Alvey, *History of Mary Washington College 1908-1972* (Charlottesville: University Press of Virginia, 1974), 10-21.
[47] *Ibid*, 69.
[48] *Ibid*, 277-279.

board.[4950] In 1999, the Center for Graduate and Professional Studies was opened in nearby Stafford County.[51] The most recent name change occurred in 2004 when the school was renamed University of Mary Washington and the campus in Stafford County was renamed the College of Graduate and Professional Studies.[52]

Campus Development Patterns

Mary Washington lacked an overall plan for many years but a development precedent was set by the school's first architect, Charles M. Robinson, who initiated a pattern of clustering buildings around a green or circle. This pattern became a major feature for future expansions, along with the use of a Neo-Georgian architectural vocabulary using red brick with white trim. The use of an consistent architectural vocabulary and siting along with the preservation of the natural topography has resulted in a cohesive campus.[53]

Initial development of the campus followed a pattern similar to that of other normal colleges.[54] The first facilities were modest, with one main building that housed most collegiate functions. Normal colleges generally emphasized the home-like character of the institution, and at Mary Washington that characteristic manifested itself in the construction of small scale quadrangles.[55] Areas of the campus constructed before 1970

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[49] *Ibid*, 511-512.
[50] Within this document, the school is referred to using its various names depending on the time period being referenced. For example, when discussing planning documents created in the 1980's the name Mary Washington College is used but when referring to the school in the present the University of Mary Washington is used.
[51] University of Mary Washington Centennial Celebration Website.
[52] *Ibid.*
[53] Richard Guy Wilson, ed., *Buildings of Virginia: Tidewater and Piedmont* (New York: Oxford University Press, 2002); 320.
[54] "Normal" colleges were state institutions dedicated to the training of teachers, mostly women.
[55] Turner, 133-140.

generally follow this pattern of development (see Figures 4, 5 & 6). The arrangement of buildings generally form quadrangles with one end open to a vista and a large, usually grass covered, open space in the center. The surrounding buildings usually serve a variety of purposes; at least one structure in each cluster is typically a residential dormitory and one an academic facility. The exception to this pattern is the Fine Arts Center, which consists of three interconnected academic buildings.

The original college structures are grouped around a brick open space known today as Palmieri Plaza. Willard Hall, a dormitory, was completed at the opening of the school in September of 1911 and Monroe Hall was finished slightly after. Development generally proceeded south and along the campus's only vehicular road, Campus Drive. Buildings generally were constructed in the shape of a quadrangle or a circle. Several major designed open spaces were constructed including Ball Circle, Westmoreland Circle, the Beach, and Jefferson Square.

The college began to expand north in the early 1950's with the Fine Arts Center on College Avenue, the first break in the pattern of inward-facing clustered buildings. For the most part, the pattern of clustering a series of buildings with differing uses around an open space was discontinued from use by the College around 1960 (Jefferson Hall is the exception). The structures built after this point are nestled into hillsides, situated behind other buildings, or simply do not have a relationship with one another that is defined by a shared open space. These later buildings can probably be classified as smart infill.

A new gym facility, Goolrick Hall, was opened in 1969 at the far north end of campus which is separated from the rest of campus by a ravine.[56] At the time, there was not much in proximity to this area and Goolrick was disconnected from the rest of

[56] Alvey, 481-482.

campus. When enrollment began to grown in the 1980's, the school decided to create a campus wide plan which focused development on this area of land. The new plan brought changes to older spaces and incorporated the addition of new buildings, including a new student center and library, to be constructed in the area that lay between Goolrick and the rest of campus.[57]

Expanding the Campus: Plans of the 1980's and 1990's

In 1985 the College hired Vickery, Moje, Drinkard, Oakland, Architects to complete a master planning study of the campus. The firm of Marcellus, Wright, Cox & Smith Architects performed a follow up planning and conceptual study in 1998. Although neither plan specifically addresses issues of preservation relating to either buildings or open spaces, both indirectly resulted in the conservation of buildings and spaces. Both of these documents addressed common planning issues at academic institutions that also threaten the preservation of open space. These problems included: the pressure to build additional facilities due to larger student enrollments, the demand for improved facilities to correct existing deficiencies, and the need to incorporate new technology into research laboratories and campus libraries. The techniques used to solve these problems were; the treatment of open space as sacred ground, the use of open space land banks, and the removal of surface parking and roadways. These are consistent with both the pressures and responses outlined by Griffith, summarized in Chapters 2 and 3 above.

[57] Phillip Morris, "Campus Remedies: Two Southern Colleges Come to Life After Extensive Architectural Revitalization," *Southern Accents* 16 (1993): 71.

Master Plan created by VMDO Architects.

The planning study conducted by Vickery, Moje, Drinkard, Oakland, Architects begun in 1985 was guided by several principles stated by then school president William Anderson. These guiding principles reveal the values of the school and its attitude towards the campus. President Anderson stated that the key to the study was academics, meaning that the needs of the various academic departments and students came first. Also, the need for proper athletic fields was expressed. Although open space preservation was not directly addressed, other guiding principles that Anderson stated directly relate to the ideas behind green space preservation. For example, a major goal of the planning study was to eliminate the automobile from the inner campus to promote a residential quality for the pedestrian. Anderson also directed the planning team to "proceed with no preconceptions, remembering only that we take great pride in the beauty of our campus and we want a plan which enhances what we already have." In essence, the planning team was directed to take care when dealing with the green spaces on campus. [58]

The resulting 1986 master plan did not explicitly address building or open space preservation. Instead, it dealt with several major issues, including the need for new buildings and circulation for vehicles and pedestrians. Both a new student center and library were needed for the school. In addition, the student population was increasing and a need for more residential dormitories arose. The siting of these new facilities was the major issue VMDO faced. Another major issue was the roadway which formed the main axis of the campus plan, Campus Drive. The school desired to close off Campus Drive to

[58] Vickery, Moje, Drinkard, Oakland, Architects, "Mary Washington College Master Planning Study Revised," (January 1, 1986), 1.

vehicles and make the street a pedestrian walk in order to achieve a more residential feel. In its final plan, VMDO was able to address all of these problems.

The new student center was an important addition to the school as recreation centers were scattered throughout the campus at this time. This new building was to serve as a social focal point for current and future students. Also, the planning committee felt this new building would provide places for the growing number of commuter students to spend time as the lounges in Lee Hall were becoming inadequate. The committee hoped that the student center would be a draw for quality students.[59]

Siting of the student center was crucial and provided an interesting opportunity to connect previously unrelated portions of the campus. Several sites were considered and evaluated using these criteria: relationship to existing facilities for dining, academic space, library facilities and dormitory space; potential for vehicular service access, availability of utilities; site development costs; impact on future campus growth and centrality of location. A building of this size and function was impossible to construct on the south end of campus due to its heavy development. Construction in the academic core was undesirable due to the anticipated activity and noise that would occur in the new student center.[60]

The site selected is located (see Figure 7) just north of Willard Hall, adjacent to the oldest part of campus. The new building would literally serve as a bridge over a deep ravine which cuts the campus in half (see Figure 8). Future development of the campus was significantly impacted as an arcade constructed across the ravine improved pedestrian access to the Fine Arts complex and Goolrick Hall. The improvement in pedestrian access would also facilitate future growth on the north side of the campus. It was hoped that the

[59] *Ibid*, 1,5.
[60] *Ibid*, 45-46.

new building and arcade would open the north end of campus for additional development and shift the center of campus toward the student center.[61]

The arcade incorporated in the design of the new building extends from the area of Willard Hall towards Melchers Hall and the Fine Arts Center and would become part of the major and more extensive pedestrian pathway which VMDO planned on creating with the closure of Campus Drive to vehicular traffic. The arcade would also serve as the beginning of a strong building axis for future construction in the north, mimicking the role of Campus Drive on the south side of campus.[62]

The other major structure that resulted from this study performed by VMDO and the Master Planning Committee was a new library. By the mid 1980's the E. Lee Trinkle Library had become overcrowded and deficient in the number of staff offices, work areas, and library instructional classrooms. Also, the system for circulating books had become antiquated and the building's design was no longer suitable for the functions of a modern library. As with the student center, the location of the new library was very important as it would have a great impact on the campus as a whole. The VMDO master plan proposed five sites for the building (see Figure 9), evaluated with the following criteria: importance of the library as a central academic building, along the main pedestrian access, relationship to the new student center, capability of efficient service access, availability of utilities, impact of future campus growth, potential for future expansion, and availability of a lot large enough for the building to be constructed without harming the natural beauty of the campus. The process of selecting a site of the new library gives insight into VMDO and the Master Planning Committee's attitude toward the preservation of open spaces.

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[61] *Ibid*, 46.
[62] *Ibid*, 46.

The first site evaluated was directly across from the former library, Trinkle Hall, in an area between Westmoreland Circle and the rear of Madison and Ball Halls. This site would preserve the central location of the existing library, but was deemed too small an area for the construction of a new facility. Moreover, the size of the new building on this location would have been out of scale with Madison Hall, a much smaller residential building. Also, vehicular and service access to the site would need to occur from Campus Drive which was to be closed to vehicular traffic. These negative reasons eliminated site one from further consideration.[63]

Site two envisioned an addition to the rear of Trinkle Hall which would possibly form a connection with Lee Hall. By placing the addition in the rear, VMDO hoped that the central and architecturally dominant location of Trinkle and Lee Halls would be maintained. Service would be easy from the rear, using a road that already connected the existing structures to Sunken Road. This would not interfere with the planned closing of Campus Drive. Due to the topography of the site, approximately five stories could be efficiently constructed without being out of scale with neighboring buildings. From a preservation standpoint, this site would have been a fairly good solution, as the original function of Trinkle Hall would be maintained and the formal open spaces of the already existing campus plan would have been preserved. The VMDO document fails to mention that this addition would infringe upon, if not destroy the college's amphitheater. Rarely used during the last few decades, the amphitheater was once the site of many important school functions including May Day celebration and graduation. Its destruction would have been a great loss of a historic resource. Instead, site two was eliminated for several other reasons; Trinkle Hall did not have the structural flexibility to adapt to modern library

[63] *Ibid*, 53.

planning and a connection to Lee Hall was not necessarily desirable. In addition, the construction of a new library and the conversion of Trinkle Hall to academic use was more cost effective than the alternative of constructing both an addition to Trinkle and a new academic building. [64]

Site three was located on the periphery of the campus behind Monroe Hall and adjacent to the existing service road that led to Sunken Road. This site would have allowed for construction to occur with limited disruption to the school and would have been easy to service with construction vehicles. A sloping hillside would have allowed four stories to be constructed facing the view toward downtown Fredericksburg while only two floors would have been facing Monroe Hall. The significant negative of this site, which eliminated it from consideration, was its remoteness from the major axis of college buildings. Much like site two, site three would have caused little disruption to the campus plan and preserved the designed landscape.[65]

The fourth study site was located on College Avenue adjacent to Chandler Hall and the dining facility, Seacobeck Hall. This site was heavily focused on by VMDO early in the planning process because it would have provided a handsome frontage to the community and College Avenue. This site would also have preserved the existing open space in the center of campus. It was eliminated because service access would dominate the College Avenue façade and the constricting site would create problems with the planning of the building's interior. Also, the site's proximity to Seacobeck and Chandler Halls would have created code related problems and limited any future expansion.[66]

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[64] *Ibid*, 53.
[65] *Ibid*, 53.
[66] *Ibid*, 54.

Site five, the selected site, is located on the underdeveloped north end of campus between Goolrick Gymnasium and the site chosen for the new student center. The other four sites proposed were on the south end of campus; the location on the north end provided much different design opportunities. The construction of the student center would provide much easier access to this end of campus by bridging the ravine. Site five was the most distant of all the sites from the existing library, but VMDO anticipated that the center of campus would shift with the extension of the pedestrian walkway and the construction of the student center. A compact service area was able to be hidden behind the building which it would share with the adjacent Fine Arts Center. Also, the site was large and allowed for more flexibility with the interior layout.[67]

An analysis of the five potential sites for the new library demonstrates the attitude of school administration and VMDO towards open space. Construction on any of the evaluated sites would not have intruded on the formally designed open spaces; Ball Circle, Westmoreland Circle, the Beach, Jefferson Square and what is known today as Palmieri Plaza. Development that would infringe on the prominence of these spaces was not considered. Although the plan does not refer to these places as "sacred," they fit the description given by Griffith. A tradition of veneration for these spaces over their life span has self-enforced preservation activities as illustrated in the VMDO plan.

In addition, although several of the sites studied would have been infill in the heart of campus, they were eliminated because they would have created a crowded academic core. This is an example of knowing when infill is appropriate and when it is not. The size and scale necessary for the new library would have disrupted the existing design of the campus by infringing on the integrity of significant open space.

[67] *Ibid*, 54.

In essence, the site selection for both the new student center and the library made use of the open space land bank which was located on the north end of campus. Although no school document officially calls this area a land bank, it served the same function. The area was mostly undeveloped before the late 1980's and the school preferred smart infill development on the southern end of campus. When new buildings could no longer be accommodated in that area, construction began to occur in the north where the land had been reserved or banked. Construction in this area was limited to mostly large building projects such as the student center, library, science center and a pair of dormitories, buildings whose scale would have had a significant impact on the older core of campus. Basically, the college was making a conscious effort to preserve the campus's open spaces using a land bank technique without formally stating their objectives or creating a preservation plan.

A major landscaping project that VMDO outlines in its planning document was the conversion of Campus Drive into a pedestrian promenade. At this time, a roadway linked both entry gates to the school on College Avenue and Sunken Road, running directly down the middle of the center of campus. After studying the campus, VMDO suggested not only closing Campus Drive to vehicular traffic but also extending it to Goolrick Hall on the far north end of campus. The hope was that this would unify the existing campus that was divided into two by a large ravine, reinforced by the design of the student center which incorporated the bridging of this ravine. The extension of the axis to the north would also make future building sites more easily accessible to students and faculty. In addition, the changes to Campus Drive would make the campus pedestrian-oriented and promote a more residential feel. Although not prominent in the VMDO plan, a subsequent planning

study conducted by Marcellus, Wright, Cox & Smith Architects in 1998 emphasizes the desire to maintain a residential feeling to the campus which would keep large amounts of students from moving into off-campus housing. The VMDO document has undertones of the same desire.

The chief outcome of the planning done by VMDO was the construction of the new student center and library and the creation of a pedestrian spine that extended the entire length of the campus. The result was a new campus design which linked a previously underused area to the core of campus, enabling future construction projects to occur. Siting of the new buildings took into careful consideration their impact on the structures and open spaces adjacent to them, while the final product left the central part of campus largely unchanged. The ravine, which cut the campus in half, was preserved and incorporation into the design of the new student center and arcade. This feature could easily have been filled in and the land evened out so as to allow the traditional pattern of building in clusters to continue into this area, but VMDO's plan allowed for the natural beauty of the ravine to be incorporated into the new campus design.[68]

Planning and Conceptual Studies Conducted by MWC&S Architects

In 1998 Marcellus, Wright, Cox & Smith Architects performed a follow up study to VMDO's planning document of over a decade earlier. This document was different than its predecessor in that its primary objective was to review the existing planning elements and present physical opportunities which could be potential solutions to problems on the campus. The college asked MWC&S to develop concepts for the future use of existing buildings or new construction to enhance areas of student life by providing a well rounded

[68] Morris, 71.

living and learning environment for students. Some of the end products were to provide a plan for the existing use of facilities and to identify possible areas for future development.[69]

A design precedent is also identified in this document, with emphasis placed on the characteristics that make Mary Washington's campus unique. The natural setting of the site with its sloping east edge forested with various species of trees and the natural springs which traverse the campus are identified as contributing to its rich landscape. Also mentioned is the arrangement of the campus buildings around courtyards and quadrangles that have one side open to a vista. MWC&S also found that the campus was substantially built, leaving few sites open for infill. As far as design vocabulary, MWC&S identified that the buildings share similar materials and neo-classical detailing with a few modern deviations. They recommended that "future physical facilities should maintain similar forms, scale, rhythms, details and materials unless there is a significant reason to stray." MWC&S also made the claim that each of the buildings relate to the natural environment that surrounds it. In essence, this document suggests that the existing pattern of development should be maintained and the natural features of the landscape should be preserved in order to retain the unique character of the campus.[70]

At this point in time, the college was in the process of shifting the physical space occupied by the academic departments. A new science center, Jepson, had been constructed at the north end of campus in the vicinity of Goolrick Gymnasium. This left the old science building, Combs Hall, free for several academic departments to move into. MWC&S conducted an extensive investigation into the needs of the departments, students, faculty, staff, clubs, organizations and administration. The result was a large amount of

[69] Marcellus Wright Cox & Smith Architects, PC, "Planning and Conceptual Studies: Mary Washington College," (September 18, 1998): 4.
[70] *Ibid,* 17-18.

documentation that was used to shuffle the departments and provide each with an ideal amount of space and resources. After this investigation, the rehabilitation of Combs Hall to accommodate three departments was begun.[71]

The development of more student housing was also a priority to the college during this time. A major goal, the improvement of facilities on campus, would keep students from moving off campus for a more independent lifestyle. Several plans for possible new facilities were created by MWC&S which moved away from the traditional residence hall arrangement to a form that was more comparable to apartment style residences.[72] The layouts of these new residence halls would make more structures necessary compared to the traditional dormitory layout.[73]

MWC&S identified a series of development zones as areas in which these new residences could be constructed. The sites are located on the periphery of campus away from the Campus Walk axis of development. These sites would draw movement away from the axis and quadrangles to a new setting. The design of the new residences would break the previously established pattern of residential buildings sharing open spaces with academic buildings. In order to retain sight lines between the existing campus at the top of the ridge and downtown Fredericksburg, the sites selected are below the elevation line 125 feet above sea level. The plan emphasizes that these sites would create a new type of setting on the campus.[74]

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[71] *Ibid*, passim.
[72] These independent residences have yet to be constructed because the college purchased the Marye's Heights Apartments, a development neighboring the main campus, in 2001. The Apartments at UMW were opened in the fall of 2003 for the use of members of the junior and senior classes.
[73] MWCS, 11.
[74] *Ibid*, 19.

In contrast with the statement that the natural landscape of the school adds to its character, most of the development sites identified by MWC&S are located in heavily wooded or grassy spaces. While these areas are the least intrusive on the existing formal open spaces and would preserve the view of the city from the campus, they would likely destroy the natural ones.

Both of these planning documents address major planning issues that could potentially have been a threat to the preservation of open space on the University of Mary Washington campus. Larger student enrollment and the need for improved facilities required additional space for academic departments, more residential halls and a new student center. The need to incorporate new technology into science laboratories and the library prompted the construction of new facilities of both kinds. The necessity for new construction is threatening to existing open spaces, especially formally designed ones, which could be destroyed by infill projects. The University used several different techniques to conserve open space.

The first method used is the treatment of open space as sacred ground. This is an informal technique as no document officially states that some of the open spaces on campus are "sacred." These areas include the formally designed spaces within the quadrangles; Ball Circle, Westmoreland Circle, Jefferson Square, the Beach and Palmieri Plaza. The association of these places with the image of the school is able to influence important planning decisions and protect them from construction and loss of integrity.

An open space land bank technique was, and still is, used on the UMW campus. The area on the north end of campus was left mostly undeveloped for an extended period

of time. Development did not occur on this tract of land until infill was no longer possible in the heart of the campus. The choice of a site for the new library is an example of how the land bank technique is used. VMDO attempted to work the new library into the plan of the campus core but was unable to find a location or design scheme that would have upheld the integrity of the campus design. The presence of the land bank allowed for an alternative to construction on a smaller infill site that could have potentially destroyed a critical open space.

The last method used by UMW for the conservation of campus open space was the removal of roadways from the campus core. Vehicles were removed from Campus Drive and the campus' main thoroughfare became pedestrian oriented. Not only did this action reclaim open space lost to the automobile, it also provided an opportunity to link other open spaces to one another. In addition, the closing of Campus Drive and the construction of the arcade adjacent to the student center provided a pedestrian oriented connection to the north end of campus which opened the area up for further development.

Case Study: The University of Virginia

The University of Virginia is located on the periphery of Charlottesville, Virginia. In this mountainous region, the University's campus is situated atop a series of wooded hills and mountains. Charlottesville is a city associated with history- the homes of Presidents Thomas Jefferson and James Madison lie within close proximity- and this is apparent in the attitude the school has towards preservation. The University closely relates its image with that of Jefferson and the "Academical Village" he designed, which forms the core of its campus. The University of Virginia is one of Jefferson's most high profile architectural undertakings, and the school is aware that it is the custodian of a precious architectural gem. The preservation of the University's historic buildings and grounds is one of its highest priorities.

The Office of the Architect for the University of Virginia recognizes the importance of the institution's historic resources and handles them with care. In accordance with Jefferson's original design for the University, the Office realizes that the physical plan of the University directly reflects its academic plan. That is, the physical environment of the university ideally should promote the sharing of ideas between students and faculty. In addition, the University is aware that the campus is an ensemble of buildings; each addition to the campus is a direct response to the Jeffersonian core. The physical appearance of the school has become an icon of the institution and is one of its most valuable assets.

Of necessity, The University of Virginia incorporates preservation into its planning more than the average institution. The Office of the Architect employs a Historic Preservation Planner and has developed a Historic Preservation Framework Plan. While

some universities and colleges worry about the limitations of historic designations, the University's historic core is listed as a World Heritage site- one of only a few in the United States- and contains two National Historic Landmarks. In addition, each of the plans created for the University acknowledge and addresses the importance of preservation.

Several techniques are used at the University to protect and manage its historic resources and landscapes. Included are the use of open space preserves, the creation of "places," the designation of sacred spaces, the creation of a list of historic resources and their significance and the limitation of the presence of automobiles on campus. The most significant tool for preservation on the campus is the precedent set by past leadership and the recognition of the University's historic resources as fundamental to its image.

Brief History of Campus of the University of Virginia[75]

Jefferson's concept for the University of Virginia came from years of intellectual study with ties to many phases of his life, including his time as governor of Virginia, minister to France, and President of the United States. He was no doubt influenced by the architecture of France and the work of his peers in America such as the design of South Carolina College, the first American institution of higher learning to exercise the "horseshoe" arrangement of buildings around a three sided extendable mall. The physical manifestation of Jefferson's ideas was his concept of the "Academical Village." This term is used to describe the essential features of the University of Virginia: a large open space,

[75] In its literature, the University uses several specific terms to define areas of the campus. The "Grounds" refers to the entire campus. The "Academical Village" is the area designed by Jefferson centered around the "Lawn"-the large rectangular open space. The term "Central Grounds" refers to the area immediately surrounding the Academical Village including Monroe Hill, the Chapel and the Stanford White structures at the south end of the Lawn. See Figure 10 for visual descriptions for these areas as well as the North and West Grounds.

surrounded by housing for professors and classrooms alternating with student's rooms. Jefferson envisioned this arrangement as being conducive to a free flow of intellectual ideas between students and faculty. The concept of the Academical Village is something which the University tries to continue today.[76]

Much of the physical planning for the University occurred in 1817. Land was acquired atop a small ridge outside of the city of Charlottesville and construction began that same year. In order to accommodate Jefferson's design scheme, the ridge had to be leveled into terraces. This first phase of building, which remains the heart of the University today, includes the space known as the Lawn, the Rotunda (originally the library), the pavilions, east and west ranges and the pavilion gardens (see Figures 11 & 12).[77] Each subsequent addition to the campus has in some way tried to respond to the Academical Village either by conforming to its design or challenging it.[78]

Jefferson's original plan contained 108 student rooms which could each house two students. When the student population grew to surpass this capacity, many students lived in boardinghouses scattered around the area in places like the Corner (a commercial district just off of University property) and Carr's Hill. The original design of the school had envisioned the extension of the ranges to the south, but a steep topographic decline rendered this idea impractical. Expansion behind the ranges was blocked by the agricultural plots of the professors that were located there. Growth to accommodate the

[76] Turner, 76-80.
[77] Wilson, 151; Turner, 83.
[78] University of Virginia Office of the Architect, "Historic Preservation Framework Plan," (2007): v.

growing number of students would have had to violate the ideal of the community created around the Lawn.[79]

Between 1842 and 1856, the number of enrolled students rose from 128 to 645. This growth made the construction of more housing and lecture halls a necessity. In 1848 two ranges of housing were constructed apart from the Lawn, on Monroe Hill, for students receiving financial assistance. To accommodate the need for lecture halls, architect Robert Mills created an addition to the north side of the Rotunda. This addition housed an assembly hall large enough to accommodate the entire University.[80]

The mid-nineteenth century saw many changes to the University which challenged Jefferson's original design and architectural vocabulary. The popularity of picturesque architecture led to the re-design of the University's landscape and the introduction of new building styles. In 1856, the Board of Visitors hired a landscape gardener and architect, William Abbot Pratt, for the position of "superintendent of buildings and grounds." Pratt made significant changes to the landscape and prepared a master plan influenced by the romantic landscaping theories and designs of Andrew Jackson Downing. A network of serpentine paths was laid out at the periphery of the Grounds that ignored the symmetrical patterns of Jefferson's earlier plan (see Figure 13)

One of Pratt's most notable designs was the gothic University Chapel which was constructed in the late 1880's behind the Rotunda. This structure balanced Brooks Hall Natural History Museum which had been built in that area between 1876 and 1878 (see Figure 14)[81]

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[79] Richard Guy Wilson and Sara A. Butler, *University of Virginia* (New York: Princeton Architectural Press, 1999), 9; Historic Preservation Framework Plan, 1.
[80] Historic Preservation Framework Plan, 2.
[81] Historic Preservation Framework Plan, 5-6. Wilson and Butler, 9-11.

During the Civil War the student population had dipped to a low of 54 in 1864. At this time University buildings did not expand beyond the Academical Village and Monroe Hill (the Central Grounds). It is not until the late 1890's that enrollment again reached 600 and major additional facilities were needed. A fire in 1895 ravaged the Rotunda and destroyed the Mills Annex. This disaster led the University to hire Stanford White of the architectural firm of McKim, Mead and White. Growth after the 1890's would be heavily influenced by Beaux Arts planning and the City Beautiful movement. In 1896, the Board of Visitors, the University's governing body, directed White to design three buildings that would close off the south end of the Lawn permanently- Cabell, Rouse, and Cocke Halls.[82] [83]

After the Rotunda fire the Board of Visitors hired the University's first president, Edwin Anderson Alderman. Under Alderman, enrollment grew from 706 students in 1904 to 2,452 students in 1931. Also under Alderman, specialized professional schools were instituted such as the Curry School of Education and the architecture department. During this time it was necessary to expand the school beyond the Central Grounds (see Figure 10). North of the lawn on Carr's Hill, fraternities were constructed around an athletic field, Madison Bowl (known as "Mad Bowl"). A grouping of athletic facilities, including Fayerweather Hall gymnasium and Lambeth Field, were also constructed on Carr's Hill. The University Hospital, begun in 1899, was completed under Alderman in a zone just east of the Lawn. The University also expanded west to the other side of Emmet Street. On

[82] This building project may have been an effort to buffer the campus from an African American neighborhood developing below the ridge in line with the vista from the Rotunda.
[83] Wilson and Butler, 9-12; Wilson, 155.

the West Grounds additional academic buildings and residences were constructed along with Scott Stadium. By the 1950's, the campus had expanded to the north, west and east.[84]

In the later part of the twentieth century several changes occurred that caused portions of the campus to acquire a suburban feel. The student population grew immensely in the 1970's because of changes in the student admission policy. Females, who had been sent to Mary Washington College, began to be admitted and soon rose to become one-half of the student body. In addition, African Americans were regularly being admitted for the first time. This expanding population along with the influence of Cold War priorities in the science field caused the campus to expand considerably beyond its existing boundaries. In addition, changing attitudes towards planning diminished the role of the master plan and influenced disconnectedness between buildings and their surroundings.[85] The North Grounds satellite campus began in the 1960's with the construction of University Hall. This area also became the home of acres of surface parking needed to accommodate spectators for sporting events. The Law and Business schools soon became apart of this area of campus as well. Anticipating even further growth, the University purchased two nearby historic properties; Morea and the Birdwood Tract. Separated from the rest of the University by busy roads, the sprawling North Grounds gave the campus an additional suburban layer.[86]

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[84] Historic Preservation Framework Plan, 12-13;

[85] In 1949, Joseph Hudnut, the dean of the Harvard School of Design, spoke out against the idea of master plans, which he considered too restrictive. As an alternative to the master plan, Hudnut emphasized flexible development, based on principles of growth and always open to change. Many professionals shared Hudnut's view and the importance of master plans diminished noticeably in the period after World War II. Without an overarching concept to physically define a university, the individual buildings and sites became disconnected from their surroundings. As explained in the Historic Preservation Framework Plan, these ideas directly influenced the suburban character of UVA.

[86] Wilson and Butler, 16-19; Historic Preservation Framework Plan, 23-24.

Under Colgate Darden, president from 1947 to 1959, the University attempted to counteract the campus's outward expansion by directing student life back to the Lawn. These actions were intended to ensure that the oldest portion of the Grounds would always remain the heart of the University.

Darden extended eligibility for residence on the Lawn, a distinct privilege, beyond Virginia residents to all students. He also followed Jefferson's precedent by distributing faculty pavilions among the heads of various academic departments so that each of six schools within the University would be represented on the Lawn by a resident professor. Physically, the Lawn needed to be addressed as well. Missing trees were replaced, garden walls were restored and pavilion gardens were reconstructed by Alden Hopkins, the resident landscape architect at Colonial Williamsburg in the 1950's, based on early engravings and archaeological excavations.[87]

Off the Lawn, also during the Darden Administration, the University Hospital was in need of a large, multistoried addition. The hospital is located just east of the Academical Village and a poorly designed extension had the potential of overshadowing the Jefferson core. Instead, the high-rise tower was added to face away from the campus onto Jefferson Park Avenue. The reorientation of the hospital complex significantly reduced traffic around the Academical Village and masked the difference in scale. New Cabell Hall, an academic building for the College of Arts and Sciences, was also built under Darden. Built into a slope below the south end of the Lawn, this building assured that a larger number of students would be in daily contact with the Academical Village. Virtually all buildings constructed during this period were built in the Colonial Revival style. Although later building designs would stray from the use of the Colonial Revival style, the Darden

[87] Historic Preservation Framework Plan, 19-21.

Administration set the precedent for the University's firm stance towards the preservation of both structures and open spaces.[88]

Designations

The University of Virginia campus contains a number of structures and sites that have historic designations. Several historic districts are located partially or fully on campus and other designations, for both districts and individual structures, include a World Heritage Site, National Historic Landmarks, and National Register of Historic Places listings (see Figure 15).

The Jefferson Precinct of the University of Virginia became a UNESCO World Heritage Site along with Monticello in 1987. The University was nominated on the grounds that it is an "outstanding example of a great educational institution from the Age of Enlightenment" and because of its association with Thomas Jefferson. In addition, the Jefferson Precinct had not undergone any major modifications and still fulfilled the function for which it was built. Status as a World Heritage Site recognizes the global importance of the University of Virginia and willingness to participate indicates an understanding of this importance on the side of the institution.[89]

The University has two National Historic Landmarks on its campus (see Figure 15). The first is the Rotunda which was designated in 1965. The second, added in 1971, is the University of Virginia National Landmark Historic District. This district includes Jefferson's original Academical Village, buildings added to the south end of the Lawn by Stanford White, Brooks Hall, University Chapel, the McIntire Amphitheater and several

[88] *Ibid,* 19-21.
[89] International Council on Monuments and Sites, "Monticello and the University of Virginia World Heritage List Nomination," (December, 1986): passim.

other buildings of architectural merit. Designation as a National Historic Landmark recognizes national significance and signifies that these buildings and places have meaning to all Americans.[90]

Quite a few other buildings and districts on the Grounds are on the National Register of Historic Places or local historic registers. Monroe Hill House, associated with James Monroe, is the only structure on the Grounds which predates the Jefferson complex. Monroe Hill was acquired by the University in the early nineteenth century and was used as a residence hall. Monroe Hill House and other later buildings that had been constructed by the University were added to the National Register in 2004.[91] Other structures such as Memorial Gymnasium, the McCormick Observatory, and the acquired historic properties Montebello and Sunnyside are also on the National Register. The Rugby Road- University Corner Historic District is partially located on the Grounds. Significant historic features owned by the University include Madison Hall, "Mad Bowl," Lambeth Field stadium, and the Carr's Hill Fraternity Houses.[92] Inclusion of these historic resources on the National Register implies that they are important to regional and local history.

Given that owner approval is generally required for these designations, inclusion on historic registers, especially the World Heritage List and National Historic Landmark, is an indicator that the University is serious about its preservation efforts. Once a site, structure or district is included on a list it is labeled as an important historic resource. Destruction, alteration and even rehabilitation can be controversial because forces outside the University

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[90] Virginia Department of Historic Resources, "University of Virginia Historic District National Register Nomination," (1970): passim.
[91] Virginia Department of Historic Resources, "Monroe Hill National Register of Historic Places Nomination," (2003): passim.
[92] Virginia Department of Historic Resources, "Rugby Road-University Corner Historic District National Register of Historic Places Nomination," (1983): passim.

are keeping an eye on the condition of the historic resources, especially when the owner is a high profile state university. Historic register listings are an indication that the University plans to care for its historic resources, and that their maintenance will not be a cause of controversy for the school.

Correcting Past Mistakes and Planning for the Future

The Office of the Architect takes a much different approach to the planning process than that of many other universities. No master plan exists for the University but after a year long research process occurring in the mid 1990's, University Landscape Architect Mary Hughes and former Architect for the University Samuel "Pete" Anderson identified five overarching problems afflicting the campus. From these problems they developed five fundamental aims that should guide the evolution of the campus over the next few decades. The foremost principle, which serves as an umbrella for the others, is the reconnection of various parts of the campus. The other principles include restoring the natural environment, mitigating the use of automobiles and strengthening the walking environment, promoting mixed use development and serving the larger community. Each of these principles has roots founded in Jefferson's original design of the Academical Village. The five principles do not formally exist anywhere as part of a master plan but have guided the creation of several specific studies including a landscape plan, a water resources strategic plan and a plan for the "Groundswalk," a pedestrian transit corridor that would link the campus. In addition, the various existing plans place emphasis on

creating a sense of community and protecting valuable green space in order to achieve an ideal setting which nurtures the mind and promotes social interaction.[93]

The Office of the Architect and their collaborators have produced several documents which portray and incorporate the University's attitude towards historic preservation, including the Landscape Master Plan (1997), Historic Preservation Framework Plan (2007), Facilities Design Guidelines (2004) and the Groundswalk circulation system.

Landscape Master Plan

The Landscape Master Plan is the oldest of the documents pertaining to historic preservation. In 1997 the University hired Michael Vergason Landscape Architects and Ayers Saint Gross Architects and Planners to complete a landscape master plan. The goal of this document was to create a landscape framework for future physical decision making at UVA, one that would help to manage the growth of the University and balance the relationships between the buildings and the landscape. In the broadest sense, the plan was created to reinforce a long range vision and provide a clear framework for the day-to-day decisions related to project development, small landscape improvements, and the general upkeep of the Grounds.[94]

The project began by taking an inventory of overall campus natural systems and proceeded into a more detailed review of the landscape and open spaces at the precinct

[93] Paul Bennett, "It Takes a Village: Drawing on the Legacy of Jefferson, Campus Planners at the University of Virginia Plot a Future Based on the Past," *Landscape Architecture* 88, no. 10 (Oct 1998): 76-77.
[94] Michael Vergason Landscape Architects, 1.

level.[95] Three core observations were studied and problems were found related to the natural environment, circulation systems and open spaces/places. Recommendations were made to solve the problems in each of these categories.[96]

The first observation identified was the importance of the woodlands and water systems to the campus. The natural water systems and green setting are essential components of the character and quality of the University. One of the problems associated with natural woodland environment on the campus was the decline in quality and presence of deciduous woodlands in recent years. Access to natural woodland sites and water courses had also been diminished and needed to be restored. Another issue was the deterioration of the quality of water in natural streambeds and tributaries, many of which has been filled and piped.[97]

The major recommendation for these problems was to improve the quality of the open space network. This would aid in the major goal of creating places for people to exchange ideas as Jefferson had envisioned for the University's outdoor spaces. Specific recommendations pertaining to water resources included the recreation of natural settings, such as bringing Meadow Creek in the Dell back to the surface, and restoring ponds and stream channels in the Dell, Nameless Field, Carr's Hill Field and Lambeth Apartments; and linking stream corridors with active and passive recreational trails. Recommendations which addressed woodland areas included preserving and extending the University's woodlands by re-establishing, connecting and protecting woodland corridors; preserving

[95] The Grounds are divided into several precincts, each with its own plan.
[96] Michael Vergason Landscape Architects, 1.
[97] *Ibid,* 3-5.

the remaining forest on the North Grounds and upland forest on Observatory Hill; and reforesting steep slopes which would also reduce lawn maintenance.[98]

In order to preserve its woodlands, the University had used the technique of designating selected open spaces as preserves. This ensures that these areas, which are determined to be significant to the image of the Grounds, will exist for many years into the future. The Landscape Master Plan goes even further with the preservation of woodland spaces by suggesting the restoration of previously lost landscapes, which would enhance the natural features of the campus.

Observation two was that the University's public streets have great potential to serve as connectors between each of the campus's precincts and the ability to impact the arrival experience. A major issue was that the design of the streets is mostly geared towards car usage, and roadways tended to be uncomfortable for pedestrians and cyclists. Another problem is the often unclear or unsightly entries to the University. The major recommendation for campus circulation systems was to improve pedestrian and bicycle connection within the street corridors connecting University precincts and enrich the experience of arrival. Specific recommendations incorporate the development of a pedestrian scaled spine called "Groundswalk" and reinforcing it with a bicycle network to promote walking and biking. The Groundswalk would run along the ridgeline of McCormack Road and include a pedestrian bridge over Emmet Street that would aid in linking the remote North Grounds to the rest of the University. The plan also recommends the shading of street corridors in order to enhance the quality of University streets as comfortable and attractive places for people. A varying combination of gates,

[98] *Ibid*, 3-5.

walls, woods, bridges, water and plantings was recommended to provide an increased sense of arrival to the Grounds.[99]

This plan does not call for the removal of intra campus roadways but recognizes that they have a negative impact on the quality of campus open spaces. The suburban nature of parts of campus and the size of the grounds make the elimination of roadways virtually impossible. The implementation of the Groundswalk (which will be discussed in more detail later in this document), improvements to the quality of University streets, and the remodeling of roadways to make them friendlier to pedestrians and cyclists are a step in the right direction towards curbing automobile use on the Grounds.

The third observation was that the University had sufficient open spaces and places in quantity but not in quality. Plenty of open space exists at UVA, but these areas lacked appeal as places to gather and exchange ideas. To remedy this problem, the plan suggests a series of improvements to the open space network in order to create places for people and ideas. This recommendation is crucial to the goal of creating places for people to exchange ideas as Jefferson had envisioned for the University's outdoor spaces. The plan advocates the "creation of places" by enhancing existing spaces throughout the Grounds to serve as areas of ceremony, gathering, passage, retreat and play. Suggestions are also made to enhance already existing places by making improvements such as developing planting schemes and adding furniture.[100]

Another central recommendation for addressing problems with open spaces and places was to identify what the plan terms "sacred landscapes[101]" in order to preserve and

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[99] *Ibid*, 3-6.
[100] *Ibid*, 4-7.
[101] There is a discrepancy between the terminology of the University's Landscape Master Plan and the Historic Preservation Framework Plan. The Landscape Master Plan uses "sacred" to describe the Lawn,

enhance the legacy of the University. Two tiers of sacred landscapes exist on the Grounds; the first tier includes the Lawn and Pavilion Gardens (see Figure 16), Monroe Hill, the Cemetery (see Figure 17) and the Observatory Hill Woodlands. In addition, the plan advocates the "creation of more sacred landscapes" through improvements, and lists several that have potential including Carr's Hill Field and Nameless Field. Although it is impossible to "create" a truly sacred space, the plan infers that over time, an area of campus that is beloved by alumni, faculty and students could become sacred. The plan advocates improving the spaces named above in such a way so that they would be more heavily used. The status of sacred landscape would be a highly effective tool for the preservation of these spaces.[102]

The Landscape Plan recognizes the importance of open spaces as both historic resources in and of themselves, and as places to gather. It recommends that more "places" should be created through landscape projects and that more sacred landscapes should be identified (sacred landscapes will be discussed later in this document in the section on the University's Preservation Framework Plan). The title of "sacred" identifies that a space is fundamental to a university's campus and is untouchable due to its iconic status. The desire to identify more sacred spaces is also a recognition of the need to protect these places.

Pavilion Gardens, Monroe Hill, the Cemetery and the Observatory Hill Woodlands. The Historic Preservation Framework Plan uses a different terminology and ranks these same areas of campus much differently. The highest ranking is "fundamental," which applies to the Lawn and Pavilion Gardens. The Cemetery and Observatory Hill Woodlands fall into the second highest category of "essential." Monroe is listed further down the list as "contributing as setting." For a full list of landscape evaluations see Appendix B.

[102] *Ibid*, 53.

Groundswalk

The Groundswalk is a partially constructed system of pathways on the University of Virginia campus. The Board of Visitors passed a resolution to incorporate the Groundswalk into the University's Master Plan in 1998 in order to unify the University's Grounds, increase the level of safety for pedestrian cyclists and contribute to transportation efficiency. As previously discussed, growth during the 1960's and 1970's caused the Grounds to extend to the north and west. This expansion caused the loss of a link between the academic core and the graduate schools that were constructed in these new areas. In addition, the University became more dependent on the automobile and the pedestrian scale of the Grounds diminished. Further expansion in the 1980's and 1990's resulted in increased traffic, inadequate parking and loss of cohesiveness. The physical distances between the areas of the school are not great, but heavily trafficked thoroughfares have created barriers to the flow of pedestrians. The goal of the Groundswalk project is to alleviate several of these problems by increasing the pedestrian appeal of the campus and decreasing travel times (see Figure 18).[103]

Several different strategies are incorporated into the Groundswalk project. Bridges are to be constructed over busy roadways so that pedestrians and cyclists may safely cross them. This should decrease walk time between the Central Grounds and outlying parts of the campus. Parking will be shifted to University's entry points in order to promote a pedestrian environment and to curb the demand for more parking on the Central Grounds. In addition, traffic will be restricted on central grounds roadways and more space will be given to pedestrians and cyclists. Traffic and street parking congestion detracts from the

[103] Office of the Architect of the University of Virginia Website.

historic nature of the campus and diminishes the visitor's experience. The result of the Groundswalk project should be a more pedestrian and cyclist friendly campus.[104]

The first phase of the Groundswalk, the Emmet Street Bridge, is currently under construction. This bridge will carry pedestrians and cyclists over a four lane road and will link the North and Central Grounds. When completed, a pedestrian will be able to walk from the Darden School of Business in the North Grounds to the Central Grounds within fifteen minutes.[105]

Creation of the Groundswalk and an overall makeover of University roads to gear them towards pedestrians and cyclists is a way to curb the impact and usage of the automobile on campus, which can destroy the historic character of the Grounds. In addition, the Groundswalk will link already existing open spaces to one another. The Groundswalk can also be an opportunity to create a place for social activity; as people use the walkway they could interact with other people that they know and congregate around this pedestrian spine.

Facilities Design Guidelines

The Facilities Design Guidelines created by the University's Facilities Management, updated in November 2004, were prepared to guide and assist in the planning, design and preparation of design documents for construction and renovation of University facilities. The guidelines identify standards and requirements for University projects in order to create a cohesive whole and meet mandatory codes and standards. Guided by the idea that the principles guiding the physical design and character of the institution are the same as

[104] *Ibid.*
[105] *Ibid.*

those affecting its academic programs, the major goal for the planning and design of buildings and grounds is to restore Jefferson's vision of the reciprocity between the academic plan and the physical plan of the University which was lost over time due to expansion.[106]

Historic Preservation is only a small part of the Design Guidelines but it is the first section to be discussed. A list of historic buildings is given, presumably the resources that have historic designations, but there is no discussion of how these buildings should be treated. Only buildings are included on this list, landscapes are omitted. Another short subsection is dedicated to archaeological concerns. The guidelines state that if an archeological discovery is made during construction, the project manager should investigate. In addition, it is the University's responsibility to advise the architect or engineer of a project if a site has potential for having archaeological significance. The remaining sections of the Design Guidelines document discuss codes, standards and procedures mostly unrelated to preservation.[107]

The Design Guidelines also summarizes the process of reviews and approvals for facilities projects. Each project has to be approved by the Architect of the University, the University Landscape Architect, the Curator and Architect for the Academical Village and Jeffersonian Restoration Design Committee[108], the Buildings and Grounds Committee of the Board of Visitors, the Arboretum and Landscape Committee and on occasion the

[106] University of Virginia Facilities Management, "Facilities Design Guidelines Seventh Edition," (2004): Vision Statement and Foreword.
[107] *Ibid*, 2-3.
[108] The Jeffersonian Restoration Design Committee is the primary review agent and advisor to the University President and the Board of Visitors for all issues have to do with the care and restoration of the Academical Village

Virginia Department of Historic Resources.[109] It is assumed that since most of these parties recognize the importance of the University's historic resources to its image, they would be unlikely to make a decision that would drastically counteract preservation.[110]

Historic Preservation Framework Plan

In 2007 the Office of the Architect created a Historic Preservation Framework Plan in order to preserve the special character of the school. This framework recognizes the importance of the buildings and landscapes on the Grounds as an ensemble and is an effort to recognize the importance of later buildings and landscapes which attempt to respond to Jefferson's original Academical Village. Because buildings and landscapes designed by Jefferson have already been identified as sacred to the University in a previous document, this plan is directed at Post-Jefferson additions and is intended to help frame decisions about these structures and settings. The expectation is that this plan will provoke a critical dialogue as building renovations are planned and the strong stewardship ethic of the University will be enhanced.

A goal of the Historic Preservation Framework Plan was to develop a ranking system for all of the campus's historic structures and landscapes. This structure would list them in importance with respect to the University's historic development and character. Evaluations required an understanding of how the feature fit into the history of the school, interior and exterior surveys, and an evaluation of integrity. Inquiries into how each

[109] In accordance with Governor's Executive Order Number Forty-Seven (1976), the University must submit all plans for demolition or significant alteration, remodeling, redecoration, restoration, and repairs that may basically alter the appearance of any state-owned, which applies to every building on the University Grounds, registered historic landmark to the Virginia Department of Historic Resources for review and comments.
[110] Facilities Design Guidelines, 11-14.

feature fit within the school's history aided in determining its significance to the University as a whole. Surveys assessed the physical condition of each resource and identified its character defining features. These inspections were then used to place each building or landscape into a category of integrity: intact, substantially intact, compromised or destroyed.[111]

Based on the information gathered, each building or landscape was assessed and given a preservation priority ranking. This identified the resource's level of importance in terms of the University's historic character. Six categories were used for buildings; Fundamental (applied exclusively to Jefferson buildings and grounds), essential, important, contributing, not contributing and significant outside the University context (see Appendix A).[112]

Some special challenges caused landscapes to be evaluated in a slightly different way than buildings. UVA's grounds did not develop under the guiding direction of a single plan. The form of the school evolved according to contemporary values and fashion of the day rather than in accordance with a master plan implemented over multiple generations. Because of this, it was hard to associate most landscapes with a single designer or period of significance. In addition, the integrity of most landscapes was evaluated based on the survival of enough features to convey the general character of its historic appearance or the presence of features representing its evolution. Considering all of these factors, a preservation priority ranking was given to each landscape (see Appendix B).[113]

Additionally, each landscape was evaluated to identify its character defining feature. Some landscapes were considered significant because they are as essential as buildings. Mad

[111] Historic Preservation Framework Plan, 35.
[112] *Ibid*, 35-36.
[113] *Ibid*, 36.

Bowl, the Cemetery and Observatory Hill are examples of this. Others are important because of the role they play as a setting to buildings or their traditional land use. The framework plan also considered if it was possible to restore altered landscapes to their historic appearance or if they had been altered irreversibly.[114]

The University of Virginia differs from the University of Mary Washington in that it has a specific plan geared towards preservation. This existence of the Preservation Framework Plan signifies that preservation is a priority to the school and the ranking system used in the plan indicates that the University takes an active role in determining what historic resources are in its possession. In addition, the plan also evaluates what characteristics of the historic resource are essential to its significance. This is important to the overall planning process and helps in making decisions affecting each resource. For example, the character of a space may be destroyed if an out of scale buildings is constructed adjacent to it. The evaluations contained within the Preservation Framework Plan aid in making decisions affecting historic resources and their setting.

In regards to who is responsible for preservation, the plan encourages the participation of all levels of the University in the process of preservation and the ongoing process of identifying, evaluating and caring for historic resources. The recognition and acknowledgement of historically significant structures and landscapes in order for people to understand and respect them is recommended. An active program of studying and recording historic resources including Historic Structure Reports, Building Assessment Studies and Cultural Landscape Reports, is considered an essential part of the administrative process. Other administrative essentials include community outreach, the permanent collection of records and information, an active program for listing resources

[114] *Ibid*, 37.

on the National Register of Historic Places, the incorporation of archaeology into development projects, and a design review process involving preservation specialists for projects that propose repairs and alterations to historic resources.[115]

Proper maintenance is identified as fundamental in the Framework Plan. The most appropriate action is the one which achieves the desired goal with the least effect on the historic resource. To ensure appropriate repair and maintenance, the use of traditional construction methods, techniques and skills for conservation of historic resources is promoted by the University. In addition, the plan also promotes the retention of original fabric and character defining features, the replication of missing original features, the maintenance of skilled staff and tradespeople knowledgeable in traditional building practices, and the incorporation of photographic and written documentation into all phases of work conducted on historic buildings.[116]

The plan accepts the idea that change is inevitable on the University's campus, and recommends the protection of historic resources from unnecessary damage in the process of alteration. The consideration of the original design and function of a building or site should be considered in the planning and design process. According to the plan, the use of buildings should be compatible to their original function. New programs introduced into historic structures should be sympathetic to the fabric of buildings and their associated landscapes, alterations should not adversely affect integrity of a resource and should be reversible, past alterations that detract from integrity should be reversed when possible, the technique of mothballing vacant buildings should be used in order to protect from

[115] *Ibid*, 39.
[116] *Ibid,* 39-40.

deterioration until an appropriate use allows for their occupancy, and architectural fragments that are removed should be recorded an archived for future study.[117]

Included in the Preservation Framework Plan is a prioritized list created for both historic buildings and landscapes (see Appendix #). All of the Jefferson era buildings and landscapes, including the Lawn and Pavilion Gardens, were considered fundamental historic resources. This list is to be used to guide future development of the campus. In addition, if the suggestions that this plan identifies are followed, the University will have a strong framework for making intelligent preservation decisions.

The University of Virginia is exceptional in its preservation ethic. A variety of techniques are used to protect historic resources, including significant landscapes and open spaces in general. Perhaps the most significant factor is the precedent for the protection historic buildings and spaces exemplified by previous University administration, specifically the Darden Administration, and the veneration of certain resources as sacred. The University's Preservation Framework Plan is another helpful tool in identifying what significant resources are located on the Grounds, thereby enabling appropriate planning for their maintenance. The Landscape Master Plan designates areas as open space preserves and advocates the creation of new "places" and the designation of more sacred spaces in order to preserve existing landscapes. In addition, the Groundswalk plan will limit the dominance of the automobile on University roadways and promote use by pedestrians and cyclists. This should stop future development of more streets and parking lots as well as make the design of the existing campus more attractive to pedestrians. The Groundswalk also provides a pedestrian link between the academic core and the North Grounds. This

[117] *Ibid*, 40.

link is crucial to being able to use expansion as a tool to limit infill of the older parts of campus.

Comparing and Contracting the Techniques of the University of Mary Washington and the University of Virginia

The University of Mary Washington and the University of Virginia embody two very different types of American university campuses. UMW's campus is representative of almost any small school with a distinct architectural vocabulary. UVA is an extraordinary example of a university with a significant architectural legacy that embodies an ideal. The two schools share many similar problems in conserving their open spaces, but UVA grapples with some unique problems.

Both UVA and UMW faced a similar problem that could have been potentially dangerous to open spaces. Larger student enrollments required the construction of additional facilities including academic buildings, residence halls, student centers and libraries in the late twentieth century. In both cases, the solution to this problem was to expand into undeveloped grounds in order to keep the buildings and open spaces of the academic core intact and free of new development. In order to support this solution, each institution has had to construct a pedestrian spine which links newly developed grounds to the academic core. The Groundswalk and Campus Walk make it possible to reach these areas in a reasonable amount of time.

The concept of "sacred spaces" is used as a deterrent to development on both campuses. UMW uses this technique informally; everyone recognizes the importance of these spaces but they are not designated as such in any document. On the other hand, UVA has designated several spaces as sacred in its Landscape Master Plan. This plan even calls for the creation of more sacred spaces and places because the University recognizes the benefits of these areas. On both campuses the most important open spaces will most likely never be infringed upon.

The importance of historic resources on the Grounds combined with the increased demand for more facilities has caused UVA to go a few steps further in order to assure the protection of its open spaces. The campus also faces the additional problem of having to correct issues involving the suburban nature of those parts of campus which were developed in the late twentieth century. To alleviate the situation, the Landscape Master Plan suggests setting aside woodland areas as preserves and even recreating some lost natural features.

UVA also faces the task of being the steward of many historically significant structures and landscapes. Luckily, the University's leadership has an understanding of the importance of the historic resources in their care. This sets the tone for the rest of the University staff. In addition, the University is able to have an Office of the Architect with a knowledgeable staff who has created a Historic Preservation Framework Plan. The University has also allowed for many of their buildings to be placed on historic registries including the highest designations: World Heritage Site and National Historic Landmark. This strongly helps ensure that these resources will be protected from development. It was necessary for UVA to take these additional steps because of the value of the resources on their campus.

Each of these universities is an exceptional example of how to preserve open spaces on campuses. Both are located in small cities and do not face the same problems as urban campuses do. These universities have been able to expand with relative ease and have not had to deal with the problems caused by infill. An investigation into the practices of urban campuses would have yielded much different results.

CONCLUSION

The importance of open spaces, whether it is a designed or natural landscape, on university campuses is undeniable. Along with buildings, these spaces play a crucial role in forming a campus ensemble. Because each individual institution has its own problems associated with growth as well as unique historic resources, universities take many different approaches to preserving and managing change to their landscapes.

The circumstances affecting the treatment of open spaces on campuses vary from university to university, but if the end result is the preservation of a historic open space then we have to ask how this was achieved. Like UMW, the institution may not specifically plan for landscape or building preservation, but the product of their planning efforts nevertheless resulted in is an intact collection of green spaces. Other universities, like UVA, explicitly make preservation planning a high priority and the result of their efforts are well maintained historic resources. Whether the preservation of open spaces is a byproduct of other planning efforts or specifically addressed, the technique used to arrive at this end result should be noted.

In addition to the techniques used to preserve open spaces on campus previously identified by Professor Janice C. Griffith and summarized in Chapter Three above, the case studies in this thesis allowed for the identification of several more. The first technique, the creation of a Preservation Framework Plan, has proven useful at UVA. A framework plan allows the university to acknowledge and characterize its historic resources. It also allows the opportunity to rank the significance of each resource. This document can be used to influence other planning decisions made by the University. Unlike other types of plans

whose effectiveness lay in their execution, such a framework plan does not require specific actions to occur but can be influential for years after its creation.

Another identified technique is the creation of pedestrian promenades similar to Campus Walk and Groundswalk. In both case studies, the university preferred to expand campus development into areas on the periphery in order to preserve the historic integrity of the academic core. At UVA, the Groundswalk was created to create a crucial missing pedestrian link between the already existing North Grounds and the campus core. At UMW, the north portion of Campus Walk was created to serve as a link to the north end of campus which opened up this area for future development. The increased accessibility of new development areas can decrease the pressure for construction in the historic core of a university.

Historic designations are another technique that may be used to preserve historic open spaces. Designations acknowledge the importance of historic resources and can influence the decisions made about them. In addition, some campuses could be designated as cultural landscapes. This would address the issue of considering buildings and open spaces as an interrelated ensemble. Although most listings on historic registers are buildings, the designation of structures could also benefit the landscapes which surround them as changes to one would affect the other.

Few documents have been written specifically on the preservation of open space on campuses. This thesis seeks to add to that small library with the case studies of the University of Mary Washington and the University of Virginia. The field would greatly benefit from further studies of campuses, especially urban universities, and an identification of their problems and the techniques used to solve them.

Because many decisions about campus conservation are fundamentally economic, a source of funding for preservation projects would be an ideal solution to problems on many campuses. From 2002 to 2007, the J. Paul Getty Trust awarded millions of dollars to over 50 institutions to help deal with issues of preservation planning.[118] More programs such as this would greatly benefit the field and allow more historically significant campus open spaces to be preserved.

[118] Munitz.

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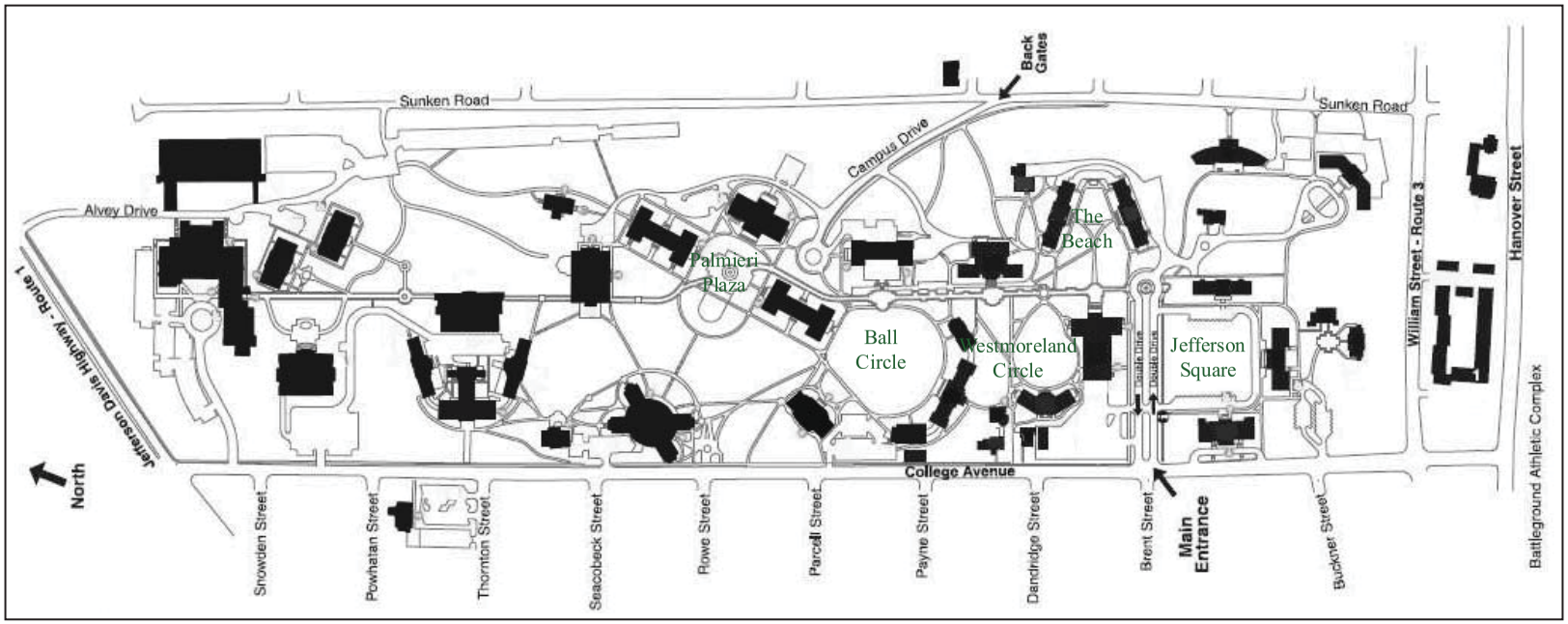

Figure 1: Campus Map, University of Mary Washington.

This map gives an overview of the main campus of the University of Mary Washington. Significant open space is labeled.

Reproduced from the University of Mary Washington Website.

Figure 2: Aerial View, University of Mary Washington, circa 2000.

The main campus is shown outlined in yellow. Note wooded area on eastern edge of campus.

Reproduced from Google Earth.

Figure 3: E. Lee Trinkle Library, Mary Washington College, Date Unknown.

The former library building is an example of the neoclassically designed building stock of the campus. The design for Trinkle Hall was based on the Rotunda of the University of Virginia.

Photography by Colonial Studios.
Reproduced from Simpson Library, Special Collections.
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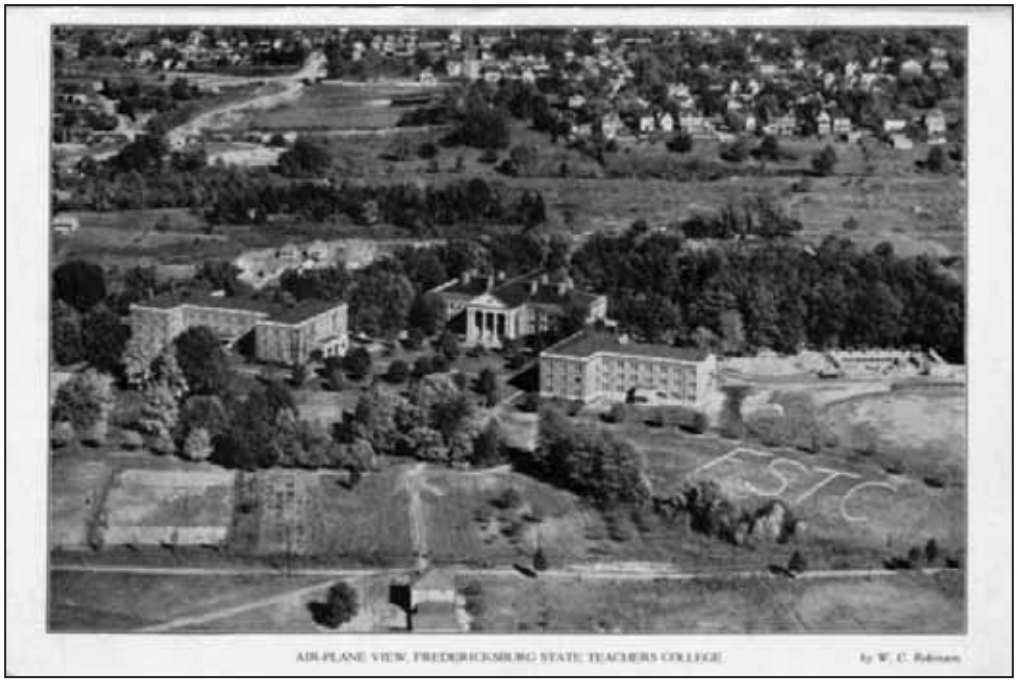

Figure 4: Aerial View, Fredericksburg State Teachers College, 1928.

This image shows the original three buildings of the school clustered around what was known as College Green at the time (today it is Palmieri Plaza). The center building was the main academic structure, Monroe Hall (formerly Russell Hall). The others are Willard and Virginia Halls, mainly used for residential purposes. Note the beginnings of the construction of the building that would be known as Lee Hall, the first building to be constructed around Ball Circle.

Photography by W.C. Robinson.
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Figure 5: Aerial View, Mary Washington College, 1950.

This aerial illustrates the physical development of the school up until 1950. The original campus is located at the top left of the photograph. Development continued south beginning with the buildings clustered around Ball Circle. The last phase of development visible in this image centers on Westmoreland Circle. At the bottom right, the edge of the Fredericksburg City Reservoir is just visible. The reservoir would later be demolished and buildings would be constructed on the site known as Jefferson Square.

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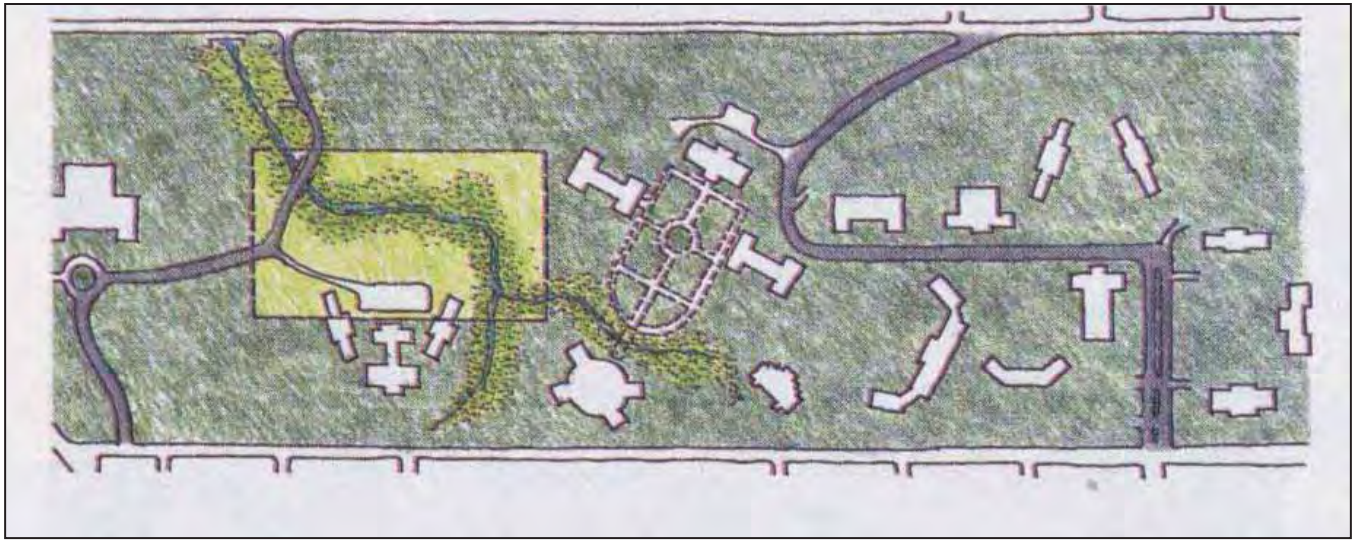
http://archive.umw.edu:8080/vital/access/HandleResolver/10154/5665



FFigure 6: Campus Plan, Mary Washington College, circa 1985.

This drawing illustrates the development of the school up until 1985 when VMDO was hired to create a master plan. Note the streets which were still present on campus and the ravine which divided the newer development of the north end (left) from the older south end of campus.

Reproduced from Reproduced from Philip Acidi, "Inquiry: Campus Infill," *Progressive Architecture* 71, no. 4 (April 1990).

Figure 7: Campus as Redesigned by VMDO, Mary Washington College, 1986.

This map portrays the campus as redesigned by VMDO. Note the yellow line which represents the Campus Walk pedestrian spine. The student center (center) and library (left) are in red. Note how student center bridges the ravine. Grey buildings at left were never constructed but were drawn in to illustrate potential development areas.

Reproduced from Reproduced from Philip Acidi, "Inquiry: Campus Infill," *Progressive Architecture* 71, no. 4 (April 1990).

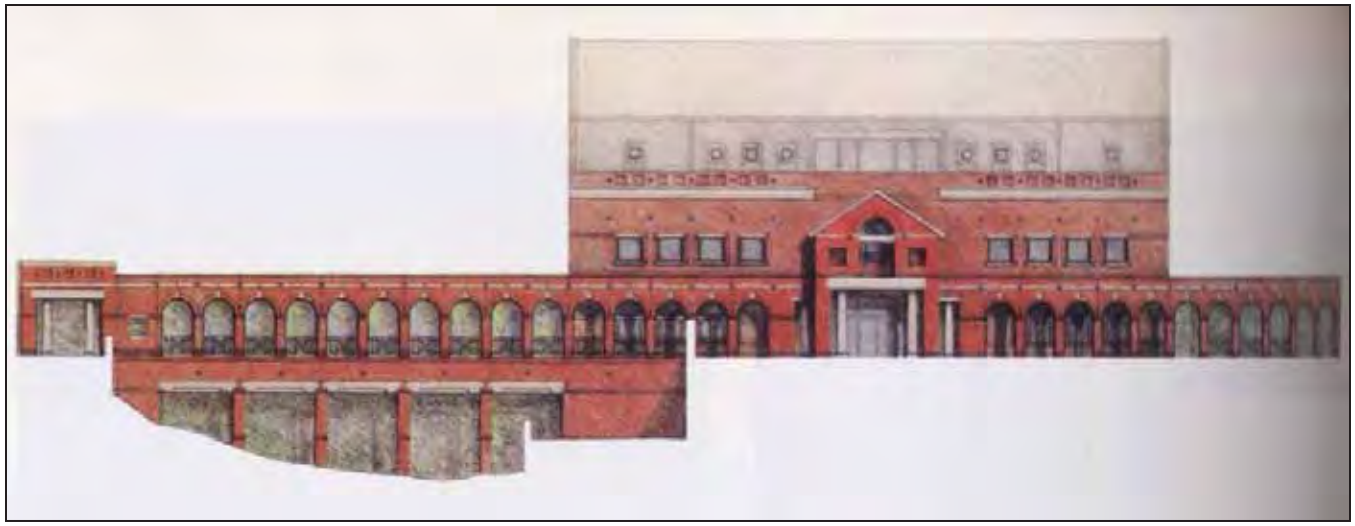


Figure 8: Design for Student Center by VMDO, Mary Washington College, 1986.

VMDO's design for the new student center incorporated arcades which bridged the ravine and helped to unite the south end of campus with the new development of the north end.

Reproduced from Reproduced from Philip Acidi, "Inquiry: Campus Infill," *Progressive Architecture* 71, no. 4 (April 1990).

Figure 9: Proposed Library Sites, Mary Washington College, 1986.

VMDO proposed and evaluated each of the five sites, noted in black, for the construction of the school's new library. The site selected was on the north end of campus (far right).

Reproduced from Vickery, Moje, Drinkard, Oakland, Architects, "Mary Washington College Master Planning Study Revised," (January 1, 1986).

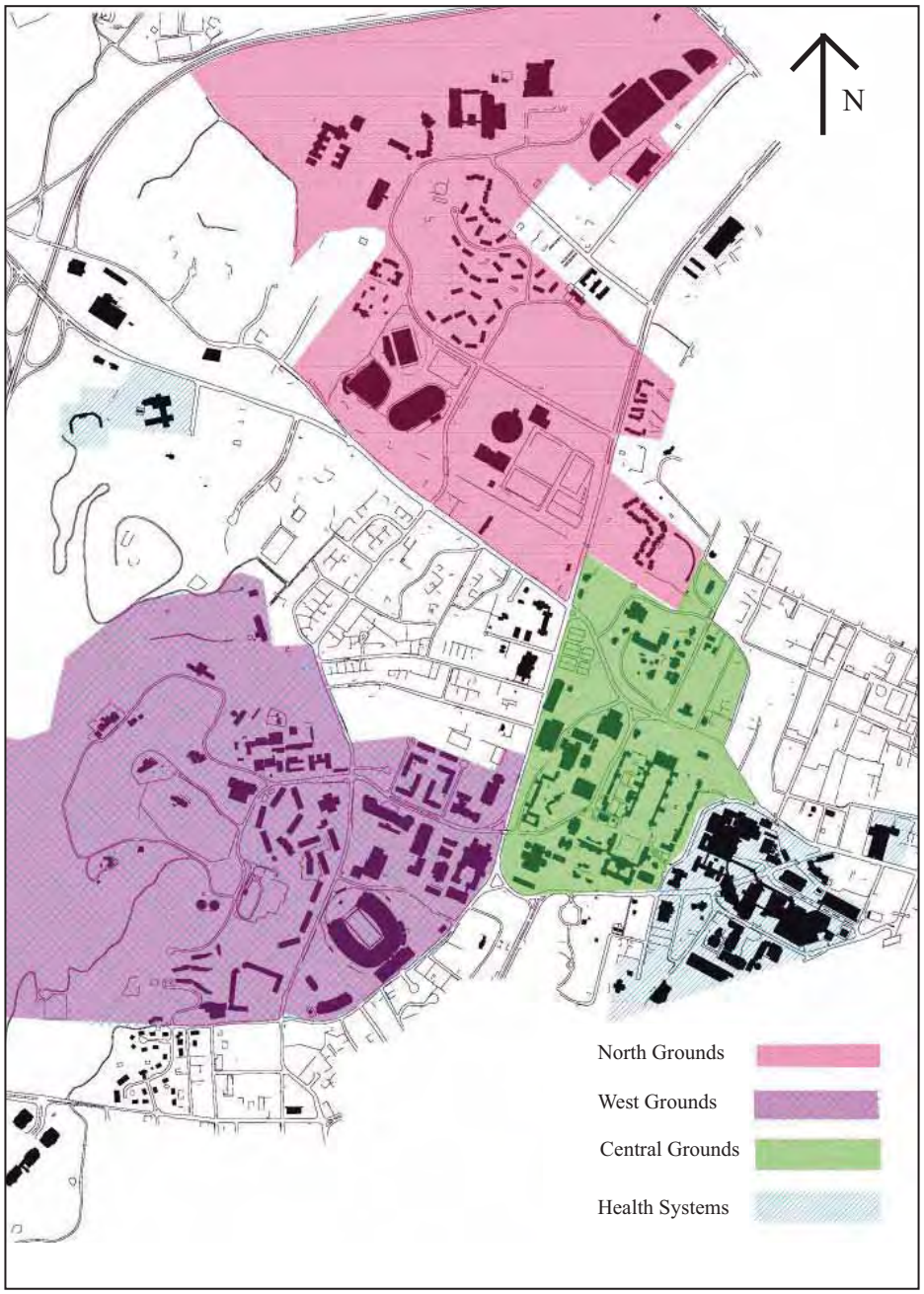


Figure 10: Grounds, University of Virginia.

Enhancement of image reproduced from University of Virginia Facilities Management, "Facilities Design Guidelines Seventh Edition," (November 2004).

Figure 11: The Lawn, University of Virginia, Date Unknown.

The Lawn is the open space which serves as the centerpiece of Thomas Jefferson's Academical Village.

Reproduced from the Historic American Buildings Survey.

Figure 12: Aerial View of the Academical Village, University of Virginia, 1996.

All of the components which make up the Academical Village are visible in this aerial. At the center is the Lawn surrounded by the Pavilions, the Rotunda is at the top, and on the outside are the East and West Ranges. Between the Ranges and Pavilions lie the Pavilion Gardens. These open spaces are identified as "fundamental" to the University in the Historic Preservation Framework Plan. Note the designs of the Gardens which were restored in the 1950's.

Reproduced from the University of Virginia Office of the Architect, "Historic Preservation Framework Plan," (2007).

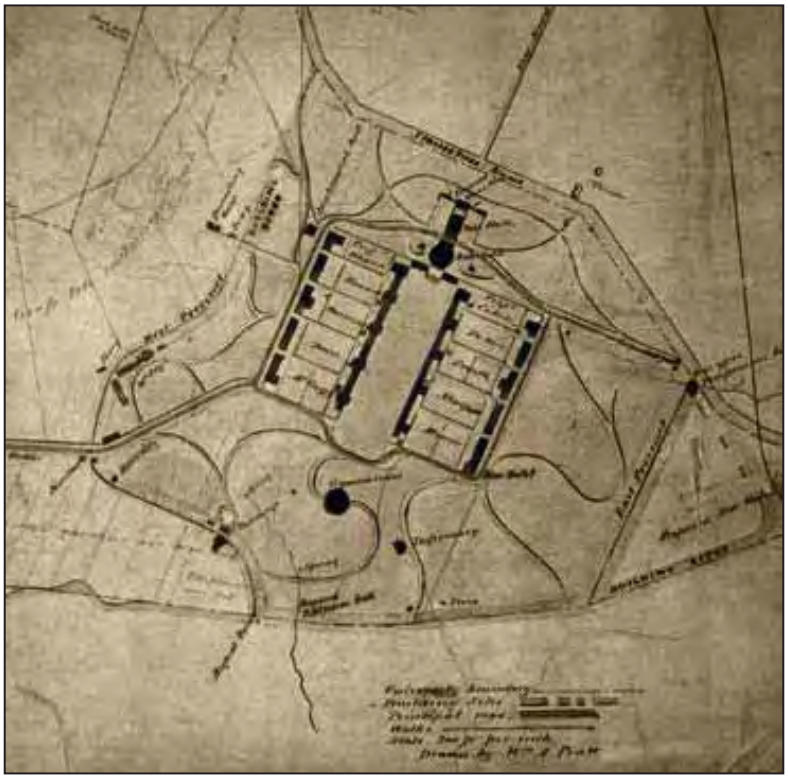


Figure 13: Landscape as Redesigned by William Abbot Pratt, University of Virginia, 1858.

The University hired landscape architect Pratt in 1856 and he produced this landscape master plan for the school. Pratt's designs resulted in a network of paths which ignored the symmetrical patterns of Jefferson's earlier plans.

Reproduced from the University of Virginia Office of the Architect, "Historic Preservation Framework Plan," (2007).

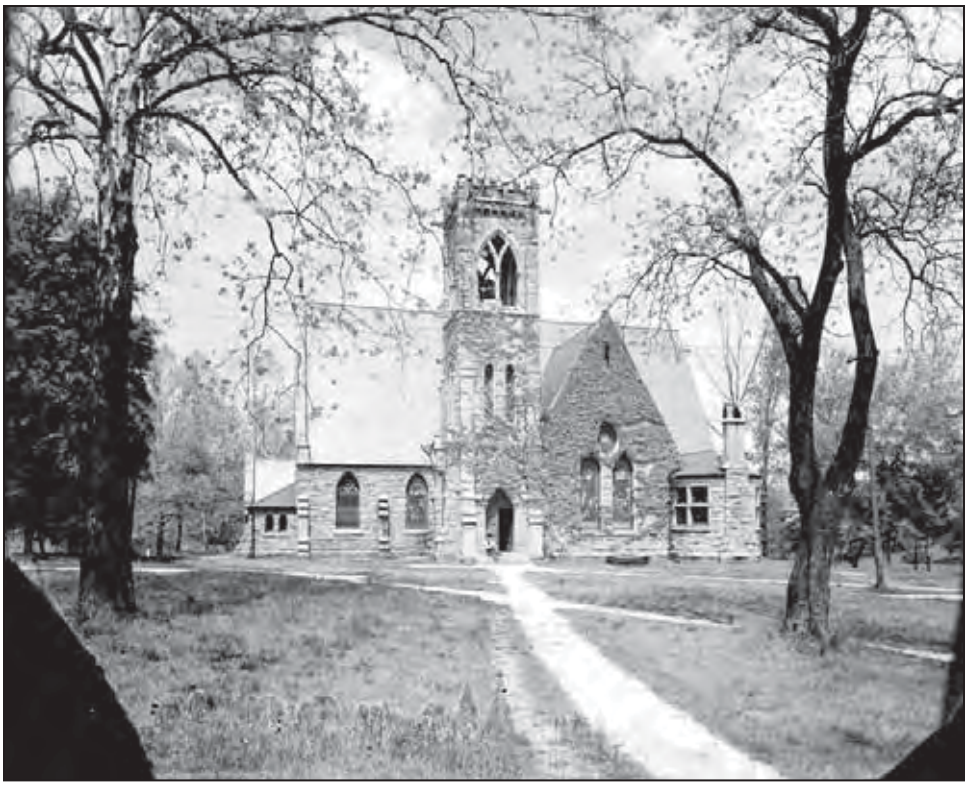


Figure 14: Chapel, University of Virginia, 1914.

The University Chapel designed by William Abbot Pratt is an example of how architectural styles on campus began to stray beyond the neo-classical vocabulary used by Jefferson.

Reproduced from the Albert and Shirley Small Special Collections Library, The Holsinger Studio Collection.

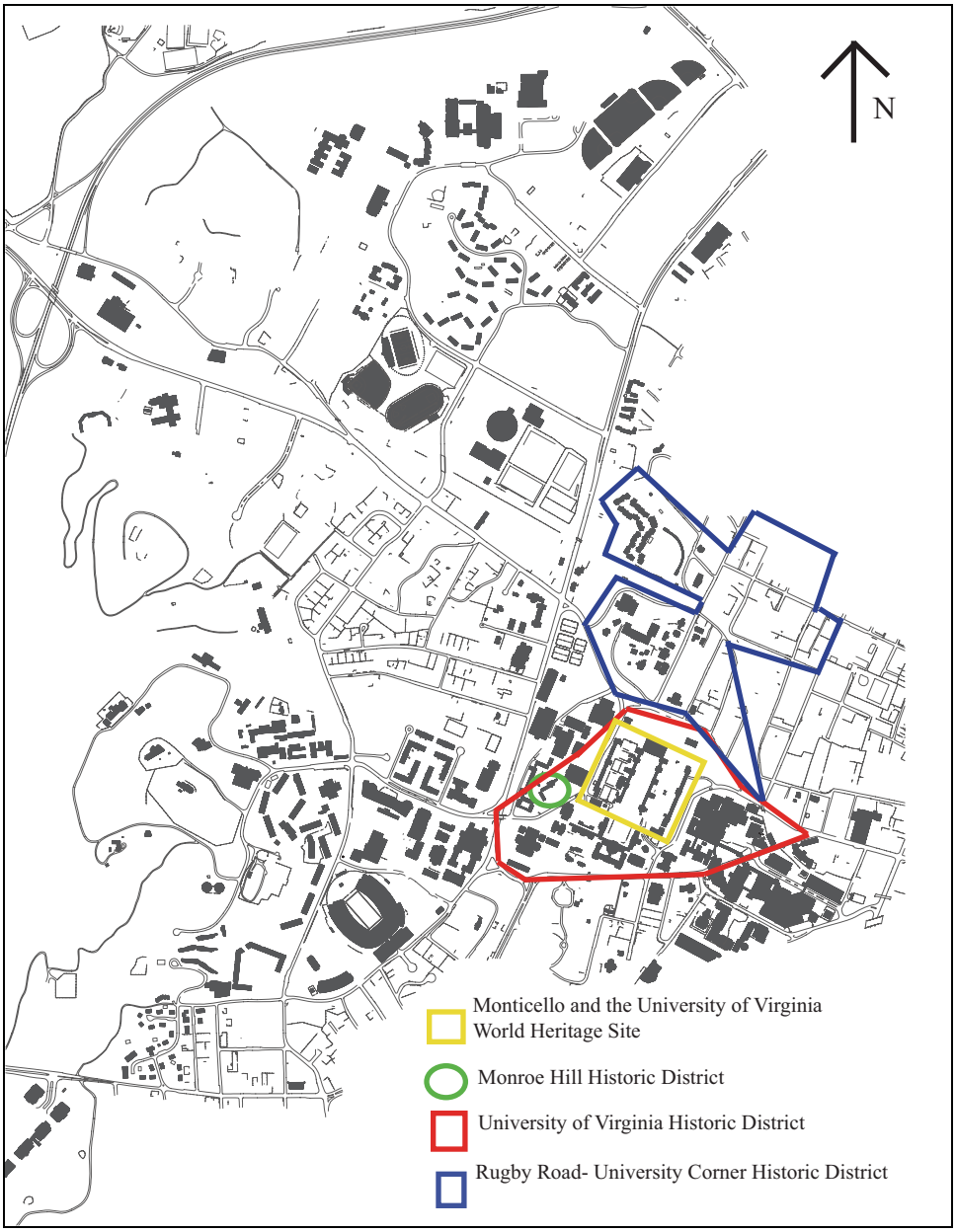


Figure 15: Historic Districts, University of Virginia.

Base map reproduced from the University of Virginia Facilities Management, "Facilities Design Guidelines Seventh Edition," (November 2004).

Figure 16: Pavilion Gardens, University of Virginia, Date Unknown.

The Pavilion Gardens are one of the "sacred spaces" identified by the Landscape Master Plan.

Reproduced from the Albert and Shirley Small Special Collections Library, The Holsinger Studio Collection.

Figure 17: Cemetery, University of Virginia, 1917.

Founded in 1828, the Cemetery has served as the final resting place for many of the most prominent figures of the University. This area is identified as a "sacred space" in the Landscape Master Plan.

Reproduced from the Albert and Shirley Small Special Collections Library, The Holsinger Studio Collection.

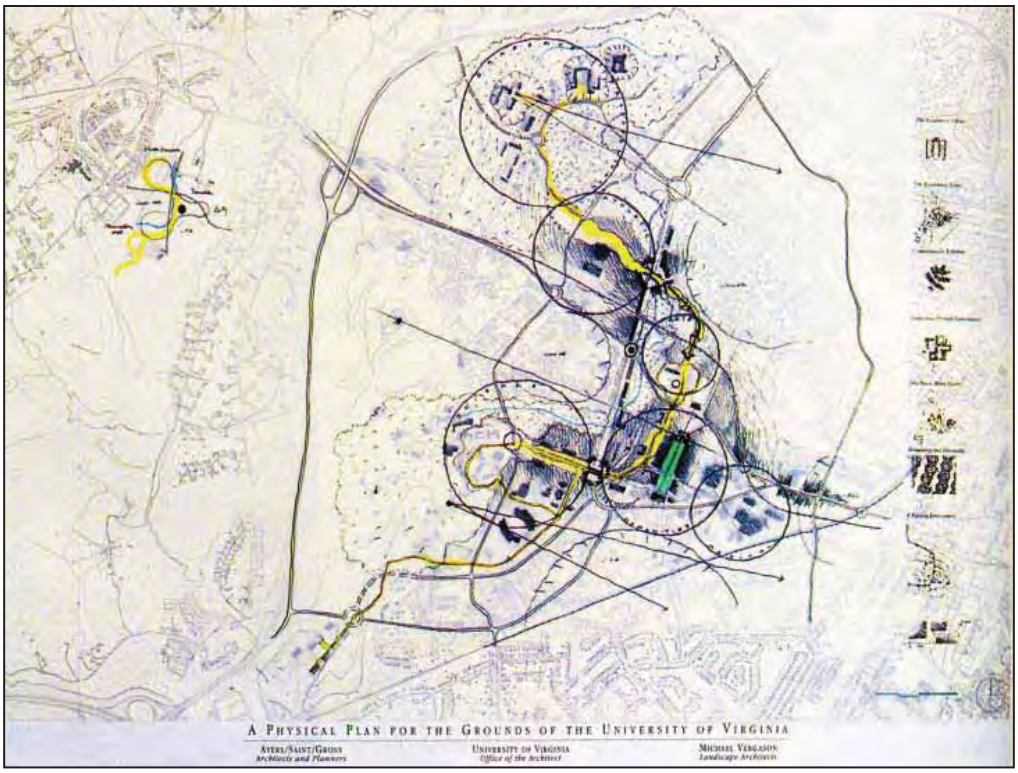


Figure 18: Plan for Groundswalk, University of Virginia.

The UVA campus as over time evolved into separate precincts. The Groundswalk, illustrated in yellow, is a pedestrian spine which seeks to connect these different areas.

Reproduced from Paul Bennett, "It Takes a Village: Drawing on the Legacy of Jefferson, Campus Planners at the University of Virginia Plot a Future Based on the Past." Landscape Architecture 88, no. 10 (October 1998).

Appendix A: Buildings by Preservation Priority from the University of Virginia Historic Preservation Framework

FUNDAMENTAL	ESSENTIAL	IMPORTANT	CONTRIBUTING	NOT CONTRIBUTING
Jefferson Precinct-East Lawn Dorms	Alderman Library	Alden House - Observatory House #1	Aerospace Research Lab	Albert Small Building
Jefferson Precinct-East Range Dorms	Bayly Museum	Birdwood - NE Storage (Ice House)	Alumni Hall	
Jefferson Precinct-Hotel A	Birdwood Mansion (Pavilion)	Birdwood - NW Storage	Barringer Mansion	Astronomy Building (Forestry and Natural Resources)
Jefferson Precinct-Hotel B	Birdwood Slave Quarters	Birdwood - SE Storage	Birdwood - Brick Barn	
Jefferson Precinct-Hotel C	Birdwood Water Tower	Birdwood - SW Storage	Birdwood - Stone Barn	Birdwood - Caretaker's House (Cash House)
Jefferson Precinct-Hotel D	Brooks Hall	Brown College-Monroe Hill Dormitories	Carr's Hill-Leake Cottage	Birdwood - Middleton House
Jefferson Precinct-Hotel E	Carr's Hill-President's Garage (Carriage House)	Carr's Hill-Guest House	Dawson's Row #1	Birdwood - Stone Shed
Jefferson Precinct-Hotel E Annex	Carr's Hill-President's House	Carr's Hill-Buckingham Palace	Dawson's Row #2	Birdwood - Wood Garage
Jefferson Precinct-Hotel F (Levering Hall)	Clark Hall	Cobb Hall	Gilmer Hall	Birdwood Silo
Jefferson Precinct-Pavilion I	Cocke Hall	Dawson's Row #3	Halsey Hall	Heating Plant
Jefferson Precinct-Pavilion II	Corner Building-Women's Center	International House- Lorna Sundberg Center	J. Beams Physics Laboratory	Jefferson Precinct-Poe Alley #1
Jefferson Precinct-Pavilion III	Dawson's Row #4-Parsonage	Little Morea	Lady Astor Pavilion (Squash Court)	Jefferson Precinct-West Lawn Garage
Jefferson Precinct-Pavilion IV	Fayerweather Hall	Madison Hall	Lambeth House	Jefferson Precinct-West Lawn Wash Room
Jefferson Precinct-Pavilion IX	Garrett Hall	Monroe Hall	Mary Munford Hall	Kerchof Hall
Jefferson Precinct-Pavilion V	Jefferson Precinct-McGuffey Cottage	Montebello	Maury Hall	Kluge Children's Rehab Center
Jefferson Precinct-Pavilion VI	Jefferson Precinct-Cracker Box	Morea	McCormick Road Dormitories	Kluge Cochran House
Jefferson Precinct-Pavilion VII	Jefferson Precinct-Mews	Small Observatory	McKim Hall	Kluge Commonwealth Court
Jefferson Precinct-Pavilion VIII	Lambeth Colonnade	Sunnyside	Midmont	Leake Building
Jefferson Precinct-Pavilion X	McCormick Observatory	Thornton Hall	Miller Center - Carriage House	Monroe Hill Garage

FUNDAMENTAL	ESSENTIAL	IMPORTANT	CONTRIBUTING	NOT CONTRIBUTING
Jefferson Precinct-Rotunda	McIntire Amphitheater	University Hall	Miller Center - Faulkner House	Montebello Garage
Jefferson Precinct-West Lawn Dorms	Medical School Building		Miller Center - Hedge House	Morea Garage
Jefferson Precinct-West Range Dorms	Memorial Gymnasium		Miller Center - Orchard House	Peyton House
	Minor Hall		New Cabell Hall	Piedmont Duplexes
	Monroe Hill House		Newcomb Hall	Snowden Apartments (Spanish House-Casa Bolivar)
	Monroe Hill Office		Nuclear Reactor	Telephone Exchange
	Monroe Hill Ranges		Piedmont	University Gardens Apartments
	Old Cabell Hall		Rugby Faculty Apartments	University Hospital - McIntire Wing
	Peabody Hall		Stacey Hall	University Hospital - Multistory Building
	Randall Hall		University Hospital-Barringer Wing	University Hospital - North Wing
	Rouss Hall		University Hospital-Clinical Dept. Building	University Hospital - Suhling Research Lab
	University Chapel		University Hospital-Davis Wing	University Hospital - X-Ray Storage Building
	Varsity Hall		University Hospital-Steele Wing	University Hospital-Central Wing
			University Press-Bemiss House	Zehmer Hall
			Vyssotsky House - Observatory House #2	

Appendix B: Evaluation of Landscapes from the University of Virginia Historic Preservation Framework

CORE LANDSCAPE	SUB-UNIT	PERIOD OF SIGNIFICANCE	INTEGRITY OF KEY HISTORIC ELEMENTS	LANDSCAPE PRIORITY
Alderman Quad	Library quad	1914-present	Low	Important for spatial quality as public open space
Alderman Quad	Aviator statue setting	1919; 1938-present	Low	Important for axial relationship with path to Rotunda
Alderman Quad	Hume Fountain plaza	1938; current setting 1989	Low; moved in 1989	Important as feature, not setting
Birdwood		1909-1940	Medium	Essential outside U. context
Canada	Foster site	Through 1918	Low	Important for archaeology
Canada	Barringer Mansion	1896-1930	Medium	Contributing as setting
Carr's Hill	Fayerweather/ Carr's Hill front lawn	1893- present	Medium	Essential
Carr's Hill	Carr's Hill House back & side gardens	Continuum	Low	Non-Contributing
Carr's Hill	Bayly Art Museum	1935	High	Essential as setting
Carr's Hill	Madison Bowl	Continuum	High	Essential as open space for recreation
Carr's Hill	Madison Hall	1961	High	Important as setting
Carr's Hill	Rugby Road streetscape	Continuum	Medium	Important
Carr's Hill	Carr's Hill Field	1951-present	Low	Important as open space for recreation
Cemetery		1828-present	High	Essential
Dell		1950-present	Low	Important for water & recreational space
Clark Hall	Clark Hall (front)	1932	Medium	Important as setting
Clark Hall	Dawson's Row	Continuum	Low	Contributing circulation route
Copeley Hill		1960s-present	High	Non-Contributing
Emmet St. West	Alumni Hall	1936-present	Low	Contributing as setting
Emmet St. West	Bemiss House	1930s-present	Low	Non-Contributing
Emmet St. West	Mary Munford	1952-present	Medium	Contributing
Emmet St. West	Morea	1835;1962-present	High	Important
Hospital	Clark Park	1921-present	Medium	Essential
Hospital	Hospital Drive	1900-present	Medium	Important

CORE LANDSCAPE	SUB-UNIT	PERIOD OF SIGNIFICANCE	INTEGRITY OF KEY HISTORIC ELEMENTS	LANDSCAPE PRIORITY
Hospital	Multi-Story	2001	Low	Non-Contributing
Jefferson Precinct	Lawn	1817-present	High	Fundamental
Jefferson Precinct	Pavilion Gardens	1817; 1952-1965	High	Fundamental
Lambeth Field	Field and Colonnade	1913-30	Medium	Essential
Lambeth Field	Faculty Apartments	1922	High	Contributing as setting
Lambeth Field	International House	1914	Medium	Contributing outside U. context
McCormick Rd. West	Gilmer Hall	1964	Medium	Contributing as setting
McCormick Rd. West	McCormick Road (University Ave. to Alderman Rd.)	1938-present (north) 1980-present (south)	Medium	Contributing
McCormick Rd. West	McCormick Rd. Residence Halls	1950-present	Low	Contributing for spatial quality of the quads
McCormick Rd. West	Thornton Hall	1964	High (front and Darden courtyards);otherwise low	Contributing for spatial quality of courtyards
McCormick Rd. West	Physics Building	1954-present	Medium	Contributing as setting
Memorial Gymnasium/Nameless Field		1924-1950	Low	Contributing as setting (if restored)
Midmont		1833-present	Medium	Contributing outside U context
Miller Center		1907-present	Medium	Contributing as setting
Monroe Hill	House & grounds	1848-present	Low	Contributing as setting
Monroe Hill	Brown College	1928-present	Medium	Contributing as setting
Monroe Hill	Newcomb Road (south end)	1930	High	Contributing
Montebello		1917-present (reduced acreage)	Medium	Contributing as setting
Observatory Hill	Alden House	1886	High	Contributing as setting
Observatory Hill	Leake Building	1950-present	Low	Non-contributing
Observatory Hill	Leander McCormick Observatory	c. 1930-present	Low	Contributing as setting
Observatory Hill	Observatory Road	1916-present	Medium	Contributing

CORE LANDSCAPE	SUB-UNIT	PERIOD OF SIGNIFICANCE	INTEGRITY OF KEY HISTORIC ELEMENTS	LANDSCAPE PRIORITY
Observatory Hill	Nuclear Reactor pond	1868	High	Contributing
Observatory Hill	Woodland and hill	1817-present	Medium	Essential
Observatory Hill	CCC trails	1936-present	Medium	Contributing
Piedmont Faculty Apartments		continuum	Medium	Non-Contributing
Rotunda-North	Long Walk/ Brooks triangle	1817-present	Medium	Essential
Rotunda North	Courtyards	1896-present	Medium	Essential
Rotunda North	North terrace and grove	1853-present	Medium	Essential
Scott Stadium		1931	Low	Non-contributing
Scott Stadium	Whitehead Road	1940	Medium	Contributing
South Lawn	Amphitheater	1921	Medium	Essential as setting
South Lawn	South Lawn	1896-present	High	Essential
South Lawn	Varsity Hall	1858-present	Low; building moved to new site	Non-contributing
South Lawn	Washington & Jefferson courtyards	1914 (statues); 1931-present	Medium	Essential
Sunnyside		Continuum; mostly 1982	Low	Contrib. outside U. context and for archaeology at Poor House
University Hall		1965-present	Low except main entrance	Contributing as setting (entrance)

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