Dynamism at Palestra Green

by

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Abstract

The American campus is a distinct place. Harboring collegial values much different from American social-scapes, urban campuses are insular places of outward-minded activism. The University of Pennsylvania is breaking down these perceived barriers that separate its campus from the city; attempting to reconnect with adjacent neighborhoods, civic institutions and the greater Philadelphia-area. *Dynamism at Palestra Green* seeks to establish this connection along the most important pedestrian corridor linking Penn to Center City Philadelphia.

A proper connection requires extensive knowledge of Penn's genius loci. By synthesizing an analysis of the historic DNA of Penn and its spaces, as well as regionalism and site-specific programming, the proper design of Palestra Green is achieved. Furthermore, the proposed site design is intended to provide flexible spaces for the accommodation of numerous programmatic functions located both on site and in adjacent campus buildings. Adapting to seasonal campus, event and civic programming while adhering to the aesthetic and underlying qualities of Penn creates a truly unique and dynamic destination. Through this robust design, Palestra Green connects to the whole of Penn, properly accommodates the range of uses and events taking place on site, and contributes to the extensive park network in Philadelphia. In addition, the implementation of multiple designed systems provides a diverse set of amenities contributing to the flexibility of use and sustainability at Palestra Green.

Supporting these solutions is a project-specific conceptual framework driven by personal philosophy and experience. The conceptual structure is tuned to actively reconcile and resolve all site and program issues. In its final state, *Dynamism at Palestra Green* communicates the significance of all proposed components, discusses the space's long-term value to the university and city and exhibits how the new Palestra Green positively contributes to the profession of landscape architecture.

Dynamism at Palestra Green

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Text Link

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CHAPTER 1

The Nature of Penn

History

Penn's Foundation

The history of the University of Pennsylvania began in 1743, when local gentleman, statesman and inventor Benjamin Franklin, first conceived the idea for a college in the city of Philadelphia. Franklin's non-association with the local majority parishioners, the Quakers, led his concept for an institution of higher learning differ from those already in existence in America at the time. According to his 1749 essay, *Proposals Relating to the Education of Youth in Pensilvania*, Franklin outlined an academy that would prepare the future leaders of the growing city in business and governmental affairs and, therefore, grow the institution with the demand from prospective students. This precept, when compared with the clergy and ministry-minded colleges in New England—Harvard College, the College of William and Mary, the College of Rhode Island (present-day Brown University), King's College (present-day Columbia University) and the College of New Jersey (present-day Princeton University)—seemed an unusual one. Franklin proposed teaching all classes in modern English instead of the academic-norm Greek and Latin, and including curriculum in those subjects useful to the modern world of economics and commerce; geography, geology, natural history and modern languages would make up the core areas of study.

Despite the institution's nonconformist ideals, Franklin's concept for the Academy and Charitable School took hold in Philadelphia and, after developing a strong Board of Trustees comprised of elite Philadelphians from several religious backgrounds, the Academy was set in motion. The first major development at the Academy came with a generous proposition from statesman, Quaker and Trustee John Logan. Logan offered the Academy a plot of land directly adjacent to his own private library on Sixth Street. Not only would this be a resource unequaled by other American institutions, the plot was directly across the street from the Pennsylvania State House (now known as Independence Hall), which would place the new Academy at the nucleus of power in the city and the commonwealth. When Franklin and the Board of Trustees declined Logan's offer, it signaled the Academy's dedication to the working class citizens of Philadelphia and the freedom of the Academy from the strict ideals of the Quakers.

When a local evangelical church on Fourth Street fell on hard times due to the extensive travelling of its Wesleyan-following minister, Franklin proposed to his Board of Trustees that they should purchase the building from the congregation. Not only would this aid the church in its obligation to finish paying off the building they had just constructed and relieve them of their associated duty of running a charity school—promised at construction—but it would provide the Academy and Charitable School with a sufficiently sized building with room to grow. Furthermore, the building's architectural style was far different from others of the same purpose in the city. This appeased Franklin, as he wanted a multifunctional building with an attractive exterior for the Academy; his ideal building was inherently linked with his concept for the school. When the Academy purchased the building in 1749, designer Edmund Woolley developed new architectural plans and Robert Smith, a local foreman built the project. In January 1751, all renovations of the former church building were complete and the first classes at the Academy were in session.

As the Academy's numbers grew, so did the need for expansion. By 1755, Franklin's institution had become such a success that the College of Philadelphia was added to the Academy as a more focused and conventional curriculum. The school commissioned the construction of new buildings alongside those of the Academy. By 1761, the rapid growth of the institution hit a plateau and the institution began losing students, due to the Academy and College's absence of dormitories. To combat this issue and revive the dwindling student population, the institution built a multi-use, multi-story structure that housed fifty students in upper levels and provided ample classroom and dining space on the main floor.

Although the institution was doing very well, in 1777, with the turmoil that came with the Revolution, it was forced to cease all academic operations in order to fight with the Sons of Liberty. Yet, as the war continued, the State of Pennsylvania and the City of Philadelphia recognized the importance of the institution to the continuing education of its youth and, in 1779, an act of legislature reestablished the institution. Under the new title of "University of the State of Pennsylvania," the former Academy saw an immediate rise in enrollment numbers as it retained most of its previous areas of study and added schooling in medicine, which became

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To Anna

Leges sine moribus vanae

This should be a truly civic campus space with the DNA of College Green.

David Hollenberg, University of Pennsylvania Architect

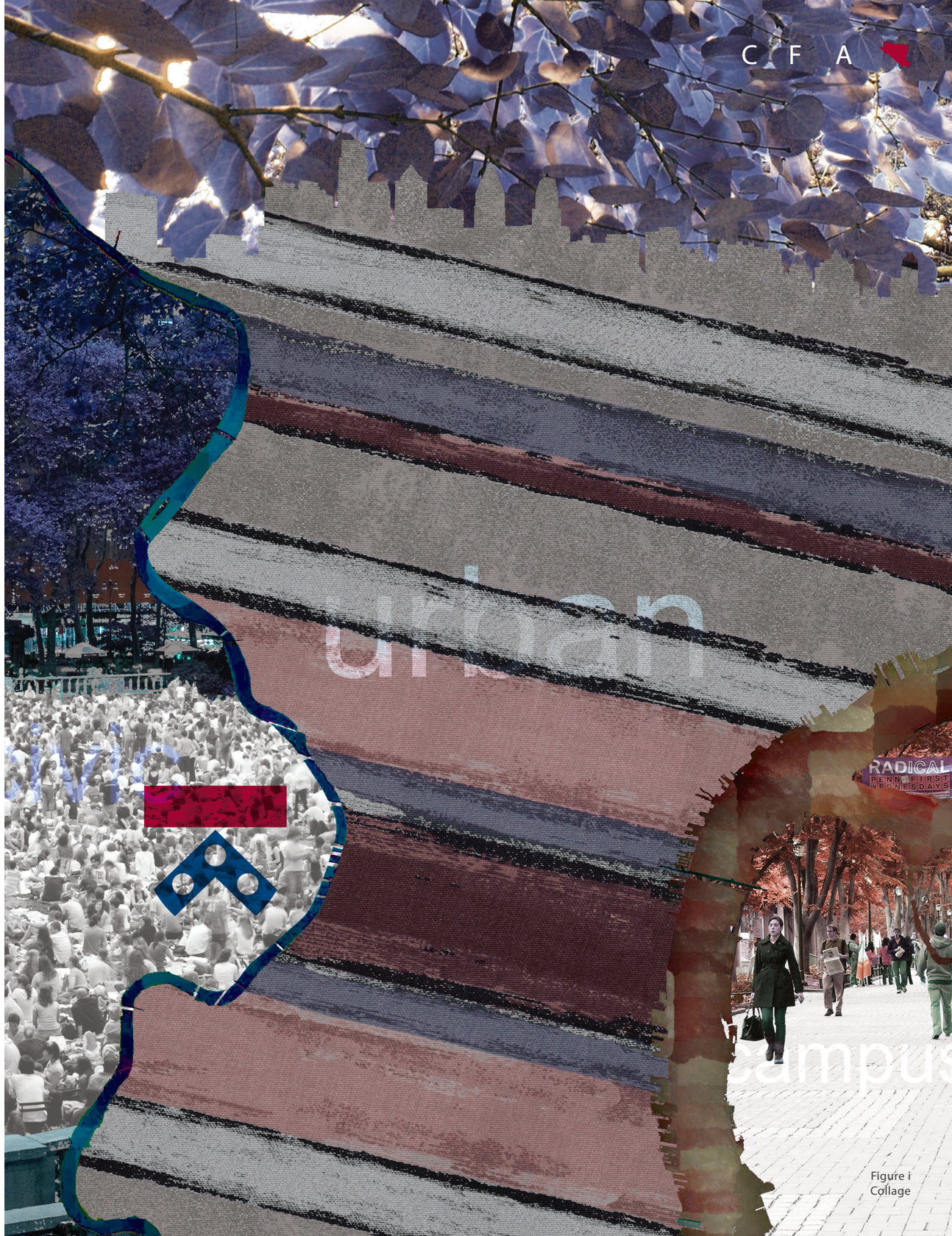

Figure i
Collage

Accommodation for a few as well as thousands of people—the most 'flexible' space at Penn.

David Hollenberg, University of Pennsylvania Architect

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The final piece in the vision to connect College Green and the campus seamlessly to the city.

Susan Weiler, Principal - OLIN

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Thesis

Palestra Green should not conform to conventional American campus standards. Instead, the space should be transformed into a representation of the overall University of Pennsylvania campus and aesthetic type while implementing a new, flexible design and civic program.

Introduction

Project Genesis

In fall 2007, I was offered a position as intern at the prestigious landscape architecture firm, OLIN. At that point in time, I had only a general knowledge of the firm's work and of Philadelphia, the city where my wife and I would move, and knew next to nothing about the University of Pennsylvania, the campus on which this project resides. Upon arrival in Philadelphia, I was quick to learn my way around the city. The more I learned about this new place, the more I felt honored and humbled to live in such a historic and meaningful city.

Coupled with my newfound appreciation for Philadelphia was a wonder and delight I felt for sports and events spaces, something I undoubtedly inherited from my father. Coliseums, stadiums, arenas—the sport itself did not matter to me, what I enjoyed was the venue in which the sports were played. The ivy and lights of Wrigley Field, the aura of Fenway Park, the atmosphere at Folsom Field on the campus of the University of Colorado, the fascinating architecture and nature of the University of Phoenix Stadium – all these places speak to me in ways other places do not. So, naturally, while settling in Philadelphia, I took it upon myself to learn about the sports and events spaces in the city and visit as many of them as possible. What I found only piqued my interest.

Not only is Philadelphia known for unique places I had heard of in sports culture—Veterans Stadium, the Spectrum, Lincoln Financial Field—but the city is also home to two of the most renowned sports facilities in the United States, Franklin Field and The Palestra. These two places intrigued me, not because their primary purposes are for American football and basketball, but because they are collegiate facilities located at the University of Pennsylvania, just a 20-minute walk from our apartment on the Benjamin Franklin Parkway.

As my personal knowledge of Franklin Field and The Palestra grew through weekend visits to the facilities, visits around the university and books like *Building America's First University* by Thomas and Brownlee, my focus at work shifted. I learned I would no longer be working on a project at Duke University, a project I started working on from my first day on the job. I was to be part of a team researching a proposed project at Penn, directly adjacent to the two sports facilities of which I was becoming more familiar. My excitement for the project was palpable as I felt my strengths as a designer and thinker as well as my newfound appreciation for this campus were being used to their full potential. As someone who was still a student on internship, I felt I understood campuses. I could sense their hum when class was in session, the camaraderie students and faculty feel for one another and for "their" school (this is something I would later research more of, primarily in the book *American Places* by Perry Chapman) and the character of a campus place in American culture and lore. What is more, the campus on which the project was taking place was one with which I was becoming very familiar. This situation seemed to crystallize by Divine Intervention.

As the project began, my knowledge of the university, Franklin Field and The Palestra grew. I learned Franklin Field was erected in 1922 and designed to resemble "the [Roman] Colosseum" (Thomas and Brownlee, 225) and The Palestra was considered the "Cathedral of Basketball" by many Philadelphians and basketball fans. But I also learned the spaces surrounding The Palestra were dysfunctional from a spectator's vantage point, the beautiful character seen at the core of Penn's campus was no where to be found on this site and a new plan for the space was being conceived by Olin's office through continual communication with architects at Penn. All these factors and many others swam through my mind and a solution accounting for every site issue seemed as large as the ocean. I never had encountered a campus space that also needed to be a central events space and hold an intrinsic civic value. This project was the perfect mixture of unique concrete and theoretical issues. I sensed that through this project there was an opportunity to explore a massive range of problems and solutions relevant to contemporary landscape architecture. What is more, Penn is known as a center for global education and research so I felt this project would be viewed optimistically by anyone involved with the university. This was the genesis of *Dynamism at Palestra Green*.

Design Process & Conceptual Framework

Dynamism at Palestra Green fits into the Master's Project curriculum at Kansas State University's College of Architecture, Planning & Design (CAP+D), Department of Landscape Architecture/ Regional & Community Planning (LARCP). In-depth, personal research began in August 2008, after choosing the project as the final piece to complete the LARCP curriculum. Under the guidance of Professors Stephanie Rolley, Chip Winslow, Lorn Clement and many others, *Dynamism at Palestra Green* evolved continually into a sufficient and invigorating Master's Project for all involved parties.

Each of the aforementioned professors aided in steering the project to meet the strict completion requirements at numerous phases and checkpoints within the academic year. These checkpoints range from the explicit stating of the project goals, obtaining all suitable base material for the chosen site, developing the abstract and thesis for the project, designing the site and its extensive program and numerous critical reviews of the progress of the project. Each of the critical steps involved in *Dynamism at Palestra Green* is seen in Figure ii.

When thinking about how to design any space, the implementation of a strong conceptual framework for visualizing the project is critical (Figure iii). Assessing project needs, analyzing potential natural and social forces contributing to the site and weighing potential design options are critical steps to designing the appropriate space. But, these and many more diagnostic concepts must not be haphazardly installed onto the project. Instead, they must be the foundational guidelines for thinking and analyzing the project at all phases of development and design.

Dynamism at Palestra Green utilizes an in-depth knowledge of landscape architecture and principles for design as a foundation for the project's conceptual framework. Built on this foundation are those axioms brought about by personal world view, experiences, analytical standards learned from previous professional experience in the field of landscape architecture, and an awareness of many significant building blocks still to be realized in the design process. This confluence of past, present and future ideals into one analytical structure gives *Dynamism at Palestra Green* its basic strength as a project and sheds light on why the proposed design for Palestra Green is the way it is. For more on the conceptual framework behind the project, please see Appendix i.

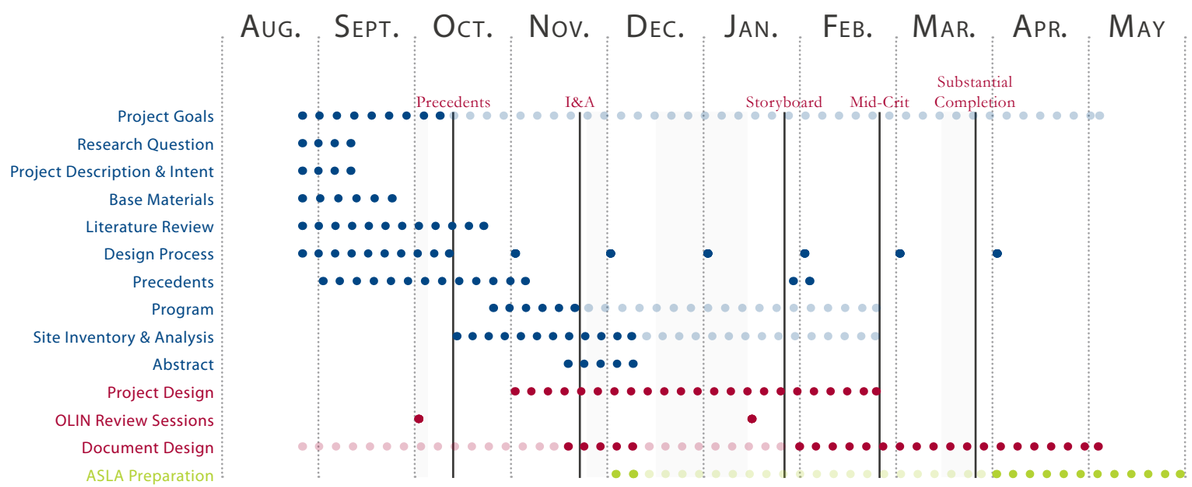


Figure ii
Project Calendar

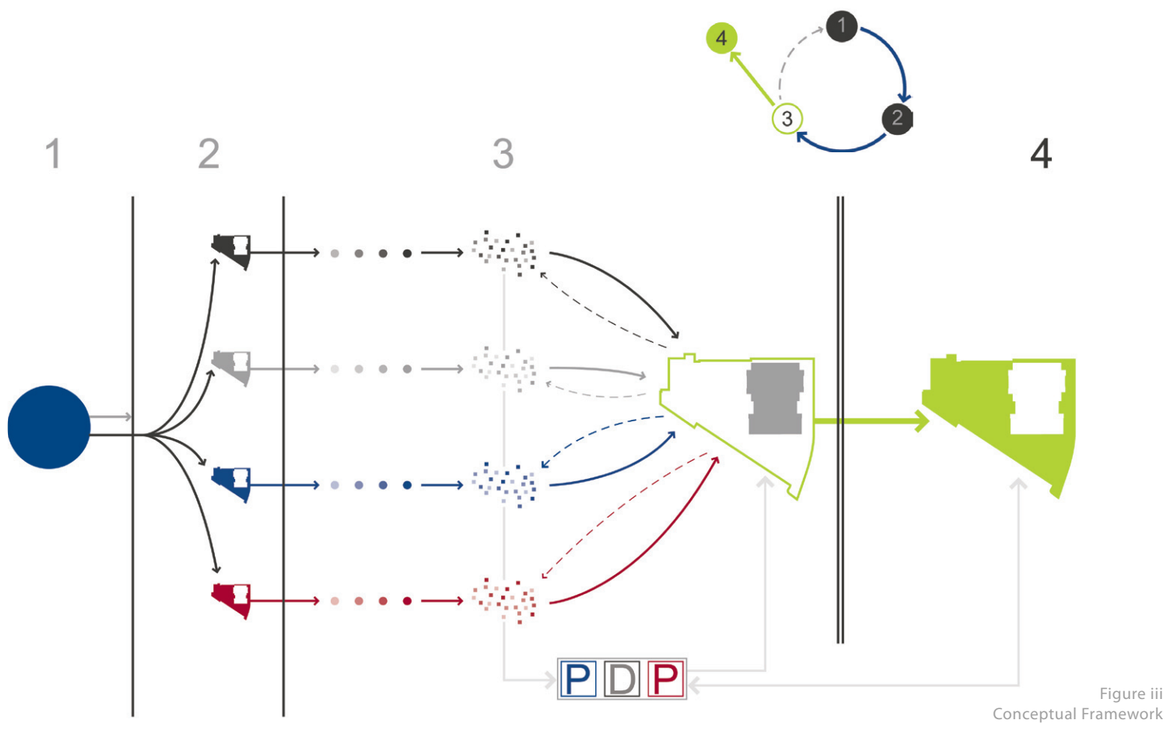


Figure iii
Conceptual Framework

Goals & Intentions

Behind *Dynamism at Palestra Green* lie an active set of goals and intentions that guide all project efforts. These goals and intentions are separated by type into two categories: those relating to the project as a whole and those relating to the physical design of the Palestra Green site. The goals for *Dynamism at Palestra Green* are simply:

Project Goals & Intentions

1. Create an end product that pushes the bounds of modern campus design

2. Present the final Master's Project & Report to the University of Pennsylvania and prospective employers

3. Submit the entire report, or appropriate pieces to the American Society of Landscape Architects 2009 Student Awards Competition

Design Goals & Intentions

1. Shape the Palestra Green project in the mold of regionalism

2. Explore the implementation of personal values, philosophies and precepts into the project

3. Create a place that can maintain some form of ecological and fiscal sustainability as seen in the Sustainable Sites Initiative

- *i.* Utilize eco-water systems that reuse all (or some) water from the site for greywater and irrigation purposes
- *ii.* Examine and assess the health of existing trees in order to determine their role in any new design. If existing trees are healthy, consider keeping them in the new design
- *iii.* Select regional materials and ensure their durability through life-cycle costing
- *iv.* Consider replacing existing or constructed surfaces with vegetated surfaces
- *v.* Create a place that is fiscally responsible through the use of landscape and systems

For more on the project's Goals and Intentions, please refer to Appendix ii.

What to Expect

The final Master's Project & Report aims to inform the reader of the main goal of *Dynamism at Palestra Green*—to design a campus space that physically and aesthetically connects to the rest of the University of Pennsylvania campus while accommodating both events and civic uses on the site. Meeting this goal requires a clear narrative direction and succinct, unambiguous language married with simple and informative graphic communication.

Articulating the objectives mentioned above means the Master's Report must address the project through the telling of a story. The body of the Report begins in Chapter One with the communication of The Nature of Penn—establishing a connection with the campus and giving a literal and visual account of the history of the university. The Nature of Penn also examines the many roles of the university in the context of the city of Philadelphia and its relationship to the various neighborhoods, parks, institutions and other places of note within the city. After giving an account of the university in the city context, the focus shifts to the physical nature and aesthetic of Penn itself. A typology study of university spaces takes inventory of the different spatial types on campus and analyzes them based on their relative congruence to Palestra Green.

This evaluation is a segue into the communication of the site's physical and programmatic purposes—The Role of Palestra Green. A clear description of the historic and present nature of Palestra Green gives the reader a foundational knowledge of the site as it exists today and leads into a narrative regarding the proposed design of Palestra Green. Various graphic elements describe both the existing and proposed conditions of the site and introduce the graphic style seen throughout the Report. The Role of Palestra Green concludes with a brief overview of the proposed programmatic elements and highlights of future campus initiatives that will impact Palestra Green.

The Report's third chapter sets the precedent for each of the following chapters of the Report relating to the Palestra Green program. An in-depth look into the site's three specific programmatic types—campus, events, civic—gives a sense of the site from each programmatic vantage point. Within this structure, existing on site issues are identified and their proposed solution counterparts introduced, illustrating the analytical elements driving the final design of the site. Each chapter considering one of the site's specific programs concludes by reflecting how each of the proposed solutions will affect the future use and nature of Palestra Green. Graphically, these chapters include numerous diagrams that aid in the reinforcement of the project's analytical ideals. Perspective renderings illustrate the three proposed programs are included at the end of each chapter as a supplement to the written conclusion. Each rendering is placed carefully into the chapter corresponding to its program.

After building a sufficient knowledge of Palestra Green's design, an introduction to the site's more detailed attributes commences. The Report's Sixth Chapter explains the inner workings of the site's various designed systems. In this chapter, each of the systems (modular green, canopy and precipitation collection/green roof system) and their contributions to the site (function, materiality and enhanced programmatic purposes) and the university are explained and illustrated.

With a comprehensive knowledge of the designed Palestra Green site and each of the site's systems, a discussion regarding The Future of Palestra Green occurs. This chapter contemplates the proposed design's life and longevity, estimating the long-term costs and benefits of the design. Other paramount university issues are discussed—site maintenance, phasing and fiscal responsibility and policy and implementation recommendations. Discussion of each of these issues shows Palestra Green as a tangible and responsible project, not just a concept for the redesign of a campus space.

Finally, A Letter adds a poetic and warming touch to cap the Report. The letter's concept, set 47 years in the future and based on Palestra Green's long-term fitness and contribution to the university, the surrounding neighborhoods and the city, keeps with the future-minded theme of the project. The Letter is written from a local vantage point—someone familiar with the site and it's apparent role in the aforementioned context.

CHAPTER 1

The Nature of Penn

History

Penn's Foundation

The history of the University of Pennsylvania began in 1743, when local gentleman, statesman and inventor Benjamin Franklin, first conceived the idea for a college in the city of Philadelphia. Franklin's non-association with the local majority parishioners, the Quakers, led his concept for an institution of higher learning differ from those already in existence in America at the time. According to his 1749 essay, *Proposals Relating to the Education of Youth in Pensilvania*, Franklin outlined an academy that would prepare the future leaders of the growing city in business and governmental affairs and, therefore, grow the institution with the demand from prospective students. This precept, when compared with the clergy and ministry-minded colleges in New England—Harvard College, the College of William and Mary, the College of Rhode Island (present-day Brown University), King's College (present-day Columbia University) and the College of New Jersey (present-day Princeton University)—seemed an unusual one. Franklin proposed teaching all classes in modern English instead of the academic-norm Greek and Latin, and including curriculum in those subjects useful to the modern world of economics and commerce; geography, geology, natural history and modern languages would make up the core areas of study.

Despite the institution's nonconformist ideals, Franklin's concept for the Academy and Charitable School took hold in Philadelphia and, after developing a strong Board of Trustees comprised of elite Philadelphians from several religious backgrounds, the Academy was set in motion. The first major development at the Academy came with a generous proposition from statesman, Quaker and Trustee John Logan. Logan offered the Academy a plot of land directly adjacent to his own private library on Sixth Street. Not only would this be a resource unequaled by other American institutions, the plot was directly across the street from the Pennsylvania State House (now known as Independence Hall), which would place the new Academy at the nucleus of power in the city and the commonwealth. When Franklin and the Board of Trustees declined Logan's offer, it signaled the Academy's dedication to the working class citizens of Philadelphia and the freedom of the Academy from the strict ideals of the Quakers.

When a local evangelical church on Fourth Street fell on hard times due to the extensive travelling of its Wesleyan-following minister, Franklin proposed to his Board of Trustees that they should purchase the building from the congregation. Not only would this aid the church in its obligation to finish paying off the building they had just constructed and relieve them of their associated duty of running a charity school—promised at construction—but it would provide the Academy and Charitable School with a sufficiently sized building with room to grow. Furthermore, the building's architectural style was far different from others of the same purpose in the city. This appeased Franklin, as he wanted a multifunctional building with an attractive exterior for the Academy; his ideal building was inherently linked with his concept for the school. When the Academy purchased the building in 1749, designer Edmund Woolley developed new architectural plans and Robert Smith, a local foreman built the project. In January 1751, all renovations of the former church building were complete and the first classes at the Academy were in session.

As the Academy's numbers grew, so did the need for expansion. By 1755, Franklin's institution had become such a success that the College of Philadelphia was added to the Academy as a more focused and conventional curriculum. The school commissioned the construction of new buildings alongside those of the Academy. By 1761, the rapid growth of the institution hit a plateau and the institution began losing students, due to the Academy and College's absence of dormitories. To combat this issue and revive the dwindling student population, the institution built a multi-use, multi-story structure that housed fifty students in upper levels and provided ample classroom and dining space on the main floor.

Although the institution was doing very well, in 1777, with the turmoil that came with the Revolution, it was forced to cease all academic operations in order to fight with the Sons of Liberty. Yet, as the war continued, the State of Pennsylvania and the City of Philadelphia recognized the importance of the institution to the continuing education of its youth and, in 1779, an act of legislature reestablished the institution. Under the new title of "University of the State of Pennsylvania," the former Academy saw an immediate rise in enrollment numbers as it retained most of its previous areas of study and added schooling in medicine, which became

a primary area of study. As the medical school grew so did the University and soon the school needed new space for teaching and demonstrations. This led to a split in the physical location of the University – the original Academy and College buildings continued housing the other areas of study while a building on Fourth and Sansom Streets was donated to the University for the use of the medical school. The University did well in these locations and on September 30, 1791, the institution decided upon a name change—the University of Pennsylvania—that would help unify the school as one entity and market itself to the world as a strong academic institution in the Capital of the United States of America.

With the close of the eighteenth century, the University of Pennsylvania, now affectionately known as "Penn," found itself in a precarious position. The campus was constricted geographically and subject to the ebb and flow of the ever-changing neighborhoods near the State House. When the University purchased the house intended for the President of the United States at Ninth and Market Streets—the second President, John Adams, never accepted the mansion because of a constitutional requirement that he receive no compensation other than his presidential salary—the institution, with the exception of the medical school, consolidated into the building. While this provided much-needed room for the school to conduct classes, it lacked the space for dormitories. Because of this, the first three decades of the nineteenth century saw the University's population decline rapidly as most students commuted from homes in and around Philadelphia. Despite the medical school's incredible growth during this time, the University found itself in need of a new plan for development.

Penn's Move

By the mid-nineteenth century Penn became a stagnant institution in the eyes of the city. This was due in large part to the immense growth Philadelphia, which in the early part of the century surpassed New York City as America's largest metropolitan area both in land area and population. The University's location at Ninth and Market Streets was no longer at the serene edge of the city. Instead, the institution had become surrounded by the financial and administrative center of Philadelphia and the city had other important uses for the University's buildings. When University Provost, Charles Janeway Stillé, conceived the idea of a campus on the west side of the Schuylkill River, it changed the course of the University forever. Moving to West Philadelphia offered the institution room to breathe and would hold enough open land for the expansion of the university.

In 1868, Penn's first instructor in architecture, Thomas Webb Richards, drew the first plans for the development of the proposed West Philadelphia campus. Working directly with Provost Stillé, Richards sketched a building of local green serpentine stone and stunning Gothic ornament. The new building at 35th and Locust Streets would be home to the University's Collegiate and Scientific Departments, which hinted at the immense importance of Franklin's foundational concepts of the institution. By 1871, the University's Board of Trustees awarded Richards with the commission to build the new multipurpose college building, aptly named College Hall. Although Richards laid the cornerstone for the regeneration of the University, no campus planning initiatives came about immediately. According to Thomas and Brownlee's colorful book, *Building America's First University*:

> For most of the nineteenth century, costs had forced the designers of American colleges to ignore the Jeffersonian model of an entire University built to a predetermined plan. Instead, new buildings were typically sited as required by hierarchy and by use, usually without regard for earlier planning. Over the course of the century, styles of collegiate architecture changed with the ideals and values of each generation. (Thomas and Brownlee, 55)

Campus Planning Milestones

The first plan for the future development of Penn came about around 1874. In this plan, the existing College Hall is flanked by a hospital on one side and a medical department, still the largest area of study at the university at the time, on the other. Both of these buildings had an aesthetic and materiality similar to that of College Hall. This first notion of architectural unity became extremely important to the university's leaders. As Penn began to expand decade by decade, this aesthetic would remain a beloved hallmark of the university.

At the turn of the twentieth century, Penn was growing in its student population and reputation among America's elite institutions. The establishment of thirteen departments and programs for the university was a grand achievement and many new buildings were erected around College Hall. This includes Logan Hall (named for original Board of Trustees member John Logan's father, James Logan), a new library, Houston Hall (the nation's first student union), the Dormitories and associated quadrangles and the University Museum (at the time, the world's largest anthropological museum), all of which still stand today.

Within another decade, Penn had doubled in population and quadrupled its land area. The need to focus on sustaining the growth of the college became a secondary thought to the need of a unified campus plan. Penn's leaders proposed the institution of a campus-wide plan of development and expansion. These circumstances brought about the famous Cret Plan of 1913. Penn hired Paul Philippe Cret, a professor of design in the architectural program, to study the future development of the University and, with the help of the Boston-based planning firm, Olmsted Brothers, Cret succeeded in his plan. In it, Cret called for new principles of design on the campus. Most notably, Cret recommended that campus spaces be "enclosed by buildings and not employed to surround them," and the central portion of the campus be "planned exclusively for pedestrians;…having ample space for planting of grass plats (Thomas and Brownlee, 97)." These employed ideals, innately linked with the Jeffersonian campus model yet more modern in their approach, typified the Penn campus of the future.

The Cret plan was an enormous success and the university's leaders now felt the institution had a reputable physical development plan to match their reputable academic standards and ideals. At this time in American college history, sports had become a booming subject—economically, in marketing and in reputation—and Penn's athletic teams (whose mascot is a Quaker) were among the best in the country. With immense previous success (six national championships from 1894 to 1924) and acclaimed coach John Heisman's "scientific" style, Penn had the most famous football program in the country. When the wooden stands at Franklin Field—the gridiron home of the Quakers and the host venue of the Penn Relays, America's preeminent track and field event—were too inadequate to house the ever-growing crowds of spectators, Penn considered a new plan for the stadium. In 1922, the office of Day and Klauder designed and completed the new reinforced concrete stands, modeled after the Roman Colosseum, and faced the exterior of the stadium with local brick. Five years later, an upper deck, built to accommodate crowds of 60,000-plus, changed the conception of the size and scale of American sports stadiums.

While the concept for the new steel and concrete upper deck was being conceived for Franklin Field, the university expressed to Day and Klauder the need to build a gymnasium that would house the newly-formed Quaker basketball team, provide ample space for indoor physical education and house an indoor swimming pool. In 1926, the cornerstone was laid to the new Georgian-esque indoor stadium, called The Palestra by Penn's Professor of Greek, William Bates. The name, taken from the Greek place for athletic preparation, stuck and, in the decade after completion, housed not only Penn's basketball team, but the rest of the "Big 5" teams—Philadelphia's city conference comprised of LaSalle, St. Joseph's, Temple, Villanova and Penn. The university's emphasis on athletics made the eastern, sports-related portion of campus the largest.

Penn's post-World War II development dealt with a myriad of development and unification issues. Perhaps the most notable of these considered the ever-growing socio-economic trends that came with the rise of the automobile and the city's investment in transportation infrastructure.

Penn put into motion in 1948 a "Plan of Development" that explored the reclamation of Locust Street and Woodland Avenue on campus for pedestrian use. This notion of a unified pedestrian-scale campus without the unnecessary vehicular baggage appealed to the university's leaders as they viewed the campus as a separate fabric from the city's rigid grid. Although not employed in the exact manner of the 1948 plan, this notion became a foundational element seen in the campus plans to come. In 1957, Locust Street closed and a brick and cobblestone walk with local granite curbs took the place of the asphalt-paved street. Locust Walk, as it was dubbed, with its tree-lined route, connected the residential neighborhoods west of campus to the core of the university. When, in the mid-1970s, Penn's leaders decided closing Woodland Avenue through the core of campus would be optimal to the safety and aesthetic of the campus, they hired Sir Peter Shepheard, Dean of the Graduate School of Fine Arts, to explore options for the new pedestrian landscape that would take the avenue's place. This referenced Ian McHarg's 1958 plans for site-specific design of a new Woodland Avenue walkway. Shepheard and his associates, among them Laurie Olin, defined the novel idea that University's appearance in the landscape was as important as the classroom spaces and buildings themselves. To these men, the function of a university was to bring people together for education and social stimulation. Their 1977 Landscape Development Plan (LDP) was a tremendous success in the eyes of the university and design professionals across the country. Today, the LDP is still seen as a model for campus regeneration and the importance of green space today. According to the University's website:

> The [Landscape Development] Plan was meant to observe the past growth and present state of the University Landscape, and then propose principles, design and development plans to provide a unified look and feel to the campus. Results of the plans such as Levy Park, demonstrate the standards put in place by the plan regarding campus greens, trees and pedestrian connections. (http://www.pennconnects.upenn.edu/explore_the_vision/architectural_and_planning_milestones.php)

The City of Philadelphia's investment in the transportation infrastructure in and around the thriving metropolis also created new developmental issues for the university. Directly to the east of Penn's boundaries – Franklin Field and The Palestra – Philadelphia reconfigured an existing rail line to service public transportation and, along the west banks of the Schuylkill River, built the Schuylkill Expressway, a new five-lane interstate highway. Between the rail line and the interstate highway lay a relatively flat piece of land owned by the United States Postal Service and used primarily as parking and service grounds. Although the university had no immediate large-scale plans of expanding to the east, this infrastructural web would prevent any such plans. In 1970, the Class of 1923 Ice Rink was constructed immediately northeast of The Palestra and across the rail line. The Ice Rink and the Levy Tennis Pavilion—built directly south of the rink in 1973, though widely used facilities by the university and surrounding community—have a sense of disconnectedness from the rest of Penn due to their location to the east of the rail line.

The end of the twentieth century brought about a radically different campus environment from that of the previous turn of the century. Penn had grown into an internationally acclaimed institution with multiple colleges and areas of study and a student population of almost 30,000. Naturally, these issues and the ever-changing times brought about the need for a new campus plan that would address the future of Penn.

Penn in the 21st Century

Penn in the 21st Century

The new millennium bought about the implementation of a new Campus Development Plan. The highly touted landscape architectural office, OLIN, completed the plan in 2001, which addressed the proposed direction of the university and it's physical connection to Center City Philadelphia, across the Schuylkill River. The Campus Development Plan can be best summarized as noted in the recent publication, *OLIN: Placemaking*:

> In the late 1980's, during a period of unprecedented growth, the University of Pennsylvania expanded in ways that were not necessarily aligned with its academic mission. In addition, the urban campus had become poorly integrated with its Philadelphia neighborhood; the existing buildings were suffering from deferred maintenance; and the physical condition of the campus did not appropriately reflect the high quality of the university's programs and resources. These factors, among others, led to a desire to revitalize the institution through a comprehensive academic, campus and neighborhood planning effort spearheaded by then university president, Dr. Judith Rodin. A master planning team was put together with the mission of improving the campus and its neighborhood by developing Penn, the region's largest employer, and enriching the city as a whole. The plan currently guides the university into the future, both physically and academically, with a coherent strategy of expansion.

Along with addressing larger issues, such as producing alternative real estate development scenarios for critical properties, a key aspect of the plan was to make the campus and its environs more attractive and comfortable for pedestrians, including an increase in student services within walking distance. Parking has been relocated from the campus core to the perimeter. Walking is encouraged through a focus on three pedestrian spines that intersect at the heart of campus and extend into the neighborhood. The Woodland Walk, a collaboration with artist Jenny Holzer celebrating "125 Years of Women at Penn," is a curving walkway of text-based sculpture located along one of these major pedestrian routes.

Since its implementation, Penn has strongly adhered to the Campus Development Plan. In 2006, when the university focused on the further development of the eastern portion of the plan—one of the areas in the early phase of the plan—it looked to another well-respected design firm, Sasaki Associates, to complete the new plan. Known as Penn Connects, the newest campus development plan outlines the academic, athletic, social and economic development of the far eastern portion of Penn's campus. With the university's purchase of the Postal Grounds in 2006, it was fitting for Penn to take immediate control of the development of this portion of campus and let the results permeate through the rest of the university. The Penn Connects plan, currently in its first phase, generally seeks to improve the physical connections to and from the university for pedestrians, automobiles and bicycles.

One major area of study in the Penn Connects plan is the area known as Palestra Green—the area of study in *Dynamism at Palestra Green*. Extensive reclamation of existing Palestra Green site into green space is a major element of the plan. It is from this general structure that *Dynamism at Palestra Green* takes root and begins to explore the site-specific design options for the site.

In addition, current Penn President, Amy Gutmann added the goals of the American College and University President's Climate Commitment to the university's development plans. With the help and accountability of this commitment, Penn seeks to achieve one important goal: take steps to reduce carbon emissions on campus in order to achieve climate neutrality.

> We further believe that colleges and universities that exert leadership in addressing climate change will stabilize and reduce their long-term energy costs, attract excellent students and faculty, attract new sources of funding, and increase the support of alumni and local communities. (http://www.presidentsclimatecommitment.org/html/commitment.php)

Not only does this initiative promote important conservationist motives, it shows Penn's strong commitment to academic growth, accountability and sustainability.

Penn's Context

The University of Pennsylvania is institutionally and historically connected to the city of Philadelphia. Penn's proximity to major Center City Philadelphia landmarks is seen in Figure 1.1.

Proximity to Recreation Sites and City Squares

- o 1.07 miles to Rittenhouse Square
- o 1.57 miles to Logan Square
- o 1.65 miles to City Hall
- o 1.86 miles to Fairmount Park (Boathouse Row)
- o 2.10 miles to Washington Square
- o 2.67 miles to Franklin Square

Proximity to Historic Sites

- o 2.35 miles to Independence Hall and the Liberty Bell
- o 2.83 miles to Christ Church

Proximity to Civic Sites

- o 0.56 miles to 30th Street Station
- o 1.60 miles to City Hall
- o 1.90 miles to Reading Terminal Market
- o 2.83 miles to Penn's Landing

Proximity to Institutional Sites

- o 0.93 miles to the Mutter Museum
- o 1.30 miles to the Philadelphia Museum of Art
- o 1.57 miles to the Franklin Institute
- o 1.63 miles to the Kimmel Center for Performing Arts
- o 1.86 miles to Eastern State Penitentiary

Figure 1.1
Penn's Context

Penn Typology Study

The purpose of the landscape typology study at the University of Pennsylvania is to gain an understanding of the university's diverse set of outdoor places. The typology study will serve as the main means of informing the design of Palestra Green. The study will examine every relevant open space on campus (both landscapes and walks) and look to find several different landscape types, all of which will work together to determine the overall Penn Campus Type (Figure 1.2). These types are found by testing each chosen space with spatial standards (a concise set looking solely at the landscape's design, i.e. its physical properties), personal intuition as to the use, qualities and roles of the spaces and the overall relation of the space to the general Penn campus type. Collaboration with professionals at OLIN and members of the Penn Facilities and Real Estate Services determined the overall Penn campus type. It is imperative to note the observation of each space is directed solely at the physical properties of a place. This ensures a succinct and unbiased study while working in a short time-frame.

The following is the elemental framework used to examine each relevant Penn campus space:

Physical Properties
- o Pervious Surface Percentage (Rough Estimate)
- o Vegetation
  - - Planting elements as a definer of spatial definition
  - - Placement of planting elements
  - - Shade/shadow properties
- o Paving
  - - Existence of walks
  - - Properties of materials
  - - Existence of curbs/patterns/shapes
- o Topography
  - - Topographical qualities on the ground plane
- o Site Elements
  - - Existence/use of art in the space
  - - Existence/use of site furnishings
  - - Use of lighting in the space

Use
- o Function(s) as a space
- o Human traffic patterns/tendencies
- o Definition of types of uses
  - - Congregation, walkway, leisure, active, etc.
- o Density of human usage

Context
- o Landscape Architect/Designer/Year Constructed
- o History of space in relation to the university/city fabric architecture

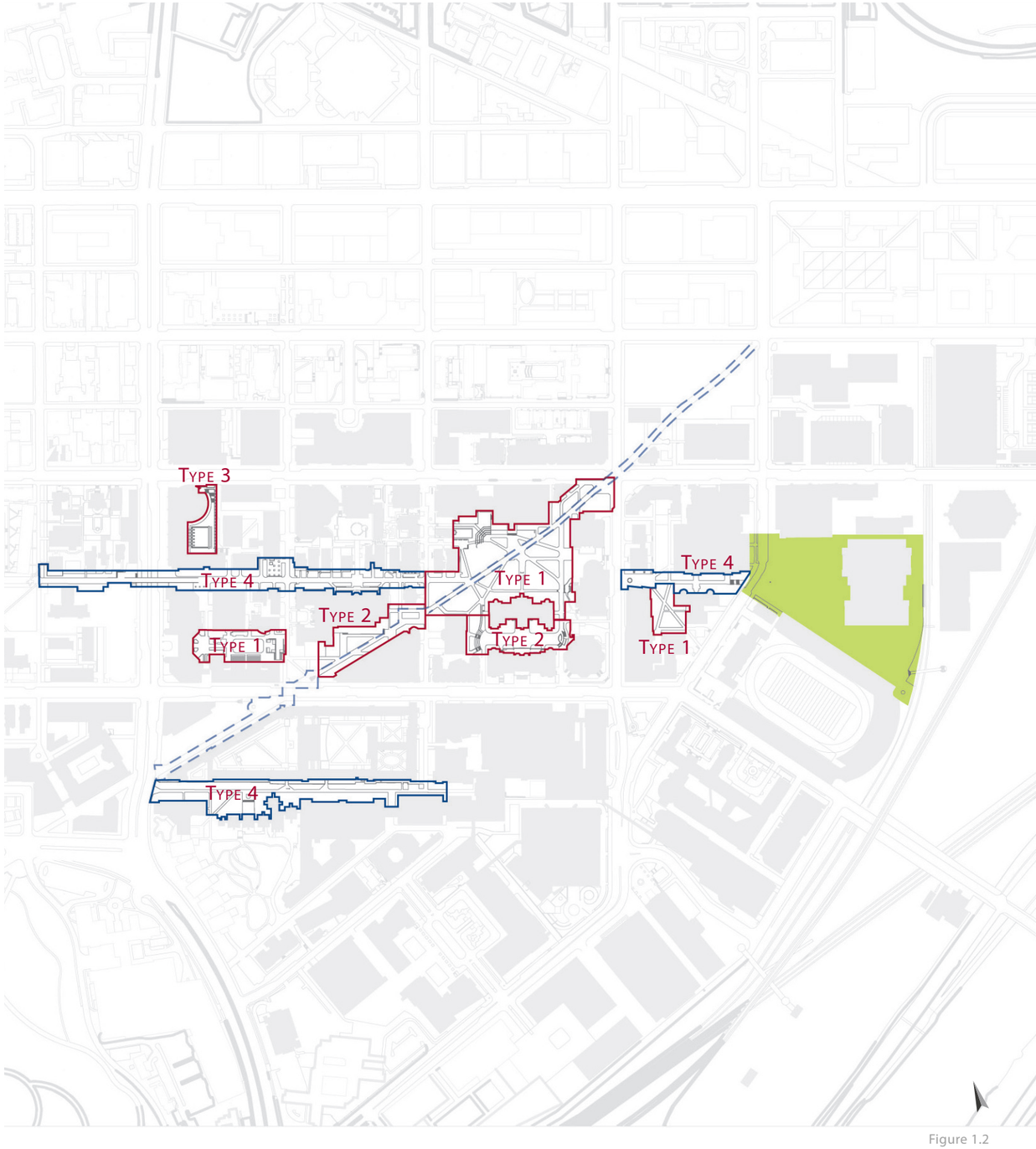


Figure 1.2
Penn Typology Study

The Penn Type

When compared with other university campuses across the Ivy League, and even America, the University of Pennsylvania stands out as its own place. This campus has a specific atmosphere and sense of place—the genius loci (Figures 1.3-1.8). Although it is an American campus exhibiting qualities that can be considered, in a sense, "universal" – for example the existence of cutting walkways, quadrangles, important context architecture and a feeling of academia, it does not mimic other university campuses in terms of spatial design or even philosophy. Benjamin Franklin, Penn's founder, had strict ideas on the function and role of the university in American and global academics. Through time, his philosophy evolved to include campus-wide ideals on design, space-making and overall academics, thus explaining Penn's particular place and its definite nature.

The DNA of Penn is this—a purposeful place, strong in its design and construction quality, that includes landscape spaces with paved walkways and granite curbs, large lawns for both programmed and unprogrammed uses, the existence of mature trees as a definer of space and as a relief to the sun and the urban environment, benches for leisure and art for muse, adequate lighting for night use, all connected by intentional walkway networks comprised of the same spatial qualities as the spaces noted to come. At Penn, a distinction is made regarding the types of spaces and from this, two categories are identified—landscape type spaces and walkway type spaces. Each of these plays a prominent role in the history of the growth of the university and the perception of the university by students, faculty, alumni and visitors. Exquisite, well-loved landscapes and beautiful, functional walkways are what Penn is made of.

Figure 1.3
Lehman Brothers Quadrangle

Figure 1.4
Penn Core

Figure 1.5
College Green

Figure 1.6
Hill Field

Figure 1.7
College Green

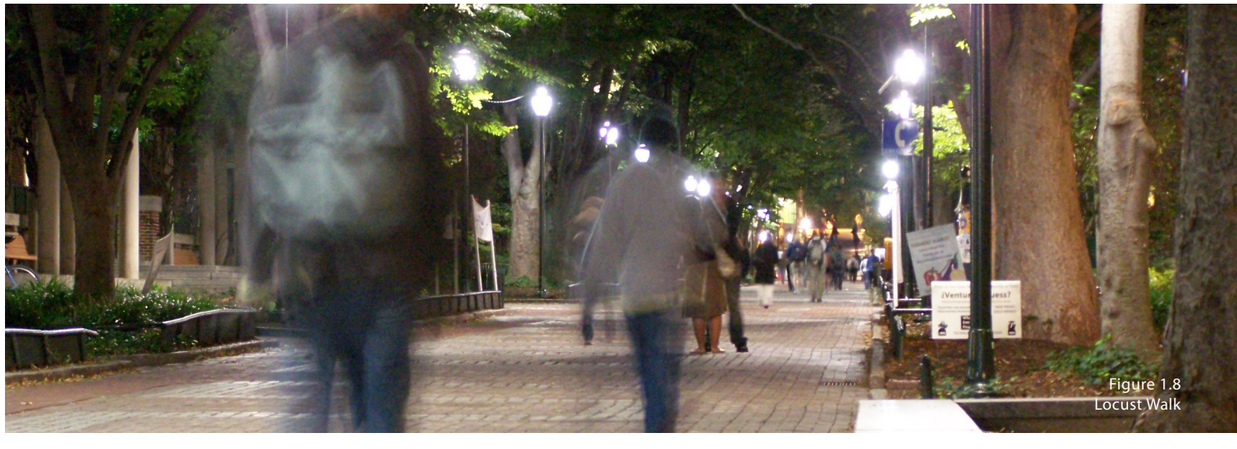


Figure 1.8
Locust Walk

Type 1—College Green

The College Green (Figure 1.9), Vagelos Landscape (Figure 1.10), and Lehman Brothers Quadrangle (Figure 1.11) landscapes exemplify the College Green type. On average, the ground plane is approximately 75% pervious cover, be it lawn or other groundcover planting. Large, mature trees with full canopies give this spatial type a particular feel—outdoor rooms with a green and growing ceiling and strong, pillar-like trunks that solidly connect each canopy to the ground. Trees are spaced well enough apart to see completely through the landscape, from one side to the other, giving the landscape a sense of depth. Because of the full canopies, each space exhibits a great deal of shade, increasing the comfort level in the space and creating a set of uses that cater to leisure activities. The walkways in these spaces are typical of the Penn Type—pavers and brick with granite curbs. The most common pattern that exists in the College Green Type walkways is a dark grey asphalt hexagonal paver centered in the walk with brick on either side (Figure 1.12). Because of this landscape type, the university adopted this walkway style for most of its spaces—it is considered the status quo. The topography in this landscape is not undulating, but simply defined by a constant or near-constant slope generally from west to east.

The College Green Type is a duel-use space, with both programmed and unprogrammed capabilities. For example, these spaces are home to many programmed uses such as graduation promenade, special events and outdoor films, yet the spaces remain available to transient uses throughout the day and year. Students, faculty, visitors, etc., tend to use each space to pass through to other areas of campus or destinations while still allowing pedestrians to rest on any number of seating elements provided in each space. It is because of these qualities as well as the uses of the academic buildings in context of the landscapes that people use this type of space in any number of patterns. The amount of people using the space at any given time is fairly dense. In the College Green Type, art is used frequently. It is because of this that the landscape is a destination rather than a passing-through space. At night, each space is lit with the campus-standard pedestrian lights around each path (Figure 1.13).

The designer of two of the three landscapes in this type is OLIN, which is an example that a person or firm can have a deep impact on the design and types of landscapes on a campus.

This landscape type was praised by Penn Architect, David Hollenberg, as being the ideal campus space to use as the main precedent for the future design of Palestra Green (Figure 1.14). Although this landscape type has many features that can and should be used in the design of Palestra Green, it does not fully answer questions as to the civic and population questions surrounding the Palestra Green site. It is because of this that the typology study is in place —to ensure the design of Palestra Green incorporates the proper DNA of Penn and no important part of the design is left out because it mimics one particular place on campus.

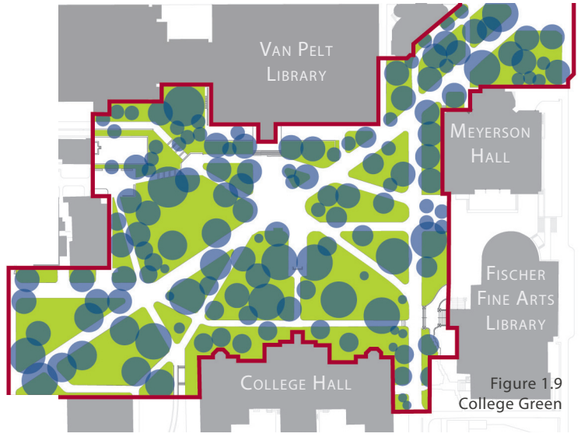


Figure 1.9
College Green

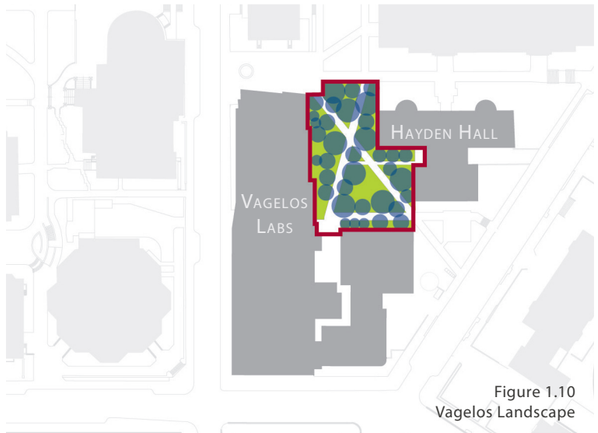


Figure 1.10
Vagelos Landscape

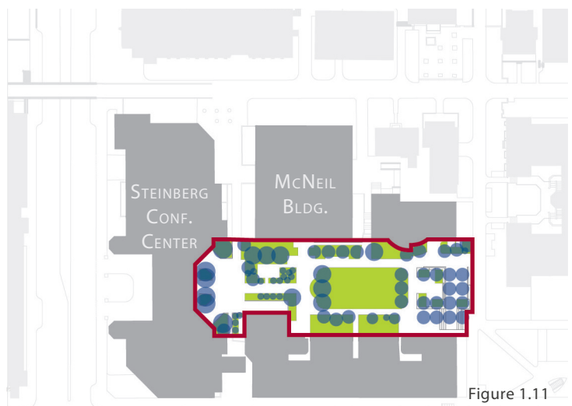


Figure 1.11
Lehman Brothers Quadrangle


Figure 1.12
Materials

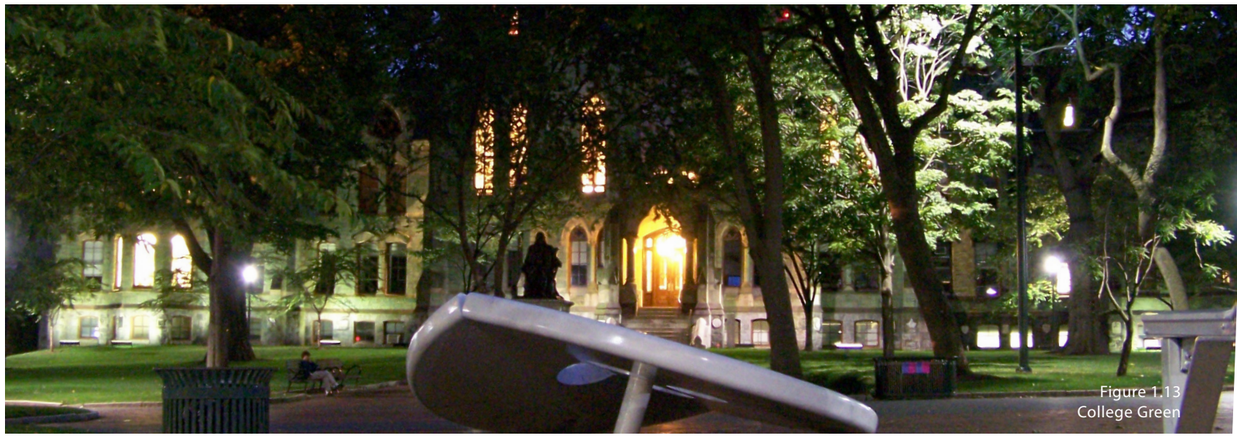


Figure 1.13
College Green


Figure 1.14
College Green

Type 2—Plaza

Steinhardt Plaza (Figures 1.15 and 1.16) and Wynn Commons (Perelman Quadrangle) (Figure 1.17) epitomize the Plaza type at Penn. Although this type exhibits many of the use patterns of other landscapes at Penn, it has specific qualities and characteristics that separate it quite clearly from the other landscape types. The most obvious of these characteristics is the amount of pervious surface on the ground plane, approximately 10-25%. Trees are definitive shade elements in this type and, instead of being planted in large, open lawns, they are usually planted in small planters within the paved plaza areas. Ornamental trees and shrubs are found in greater number here than in other landscape types on campus. These ornamental trees are planted in noticeable geometric forms with older, more mature trees, giving a specific quality to these spaces. These patterns also contribute to the shade characteristics of the Plaza Type—little shade is in the core of the space and any existing shade is spotty. The Plaza Type contains few to no defined walks, as the expanse of paved space is great, allowing the user to define his/her own walking route. The materials of the Plaza Type are typical of the university—brick, asphalt pavers and granite (Figure 1.18)—with one exception, exposed aggregate concrete. The typical paving materials are found in a number of colors and patterns—dark asphalt hexagonal pavers, grey concrete pavers in running bond fashion and brick herringbone pavers. Granite curbs define the edges of all plazas and walkways.

Although the Plaza Type's primary function is for uses such as eating, sitting and outdoor classes, the spaces themselves allow for flexible functions throughout the year (Figure 1.19). Generally, the Plaza Type is a very active landscape and is densely populated at peak hours of the academic day. In both landscapes in the Plaza Type, the campus standard light is used and clearly illuminates the spaces (Figure 1.20). As some of the oldest buildings on campus are located adjacent to this type, architectural detail lighting is found in the space as well. Typical campus benches are not used in this type. Instead, seat walls, cantilevering benches, amphitheater seating and movable café is seen, further separating this landscape type from others at Penn. Art is a small part of the Plaza Type, but its presence still has an impact on the focus and density of people in the landscape.

The Plaza Type represents the contemporary nature of landscape architecture and campus design. It is meant to be different from the status quo. This landscape type and, in particular, its civic qualities (such as the accommodation for large crowds, site elements such as seat walls and detail lighting) can be applied effectively to Palestra Green.

Figure 1.15
Steinhardt Plaza

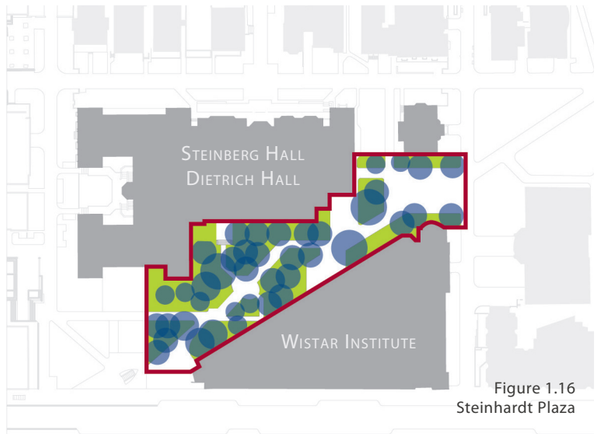


Figure 1.16
Steinhardt Plaza

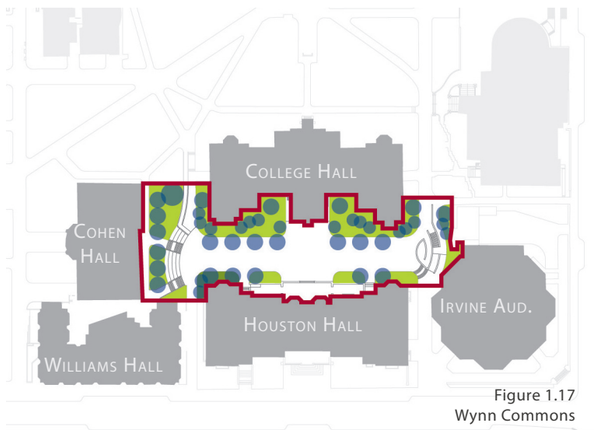


Figure 1.17
Wynn Commons

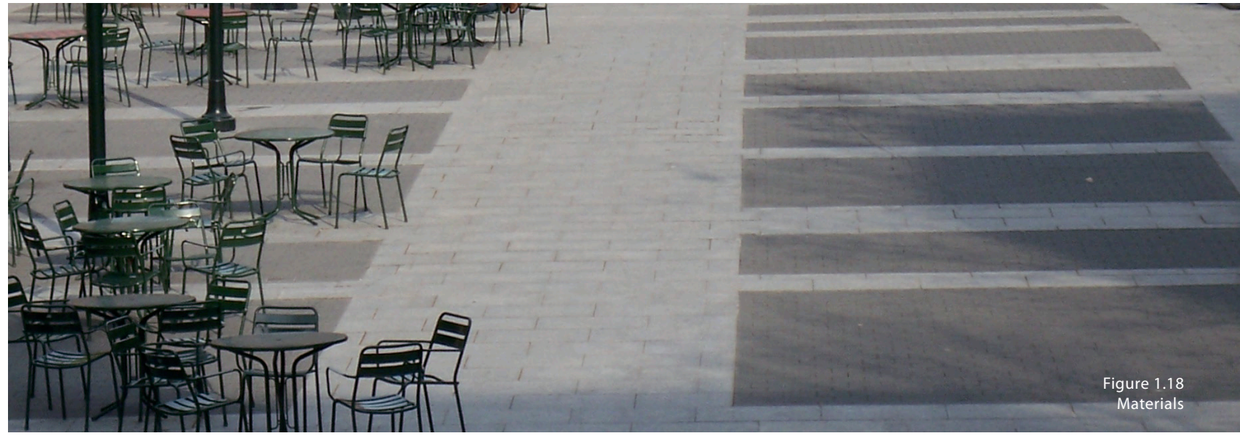


Figure 1.18
Materials

Figure 1.19
Wynn Commons

Figure 1.20
Wynn Commons

Type 3—Semi-Private

Huntsman Hall is the only landscape characterizing the Semi-Private Type (Figures 1.21-1.23). This landscape is a green roof, designed to be separate from the overall Penn Type in many ways. Planting elements, paving materials and patterns, function and uses are all disconnected from the other landscapes on campus. It is very important to note that because this landscape is connected to the distinguished Wharton School of Business, the landscape budget is much higher than any other campus landscape. At the landscape's center is a large manicured lawn, open to the sky. A defined line of medium-sized trees is seen along one side of the landscape. These trees, planted in a deliberate geometric fashion, mimicking the geometry of the architecture, are planted in small planters with a layer of groundcover on the soil surface. The paving in the space is completely granite—medium grey pavers spaced apart as to let a low sedum groundcover grow in the "cracks" (Figure 1.24). Although the paving patterns and materials are different, granite curbs still exist in the site, making them one of the few typical campus elements used.

The Semi-Private Type is closed to the public during night hours. During the day, the landscape is open to the public, but numerous steps leading up to the landscape from ground level deter most users from even attempting to use the space. Within the landscape, wood benches, different from the campus standard, and seat walls allow for many different seating options and locations (Figure 1.25). The only defined program use of the Semi-Private Type is for small outdoor dining events, such as alumni functions and banquets—weather permitting. With a café located just inside one entry of the building, movable seating and a small plaza are integrated in the landscape as well. The lighting in this landscape type is different from the campus standard and many architectural detail lights are found. Art plays a functional and infrastructural role in this landscape type—glass and aluminum pyramidal forms, six feet in height, are skylights to the indoor foyer inside the building. Another artistic element in this landscape is the trellis covering the main walking avenue. Growing vines cover the trellis, softening its metal and wooden form. This concept of infrastructural art further separates the space from other landscape types at Penn.

Palestra Green inherits the Semi-Private Type's use of artistic elements as infrastructure, its modern design and its sustainable functionality (Figure 1.26). Although funding issues with the Palestra Green project may hinder some of the potential (and actual) uses of art, this project will examine the use of art in a large, civic space and its form and function. Another important element of this landscape type applicable to Palestra Green is the plaza adjacent to Franklin Field's proposed retail interior. This proposed program may include the use of movable seating in an outdoor café-like setting.

Figure 1.21
Entrance to Huntsman Hall

Figure 1.22
Huntsman Hall

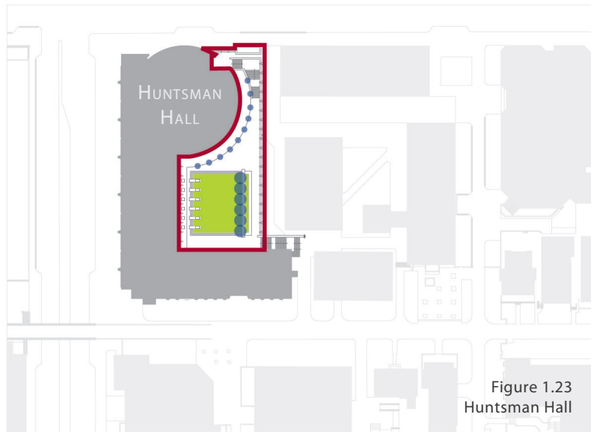


Figure 1.23
Huntsman Hall

Figure 1.24
Materials

Figure 1.25
Huntsman Hall

Figure 1.26
Huntsman Hall

Type 4—Reclaimed Promenade

The Reclaimed Promenade, seen in Locust (Figure 1.27), Smith (Figure 1.28) and Hamilton Walks (Figure 1.29), is the fourth landscape type at Penn. In this case, reclamation is the closing of streets within campus for pedestrian uses. What separates this walkway type from other informal walks on campus is the definition of and attention to various details within the space. For example, large, mature trees with tall, vase-shaped canopies line at least a portion of the walk. This repetition of planting form coupled with the existence of low groundcovers, be it manicured lawn or other creepers, creates an unobstructed viewshed from one end of the walk to the other. The paving materials are the campus standard asphalt hexagonal pavers with brick edges and granite curbs with the exception of Hamilton Walk, where over half of the walkway surface is poured bituminous black asphalt, and Locust Walk, where granite settes replace the asphalt material (Figure 1.30). Although this material is noticeably different from the other walkways, it hardly diminishes the function and aesthetic of the space. Bicycles are permitted on the lengths promenades and are commonly seen chained to green tubular steel rails used for edge definition.

The obvious function of the walkway is to move people from one point to another through the space, but the walkway holds another important purpose—vending, marketing and advertising (Figure 1.31). Students commonly peruse the walkway, often endorsing campus organizations and causes. Along the walkway lie important academic and student life buildings. At any given time, students congregate near the entryways to these buildings, thus making the Reclaimed Promenade an important social space on Penn's campus (Figure 1.32). Found along the edges of the promenades are the campus standard benches and lights. One artistic feature in the spaces is the seasonal lighting of the walkways, exemplified by the hanging/stringing of lights, zigzagging from one tree to another. This creates a vibrant and safe place at night, full of people.

The Reclaimed Promenade is a spatial type very important to the Palestra Green project. the Penn Connects plan outlines a new walkway, called Franklin Promenade, which will be the important primary connection from the Penn campus core to Penn Park (Michael Van Valkenburgh Associates) and eventually to Center City Philadelphia. This walkway is located near the arcade façade of historic Franklin Field and passes by a proposed retail space at the Franklin Field Weight Training and Fitness Center (Crawford Architects), creating a vibrant space along the proposed walkway.

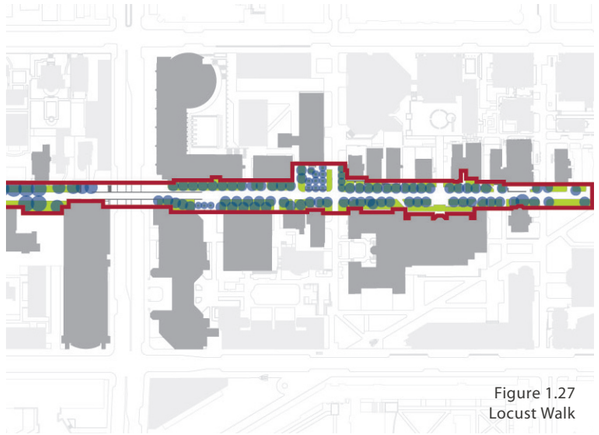


Figure 1.27
Locust Walk

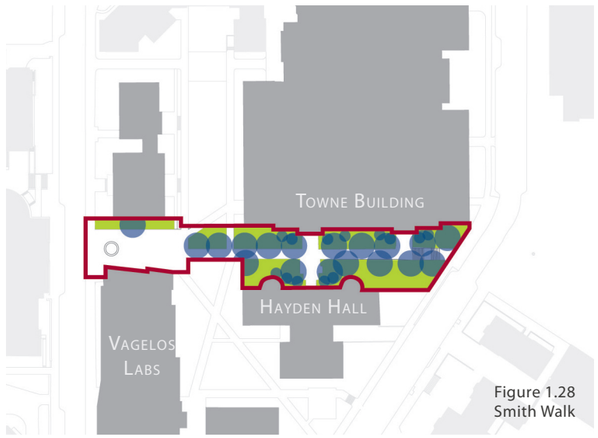


Figure 1.28
Smith Walk

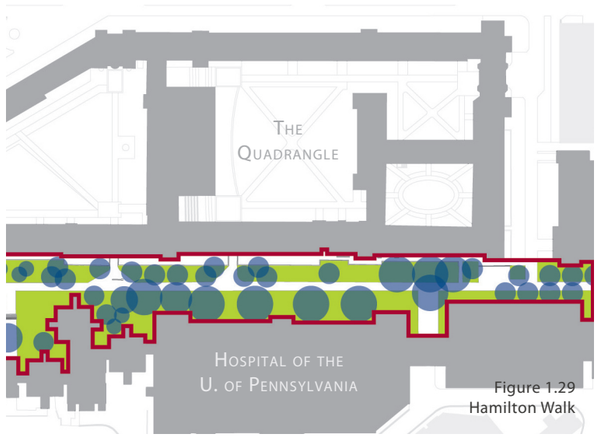


Figure 1.29
Hamilton Walk

Figure 1.30
Materials

Figure 1.31
Smith Walk

Figure 1.32
Locust Walk

CHAPTER 2

The Role of Palestra Green

The history of the Palestra Green landscape is varied in its nature (Figures 2.1-2.6). Yet no matter the time period, the space has always included the general area around The Palestra, from the rail line to the east to 33rd Street to the west and bounded by Franklin Field to the south. Since the construction of The Palestra in 1927, the space in front of the indoor stadium has accepted many spatial and programmatic roles, primarily for the accommodation and efficient movement of people—spectators and pedestrians—to and from The Palestra and its neighbor, Franklin Field. Because these athletic venues have the ability to hold thousands of spectators, the nature of the Palestra Green landscape is a quintessential part of the spectator's, and even the athlete's, sense of place.

Before the construction of The Palestra, this particular area did not belong to the University of Pennsylvania. West Philadelphia row-homes ran along Larchwood Avenue, on the north side of Franklin Field. Even when the monumental arena was built, these row-homes stayed in their respective locations, watching as the arched steel girders in The Palestra were set into place. The first evidence of the demolition of this neighborhood, enclosed by the expanding University of Pennsylvania, is seen in the 1948 Development Plan for the university. In place of the residences, a grand lawn was planted—the front yard of "The Cathedral of Basketball." This landscape changed little through the years until 1970, when Penn constructed the outdoor tennis courts that would be the home to Penn's intercollegiate tennis program. To this day, the Lott Tennis Courts inhabit the site, surrounded by mature trees and in the shadows of Penn's famous sports facilities (Figure 2.7).

Existing Conditions

The existing Palestra Green site is comprised of several spatial networks. Each network holds a specific functional and programmatic purpose and contains various materials as noted in Figure 2.8. However, at some points in Palestra Green the networks overlap, blurring the true functionality of each individual network. This overlap prevents the space from reaching an overall aesthetic and design unity seen throughout Penn. The character of the overall space can be seen in Figures 2.9-2.20.

Figure 2.1
Palestra Construction - 1927

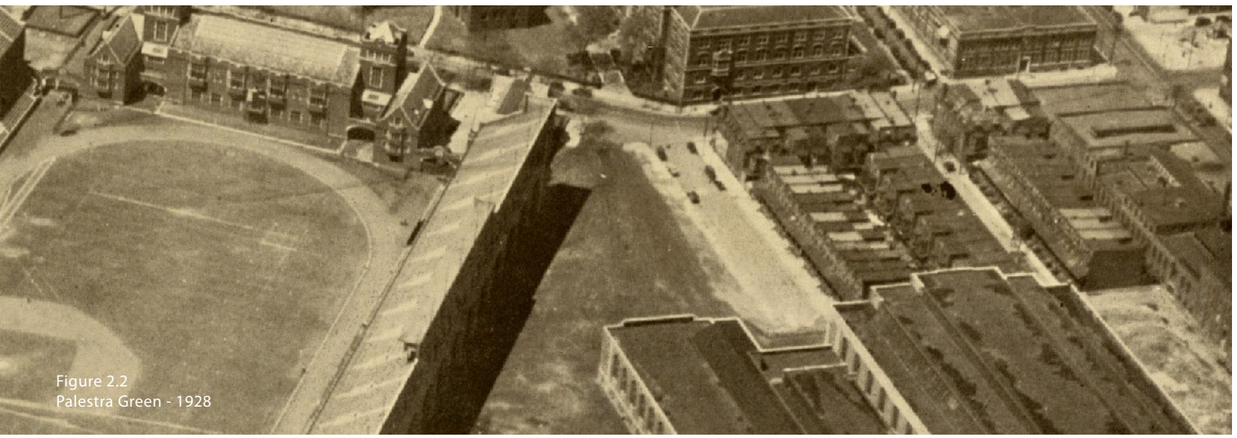


Figure 2.2
Palestra Green - 1928

Figure 2.3
Palestra Green's Civic Context - 1928

Dynamism at Palestra Green

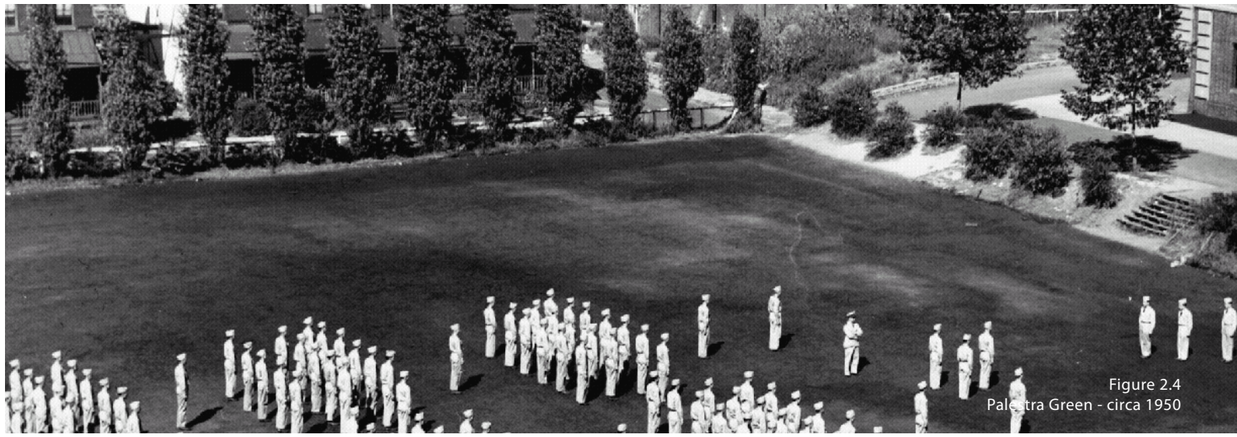


Figure 2.4
Palestra Green - circa 1950

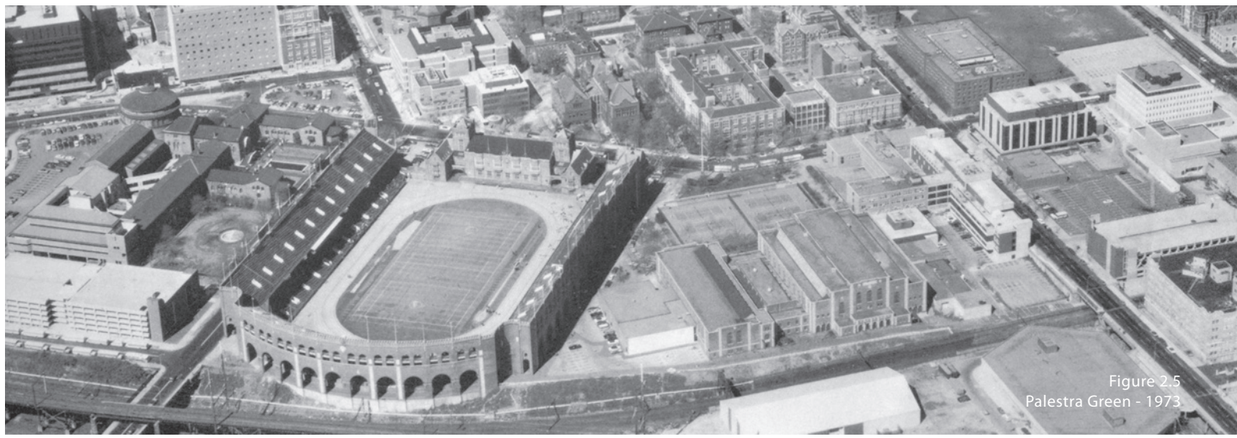


Figure 2.5
Palestra Green - 1973

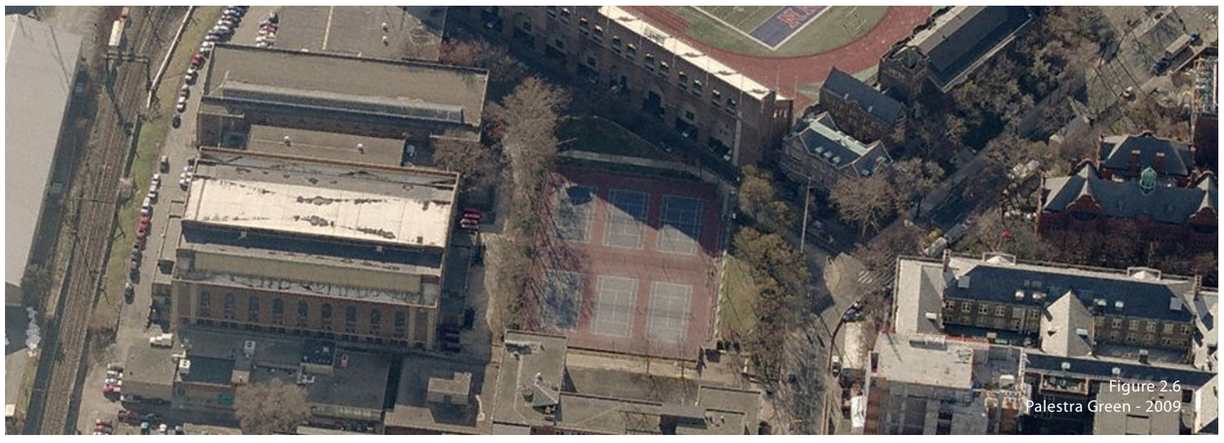


Figure 2.6
Palestra Green - 2009

The Role of Palestra Green

Site area = 319,520 sq. ft.
7.34 Acres

1. **David Rittenhouse Laboratory** (1954)
   Office of James R. Edwards
   Chemistry
2. **3216 Chancellor** (1962)
   Martin, Stewart & Noble
   Storage, maintenance and university use
3. **The Palestra** (1928)
   Day & Klauder
   Indoor stadium
   Capacity = 8,000
4. **Hutchinson Gymnasium** (1928)
   Day & Klauder
   Offices, indoor pool, auxiliary gymnasium
5. **Ringe Squash Courts** (1959)
   Paul Monaghan
   Intercollegiate squash facilities
6. **Franklin Field** (1922 & 1925)
   Day & Klauder
   Multi-purpose stadium
   Capacity = 52,593
7. **Dunning Coaches Center** (1907)
   Horace Trumbauer
   Athletics and coaches offices
8. **Towne Building** (1906)
   Cope & Stewardson
   Chemistry
9. **Skirkanich Hall** (2007)
   Tod Williams Billie Tsien Architects
   Bioengineering

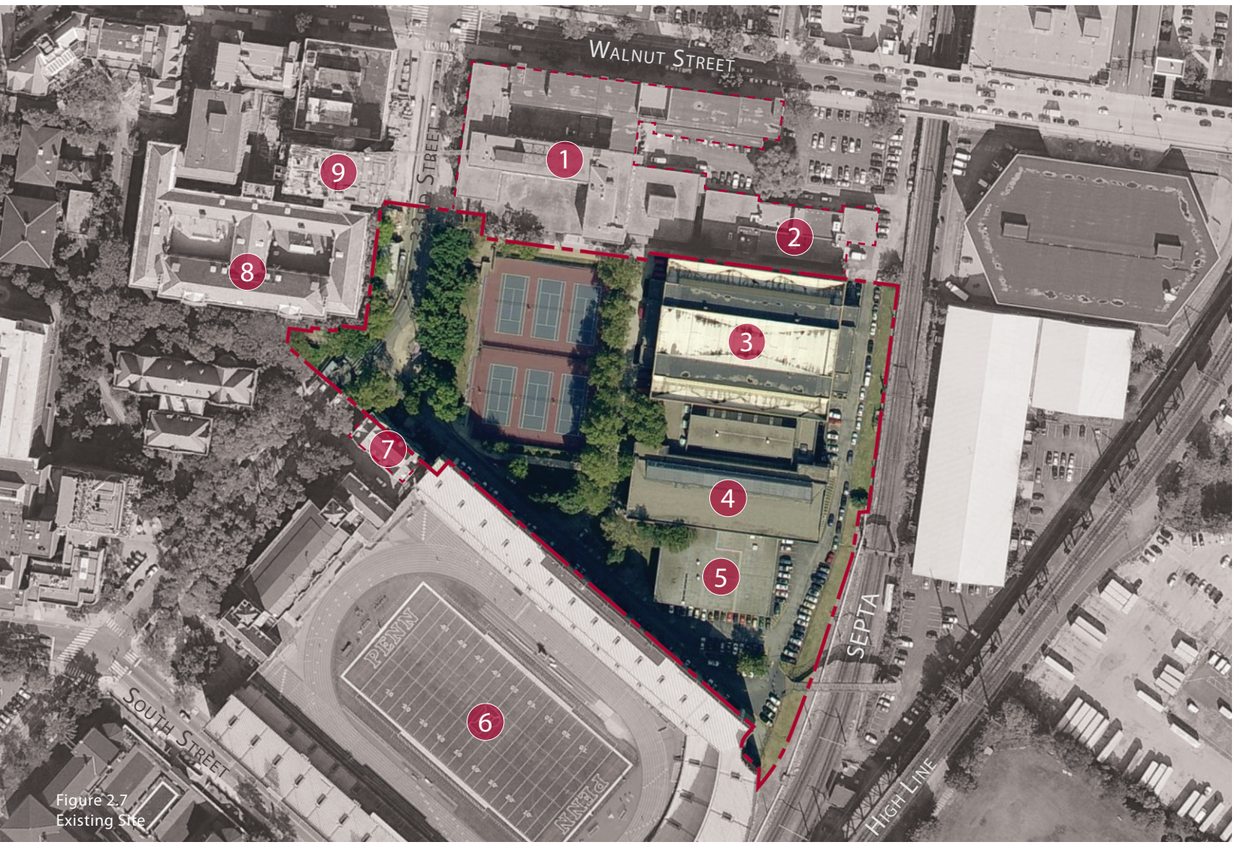


Figure 2.7
Existing Site

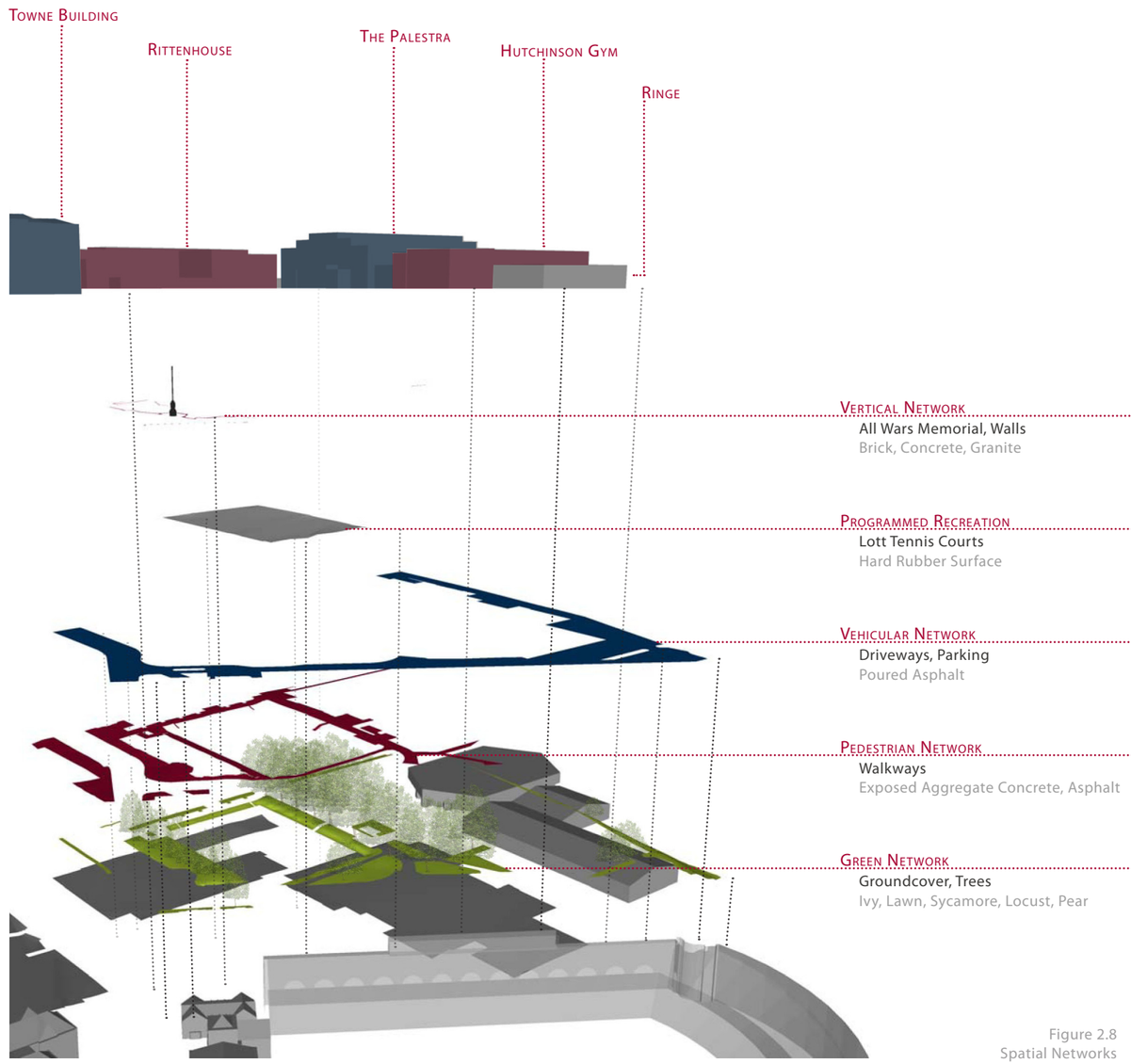


Figure 2.8
Spatial Networks

Figure 2.9
Smith Walk

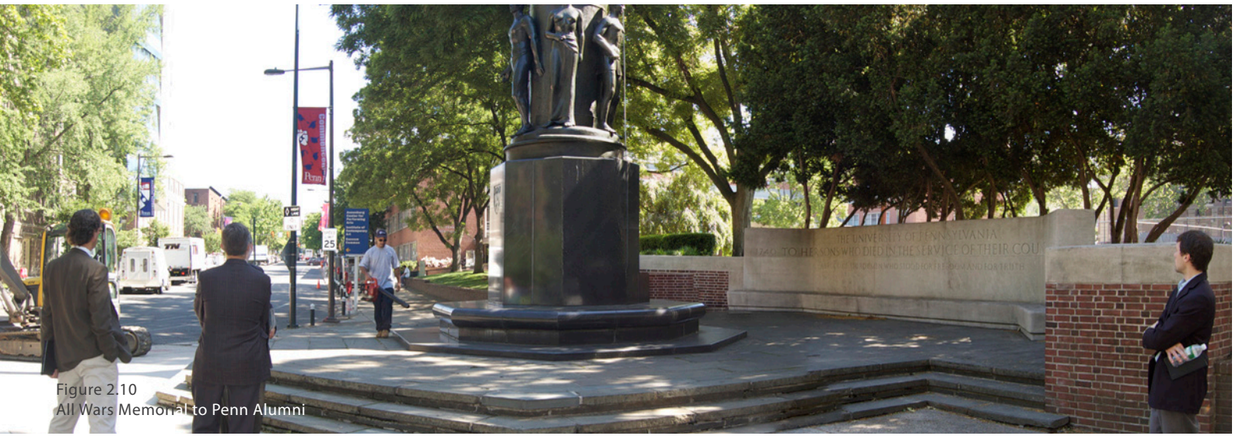


Figure 2.10
All Wars Memorial to Penn Alumni

Figure 2.11
Franklin Promenade

Dynamism at Palestra Green

Figure 2.12
Hutchinson Gymnasium

Figure 2.13
Palestra Promenade

Figure 2.14
Lott Tennis Courts and Franklin Field

The Role of Palestra Green

Figure 2.15
Across the SEPTA Tracks

Figure 2.16
Lott Tennis Courts and Rittenhouse Lab

Figure 2.17
Quaker Basketball

Dynamism at Palestra Green

Figure 2.18
Commencement

Figure 2.19
Penn Relays

Figure 2.20
“A Toast to Dear Old Penn”

The Role of Palestra Green

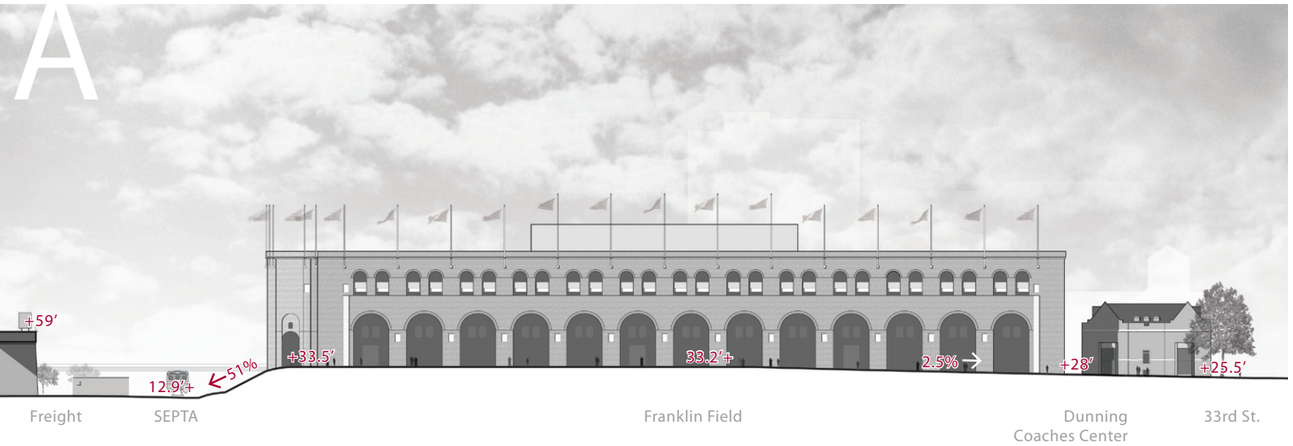


Figure 2.21
Existing Section - A
0 30

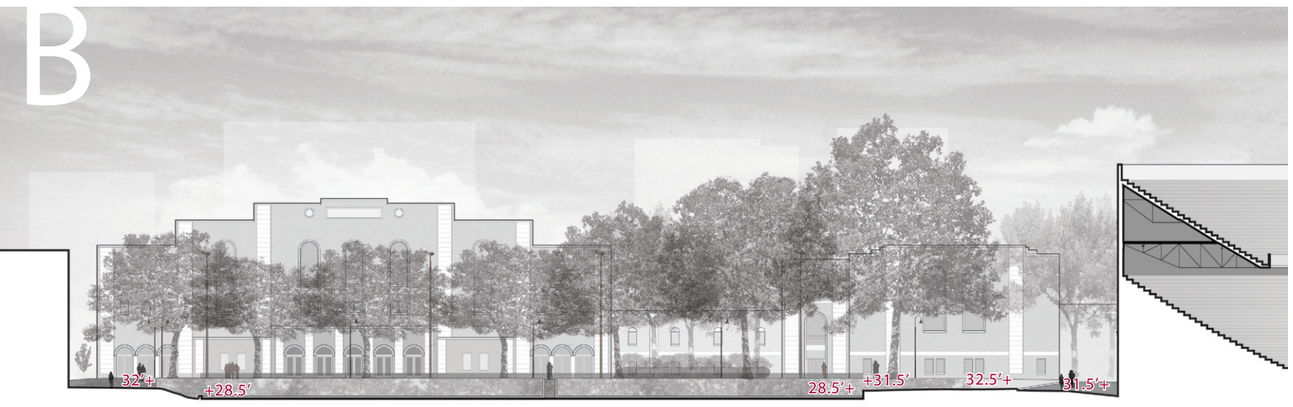


Figure 2.22
Existing Section - B
0 15

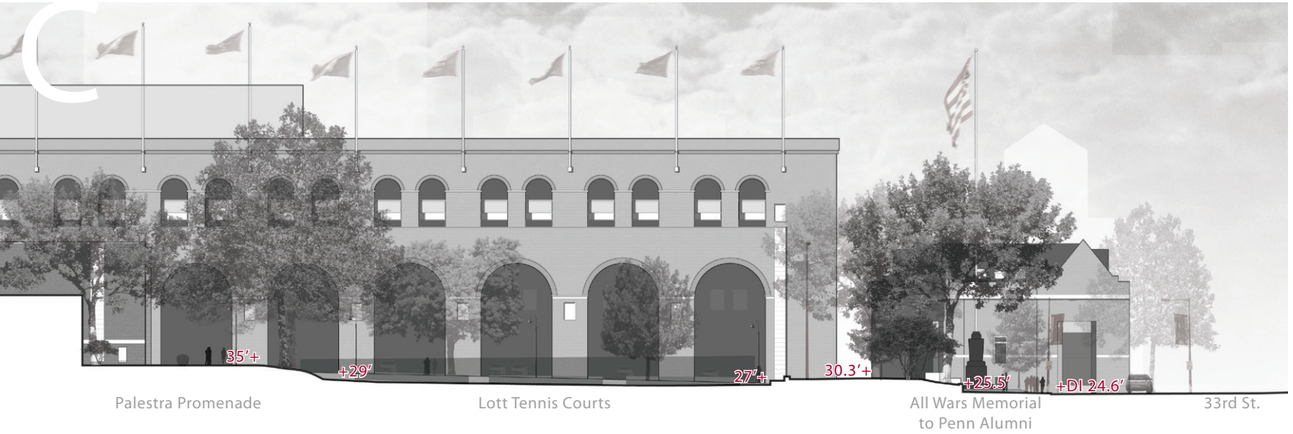


Figure 2.23
Existing Section - C
0 15

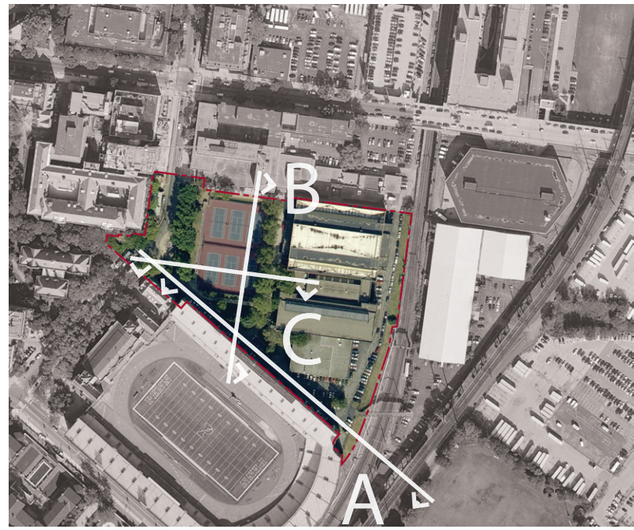


Figure 2.24
Key Plan

Section A (Figure 2.21) clearly illustrates the full, iconic façade of Franklin Field. The brick colonnade of the stadium is one of the most recognizable pieces of architecture on the Penn campus. Ultimately, this façade must be respected and given it's due reverence. To accomplish this, the refraining from building next to or attaching any kind of structure to the façade is critical. The Dunning Coaches Center lies next to Franklin Field and requires both an underground entrance (el. 23.5') and a raised first-story entrance (el. 34'). These entry issues shall be addressed in the final design of Palestra Green.

Section B (Figure 2.22) cuts directly through the Lott Tennis Court's easternmost playing surfaces. This section illustrates the complete front façade of The Palestra and Hutchinson Gymnasium and entrances to all buildings.

Section C (Figure 2.23) illustrates Palestra Promenade (el. 35') and its relation to 33rd Street. With the future of Palestra Green eliminating the Lott Tennis Courts and moving its accompanying active program to adjacent Penn Park. This serves as a reclamation of a passive land and will ultimately connect the street, its adjacent sidewalks and The Palestra.

Figure 2.25
Existing Section - D
0 15

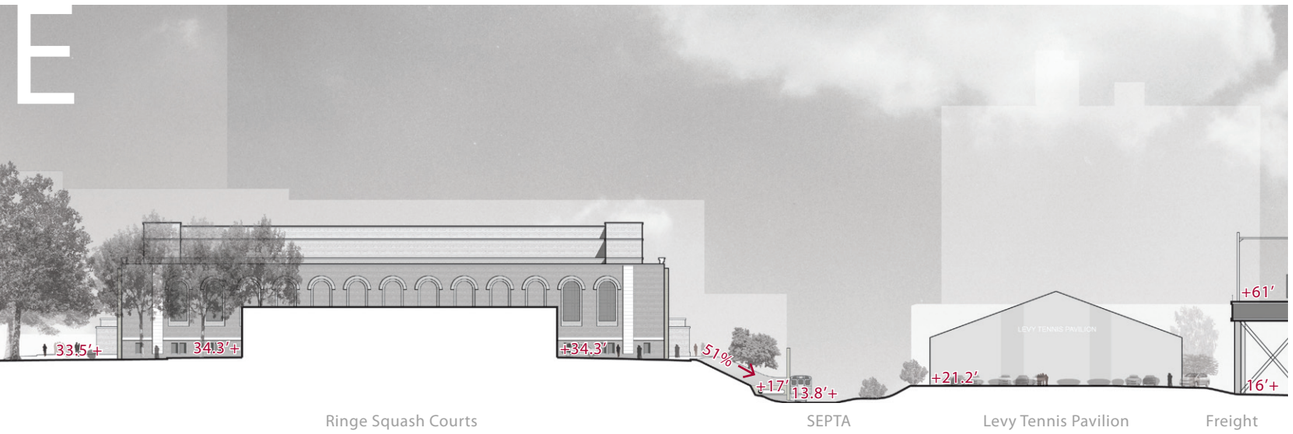


Figure 2.26
Existing Section - E
0 20

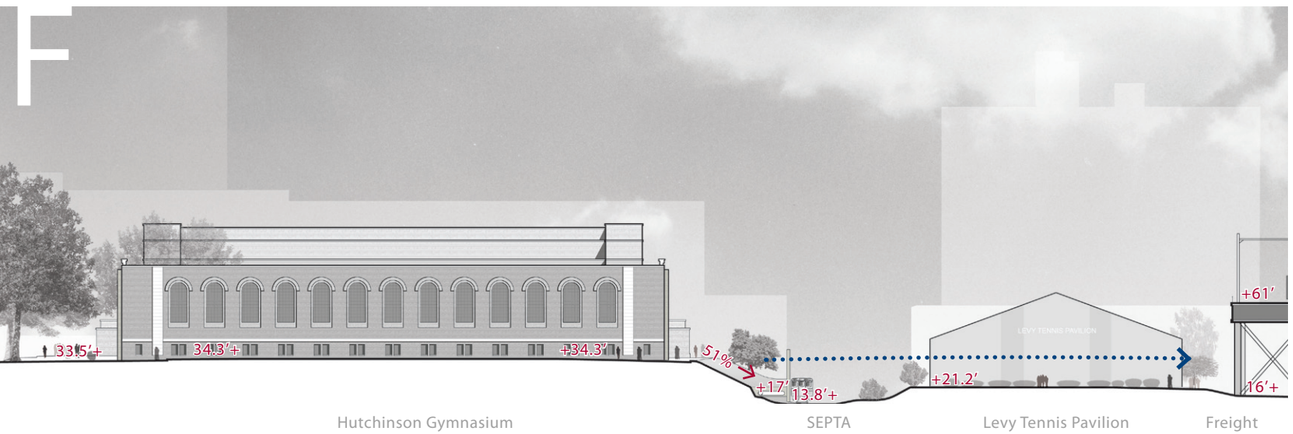


Figure 2.27
Existing Section - F
0 20

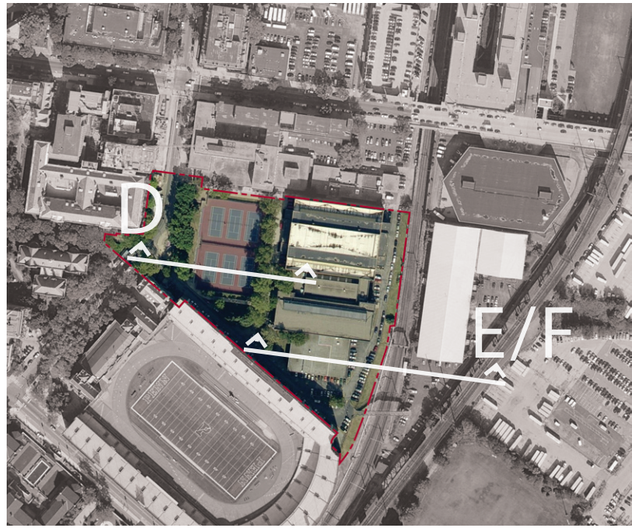


Figure 2.28
Key Plan

Section D (Figure 2.25) illustrates Palestra Promenade (el. 35') and its relation to 33rd Street. With the future of Palestra Green eliminating the Lott Tennis Courts and moving its accompanying active program to adjacent Penn Park. This serves as a reclamation of a passive land and will ultimately connect the street, its adjacent sidewalks and The Palestra.

The future of Penn is one of connection—chiefly, a physical connection to Penn Park and beyond to Center City Philadelphia. This connection through Palestra Green must pass over the SEPTA tracks, separating the site from Penn Park. Section E (Figure 2.26) illustrates the existing condition while Section F (Figure 2.27) illustrates the proposed removal of the Ringe Squash Court facility. This removal will ultimately invite the rehabilitation.

Understanding Programmatic Changes

An effective way of expressing the proposed changes to Palestra Green is through a pair of diagrams illustrating the magnetism of people to the inherent poles on the site. The fundamental study and viewing of magnetism establishes the concepts for these diagrams. Magnetism here is seen in terms of programmatic uses and the movement of people in and around the space. Through these diagrams, one can see how existing programmatic uses of the landscape and adjacent buildings create programmatic partnerships to form the fabric and overall ethos of the space.

On the existing site, four poles may attract people to the site (Figure 2.29). These poles are at the most programmatic populous areas—the David Rittenhouse Laboratory to the north, Lott Tennis Courts in the center, The Palestra to the east and Franklin Field to the south. People are attracted from all surrounding directions and the site access points to the poles. The incorporation of colored filaments illustrates the quantity and relationship of the site's function, access and program. It is important to note that the more diverse the set of filaments on site, the better.

Through analyzing the proposed site, communication of the intentions of the future design of Palestra Green occurs (Figure 2.30). A green space replaces the Lott Tennis Courts and an additional green space is added at the "threshold" between the corner of Hutchinson Gymnasium and Franklin Field (please refer to Figure 3.7). These poles add a new dimension to Palestra Green—transforming the site from its once sparse program into a balanced, flexible program. This new program is a hybrid of events and civic programs translated onto an enhanced campus program. The addition of green space at Palestra Green will increase academic functions on site by creating passive spaces for potential outdoor classroom use. This in turn produces a stronger indoor-outdoor relationship between the architecture and landscape and a direct connection from Penn Park and Center City to the east and the core of Penn's campus to the west.

Human Magnetism on the EXISTING Palestra Green site

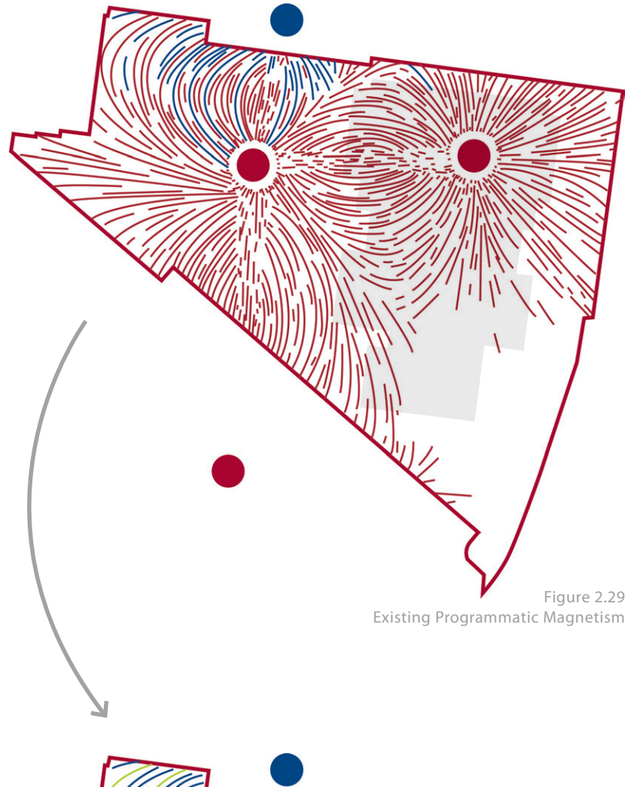


Figure 2.29
Existing Programmatic Magnetism

Human Magnetism on the PROPOSED Palestra Green site

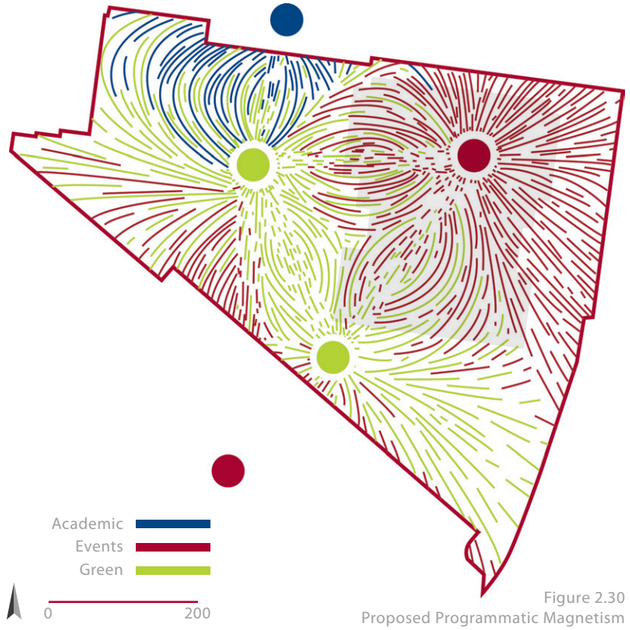


Figure 2.30
Proposed Programmatic Magnetism

Proposed Program

The program of Palestra Green must be flexible, accommodating both active and passive uses. The programming process corresponds directly to the work completed in the typology study as well as in the site inventory and analysis phases. Each of these phases informs the program and helps define what the program should be. With the site lying directly adjacent to Penn's future recreational and intramural site, Penn Park, it is imperative that the Palestra Green program be free from any use that would unnecessarily take away from the program and use of Penn Park. This means there should be no active program for intramural or intercollegiate sports use within Palestra Green.

The Palestra Green program also addresses many dynamic, important and specific spatial needs. These needs, categorized in the groups Campus, Events and Civic, address major necessities such as adjacent university building uses and needs, sustainable initiatives, traffic flow, pedestrian flow and connections while accommodating for future campus projects and initiatives.

The 2006 Penn Connects plan outlines key programmatic initiatives for the campus and Palestra Green. The programmatic information from this plan has been gleaned through the application of the master's project methodology to include only those needs and elements key to the betterment of the university, site, user and designer (Figures 2.31 and 2.32). Ultimately, new and more specific uses have been added to this foundation, deemed such by the designer and advisors.

All program initiatives are italic.

Campus

Create a "gateway" to Penn for those coming westward across the Schuylkill River

This program element is taken directly from the Penn Connects plan as well as from sources at OLIN and the University of Pennsylvania Facilities and Real Estate sector. All proposed campus initiatives and projects conclude Palestra Green contains the threshold through which people will cross on their way to and from Penn. This threshold is known as the "pinch-point" and is located where the southwest corner of the Hutchinson Gym is nearest to the Franklin Field façade. The 2001 Campus Development Plan by OLIN notes the extension of Locust and Smith Walks to the east is key to the future vibrancy and success of Penn. This extension passes directly through the "pinch-point" threshold as well as the entire Palestra Green site.

Provide passive recreational opportunities

Palestra Green should provide all users with a place to enjoy leisurely activities. With Penn Park directly to the east of the site, any program on the Palestra Green site should not interfere with that being offered on the Penn Park site, and vice versa. Additionally, the size of the Palestra Green site does not allow for large-scale active uses such as intramural sports and events.

Create an outdoor seating area

This coincides with the current Penn initiative to build the Franklin Field Weight Training and Fitness Center inside the current Franklin Field shell (the interior of the arches). Accompanying the Weight Training and Fitness Center is a new bookstore and retail area with an indoor/outdoor café. This outdoor seating area should include movable café furniture (minimum tables, chairs and receptacles) yet should not be contained by fencing or other obstructive means. The seating area should be located between Gates 1 and 2 of Franklin Field.

- o *400 sf minimum (4 tables with 16 total chairs*)
- o *2,500 sf maximum (18 tables with 72 total chairs)*

Extend building entrances on the land surface

A proper response to the historic architecture adjacent to Palestra Green, in particular, building entrances, is an important and valuable piece to the program. Certain care must be given to determining the proper dimensions and character of outdoor entrances.

Utilize eco-water systems that reuse as much water from the site for irrigation and grey water purposes as possible

- o Cisterns under Palestra Green to collect rain water
- o Reuse of collected rain water for water feature use
- o Bio-swale use at west and east ends of the site
- o Pervious cover

Improve the health of the site by importing and maintaining all soils in a responsible manner

- o Aeration of lawn during at proper intervals during growth months
- o New and engineered soils

Consider keeping existing healthy trees on site for use in the new design

- o Sycamores in front of The Palestra

Select regional materials for their durability and aesthetic

- o Bluestone, granite, brick, asphalt
- o Oak, maple, sycamore, poplar, beech, dogwood

Maximize green cover

- o Green roofs
- o More green space on the site
- o Living walls
- o Canopies/trellis

Explore appropriate building and landscape energy systems and introduce them into the design repertoire and vernacular of the project

- o Wind systems
- o Solar/PV systems
- o Living walls
- o Canopies/trellis

Create a place that sustains social growth and harbors social place

- o Commencement
- o Penn Relays
- o Sporting events
- o Films
- o Ice skating
- o Civic use
- o University use

Create a place that will, in theory, pay for itself and create an economic surplus for the university

Provide ample locations for advertising the university, sports teams and events

- o Light Poles
- o Buildings
- o Ground plane
- o Trees

Remove all parking stalls on the Palestra Green site

Currently, 85 parking stalls inhabit the site, to the south and east of the Ringe Squash Courts and Hutchinson Gymnasium. These parking stalls are for university employee and student use and will be relocated to nearby garages to the north and south of the site, and also to a new surface parking lot on the north portion of the new Penn Park. Sasaki's Penn Connects plan states the parking situation and relocation in greater detail.

Anticipate renovations to Franklin Field, The Palestra and Hutchinson Gymnasium

A recent Request For Proposal discusses the anticipated uses for all facilities.

Develop a strategy for the seamless connection of the architecture and landscape from the west side of 33rd Street to Penn Park

Replace the Goldie Paley Memorial Bridge with a more appropriately designed and placed bridge

If removed, the project should look at the possibility of recycling materials from the bridge for use in the Palestra Green or other university projects.

Events

Create a gathering space for all events taking place on or adjacent to the site

Major campus events, such as football, basketball, volleyball and lacrosse games, tennis and soccer matches and track and field meets, keep the Palestra Green site lively at all times of year. The site is most intensively used in the fall sports season, when football, lacrosse, volleyball, soccer and tennis are played. Although these events are major in the sense that large populations of people, hundreds to tens-of-thousands, the most important sporting event at the University of Pennsylvania is the famed Penn Relays. A nationally acclaimed track and field event held in late April, the Penn Relays bring in over 100,000 spectators to Franklin Field over a 3-day period. This facet of the Penn sports world transitions into the next program initiative:

Accommodate for the diverse set of uses needed to host the Penn Relays

Being a temporary event, the Penn Relays require many amenities not needed at any other time on campus. The spaces surrounding Franklin Field, primarily Palestra Green, must be flexible enough to allow for such a large population of people and the uses that come with them. Temporary vending and retail stands are installed on the Palestra Green site—the new design should consider the placement of these elements and the adjustment of adjacent and site circulation patterns and uses.

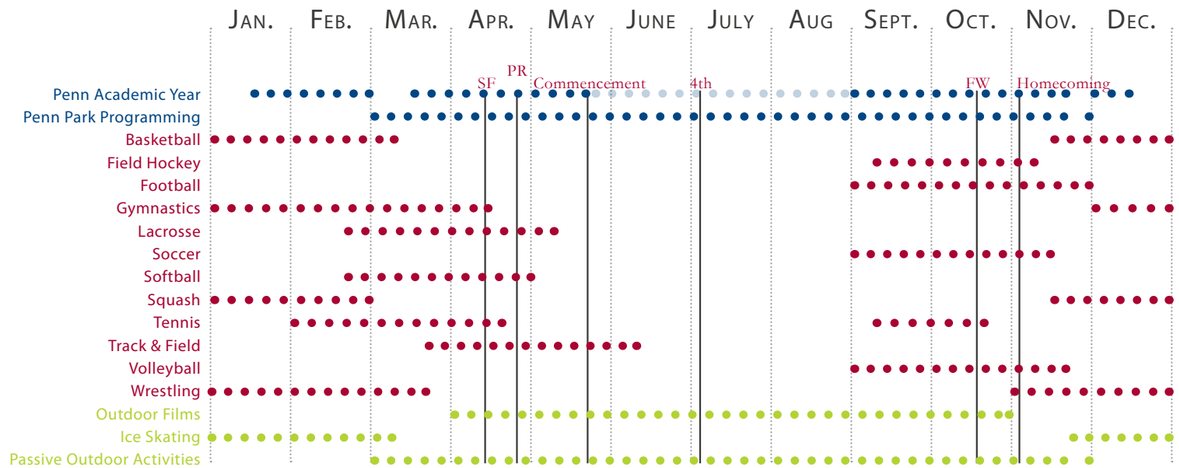
- o *Close 33rd Street from South Street to Walnut Street to public traffic to accommodate for the large number of pedestrians, spectators and vendors in the area*
- o *Allow private vehicular access*
  - TV Trucks, Semi-tractors and trailers, service trucks, university trucks
- o *Accommodate for 25,000 sf of vending/retail space (currently 32,000 sf)*
  - Temporary structures/tents/installations
  - Where could they be most effectively located? Are they dual-purpose structures? Where would they be stored if they aren't rented?
  - Companies such as Nike, Oakley, Dunkin' Donuts and other institutions such as the U.S. Army and the Marines
- o *Accommodate for 1,250 sf of portable restrooms (currently 1,250 sf)*
  - Attempt to mask the portable restroom units through temporary structures/ installations or vegetation
- o *Accommodate for the possibility for projecting Penn Relays, movies or other events on a large screen (screens) in the Palestra Green space*
- o *Provide a passive and leisurely space for spectators*
- o *Create a large plaza/promenade to allow for the efficient and pleasant movement of spectators coming in and out of Franklin Field*
- o *Showcase the University through the creation of a wonderful Palestra Green space that people from across the globe will experience during the Penn Relays*

Civic

Create a lively civic space that caters to all Philadelphians in all seasons

The Palestra Green site will survive without a program catered towards a true city park or city civic space. In order for this place to be successful at all times of the year, the implementation of a seasonal program is imperative. This involves analyzing the university and city calendar to see when possible activities could be planned and held at Palestra Green.

This site will truly be a hybrid space, used for both university and city purposes. This idea is not uncommon for universities, especially when the space is programmed for sporting events or other important events. What separates the Palestra Green site from other university/civic spaces is the fact that the space has the potential to be used for major city and social events, including film watching, ice skating and even as a city park.



SF=*Spring Fling*
PR=Penn Relays
4th=Independence Day
FW=Family Weekend

Figure 2.31
Palestra Green - Program Calendar

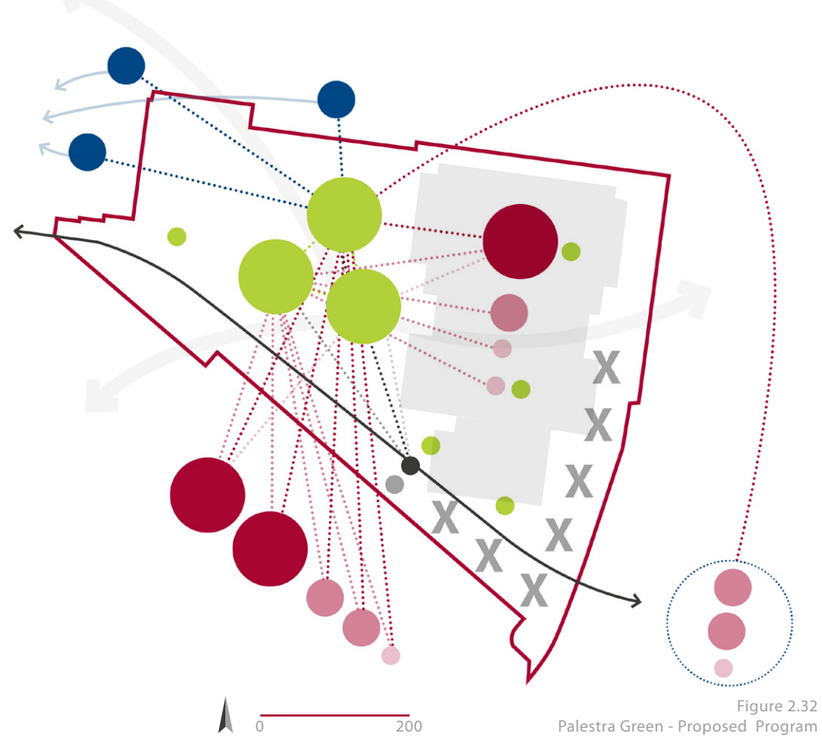


Figure 2.32
Palestra Green - Proposed Program

Figure 2.33
Palestra Green - Site Plan

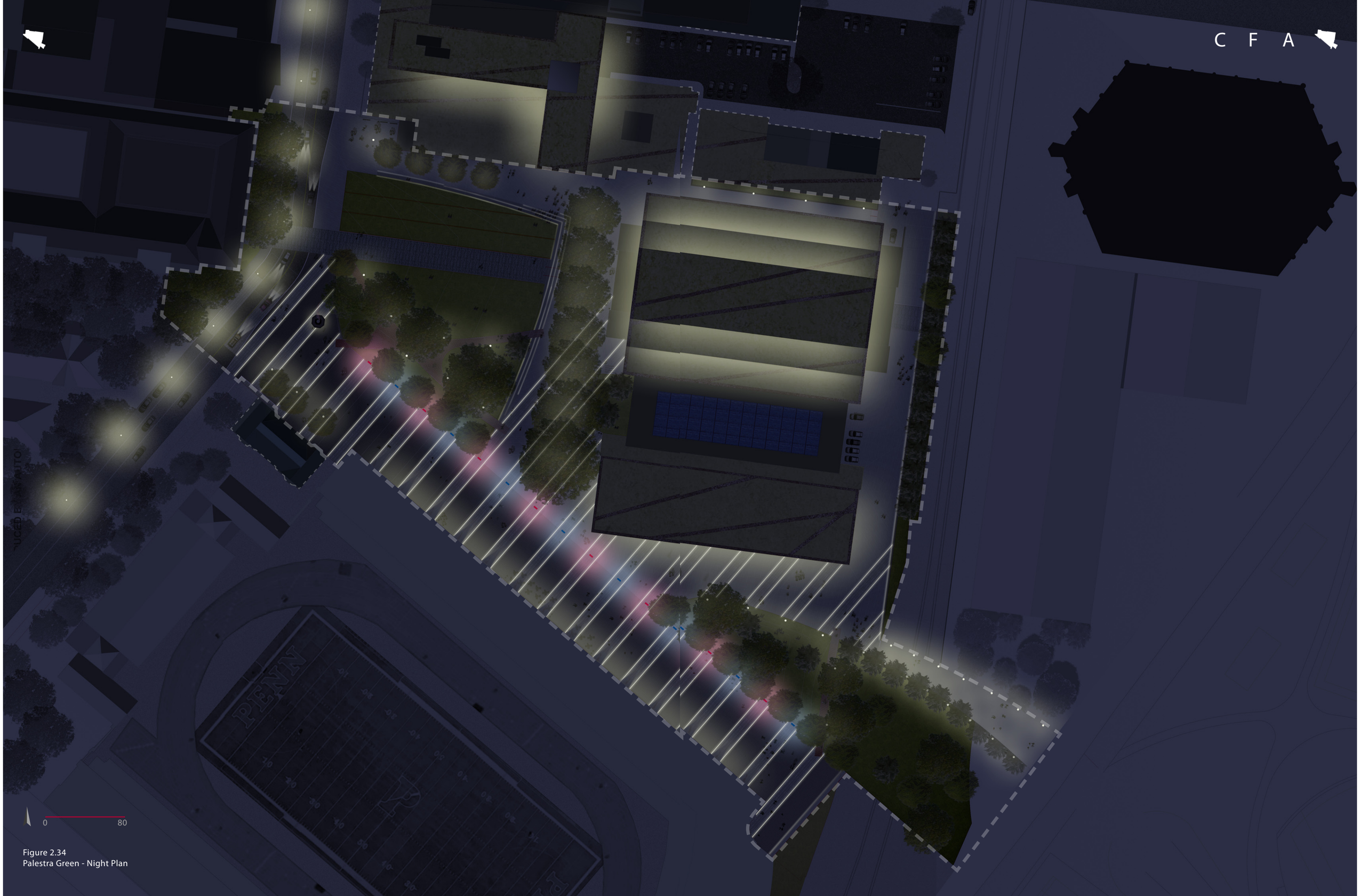


Figure 2.34
Palestra Green - Night Plan

Figure 2.35
Proposed Section - A
0 15

Figure 2.36
Proposed Section - B
0 15

Figure 2.37
Proposed Section - C
0 15

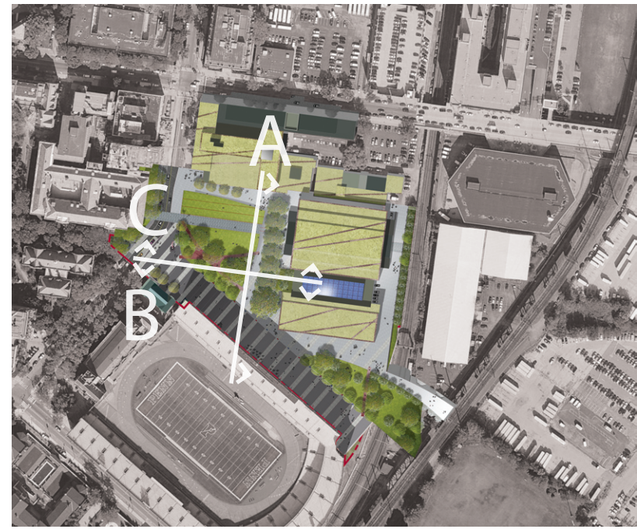


Figure 2.38
Key Plan

Figure 2.39
Proposed Grading - Elevations

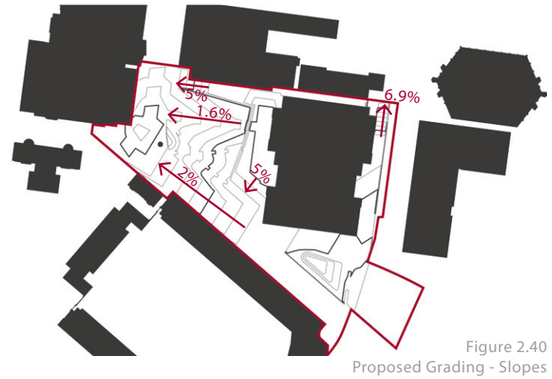


Figure 2.40
Proposed Grading - Slopes

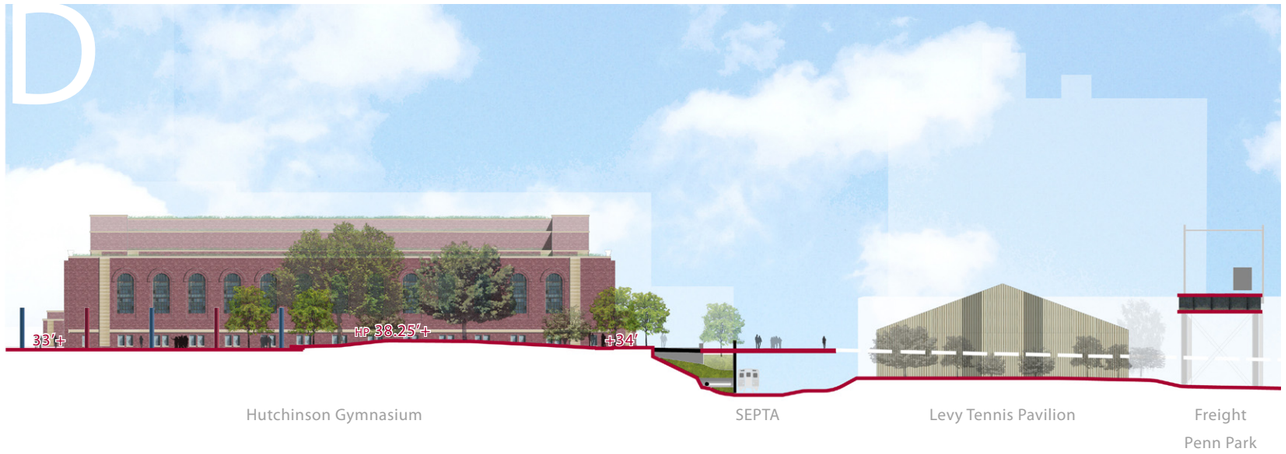


Figure 2.41
Proposed Section - D

0 20

Figure 2.42
Proposed Section - E

0 15

Figure 2.43
Key Plan

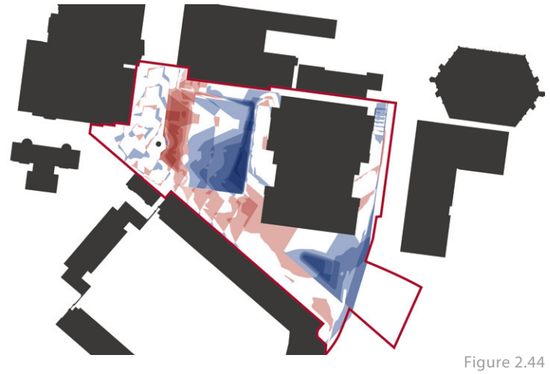


Figure 2.44
Cut/Fill Earthwork Diagram

CHAPTER 3

A Campus Space

Existing Issue

Lack of overall Penn identity on the existing site

Currently at Palestra Green, an aesthetic and programmatic disconnect separates the space from other, more successful spaces at Penn. Central to this disconnect is the issue of connectivity. Pedestrians are confined to uninteresting walkways on the perimeter of the site and, in most cases, must share their walkway space with vehicular traffic (Figure 3.1). What is more, vehicles are the dominant element on the site and pedestrians are required to maneuver around them at most times of the day.

As seen in Chapter One, the amount of green space, quality materiality, program and general use of the site are all extremely important factors to successful and typical places at Penn. At Palestra Green, only 12% of the site is permeable ground cover. This fact takes away from the aesthetic and functional connection to the rest of campus. Because the space is a parking lot, the paving at Palestra Green is a hodgepodge of asphalt patchwork, intermixed with decaying exposed aggregate concrete. Even the accent bluestone pavers around the All Wars Memorial show signs of disrepair through extensive chipping and cracking. The elements showing the most aesthetic connection to the Penn Type are the line of seven sycamore trees, marching directly in front of The Palestra from the Rittenhouse Lab to Franklin Field. The existing campus-related program of the space is nowhere to be found, as it gives way to the active athletic program of the Lott Tennis Courts, which is the most generally-used portion of the site.

Also separating this campus space from others at Penn is the lack of connection between the adjacent architecture and the landscape at the human scale. As most people moving through the space are spectators at sporting events in The Palestra and Franklin Field, this is an extremely important issue (Figure 3.2). Significantly preventing this connection is the Lott Tennis Courts. Their location and difference in elevation from the surrounding paths prevent any sort of harmony of design from the architecture to the landscape.

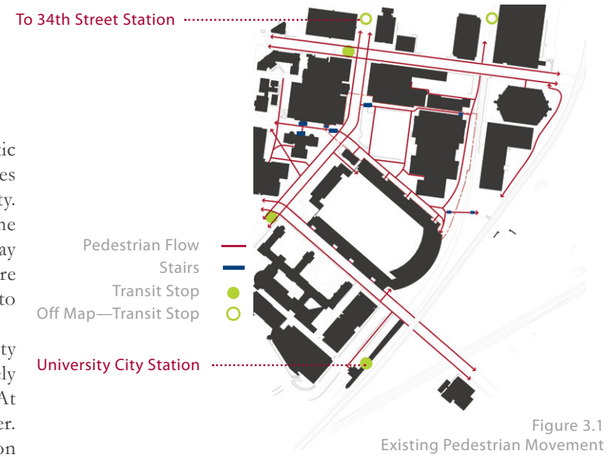


Figure 3.1
Existing Pedestrian Movement

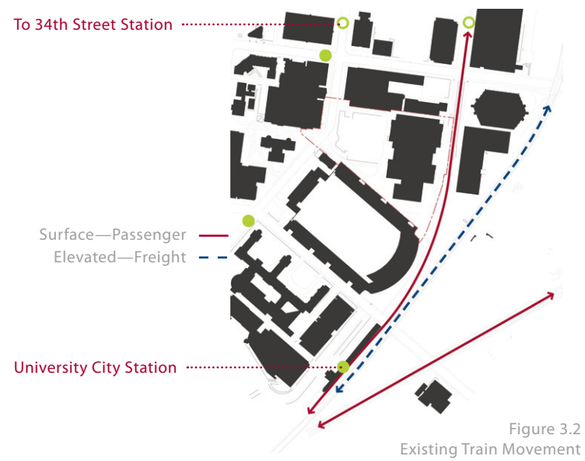


Figure 3.2
Existing Train Movement

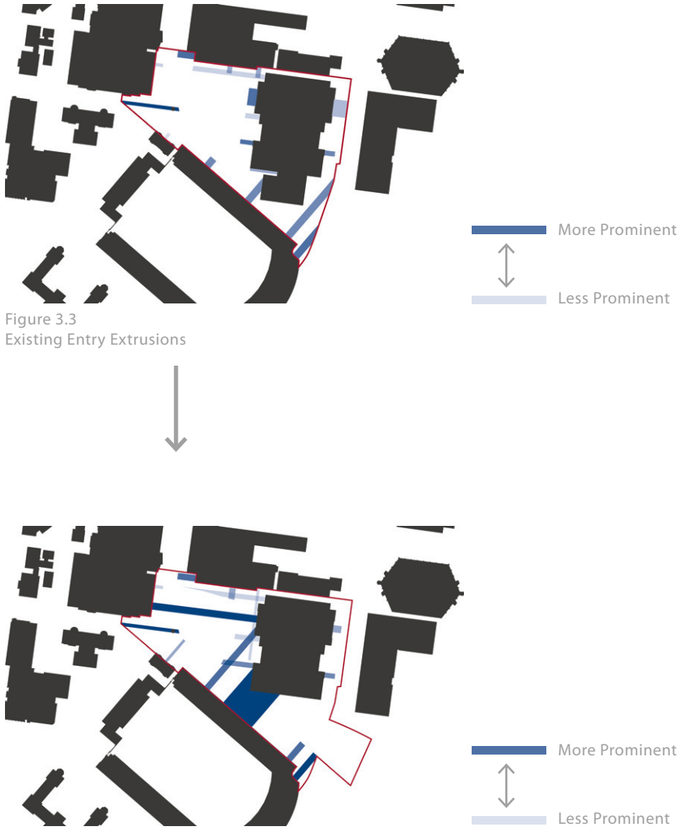


Figure 3.3
Existing Entry Extrusions

Figure 3.4
Proposed Entry Extrusions

Figure 3.5
Tree Placement

Proposed Solution

Create a space that reintroduces the DNA of Penn

The new design of Palestra Green seeks to properly respond to the architecture in and around the space. At each building, especially at the Rittenhouse Lab, the creation of new paved entry plazas allows freedom of movement for all users of the site and signals an invitation to the students and faculty inside the building to use the expansive Palestra Green landscape (Figures 3.3 and 3.4). This attempt to reconnect to the academic buildings surrounding the site—not just the athletic buildings—is the first sign of success in reintroducing the DNA of Penn. At the Towne Building, west of 33rd Street, entry points extrude from the building and into the Palestra Green space. The most notable of these extrusions is at the southernmost entry on the east façade of the Towne Building, offering a 25' bluestone paver path eastward to the entrance of The Palestra. This walkway gives The Palestra the proper visual entry it deserves, yet has never received.

Also contributing to the reintroduction of the Penn Type into Palestra Green is Franklin Promenade. This 75' walkway paved with alternating bands of hexagonal asphalt and concrete pavers according to the arched façade of Franklin Field, is an extremely important extension of Penn's major east-west arterial walkway, typified by Locust and Smith Walks. The Promenade not only leads pedestrians to a major access point on campus—University City train station to the south and east of Franklin Field—but it offers a seamless walkway connection to Penn Park. This completes the east-west pedestrian connection through the entirety of Penn and offers a new goal: to complete this connection across the Schuylkill River to Center City Philadelphia.

The new Palestra Green is a hybrid of spatial types already seen on campus at Penn. The well-maintained College Green is the inspiration for Palestra Green's lawn spaces directly north of Franklin Promenade and on either side of the southern corner of Hutchinson Gym. Here, brick walkways with granite curbs cut through the lawn and the interspersed mature trees (Figure 3.5). Evidence of the Plaza Type is seen in the ratio of paved area to green space, especially along Franklin and Palestra Promenades. An indoor/outdoor seating area on the central northern side of Franklin Field, serviced by the indoor retail and café area seen in the Franklin Field Weight Training and Fitness Center initiative, gives users another reason to linger at Palestra Green (Figures 3.6-3.10).

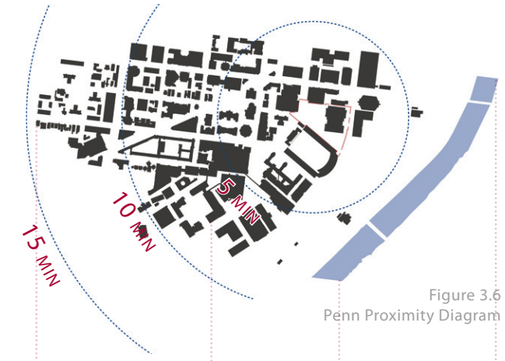


Figure 3.6
Penn Proximity Diagram

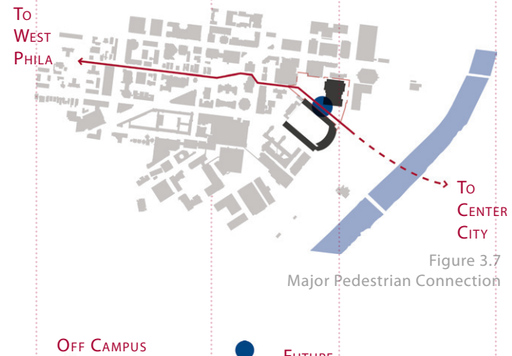


Figure 3.7
Major Pedestrian Connection

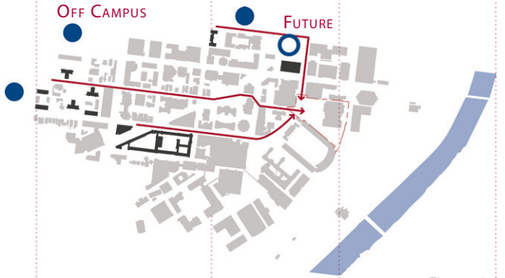


Figure 3.8
Penn Student Housing

Figure 3.9
Palestra Green Arrival Lanes

Figure 3.10
A Campus Space

Existing Issue

Current site is choked by parking.

As noted in Existing Issue 1, the extensive parking area at Palestra Green prevents fluidity of movement and a unified site scheme and program. Furthermore, the presence of such an expansive and unnecessary parking area sends an improper message in an age of sustainability-awareness and innovation (Figures 3.11 and 3.12).

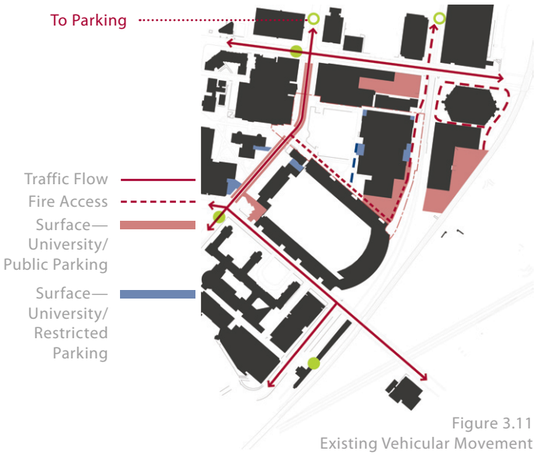


Figure 3.11
Existing Vehicular Movement

Figure 3.12
Parking

Figure 3.13
Memorial Axes

Figure 3.14
Proposed Vehicular Movement

Figure 3.15
Proposed Pedestrian Movement

Proposed Solution

Move on-site parking to existing and proposed parking garages, erected with Penn Park, and reclaim the old parking stalls as usable pedestrian space.

This initiative seen in the proposed design of Palestra Green relieves the site of all day-to-day vehicular usage in order to introduce a completely pedestrian circulatory network. The one exception to this rule is seen to the east of The Palestra, where commuter vehicles owned by the university's athletic department still will be allowed to park. By removing the constrictive hold of parking and vehicular usage, the entire Palestra Green space realizes its full campus program potential.

This proposed solution also takes into account the circulation and parking associated with 33rd Street (Figure 3.13). While the two movement lanes of the street remain, the removal of the easternmost existing lane of parallel parking expands the walkway between the street and the proposed lawn (Figure 3.14). Also, in the proposed design, all vertical elements on the eastern side of 33rd Street—lightposts, unnecessary signs, banners—move to the western side of the street. This gives drivers and, more importantly pedestrians, an unobstructed view across the lawn to the front of The Palestra and eliminates the visual clutter on the existing street. By narrowing 33rd Street within the boundaries of Palestra Green and introducing new paving types into the street—the extension of east-west walkways through the street—traffic calms.

Looking Forward

By implementing the proposed campus planning solutions, Palestra Green connects to the whole of Penn as never before (Figure 3.15). The reintroduction of Penn's aesthetic, design values and programming into Palestra Green equates to a more cohesive overall campus. This new campus space will service the surrounding academic and athletic buildings and undoubtedly will be a sought-out green space on campus. Upon the completion of Penn Park in 2011, Palestra Green will become part of the everyday vernacular of Penn as students move through the site on their way to the recreation fields. Students moving to and from Penn Park will experience the fullness of Palestra Green and consider it a part of the university, instead of a space inconsistent with the rest of campus.

Figure 3.16
Franklin Promenade

CHAPTER 4

An Events Space

Existing Issue

Palestra Green does not accommodate for the range of activities taking place in and around the space.

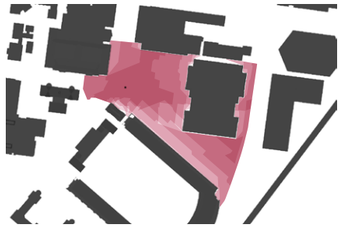
Because of its proximity to Franklin Field and The Palestra, Palestra Green serves a unique programmatic purpose at Penn. The events program is a crucial part of the space as it is a frequented area during the range of sporting events on Penn's calendar. At Franklin Field, the largest and most renown event is the Penn Relays. In the fall, football games at Franklin Field are events frequented by Penn alumni, students and Philadelphians. Spring offers a different sort of use to the historic stadium—graduation commencement. Stages and chairs cover the artificial turf playing surface and upwards of 10,000 family members and friends pack into the surrounding stands.

At The Palestra, basketball is the major sporting event although the historic usage of the facility by the city's acclaimed conference, the Big 5, has long since moved away. Nonetheless, basketball games draw crowds in upwards of 8,000 to the indoor stadium from November to March. Other sports, such as volleyball and gymnastics, have a considerably less amount of spectators than basketball.

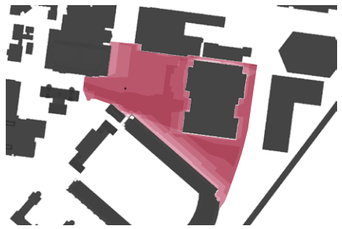
Even with a wide range of events programming, the existing Palestra Green site is unaccommodating for all these events. As noted in chapter 3, the expansive parking lot/walkway space is unattractive and defunct (Figure 4.1).

Figure 4.1
Franklin Promenade

March 20 Shadow Pattern

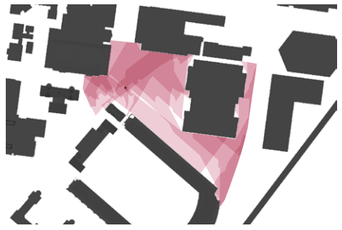


June 21 Shadow Pattern



September 22 Shadow Pattern

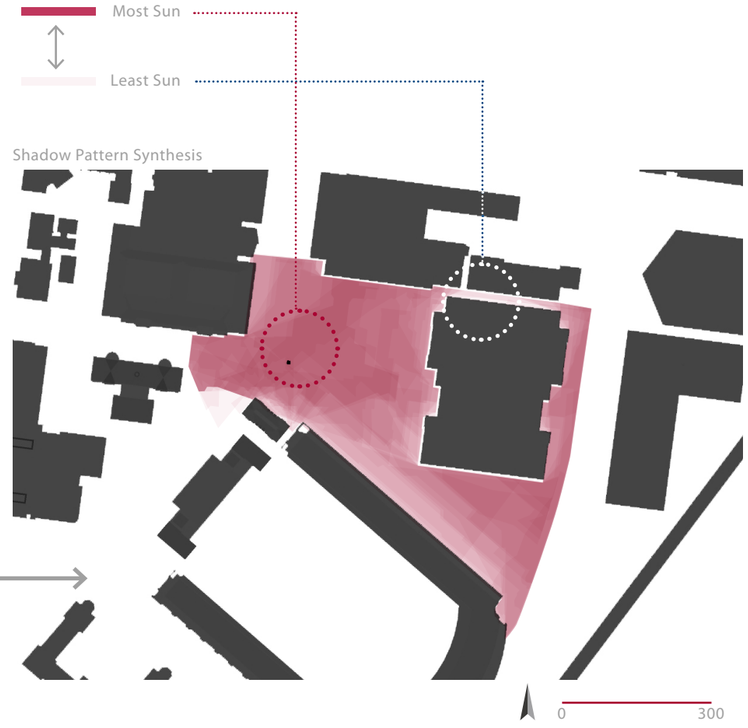
December 21 Shadow Pattern



Most Sun

Least Sun

Shadow Pattern Synthesis



0 300

Figure 4.2
Shadow Patterns

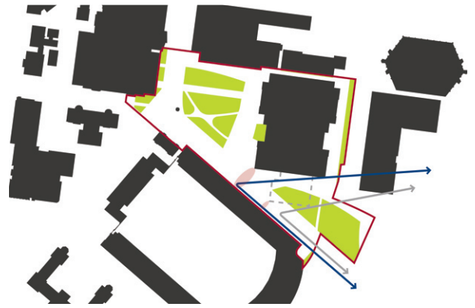
Dynamism at Palestra Green

Proposed Solution

Create a space that accommodates for all necessary events and provides ample space for new programming possibilities.

To accomplish this proposed solution, the "opening" of the space is critical. The removal of the Lott Tennis Courts to Penn Park allows the regeneration of green space at the core of Palestra Green. The proposed lawn in front of The Palestra is meant to be a passive open space as not to compete with the programmed green space at Penn Park. However, during events, the lawn serves semi-programmed purposes such as housing vendors during Penn Relays. The analysis of shadow patterns on the site throughout the year plus the investigation of the Penn events calendar determined that the portion of the site receiving the most sun should remain so as much as possible, allowing users a chance to bask in the sun in such a shadow-dense space (Figure 4.2). Also contributing in large part to the "opening" of Palestra Green is the demolition of the Ringe Squash Courts, which move to a new location according to the Penn Connects plan. This expands the eastern portion of the site immensely and provides room for another smaller lawn to the south of Hutchinson Gym. This demolition also opens views from the site to the Center City skyline, making Palestra Green a unique space at Penn by having these borrowed views (Figure 4.3).

Also aiding in spatial accommodation for events is the implementation of the Franklin and Palestra Promenades (Figure 4.4). These expansive walkways along the edges of Franklin Field and The Palestra allow for the thousands of spectators on the site during events. When the site is not used for events purposes, these walkways help guide pedestrians through their patterns, both day and night. Along the western edge of the Palestra Promenade lies a new site element. Terrace steps, 45 inches wide and 18 inches tall, allow users to sit along the edge of the lawn without the provision of unnecessary benches. The terraces are available for use in numerous capacities, all subject to the user's needs (Figure 4.5).



Existing Viewshed
Proposed Viewshed

Figure 4.3
Views to Center City

Palestra Promenade
Franklin Promenade

Figure 4.4
Promenades

Terrace Steps

Figure 4.5
Terrace Steps

An Events Space

Figure 4.6
Penn Relays 2008

Figure 4.7
Penn Relays 2008

Figure 4.8
Penn Relays 2008

Existing Issue

Palestra Green's program was not designed to account for the Penn Relays and its associated Carnival

Over the course of five days in late April and/or early May, Palestra Green comes to life through the Relays and its associated Carnival—a compilation of food, retail and institutional vendors each marketing their brand and selling products to the event's spectators. It is not uncommon for the Relays to draw up to 100,000 spectators during the event (Figures 4.6-4.8). As the premier track and field event in the United States, Penn Relays attracts high school, collegiate and professional athletes from across the nation and the world (Figure 4.9).

The sheer amount of provisional structures imported onto Palestra Green during Penn Relays is staggering. Temporary tents and toilets are the main temporary elements and provide a huge pricetag, which the university covers, during the event. In total, over twenty vendors, such as Nike, Dunkin Donuts, Oakley and the Army, set up shop along Franklin Field's façade. Because of the event's highly publicized nature, numerous regional and national media outlets broadcast live footage of the event from the Palestra Green site.

Although Philadelphia and Penn Police control traffic on 33rd Street, the frequency of traffic on the street still poses major issues for pedestrians attempting to cross the street.

Figure 4.9
Penn Relays 2008

100
PEOPLE
.04 PEOPLE/10SF

800
PEOPLE
.34 PEOPLE/10SF

200
PEOPLE
.09 PEOPLE/10SF

1,600
PEOPLE
.69 PEOPLE/10SF

400
PEOPLE
.17 PEOPLE/10SF

3,200
PEOPLE
1.37 PERSON/10SF

Figure 4.10
Population Density Study

Proposed Solution

Design the space and program flexibly with the Penn Relays in mind.

Accommodating for over 100,000 humans on any site is a large issue (Figure 4.10). At Palestra Green the expansive Promenades help funnel pedestrians through the site without them feeling claustrophobic. Franklin Promenade, at 75 feet wide, is able to house all temporary vendors and leave ample space for passers-by (Figures 4.11 and 4.12). Furthermore, instead of importing a large number of tents onto the site for the vendor's usage, a large temporary canopy is designed along the northern edge of the Promenade (written in further detail in Chapter Six). Under this canopy, vendors still have enough space to market and sell their goods and, in case of inclement weather, have shelter. Another major accommodation deals with the relocation of temporary toilets to more readily usable locations, along 33rd Street and at the eastern edge of Hutchinson Gym.

The allocation of parking for media outlets in the proposed design of Palestra Green is along the eastern edge of Hutchinson Gym and The Palestra. This paved area provides ample space for the large trucks and electricity from the buildings. Perhaps the most extensive proposed solution according to the Penn Relays program is the temporary closing of 33rd Street during the peak hours of the event. Although this concept must be cleared with the city and therefore require some policy implementation, it is certain this will provide a safer, more pedestrian-friendly experience for the event's massive and diverse group of spectators.

Looking Forward

The new Palestra Green, driven by these proposed solutions, will be a more cohesive space. Furthermore, the flexibility of the space to accommodate for both the campus and events program simultaneously further elevates Palestra Green's standing as an important space on the University of Pennsylvania campus. Each thriving event will instill the character of the space in the mind of each user. It is the hope that spectators of events in the surrounding athletic facilities will remember as much about the landscape of Palestra Green as the event they are attending.

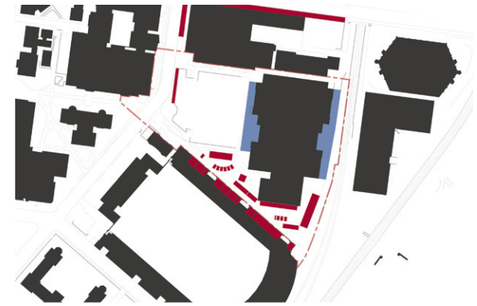


Figure 4.11
Existing Penn Relays Setup

Figure 4.12
Proposed Penn Relays Carnival

Figure 4.13
Penn Relays Carnival

CHAPTER 5

A Civic Space

Existing Issue

Palestra Green does not accommodate for a civic landscape program.

Palestra Green as a landscape holds no genuine civic purpose. Although this is not considered a problem, investigation of the space's potential civic program shows that Palestra Green's location in proximity to residential neighborhoods, public transportation and future connection to Center City makes the space a promising civic hot-spot for the City of Philadelphia and, specifically West Philadelphians. Civic use, in this sense, means the use of the outdoor space by individuals who do not have a day-to-day connection (academic- or university-related) to the University of Pennsylvania. The function of the Lott Tennis Courts is recreational, not civic (Figure 5.1).

Figure 5.1
Palestra Green

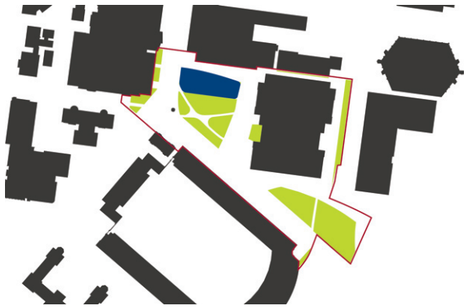


Figure 5.2
Ice Skating Location

Figure 5.3
Concert at Rittenhouse Square

Figure 5.4
Rittenhouse Square

Proposed Solutions

Create a space that gives Philadelphians a purpose for going to Palestra Green.

In many ways, this solution is the most difficult of all proposed in *Dynamism at Palestra Green*. The design of the new space must take into account the relatively small size of the site (7+ acres), low visibility from prospective user locations (30th Street Station, neighborhoods, Center City) and, although short in most cases, the distance and character of places one must pass through to get to Palestra Green. However, the potential payoffs—marketing, revenue, visibility—are incentive to explore this potential site program in detail. After investigation into the feasibility of a civic program at Palestra Green, numerous concepts evolved based on the items mentioned above and the proposed initiatives for the spaces around Palestra Green.

The major drivers for the civic program at Palestra Green are the 2001 Campus Development Plan and the Penn Connects plan. In both of these large-scale master plans, a new pedestrian bridge spans the Schuylkill River. By joining Center City Philadelphia to Penn, a new influx of visitors to the University and to Palestra Green likely will appear. Also seen in these plans is a proposed mixed-use development on the north side of Penn Park. By attracting potential retailers, young renters and other services along Walnut Street, a greater visibility of Palestra Green and its offerings will help give the space the civic spark it needs to support a strong civic program. In addition, the general use of Penn Park by Penn students and faculty coupled with the gravity of active-natured Philadelphians also gives a newfound life to Palestra Green.

To accommodate a proper civic program, seasonal civic events must be the catalyst. The civic program of Bryant Park in New York City, although much larger in scale and size, served as a conceptual model for successful civic use at Palestra Green. Users must have a reason for going to the park, and if they do not, certain accommodations must be made for potential users. At Palestra Green, a new indoor/outdoor café—associated with the new Franklin Field Weight Training and Fitness Center—and retail space give users a chance to dine and shop. Utilizing the terrace steps designed directly in front of The Palestra for outdoor films, concerts and other rallies will enliven the space. In the winter, a regulation-size ice skating rink is installed on the lawn as a definite destination for Philadelphians (Figure 5.2). The notion of an ice skating rink also contributes to the city's investment in this growing winter trend—an ice rink at Penn's Landing and another proposed at Dilworth Plaza on the west side of City Hall. Other potential civic programs can certainly center on the frequent use of Palestra Green as an events space.

Contribute to the strong and recognizable Philadelphia park network.

In a city known for its park network and historic planning structure, Palestra Green has the incredible potential to contribute green space for civic use. Palestra Green is reasonably close—within a 30-minute walk—to Fairmount Park with its historic Boat House Row along the banks of the Schuylkill River. The proposed pedestrian bridge across the River, access gives direct access to the park and its numerous amenities as well as to the internationally acclaimed Philadelphia Museum of Art at the terminus of the Benjamin Franklin Parkway.

Other major civic areas in close proximity to Palestra Green are Rittenhouse Square at 18th and Walnut (Figures 5.3 and 5.4)—just fifteen blocks from Palestra Green—Logan Square at 18th and the Parkway, and Love Park and City Hall at 16th and Market. Specifically, the connection to Rittenhouse Square poses the best green network connection to Center City and its diverse set of neighborhoods. The size of Palestra Green is also very similar to Rittenhouse Square. Old City Philadelphia, with Independence National Historic Park, the Constitution Center and many other historic sites is a short subway ride away from Penn and Palestra Green.

Looking Forward

The success of the civic nature at Palestra Green relies on its appeal to nearby residents and the seasonal programming produced in the space. Aiding this is the fortunate fact that Palestra Green is in very close proximity to various means of public transportation. If implemented, this design of Palestra Green will be a meaningful part of the Philadelphian park network. With a new, active program and flexible design, this space may be a sought out location for faculty and students at Penn, business men and women in the Penn area, commuters via the SEPTA public transit system and families in nearby neighborhoods.

Figure 5.5
Ice Skating at Palestra Green

CHAPTER 6

Systems

Although *Dynamism at Palestra Green* inherently deals with the dynamic programmatic nature of Palestra Green and through this, the regeneration and growth of the space into a primary destination at Penn, the project also takes the social program and designs dynamic, innovative and flexible built systems. These systems aid in the accommodation of the multiple large-scale activities on the site. Each of the systems designed specifically for Palestra Green contributes considerably to the foundational themes of the project. The systems provide users with multi-use spaces and blur the typological lines of the space as a whole, creating a truly hybrid Penn landscape.

The systems are the Modular Green: a retractable and permeable hard surface (Figure 6.1), the Palestra Canopy (Figure 6.2), and Precipitation Collection: a green roof system (Figure 6.3). Each system brings solutions to the existing Palestra Green's myriad of temporary-minded problems. The nature of each system allows implementation at the university's control (as it relates to the project's phasing into the future). What is more, once the Modular Green and the Palestra Canopy are implemented into the DNA of the site, they may be installed and torn down as needed. This gives the university complete control over the spatial use of Palestra Green as it relates to the university calendar. Through this, it is apparent that the proper maintenance and discretionary use of each system is vital to the success of the systems and the truly dynamic nature of Palestra Green.

Despite the potential negative factors perceived about the project's systems, it is paramount to understand the proper functioning of each system gives the space an innovative cohesiveness which will, in turn, make Palestra Green one of the most interesting and sought-out places at Penn and perhaps the city of Philadelphia.

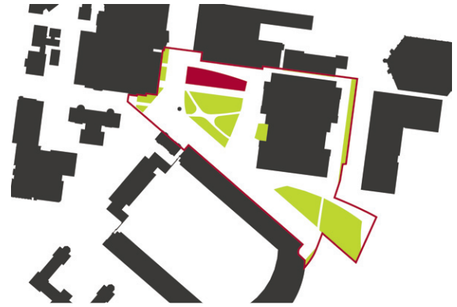


Figure 6.1
Modular Green Location

Figure 6.2
Palestra Canopy Location

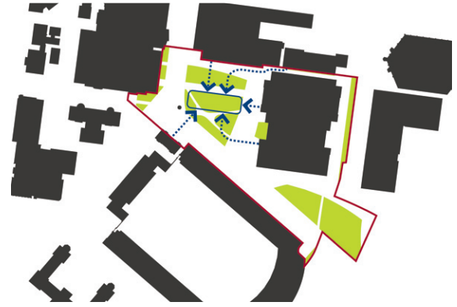


Figure 6.3
Precipitation Collection Location

Figure 6.4
Modular Green - In Position

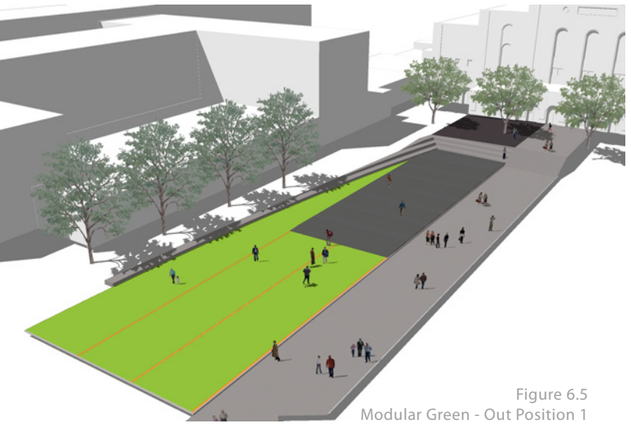


Figure 6.5
Modular Green - Out Position 1

Figure 6.6
Modular Green - Out Position 2

Modular Green:

A retractable & permeable hard surface

Palestra Green's Modular Green compromises for the site's dynamic program. This system, designed with the campus, events and civic programs in mind, accommodates the large crowds seen in numerous events at Penn while attempting to preserve the pristine nature of Palestra Green's proposed lawn. The most notable of these is the Penn Relays, held at Franklin Field.

Crowds of spectators, in upwards of 20,000 each year, flock to watch the Penn Relays and take in the associated Carnival held on the Palestra Green site. While this is a huge fiscal success for Penn athletics and for the university as a whole, it poses a serious threat to the legitimacy of Palestra Green's campus program. Crowds of this magnitude will search for "green" space, which they will find in some parts of the site, and trample the associated lawn over the course of five days in April. This trampling would require more lawn maintenance and university money to counter the issue. The Modular Green does not attempt to prevent spectators from congregating on the lawn but instead, minimize the density of the spectators on the lawn, which holds immense programmatic importance. The Modular Green system stretches crowds northward, over the northernmost section of the lawn in front of The Palestra, toward a large number of proposed vendor tents and carts associated with the Carnival.

Modular Green works by retraction. A reinforced concrete cavity, 40 feet long by 12 feet wide by 8 feet deep, holds the anodized aluminum retractable surface (40 feet long by 10 feet wide by 5 inches deep) under the northeasternmost terrace steps directly in front of The Palestra. This is the system's "in" position (Figure 6.4). When the system is in use, the retractable surface lifts out of the cavity and onto the lawn through a trap door, located under the bottom terrace. This action can be thought of like a giant, hydraulic PEZ dispenser. When retracted onto the lawn, each portion of the aluminum surface, holding a series of 4-inch ball bearings at regular intervals underneath, locks into place with one another. This locked surface fits into a core-ten steel track, 20 feet apart on-center, flush with the lawn surface. The steel track runs 200 feet—from the eastern edge of the lawn at the terrace steps to the western edge of the lawn near 33rd Street. Due to the irregular shape of the lawn, (designed with a slight arc at its northern edge), separate anodized aluminum portions fit into this space manually. When not in use, these portions may be stored in one of Franklin Field's numerous and expansive storage areas.

Once in its "out" position, Modular Green has the capacity to accommodate large events crowds without seriously damaging Palestra Green's main lawn (Figures 6.5 and 6.6).

The materiality of the Modular Green keeps with the university's existing use of anodized aluminum, seen most notably in the campus signage. This material is familiar, durable yet lightweight and is finished with non-slippage agents. Additionally, the anodized aluminum surface is perforated, allowing water to infiltrate the lawn underneath the surface and allowing some sunlight to reach the lawn. These factors keep the lawn alive when the system is out (Figure 6.7).

Figure 6.7
Modular Green - Section

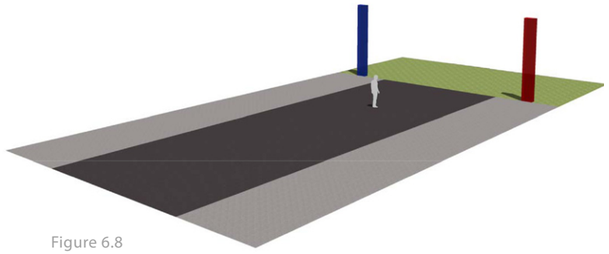


Figure 6.8
Palestra Canopy - Uninstalled

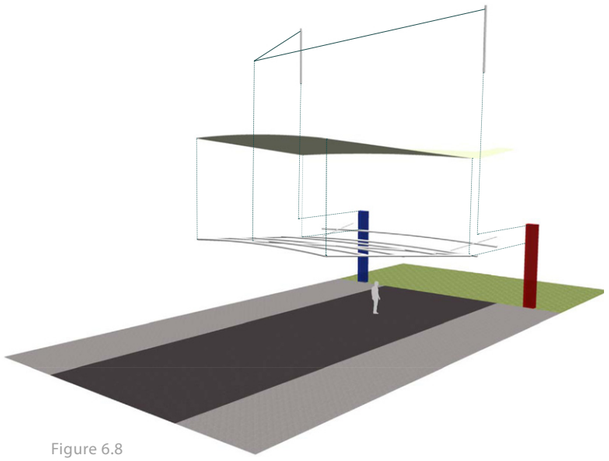


Figure 6.8
Palestra Canopy - Elements

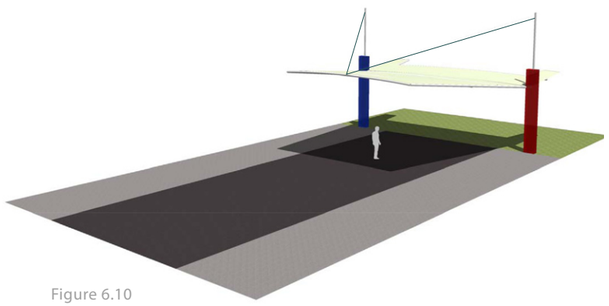


Figure 6.10
Palestra Canopy - Installed

Palestra Canopy

The Palestra Canopy, although more flexible in the frequency of its usage, is intended for use during large campus and civic events held at Palestra Green. The fabric canopy system is designed to eliminate all temporary vendor set-ups during the Penn Relays Carnival along Franklin Promenade and provide shade and protection from inclement weather. During the Carnival, vendors, such as Nike, Dunkin' Donuts, Oakley and the Army, advertise their brands and products and sell them to spectators. When fully booked, the Carnival houses over 20 apparel, merchandise and food vendors along with numerous portable toilets.

By consolidating up to 25 vendors under a unified canopy along the same stretch of walkway, the Palestra Canopy provides spectators and vendors alike with a more appropriate and familiar consumer atmosphere than is currently realized. This consolidation also opens walkway space throughout the rest of Palestra Green and places portable toilets at more desirable and functional locations throughout the site. Under the canopy, vendors may promote their products on tables set up specifically for this purpose. Although vendors must adhere to the Penn Relays Carnival marketing standards, they have the freedom to do so creatively within their designated area.

The canopy itself consists of engineered, durable and flexible fabric attached to a lightweight, tubular steel structural skeleton. Attached to the light columns located at the north datum of Franklin Promenade, the canopy cantilevers 30 feet (2/5 of the total width) over the Promenade and spans 40 horizontal feet in each portion (Figures 6.8-6.11). By designing the canopy to be modular (each section fits between the light columns), each section lends itself to easier maintenance, installation and storage.

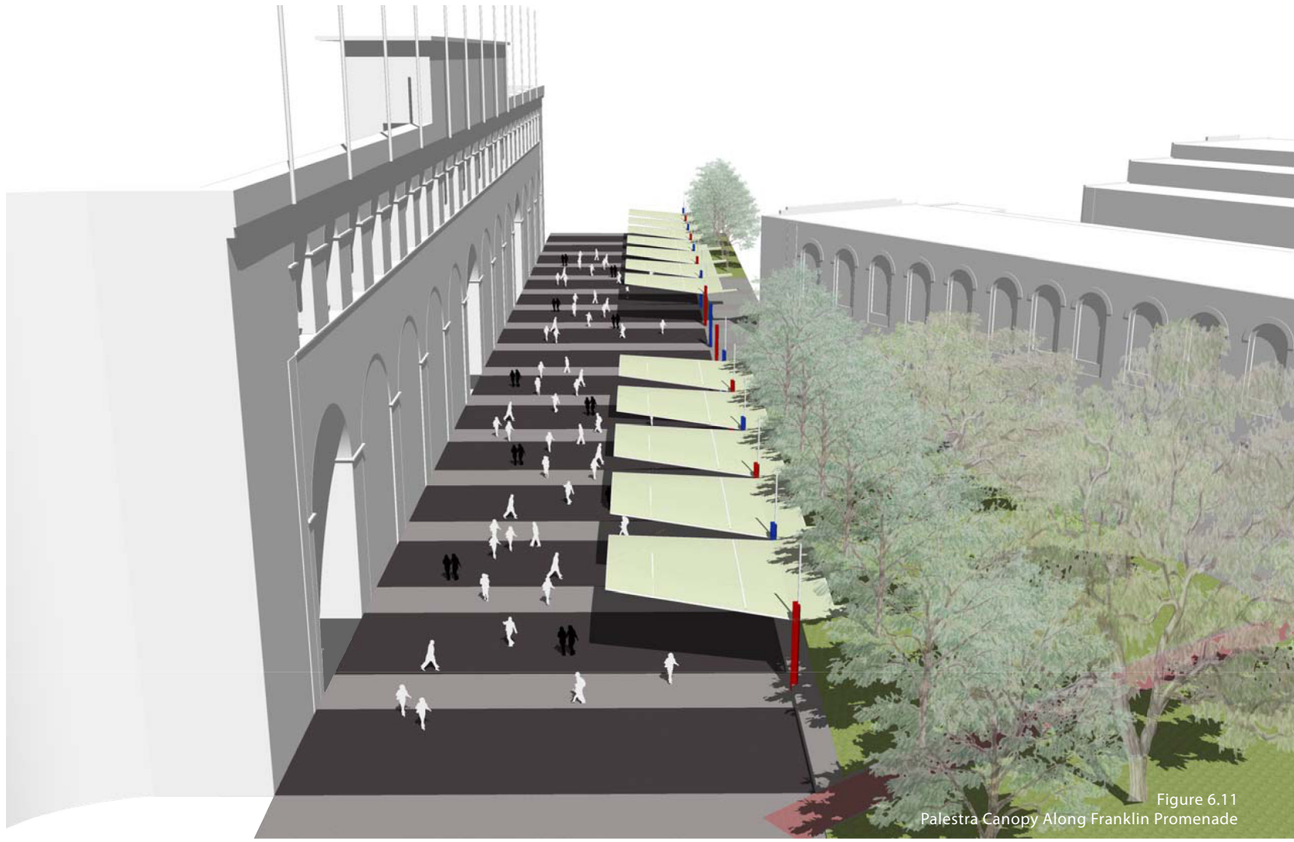


Figure 6.11
Palestra Canopy Along Franklin Promenade

Precipitation Collection:

A green roof system

Dynamism at Palestra Green attempts to contribute to the ongoing push for sustainability at Penn. The involvement of current Penn President, Amy Gutmann, in the American College and University Presidents Climate Commitment shows the immense importance of "[eliminating] global warming emissions" and educating the university's community on achieving "climate neutrality." Through the design and implementation of the Precipitation Collection system at Palestra Green, Penn will continue to show its charge to invest in innovative and sustainable systems.

The Precipitation Collection system seeks to increase permeability on those feasible and appropriate rooftops surrounding Palestra Green, decrease first-flush water volume and total volume of captured water on site, reuse collected water from rooftops for greywater (non-potable) purposes and contribute to the already acclaimed Penn green roof network.

Rooftops on the Rittenhouse Laboratory, 3216 Chancellor building, The Palestra and Hutchinson Gymnasium are redesigned to inhabit extensive green roofs. Each green roof section, planted with a colorful and textural variety of sedums, sedges and other drought-tolerant species, is three to six inches deep. Even in this short depth of soil medium, permeability on those roofs with planted surfaces increases to almost 100%. This means that instead of running directly off parapet roofs and into storm drains, water is allowed to permeate the green roof which inherently decreases the total volume of rooftop runoff (Figure 6.12). By implementing green roofs, the total volume of runoff from the roof surface decreases by as much as 336% (Appendix vi). Also, the total volume of city water used for toilet flushing in the adjacent buildings decreases by over 5,000,000 gallons per year.

When the volume of rooftop runoff exceeds the permeability of the green roofs, the water runs with the slope of the roof to collection locations. Once roof water collects on the Rittenhouse, 3216 Chancellor, Palestra, Hutchinson Gym and Dunning roofs, it travels through a series of pipes leading underground, through ultraviolet rainwater quality filters and eventually to a 500,000 gallon (68,840 cubic feet), reinforced concrete cistern centrally located under the lawn in front of The Palestra (Figure 6.13). To put the sheer size of the cistern into perspective, it is ¾ the size of an Olympic size pool.

Once in the cistern, the collected rainwater serves three functions: 1) greywater reuse for toilet flushing in each of the buildings where the water collects, 2) drip irrigation for planting beds and trees and 3) overflow to the existing storm sewer system at 33rd Street.

If used as greywater, the liquid is pumped out of the cistern. The power used to generate these pumps comes from a set of photovoltaic cells installed on top of the building connection between The Palestra and Hutchinson Gym. With a southern aspect, the cells are able to collect enough sunlight to power the periodically used pumps. User-controlled valves allow the university to decide how much water returns to the buildings for toilet flushing and how much goes to drip irrigation in the landscape. If a storm event is too large for the Precipitation Collection system, the excess water collected in the cistern is gravity fed to the existing storm sewer at 33rd Street. From here, water travels as it does on the existing site—down system to the Schuylkill River. Although not the optimal outcome for the collected water, this emergency overflow option is necessary and the water released into the sewer is "cleaner" than other water collected on the ground surface.

In theory, the collection of water from the site and reuse in adjacent buildings will significantly decrease the water bill for the university on this portion of campus. Maintenance of the rooftops must be higher than before, but potential benefits from the system easily outweigh those from the existing surfaces. In addition to fiscal benefits, Penn will receive numerous educational and marketing benefits by implementing the Precipitation Collection system. Penn already houses green roofs on campus at Hill Pavilion (Veterinary School), Koo Plaza (Huntsman Hall), Claire Fagin Hall courtyard (Nursing School), Kings Court English College House and The Radian apartment complex. The Palestra Green rooftop group will contribute greatly to the already strong green roof network on campus. Also, the Precipitation Collection system, as a large collection and reuse system, will become a precedent for other universities striving to achieve the excellence Penn knows well.

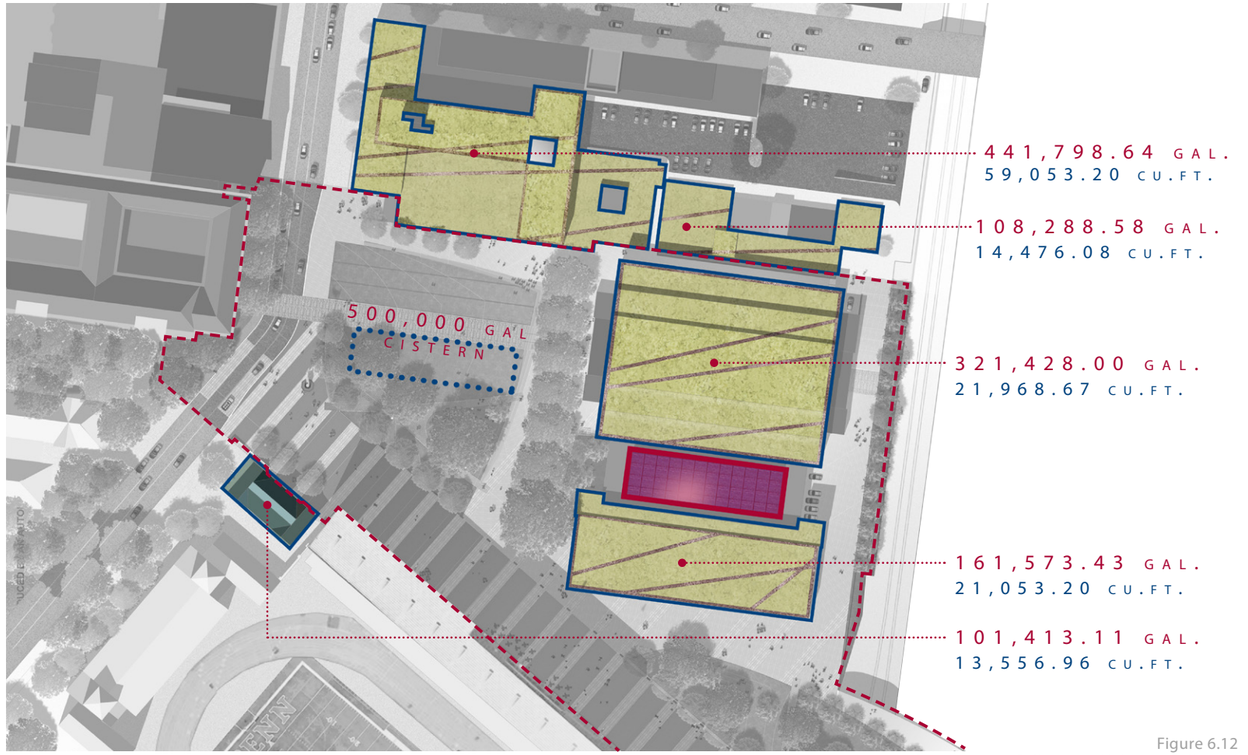


Figure 6.12
Precipitation Collection - Volumes Collected

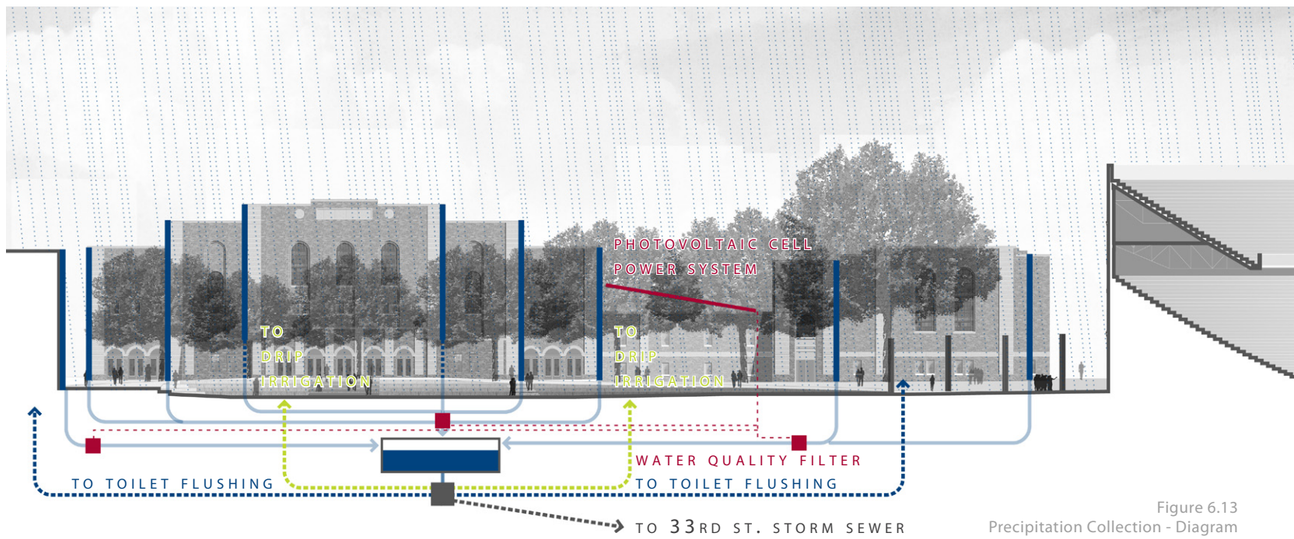


Figure 6.13
Precipitation Collection - Diagram

CHAPTER 7

The Future of Palestra Green

The successful future of Palestra Green hinges on numerous factors. Will the space blend in with the rest of campus to create a strong and seamless academic sense of place? Will spectators, students and those associated with the university take full advantage of the amenities of the space? Will the proposed systems be useful, wanted and utilized? Will this space, comprised of a hybrid of campus types, feel as though it belongs on campus? These questions regarding Palestra Green's program and systems lead to a discussion on the proposed design's longevity, implementation and what the University of Pennsylvania must do to make the project successful.

Each element and material specified in the plan works in tandem with others to create a place firmly grounded in every respect at Penn. The design of Palestra Green is not meant to be en vogue—an en vogue notion is not welcomed at this historic and important location at Penn. The implementation of the various Penn Types to create a hybrid space brings innovation, creativity and, most importantly, stylistic longevity to Palestra Green.

Project Life & Design Longevity

In any project, the use of robust materials is critical. All designed elements at Palestra Green—paving, planting, site furnishings and systems—are carefully and critically specified to ensure a long and worthwhile life-cycle. *Dynamism at Palestra Green* specifies strong, sustainable materials and elements from regional locations and suppliers to ensure the longevity of the design. Additionally, those materials used at Palestra Green are seen in various locations on Penn's campus. This notion is intentional; knitting the designed space together with others at Penn ensures an aesthetic connection throughout campus.

On Palestra Green's ground plane, five major materials are specified. The most prevalent of these is the concrete paver (Figures 7.1 and 7.2). The widespread implementation of modular paving systems brings a strong sense of the Plaza Type to Paletsra Green and provides the opportunity for use in various patterns, sizes and colors. The use of brick for cutting walkways and granite curbs throughout the space invokes a sense of the College Green Type (Figures 7.3-7.6). Furthermore, the brick's herringbone pattern and muted red hue, seen in many instances across campus, brings some color into the ground plane and makes a strong material connection to the brick architecture in and around the space. Dark, hexagonal asphalt pavers create a banding on the ground plane along Franklin Promenade (Figures 7.7 and 7.8). The width of the bands is taken directly from the façade of Franklin Field and translated onto the ground plane (approximately 25 feet wide). The use of bluestone as the major paving element on the entrance walkway to The Palestra hints at Penn's genius loci and grounds the space in regionalism (Figures 7.9 and 7.10).

The design of Palestra Green blends traditional campus elegance with deliberate geometric forms. This design offers much reclaimed green space, intended for passive and leisurely uses. Although the use of fertilizers, pesticides and regular maintenance of the lawns must be implemented, making the site "less sustainable" in the eyes of some, these expansive lawns offer many positive notes. With the amount of permeability at Palestra Green increasing dramatically with the implementation of the new design—from 12% to 42%—overall volumes of stormwater would drastically decrease, reducing the volume of water piped to the Schuylkill River. Additionally, the lawns bring displaced green space to the

Figure 7.1
Materials - Concrete Paver

Figure 7.2
Materials - Concrete Paver

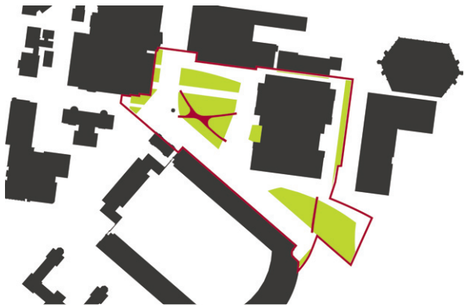


Figure 7.3
Materials - Brick

Figure 7.4
Materials - Brick

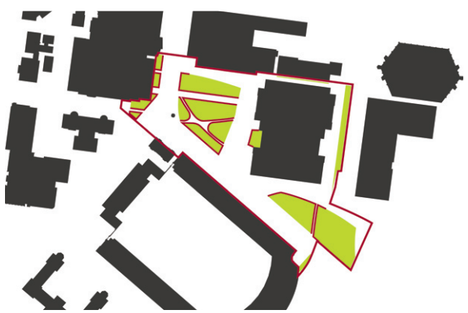


Figure 7.5
Materials - Granite

Figure 7.6
Materials - Granite

Figure 7.7
Materials - Asphalt Paver

Figure 7.8
Materials - Asphalt Paver

Figure 7.9
Materials - Bluestone

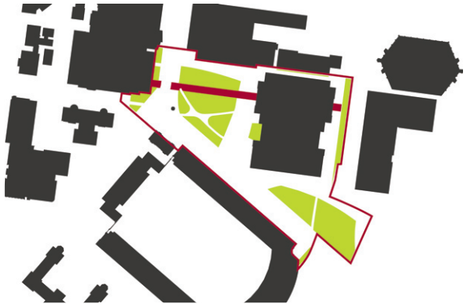


Figure 7.10
Materials - Bluestone

Figure 7.11
Materials - Poured Asphalt Paving

Figure 7.12
Materials - Poured Asphalt Paving

site from other construction and development projects scheduled for Penn in the future (http://www.pennconnects.upenn.edu/find_a_project/by_map/find_a_project_by_map.php).

The tree species at Palestra Green invoke the character and nature of the College Green Type. Sycamore, ironwood, tulip poplar and oak are planted in the lawns and at-grade planters in the paving at various locations throughout the space. Ornamental maples and dogwoods bring the tree plantings to a more human scale and offer a bit of seasonal color to the space.

All of Palestra Green's site furnishings—receptacles, signage and accent lighting—are found throughout campus.

Proper and regular maintenance of Palestra Green is vital to the success of the design. Coordination and investment in maintenance invariably comes from the top-down—University funding, Penn Facilities and Real Estate Services, Penn maintenance structure and workers. The University of Pennsylvania must invest in continual upkeep of the space for Palestra Green's three-fold program to thrive. This involves the regular repairs of lighting, designed elements and systems, the cleaning and proper use of paved areas, the regular trimming of the Palestra Green lawn and the general maintenance of the trees and planting elements. With the implementation of the Franklin Field Weight Training and Fitness Center retail area, shopkeepers must manage their own spaces along Franklin Promenade. This includes tables, chairs, receptacles and other transitional elements in the indoor-outdoor space. If maintenance of Palestra Green is a priority to the university and tenants of the space, a certain sense of ownership will flourish, making Palestra Green the important destination it is meant to be.

Phasing & Proposed Campus Initiatives

Although the implementation of Palestra Green is slated for one phase, other campus initiatives undoubtedly will affect both the monetary and long-term character of the space. The construction of Penn Park, the Franklin Field Weight Training and Fitness Center, the Hill Field College Houses and other projects in close proximity to Palestra Green are scheduled for completion within the next five to twenty years. During this period of construction, the university must ensure that programs, events and maintenance of Palestra Green remain a priority. This demonstrates the critical and important investment in the history of the adjacent architecture and the use of the space through time. Upon completion of these projects, Palestra Green likely will serve new purposes and functions within the programming structure laid out in *Dynamism at Palestra Green*. This natural evolution of the space is welcomed insofar as it remains a campus destination and is perceived as a successful place at Penn.

Figure 7.13
Palestra Green - Aerial

Figure 7.14
Palestra Green - Aerial

Postscript

A Letter

Son.

Greetings! I enjoyed our conversation the other day and thought more about the memorable time I had leading up to my graduation. I can remember how it hit me like a ton of bricks—as your mother and I were sitting, soggy in the upper deck, watching the 2031 Penn Relays—that in just a few more weeks we would be sitting down there on the field, receiving our hard-earned diplomas. That seems like just yesterday. It made me smile when you mentioned how you look forward to hurling your mortar board in front of 40,000 people because that's the exact moment that I knew my education, however difficult and cursed it was, was worth every hour put in. Enjoy that moment, you'll never forget it! I can remember seeing Old Ben dressed for graduation and those flags atop Franklin Field waving over the crowd. What a sight!

You are a privileged man, being in the 300th graduating class at Penn. It may take a lifetime to fully comprehend what that means. Think about it—you're living in one of the most coveted eras in the school's history. The President is your commencement speaker. And not just any President, a good one! I am looking very forward to hearing the speech. I'm sure the applause afterward will be the loudest thing that place has ever heard. The economy is ripe and you have all the tools to be abundantly successful.

I can't tell you how proud I am of you and the man you've become. You're ready for whatever comes your way. I'm looking forward to seeing you at the ceremony and afterward at Palestra Green. I can't think of a better place to be after the ceremony—those red and blue lights, the reception on the lawn, Center City as the backdrop. Say hi to your lady friend and tell her I'm looking forward to seeing her again. Your mother would be so proud of you.

See you in a few days!

Dad.

Glossary

activity – the kinetic use of a place that can be either intentional or unintentional.

campus – an educational setting usually described by academic buildings, functional circulatory landscapes, and places of active use.
circulation – the movement of any thing, but usually people, cars, etc…, in, around or through a place.
context – those physical elements or circumstances that surround and/or are in direct relation to a place.

delight – joy in the sense of landscape architecture, given by a place or a set of circumstances from a place.
differentiation – the change from one campus place to another; it can be seen in many forms including physical, social, ideological, etc…
DNA – the elemental basis of a place.
dynamic – having a plural set of traits/properties that move or change when it is related to time or other physical factors.

element – any constituent part of a landscape.

fabric – the make-up of a place considered to be a weaving of the local elements.
form – the physical nature of a place as it relates to spatial quality.

lens – the object one looks through when looking at a particular place/idea. It is confirmed that the lens in which one views a place/idea affects how that place/idea is perceived and understood.
local – relating to or the occupation of a particular place.

methodology – a palette of methods and rules that govern the direction of a ideology or project.
modernism – experimentation and fragmentation of the human experience, characterized by deviations from the societal status quo.

nature – the basic foundation of an outdoor place.
native – an element belonging to any particular region.

palette – a collection of elements into a common repertoire.
precedent – a relevant place in terms of design, concept and/or communication as it relates to one's current project. A precedent project may or may not have influence on one's ideas/views of the current project.
program – the active use and function of a space by any form of party or group of individuals.

region – a geographical area defined by any set of similar traits or values.
regionalism – theory that describes one's concept/design intentions by the application of local ideals, values, materials, techniques and/or any other set of local principles. This is seen as the antithesis of universalism.
robust – a landscape that is able to weather difficult elements, both natural and artificial.

style – the characteristic of a place defined by its physical and superphysical appearances or precepts.
synthesis – relating any set of values or information to a more defined system, altering the way one goes about thinking about the more defined system.

typology – a grouping of similar places based on any number of social, physical, economical and/or other values. Similar to a precedent in that it describes a place of reference.

universalism – theory that describes one's concept/design intentions by noting that a concept/design can be situated in any locale, context and time. This is seen as the antithesis of regionalism.

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Literature Review

University

The Campus Guide: University of Pennsylvania

Wynn Commons (Perelman Quadrangle) is considered the "second great space of the main campus" (p. 29) designed by Venturi, Scott Brown and Associates. It links spaces devoted to student life (Houson Hall, the first student union in the country, and College Hall, the administrative center of campus and the first building on the West Philadelphia campus – 1870-1873).

Excerpt from page 30:

> *If time permits, brief walks to the east and west offer additional Penn treasures. Smith Walk connects the central campus to the athletic precinct on the east and is headed by R. Tait McKenzie's seated figure of Professor of Chemistry and Provost Edgar Fahs Smith, who advised Edison of filaments for the light bulb and helped establish the field of electro-chemistry. Smith Walk is a quiet, old-fashioned design passing through the center of the School of engineering and Applied Sciences. To the north on 33rd Street is the Moore School of Electrical Engineering, which contains a small museum on the construction of the world's first electronic computer, ENIAC–completed in 1946 by Penn scientists J. Prosper Eckert and John W. Mauchly.*

Excerpt from page 31:

> *Locust Walk leads from the west side of the main campus to the university's Annenberg School of Communication and the Wharton School of Business and Finance. Locust Walk, created by closing Locust Street, is now the principle east-west axis of the university, linking the dormitories on the west with the academic center. As the main street of the campus, Locust Walk is the preferred location for student groups advertising performances and activities. It is at its most glorious on graduation day when Pennsylvania's red and blue colors are interspersed with the usual black academic robes. Along Locust Walk are several of the houses that once made fraternity row a male bastion. Most are now in general university use.*
>
> *At 37th Street another seated sculpture of Benjamin Franklin by George W. Lunden (1987) marks one of the entrances to the Wharton campus and forms an appropriate spot for a photograph. In the distance are the towers of the dormitory Quadrangle and further south the modern towers of Louis Kahn's masterpiece, the Richards Medical Research Buidling. To the west, Locust Walk is elevated on a bridge over 38th Street toward the modern complex of high-rise apartments that house many of Penn's undergraduates.*

While traversing the Penn campus, it is very helpful to refer to The Campus Guide: University of Pennsylvania. This text has and continues to provide insightful words on each of the campus landscapes, walks and architectural buildings and elements.

Building America's First University: A Historical and Architectural Guide to the University of Pennsylvania

Regarding Blanche Levy Park (College Green):

1977–Sir Peter Shepheard, Laurie Olin, Andropogon Associates.

> *The central campus is the chief monument to Provost Charles Janeway Stille, under whose leadership Penn moved to West Philadelphia from its Ninth Street site. After a century of expedient landscape design, Sir Peter Shepheard was given the task of transforming the old campus green into an appropriate setting for the core of the University. Working from the existing strengths of large trees and important buildings that served to set off their own zones, Shepeard knit together the major pedestrian walks in red brick and blue stone curbed with light-toned granite. Given its own identity from the name of its benefactor, Blanche Paley Levy, the campus green is now a significant and handsome landscape. A bronze plaque in front of the statue of Franklin commemorates her gift.*
>
> *The central campus is accented with numerous statues representing the University's history. On the axis in front of College Hall is John J. Boyle's aging and genial Benjamin Franklin (1899), which was originally designed to stand in front of the U.S. Post Office at Ninth Street. In the rear of College Hall is Karl Bitter's curiously pensive, seated and robed figure of Provost William Pepper (1895). Of the more recent sculpture acquisitions, the favorite is unquestionably Claes Oldenburg's Split Button (1981), in the small plaza in front of Van Pelt Library, which functions as both landmark and children's slide. It is joined on the east side of the campus by Alexander Calder's red steel, elephant-like Jerusalem Stabile (1979) in the brick courtyard between Furness and Meyerson Hall. To the north of Meyerson Hall is Tobin Friedenthal's geometrical minimalist piece Black Forest (1983). On*

the far side of the central campus is Tony Smith's black steel, ironic anti-triumphal portal entitled We Lost (1966). Adjacent to the south façade of the Dietrich wing of the library is David Lindquist's brushed stainless steel Peace Symbol (1967), a relic of the decade of student activism of the 1960's. Alexander Archipenko's King Solomon (1968) stands watch on the 36th Street walk, opposite the Hillel Foundation. Many of these modern pieces were acquired as a part of Philadelphia's requirement that 1 percent of the cost of projects in redevelopment areas go to art; other have been the gifts of generous donors.

Regarding Locust Walk:
1957–George Patton

The 1948 master plan envisioned the removal of many of the streets onf the campus and their replacement with tree-shaded walkways. The first to be closed was the 3600 block of Locust Street. With its patterned brick and stone pavement and bordering shade trees, the walk provided a look into the future for the campus. It is now the site of numerous sculptures and objects including the Lindemann Fountain, a granite basin with bronze dome by Delia Bentivoglio.

Regarding the Steinberg-Dietrich Hall pergola:
1982–Hanna/Olin Ltd.

The blank Locust Street façade [of Steinberg-Dietrich Hall] would have been even bleaker, had not the Campus Design Committee insisted on changes. The result is the wisteria-draped pergola based on Greene and Greene's California work, which landscape architects Robert Hanna and Laurie Olin skillfully inserted between the building and the pedestrian axis of the campus.

Regarding Shearson Lehman Hutton Quadrangle:
1991–Hanna/Olin Ltd.

The handsome green enlivens the interior spaces of the Wharton campus and provides a setting for the events of the surrounding Wharton School. The same designers were responsible for the adjacent Class of '62 Walk on the vacated 37th Street.

Regarding the Dormitory Quadrangles:
1892–Provost William Pepper solicits designs for Penn's first dormitories on the new campus site.

Two "young" members of the Penn Architecture faculty, Walter Cope and John Stewardson, were hired mostly because of their tremendous academic design abilities, at the time noted by their work at Bryn Mawr College.

Brick and limestone were chosen (rather than the gray stone used at Bryn Mawr and later at Princeton) by the architects because of their urban properties and uses and in the hopes that they would make the dormitories a lively urban space. They were right. Part of the joy of the quads are their multiple entrances through different and wonderful Palladian archways in the dormitory architecture. They offer an intriguing visual and spatial contrast to the urban fabric or West Philadelphia.

The architectural style of the dormitory complex is a mixture from the late middle ages to the early English Renaissance.

Regarding Biology Gardens:
1890–John Muirhead MacFarlane (Professor of Botany)

There are few more enchanting spots on the campus than the Biology Gardens at the rear of the Richards complex. They were located here to serve the original Biology Building, which stood on the Richards site on Hamilton Walk. As an adjunct to that program, a garden and greenhouses were constructed for the propagation of botanical specimens. Although the original regular grid of plantings has long since disappeared, the lily pond with its schools of goldfish remains, as do several historic tree specimens including an immense gingko, a balk cypress, and a sequoia.

Analysis

Prospects for a Critical Regionalism

One of the thoughts I enjoy from Frampton's essay is seen on page 1, "how to become modern and to return to sources…" In essence, his thoughts revolve around the very ethical question in landscape architecture of creating new, fresh (ideological) places while at the same time summoning history, knowledge and an acknowledgement of where one is (geography) to create those places. It should be impossible to consider creating new places without first looking back and seeing what has already been accomplished. So, what does one actually learn from history? What things does one apperceive that affect one's designs on the social and natural landscape? At what point do we terminate our assessment of history and pursue the future? "How much is too much?"

In terms of my Master's Project at Penn, I have found it can become very easy to blindly go about work without really knowing what the end result can and should be. The simple things in the landscape architect's life–reading, sketching, writing, thinking–are good to a point, but a synthesis and application to the goals of the project are the kinetic energy of the project.

According to Frampton the critical regionalism movement is much more important than the universalist movement in that the places we recognize as important to the history and betterment of architecture [and landscape architecture] are regionalist in style. Putting words in his mouth, we should accept the values of regionalism and do away with those of universalism—it is a better practice.

Let us think about the dilemma of the University of Pennsylvania, or any campus for that matter? What is a campus? A place, set apart from the rest of society to harbor higher education and produce an impressive quota of learners and citizens. So, if we think about the design of a campus, this place is, in essence, its own place, and in America, the university campus style is very discernable to both the trained and untrained eyes. Basically, the American campus has a universalist structure. How does regionalism fit into this equation? Obviously, we can tell one campus from the next in terms of things like materials, vegetation, architecture, layout and population, but how do we, and, more importantly, should we break apart these things to create a more "regional" campus. Do you see what I'm getting at? Should a campus in Kansas have the same style as a campus in Massachusetts or California or Hawaii? Values are different, so why is campus design not more different?

From Site Design

Allow me to pose a question: should this search for the correct criteria for landscape typologies on Penn's campus include landscape program? Here's an answer from Site Design: "Design begins in the programming, and programs are modified as design progresses." Lynch and Hack, p. 57.

According to this passage, "site design deals with three elements: the pattern of activity, the pattern of circulation, and the pattern of sensible form that supports them." Lynch and Hack, p. 57. From this definition, one can understand how these elements relate to all landscapes. So, how does this definition relate to landscape typologies? Each element could be a lens through which we look at landscapes. In looking through these lenses, we can begin to distinguish one physical place from another. All in all, these elements seem to hold up to scrutiny about the differentiation of places.

Design With Nature

The world is a glorious bounty...How can we reap this bounty?..
Every city has some testimony to perception, intelligence and art…

If, according to McHarg, "the country is not a remedy for the industrial city" but instead offers "surcease and some balm to the spirit," then what is the role of a university in the city? What role should a university play? Should it be considered a McHargian country or a completely different element? In one sense, the campus should be a release from the tense, urban atmosphere, even if the campus is considered "urban." Thinking about the etymology of the word campus, we can derive more than this being a place solely of release. The original meaning of the term and the place is a field or grove of trees used for educational meetings (thefreedictionary.com). But at a place like Penn, in the urban fabric of Philadelphia, the campus takes on another role—the civic and educational center

of the city which requires more than just a literal translation of the term campus. The place becomes complex and dynamic and, in an obvious way, has changed quite dramatically over time.

The answer at Penn is not to re-create nature in an urban setting—what good would that do? Why, it wouldn't be nature at all! Man would rear his ugly head and take control of it before the project was ever finished. You cannot re-create the Pennsylvania piedmont and pine barrens on 40 acres of prime institutional ground. Think about what nature is—the flora, the fauna, the smells, the sounds, the sights, the tastes, the textures. No, what needs to be done at the University of Pennsylvania is to create a usable place for humans to use, destroy, in some sense, and then bounce back from this destruction—in essence, a robust and recognizable landscape.

If one does not re-create nature, then what does one do? Well, my answer to that is use the regional values as described and prescribed by the greats Frampton and Olin to create a place that mimics the natural processes and all the senses one would find in 'nature' while at the same time serving the ever-changing needs of a university in an urban setting, keeping in mind that this site is one of importance to both the institution and the city—a connecting piece that will ever-change the relationship of both to one another.

Form, Meaning, and Expression

> *Words can describe physical forms, but they do not (or did not) originate them; nor can they perform operations upon them. One must be familiar with a repertoire of forms before one can use them or manipulate them. This includes the forms found in nature and the forms of art, our art and that of others—other media, other cultures, and other periods. In nature are all the forms. In our imagination is their discernments and abstraction.*
> *Laurie Olin, p. 77.*

It makes sense that the way we design—with forms, is nothing but a reuse, re-manipulation, or evolution of existing forms we have already seen, heard about, or experienced first-hand. We continually make new forms based on old forms and call them new forms. So, if this is true, how then can we transcend time back to the original form? What is the original form? Who made the first mark? So the talk, then, is about originality.

We cannot invent the elements that comprise our landscapes. But we can reuse them to create new landscapes of different 'typologies.' At Penn, we can learn from previous successes and failures on the campus landscape. Within this train of thought lie evaluative questions: Does the landscape add or detract from the overall campus type and setting? Does each landscape hold up to criticism from important university figures and students? Was/Is the landscape useful?

Regionalism and the Practice of Hanna/Olin Ltd.

Laurie makes a good start in this essay in talking about regions. Before one can discuss anything else, one must think of the text with an expository mindset; one must first understand the meaning of the words and the meaning of the text (in this case the word "Regionalism" in the title "Regionalism and the Practice of Hanna/Olin Ltd.") in order to apply the words and text to a larger subject. This term, region, is a must-use term as far as the literature review goes.

> *[One should] look backward and forward simultaneously: backward to land unspoiled by human settlement and a set of interrelated physiographic and ecological phenomena, and forward to a landscape of development and change.*
> *Laurie Olin, p. 248.*

Just as an architect cannot construct a building using only windows, a landscape architect cannot construct a landscape using only trees. The palette in both cases must expand to give the architect a set of elements to work with. In landscape architecture, these elements are plant material including trees and groundcovers and soils. I must say this—these two basic elements (plant material and soil) are the essentials in the whole of landscape architecture. All landscape architects use them, although only an intelligent few really know the ins-and-outs of how to use them well—in conjunction with one another. One might say, "but don't landscape architects use other elements, like art, or architecture, or walls, or lights?" I would reply to that person in this way: on the one hand, yes; these are elements landscape architects place. These are elements that, when used with the 'essentials' and with one another, create places people enjoy and want to take ownership in. But, on the other hand, when you really begin to think about it, these are nothing more than extracurricular elements. We might think we need them in order to create a place, and some places on earth may even require they be in existence in the landscape, but they are not crucial to the survival or enjoyment of a place. Think of the places you love in nature. Are they filled with recycling receptacles and light poles? Are there luxurious and expensive pieces of human-created art scattered throughout nature? I think not. A most elemental landscape is nothing more than a human intervention on nature. And for that intervention to be successful, one must consider the two basic elements: plant material and soil.

In order to successfully implement plant material and soil in a landscape, one must be innately sensitive to the region one is in. Because plants and soils react differently in different locales, one must be sure the plant he/she is planting and the soil one is using is the correct one for that particular place and time. Now, I say "time" because the landscape changes or evolves over time. This change can be either natural or synthetic.

Excerpt from p. 253.

> *The projects referred to above display a marked absence of low volume of rhetoric with little or no persuasion beyond that of "being there." Whatever argument they contain, it is not so much about regionalism (their place in a particular region is assumed), these projects are more concerned about the relationships between public and private realms and the creation of socially useful and aesthetically rewarding spaces. As these examples may indicate, it is hard to limit landscape design to matters of planting indigenous, or even native, species. To understand and operate effectively, regardless of point of view, one must also consider purely cultural elements. Certainly as one shifts the focus of consideration and work from rural, suburban and small town settings to more urban ones, the cultural, built artifacts become more strident and dominant than vegetation. (This is not to say that vegetation is no longer important, in some senses it becomes even more so, for all of its scarcity.) In the context of cities, the devices that give particularity, place, and regional character range from the general urban structure, streets, squares, and building types, with the particular dimensions, scale, and grain of the parcels and block sizes (200'x200' in Portland, Oregon to the 300'x600' east-west oriented blocks of Midtown Manhattan) to the habits of public infrastructure, street furnishings, selection of building materials, and architectural styles that predominated when particular districts and significant public institutions were built. These many separate and interrelated variables combine to form urban ensembles that are unique and memorable.*

This last sentence, "These many separate and interrelated variables combine to form urban ensembles that are unique and memorable," tells what I feel is the 'final story' when it comes to thinking about regionalism. In our search for regionalism, what do we really want to find? I think the answer is exactly what Olin points out here—unique and memorable places. What makes Manhattan, Kansas different than Manhattan, New York? One might say, "everything," and he/she is right! The search for regionalism is the search for the singular. And the places we come to love the most are the most unique places—the places that nowhere else could ever be. And sometimes, when one place has been copied and pasted in another location, it is not the pasted copy we call the best, it is the source that is the best. Now when I say "best" I only mean the most unique, the most like the original because, in this case, the "best" is the original. One can think of this in terms of cultural districts in large American cities. San Francisco's Chinatown, although possibly the best representation of Chinese culture (including dress, language, cuisine, education, etc.) in America, is still only a fraction of the real China. One can also think about it in terms of art. The Impressionist, Claude Monet, has been subject to much re-creation because of his beloved style and point of view. But none of these re-creations is the real Monet. No print of Water Lilies could ever really be considered the actual Water Lilies.

So, how is the University of Pennsylvania different? What makes this place so singular? Yes, Penn is a collegiate campus full of places similar to that of other campuses across the globe, but what makes Penn different is the context of the university in the city fabric of Philadelphia, the shapes and scales of the landscapes, the evidence of previous vehicular systems in the boundaries of the university that are now pedestrian walks, the attitudes of the

people at Penn and the way people treat the campus. Each of these things describes only the University of Pennsylvania. Penn is a unique place and whatever the concept of the new design of Palestra Green should be, it should match the existing singularity of the campus as a whole.

How does one stick to regionalism in one's work? Can one really create what Olin calls genius loci? Is it possible to create a place solely for what it is without pushing one's own perceptual agenda? It is possible to create a new piece of urban design in Philadelphia without taking or using precedent ideas from other places? It becomes more and more evident the more one dives into these questions that regardless of the answer to this last question, one must 'know' a place.

Excerpt from p. 265.

> *Several issues have been raised by the forgoing that should be considered directly:*
>
> *Given the roles of the owner, builder, and designer and the nature of practice and the landscape industry today, what effect do these have upon regionalism, if any?*
>
> *Having worked in urban, suburban, and rural situations, can one draw any conclusion from this? Are there differences that result from the nature of place, clients, or projects? Do any lend themselves to considerations of regionalism more or less, etc.?*
>
> *What is the degree of influence exerted by earlier designers and their work? Does it help or hinder?*
>
> *Despite a generally accepted belief that there are several different and distinct regions in the United States, could one see the whole of America as a region in much the same way that France and England have come to be. What is the relationship between regionalism and nationalism?*
>
> *Despite my attempt to discuss our work in terms of the conference theme regionalism, are not many of the things that have been presented more properly local and place specific as much or more so than they are truly regional?*
>
> *Finally, one should consider Henry James' three questions: What was the author trying to do? How well did he succeed? Was it worth it?*

"Artifice lies at the heart of design."
Laurie Olin, p. 266.

> *"We have a strong urge to build and would rather make mistakes and produce flawed experiments than merely talk about things."*
> *Laurie Olin, p. 269.*

The discussion is about identity.

Ecology, Community, and Delight

> *We have in this country at last reached a point when seemliness as an objective is no longer enough; we can and should make landscape as meaningful as painting.*
> *Geoffrey Jellicoe, 1961*

To me, this raises the question, 'What makes landscapes so appealing?' Is it a conscious effort on the design of the place from the landscape architect, is it the user's conscious effort of using the space for what it's meant (or not meant) to be? Or, is there some kind of subconscious that appeals to each one in a different way—an inner mind meandering to and fro without the body and brain knowing what it is doing? Is this even possible? According to Thompson,

> *Jellicoe does not merely suggest that sometimes when landscape design achieves the status of art, such communication of subconscious contents occurs. It is clear that Jellicoe thinks that in successful art, it must always occur; in other words he regards such communication as a necessary condition for making landscape designs that are to be considered as art.*

What are your thoughts on landscape as art? We can assume we know the definition of a landscape—what we need to know is what is art. What if we take Leo Tolstoy's definition of art—an object is considered a work of art if, and only if, it causes its audience to experience feelings, its creator intended it to do so, and its creator lives through the experience so aroused. Should a campus landscape be one of artistic fashion?

Thompson's thoughts on the impact of modernism on landscape architecture are very intriguing. On page 96 he discusses the role of new material, particularly, as one of the most modern of agents to a landscape. What is the role of such modern materials at a university that strives to be cutting edge in everything it does, while at the same time looking back to its rich history and considering what made the university what it is today. Also, Thompson sees the role of function in design and philosophy as an indicator of modernism. He argues functionality of space is now a more considered element than ever—before it was about beauty and aesthetics. What is the merit of this? According to Thompson, it's a positive contribution—the most positive.

> *Function implies purpose, but objects only have the purposes that people assign to them. Ian Thompson, Page 98*

Just as a knife has more purpose than solely cutting, a tree has more purpose than solely providing shade. I would venture to say all elements have more than one purpose—there is ambiguity in everything. So, if there is ambiguity in everything, where is the truth? What elements have only one purpose? What is the role of these elements in landscape architecture—space making? What are the general qualities of these elements? Why do people enjoy/not enjoy them?

One question I have been persistently asking myself is, "what is the role of sustainability in this whole matter?" Current landscape practices blindly encourage sustainability and the subject is now considered one of the guiding principles of our profession. I am not so sure it should be this way.

Clearly, sustainability is a noble practice. Clearly, sustainability solves many problems regarding the design, ecology and social impact of a place. My issue with sustainability (along with almost every practice of landscape architecture) is we promote it without really understanding its role in our projects. Another concern I have is if we set sustainability up as a primary guiding principle in what we do, the end all of landscape architecture, we are completely missing the point of our profession. It becomes a redundancy. Think about it, our profession, landscape architecture, is (in part) about the land, therefore, all we do should be considered sustainable and good for the environment and people. The reason why a few respected landscape architecture professionals have pushed it to the top of the mountain is they have either created or seen places that aren't sustainable—in essence, bad, dysfunctional, embarrassing pieces of landscape architecture. They have the right instinct. These places aren't what landscape architecture should be—but they are completely blinded by the glare of the sustainability light and they can't see the other issues providing light to the subject. If we focus solely on the yellow line in the middle of the road we will miss the scenery, the context, the conversation, all the other parts of the journey.

I want to understand sustainability's proper role in my design for Palestra Green and Penn Park. It must play a role. What incentives will the City of Philadelphia grant Penn for implementing green strategies in their new developments? How can Penn's implementation of green strategies be a precedent for other universities and cities across America and the globe? How will green strategies affect student life? How will I harbor social sustainability in the Palestra Green project?

Experiential Landscapes: An Approach to People, Place, and Space

It is apparent that when we think about places we personally enjoy, there is always more to the enjoyment than just physical design. We enjoy the way the trees move in the wind, the way the place makes us feel. People use the designed environment to fit the way they want to live. Enjoying a place involves the subconscious.

Spatial Awareness.

Can one quantify landscapes? Who is qualified to do such a thing? Experts? Novices? How do we quantify places? They are different to everyone. But the dilemma is this: we want to quantify the differences and similarities of places on Penn's campus, so we must figure out how to do this. A tall order. But, since all the places we are looking at and differentiating are within walking distance of one another, on the same campus, are experienced by the same kinds of people, then we can make more generalized assumptions on the subconscious and interpersonal realms and focus more intently on the physical design of the spaces, themselves. We, by no means, say that we are ignoring the existence of the superphysical world of landscape architecture, but we acknowledge its role in quantifying landscapes at Penn is irrelevant to the proper and timely study of the campus landscape typologies.

Design

Bridge: The Architecture of Connection

If I wanted to look for bridge precedents, why would I look to the work of Calatrava? He is a great structural thinker and the aesthetic of his bridges is truly a work of art, but why would I turn to him first as the driving force behind the bridge that will someday span the Schuylkill from Penn to Center City?

What is the concept of the bridge at Penn? Fear and adventure—the ideas behind rope footbridges? No, that is not the point of this bridge. Joy through social connection? That may be, but I feel there is more. "Stability, reliability and security" as mentioned on page 82)? These may be getting at the bigger picture which, to me, is more than the architectural meaning of each of these words.

Stability may be seen as an economic driver of such a bridge. The bridge at Penn could create a form of stability seen in the movement of people—students and faculty and visitors—from Center City. Currently, people wanting to travel to Penn from Center City must either take the unfriendly vehicular bridges at Market, Chestnut, Walnut, or South Streets. Each of these 'bridges' is little more than a footpath for people and is not a friendly, accommodating, enjoyable experience. Noise, air, safety, aesthetic—all negative issues with each of these bridges. My suggestion is to make a sole pedestrian bridge which would not only solve these issues through more than just separating the circulation patterns, but would be a beacon of hope, ingenuity and togetherness to the entire world. Stability also can be in terms of the economics of Center City and Penn through the bridge. At this point, I am unsure about the details of this thinking, but I plan to explore the meaning of this in the future.

Reliability means Penn can rely on Center City to provide expertise, growth, a learning environment and human connection through the bridge. The bridge is a metaphor yet is very literal. Reliability means Center City can rely on Penn for educational fame and betterment, a consistent source of economic and political growth and a source of academic and athletic pride. The bridge is a support and conduit.

Security is the way humans see the Bridge. The Bridge is a connective source people know will be present no matter what, like the mailman. There is most definitely an "absolute strength" which the Bridge provides, both structurally and metaphorically. The security factor is the all-encompassing factor—it holds the stability and reliability factors together. It is the bond. The bridge should be fascinating! It is the wondrous connector of the here and there.

Building a bridge is, in my opinion, a symbolic gesture, linked with the needs of the people crossing and the surmounting of an obstacle. Modern bridges can also be works of art—helping to shape our daily lives and becoming vital for all to use and experience. I am still wrestling (and will probably always wrestle) with what the form of the bridge should ultimately be. But the majority of me, now, wants the bridge to be a place, not just a connection. Something of programmed importance should happen on the bridge—orchestra, athletics, retail. There should be something there.

There can be little doubt that in many ways the story of bridge building is the story of civilization. By it, we can readily measure an important part of people's progress.
Franklin D. Roosevelt

Sometimes if you stand on a bridge and lean over to watch the river slipping away beneath you, you will suddenly know everything there is to know." Pooh's Little Instruction Book

"Politicians are the same all over. They promise to build a bridge where there is no river.
Nikita Khrushchev

People are lonely because they build walls instead of bridges.
Joseph F. Newton

The death of a man is one of us; the death of a bridge is all of us forever.
Slavenka Drakulic

The most beautiful bridge in the world…so pure, so resolute, so regular that here, finally, steel architecture seems to laugh.
Le Corbusier about the George Washington Bridge in NYC

We are told never to cross a bridge until we come to it, but this world is owned by men who have 'crossed bridges' in their imagination far ahead of the crowd.
Anonymous

The view to Center City is paramount. The view down to the Schuylkill is very important. The visual connection to Penn and Center City is paramount. The presence of excitement and social electricity is paramount. Safety and security is paramount. Connection back to the "concept" of Philadelphia is paramount. This place must be unprecedented.

Penn Connects: A Vision for the Future

Goals of Penn Connects are put forward by the principles of the Penn Compact:

1. Increase access to education
2. Integration of knowledge from different disciplines and professional perspectives in research and teaching
3. Engagement at a local and global level to advance the central values of democracy: Life, Liberty, Opportunity and Mutual Respect

Establish "bridges:"

- Living/Learning Bridge
- Sports/Recreation Bridge
- Cultural/Health Sciences Bridge
- Research Bridge
- Lower 31st Street Corridor

Key public parklands and green spaces:

- Palestra Green
- Franklin Plaza and Promenade
- Sports and recreation fields
- Museum Plaza

…a new open space providing passive recreation opportunities, a gather space for use during major events and a foreground landscape for the iconic west façade of the Palestra.

Franklin Plaza, a new public gathering space, is located between Franklin Field and the Hutchinson Gym…[it] is envisioned as a linkage space, a space for daily recreational use and a gathering space for major sporting events.
Palestra Green *and Franklin Field Promenade according to Penn Connects.*

Penn Park is serviced by new on-campus housing on the Hill Field. This is slated to become a reality in the next ten years.

It seems as though the emphasis Penn Connects puts on the importance and visual connection to Franklin Field is negated severely by the elevated sports facilities as seen in the plan.

Sustainable Landscape Construction

On this master's project site, there are many opportunities to design a beautiful, usable university and civic space, but how one does this while respecting the hydrology of the site is critical. Because the Schuylkill River is so close to the site and the proposed connections to Center City span this tidal river, one must understand how the river affects the flow of the site. Also, questions arise in my mind about the historic flow of the Schuylkill, its tributaries, and its adjacent creeks, as well as the current general hydrology of West Philadelphia and the University of Pennsylvania.

Obviously, in places and programs like the proposed Palestra Green and Penn Park there is no room for a large detention or retention basin—space is limited and necessary for means other than water-holding. Wonderful questions are asked in this book about the role of water in projects and project analysis—"Does on-site runoff move in sheets, or in channels? Are surfaces hard or porous, and where does water spill from one kind of surface to another? Where does standing water accumulate, and why? How are standing and moving water linked? Regionally, what are the shapes of river systems? Do they branch like trees at acute angles, or make sudden right-angle changes in direction? Large-scale patterns often indicate that geology is shaping the drainage, making it hard to construct new channels 'against the grain.'"

It is possible to implement stormwater systems that recycle collected water and use it for fountains. These fountains could somehow clean the water and make it interact-able.

What's the possibility of installing green roofs on the surrounding buildings (Palestra Green and Penn Park)? What about the possibility of installing new planters/trees/planting material to the upper deck of Franklin Field? What would this do for the university? For the evolution of green roofs and university sustainability efforts?

Campus: An American Planning Tradition

Excerpt from page 223.

> *…Cope & Stewardson designed a group of dormitories for the University of Pennsylvania, which in 1872 had moved from its old location in Philadelphia to a site that was farther from the center of the city but still largely urban in character. Here, the architects used their new device of linear construction to create fully enclosed quadrangles. But their approach was very different from that of a Beaux-Arts architect, for they made no attempt to create symmetry or axes. Instead, they took advantage of the awkwardly angled site to create a picturesque progression of irregular spaces and forms—which Cram in 1904 praised as being "altogether wonderful in mass and in composition.*

Other

CMYK: Inspiring Visual Communication

Perhaps no other design magazine has inspired me to pursue the book design and layout of my master's project like CMYK. Each page is laid-out so well, and differently! It is interesting to see so many ways of creating content in a magazine based on solely design (as opposed to written content or images). CMYK prides itself on representing the student design culture in North America. In each issue, about half of the content is comprised of student art from across the US and Canada. One other thing I have taken from the magazine is the concept of captions and their relationship to an image. The magazine also has a slew of interesting advertisements.

Grid Systems

Kimberly Elam's book has taught me much about the layout and design of books and has brought me back to my design roots in school. How often we forget what we learned in those elementary college years about design—principles, elements, do's and don'ts. Why should we not apply those design principles to a book's design and layout? These simple design elements are the crucial foundation to any layout.

Genes and Chromosomes

It may seem strange to see Genes and Chromosomes among the pieces of literature in this review, but there is an important facet to this master's project which requires the general study of genetics. According to University of Pennsylvania Architect, David Hollenberg, the design of this master's project should contain the "DNA" of other landscapes on Penn's campus. So, in order to fully understand how to design the master's project at Palestra Green, one must understand what the landscape properties are, the genetic make-up if you will, of these precedent areas of campus.

By comparing certain aspects of genetics to their landscape counterparts, a "genetic view of landscapes" is formed. This view is useful in exploring the exact make-up of landscapes, their elements, the behavioral patterns produced by the physical make-up of the place and the overall success of a created landscape as it relates to physical and social issues.

Genes:
- Are made of DNA and RNA
- Have a sequence that can determine proteins
- Can be regulated by the products of other genes
- Are accurately replicated
- Can mutate or change their sequence

Landscapes:
- Are made of natural and artificial elements
- Have a vocabulary and designed nature that can determine space and form
- Can be programmed or un-programmed, having single and sometimes multiple uses
- Are natural succession
- Can mutate or change its uses

One can map DNA and genetic material, can one map landscapes and their physical properties?

DNA controls the entire human, whereas a landscape only controls humans insofar as use types—humans may still convert existing use types to match their ideas on what a space should be.

In genetics, each of the four bases (adenine, cytosine, guanine and thymine) are paired with only one specific other base—adenine is paired with thymine, cytosine with guanine. "Right at the heart of the process of reproduction in organisms lies the ability of both chains of the DNA molecule to act as templates or moulds for others, because of the specificity of the A-T and C-G pairings" (p. 7). Each base pairing is held together by hydrogen bonds, the transitional structure from base to base. Also, "the order of the four bases is unique for any one gene" (p. 6). The appearance, make-up, structure, nature of the product, being, thing is described completely by the order of these bases.

This process can be related directly to the created landscape—discovering the make-up of the place.

In created landscapes, each of the four bases (vegetation, paving, use and site elements) are individual elements that can be mixed, matched, paired, or grouped in any number of forms. Unlike genetics, one base does not have to be paired to only one other base, but the dynamic qualities of landscape architecture call for a thoughtful design of place based on the collaboration of each of the bases. The pairings or individuality of the bases make up the physical form and arrangement of the space—the genetic code. The appearance, make-up, structure, nature of the product, being, thing is described completely by the order of these bases. As far as bonding and transitional structure, the created landscape is held together by the arrangement and structure of each base in relationship to one another—there are no other forms that hold the space together in the physical sense, it is vision and the processing of visual information in the brain that creates the sense of physical connectivity from base to base, place to place.

American Earth: Environmental Writing Since Thoreau

American Earth is a conglomeration of ideas, ideals, sources, transcripts and overall thoughts on one common theme, nature/the environment. There arise two problems in my mind when I reflect on this book: 1. living environmentally is not the most important article of the human agenda, it is too specific, 2. the environmental education of the young generations is of extreme importance to the well-being of the Earth, as we know it.

The first problem—living environmentally is a lifestyle that should be sought and praised by the whole of humankind. Conservation, preservation, thoughtful planning and humility are all principles that, when taken into account, not only preserve and create new and good environments on earth, but also "secure the Blessings of Liberty to ourselves and our Posterity" (U.S. Constitution, Preamble, 1776). The issue with the first problem is not that it is a wrong precept (living environmentally); it is that it is too focused on the single-most important aspect of life, living. And, according to our own constitution, written by our insightful forefathers who knew the true foundation of life, our lives as humans should be for living for ourselves and all those who come after us in the dimension we call 'time.'

Now, we can very easily get caught up in three of the words I just mentioned, "living for ourselves." It is very easy to do what we want to do, sometimes it is good and other times it is not. But this is why I bring up the talk of humility. When life is lived in a humble sense, that is, a thoughtful and considerate sense, all things become important and full of meaning, i.e. the environment, humankind, the betterment of societies. Now I do acknowledge some people's focus is, and should be, on one aspect over another, but a grounding in the principle of humility will ensure the proper checks and balances of thinking when it comes to the importance of one to another.

The second problem—in the talk of our "Posterity," there is the natural and obvious focus on our children. I am sure, coming from a home that valued my survival and knowledge of this earth and all that is in it, when we begin to think of our children and their advancement in society and as people, we will place extreme value on their education. This education will come from us and from other sources. Their ideals will be shaped by this education. So, when thinking about our environment, it is very important to teach them the proper way of treating and cultivating the environment—stewardship. This proper education of environmental ideals will ensure the true treatment, cultivation, preservation, conservation, etc. of the world we live in.

In conclusion, one must ask oneself a group of important questions regarding the environment and humankind: Nature and living "environmentally" are important, but aren't people the most important thing? Why is the environment considered more important than people? Why are people considered more important than the environment? "Academics" (in America) is about furthering the human spirit through learning, educating and industrialization of people. Why not teach stewardship in the whole of academics? Wouldn't this solve both problems?

Print: Design Culture Type

Print is a striking publication. The August 2008 issue is packed full of great typography, design and layout articles, and it's also a great source if one wants to find other design resources on the web. An article on page 102 highlights one of the books that has very much affected the way I think about wayfinding and how it relates to landscape architecture. Chris Calori's book, Signage and Wayfinding Deign: A Complete Guide to Creating Environmental Graphic Design Systems is a great resource for all landscape architects—each page is not only laid-out very well, but the content is superb. This is a very informative book in a very informative and intriguing design magazine that has taught me much about the art of graphic design.

World Changing: A User's Guide for the 21st Century

Page 232.

"Demand Green Building" says the book. Demand that all new building initiatives, whether they be whole cities, whole blocks, whole landscapes, or whole interiors, be to the highest possible green standards. Those standards may be different in different places, but doing it the right way will ensure all building is green. If there is opportunity to capitalize on grants, incentives, or other initiatives, do it. Also, in regards to the Palestra Green and Penn Park projects, see if you can't capitalize on green roof building, especially when it comes to the design and layout of the Penn Park recreation spacees.

Page 389.

How does Penn become recognized in the world as an environmental leader?

Step: Inside Design

I very much enjoy glancing through design magazines. Step is one of my favorites. It's a tremendous resource for general graphics, layout and especially typography. In the issue I am citing here, I am particularly keen on the layout of 40 Yale School of Architecture posters. The first two sentences of the article are captivating, "Imagine working on variations of virtually the same project over and over for a decade. Could you come up with something new and exciting each time?" The thought of creating visually stimulating graphics while following a strict set of laws about what and what not to do is the main issue regarding any society—here it is applied in a design sense. It is an inspiring piece of work and one that, in my mind, should be cited and respected by all design institutions (especially architecture schools) in regards to graphic design and the conveyance of what is usually considered general, mundane information.

Appendix

{ 122 } i - Design Process & Conceptual Framework
{ 123 } ii - Goals & Intentions
{ 126 } iii - Penn in the 21st Century
{ 127 } iv - Campus Development Plan
{ 128 } v - Penn Connects
{ 129 } vi - Rooftop Runoff Volumes

i - Design Process & Conceptual Framework

In the large scale, the design methodology for Palestra Green is comprised of two parts that are then broken into sub-stages, four in total. The two parts are *Assessment* and *Communication*. Each of these four sub-stages involves dynamic thought and function and must be viewed and applied sequentially. The sequential nature is essential to the efficiency and viability of the methodology. It should be noted, however, that the third step in the series may recycle itself, as will be discussed below. Also, it is critical to understand that this methodology is significant to and appropriate at every scale—it may communicate the project as a whole or a small part of any project decision.

Stage 1 – Assessment: Gather Relevant Base Information

This design methodology begins with gathering base information. Base information may include literature, drawings, audio, visual and/or any other tangible file or format. After all base information is gathered, it is filtered using the very philosophy (values + theories) of the user into essentially two categories, Relevant and Irrelevant. The user must decide, based on his/her own instinct, as to whether the information gathered will be labeled one or the other. The Relevant information will move on to stage two. The Irrelevant information will be discarded and will play no role in shaping the decision/project.

Stage 2 – Assessment: Categorize Base Information

After information is labeled as Relevant to the decision/project, it must be categorized. This involves assessing the information and grouping it with other comparable information. The number of categories will depend on user evaluation and is subject to change from situation to situation. For the use of the methodology as a model for the Master's Project as a whole, four categories are defined and can be seen in the diagram to the right—University, Analysis, Design and Other. Within each category are the individual bits of categorized information.

Stage 3 – Assessment: Assign Values & Application

When all information is categorized, each bit of information is given a value. This value is based on the absolute worth of the information when decision-making. In the diagram, four dots represent the value assigned to each bit with the lighter colors symbolizing a low-value and the darker colors symbolizing a high-value. After all bits are given value and held in information banks within their categories, they are used, as a whole, to define the Goals and Intentions of the project. It must be noted, at this point in the methodology that whether applied to the small or large scale, the final goal or outcome may already be somewhat known, but the definition of the final Goals and Intentions will be shaped and completely defined by the value-given bits of information discussed in this stage.

When the Goals and Intentions are defined (Project, Design and Personal are the goal categories for *Link:* Palestra Green), they help form the actual parameters of the project, along with the bits of information, themselves. As the bits are applied to the project, the project is applied to the bits, creating a circulatory system that extracts the total worth of the bits and their synthesis to the project. This cycle may go on as long as necessary. Once all information is applied to the project in an effective manner (as defined by the user) the project may move on to the final stage or be recycled through the entire system again, if any information is deemed irrelevant.

Stage 4 – Communication: Palestra Green

The final stage in the Design Methodology is the communication stage. It is at this point all synthesized information shall be communicated, whether by writing, diagramming, rendering or any other effective means of communication. The Goals and Intentions defined in Stage 3 shall be referred to at all times in this stage. This will ultimately ensure the proper communication of the project as defined by the user. As a final check step in this stage—once all communication is finalized, all created and communicated information will be run through the goals to once again ensure the proper communication of the project.

ii - Goals & Intentions

1. Project Goals & Intentions

Within the Palestra Green project lie a set of important objectives that will guide all project efforts. The Project Goals and Intentions are the large-scale goals which will inform all other project goals.

1. Create an end product that pushes the bounds of modern campus design
- a. Content
  - i. Context
  - ii. Design
  - iii. Sustainability
  - iv. Theory
- b. Communication
  - i. Relevant, tasteful and concise writing
  - ii. Eloquent sketching
  - iii. "Striking" digital graphics
    1. Diagrams
    2. Renderings
    3. Animation/Motion/4-D
  - iv. Exploration of other communication means in landscape architecture
    1. Enigmatic/Discoverable

2. Present the final project to the University of Pennsylvania and prospective employers
- a. Discuss the role of the project in future landscape initiatives on campus
- b. Obtain feedback from offices that will inform new ways of tackling both general and campus design issues in landscape architecture
- c. Use project as leverage when interviewing for jobs

3. Submit project to the American Society of Landscape Architects 2009 Awards Program
- a. Entry Forms due Friday, May 29 – Submissions due Friday, June 12
- b. Win an award
  - i. General Design
  - ii. Analysis & Planning
- c. Prairie Gateway?
- d. Other awards programs?

2. Design Goals & Intentions

The design goals and intentions include three specific parts—theory, design and sustainability.

Theory and overall philosophy of design are the factors that shape the movement of the project, both in logistical and design terms. Two important sources of theoretical thinking for the Palestra Green project are found in the writings of Kenneth Frampton and Laurie Olin. These designers have much to say on the role of regionalism in design practice and education. Other authors important to the theoretical advancement of the project are James Corner, Ian McHarg and Ian Thompson, amongst others.

1. Shape the Palestra Green *project around the mold of regionalism*
- a. Understand the region
  - i. The people
    1. Attitudes
    2. Lives
    3. Needs
    4. Tendencies
  - ii. The place
    1. History of the Philadelphia region
    2. Current and future land uses and initiatives
    3. University of Pennsylvania
  - iii. The palette
    1. Climate
    2. Materials
    3. Natural Systems
    4. Vegetation
- b. Further understand the difference between regionalism and universalism in regards to American campus design

2. Implement personal values, philosophies and precepts into the project
- a. These will also shape the path of the project and will create a highly personal and singular project

The design goals of the Palestra Green project include those objectives that deal with the actual concept and shaping of the space. This set of goals overlaps with the goals of theory and sustainability—each of the areas should work in tandem to a truly unique and usable space.

1. Create the appropriate and complete design for Palestra Green
- a. Utilize existing site elements/features
  - i. Context places and spaces
  - ii. Topography
  - iii. Uses
  - iv. Vegetation
- b. Anticipate future uses
  - i. Palestra Green
  - ii. Immediate Context
  - iii. University of Pennsylvania
  - iv. Philadelphia
- c. Create a project that exudes sophisticated intelligence while focusing on project attainability and buildability

Sustainability is an enigmatic term. It takes on different forms in different places. At the University of Pennsylvania, important university figures are focusing on a goal of a completely sustainable university. Penn President, Dr. Amy Gutmann, endorsed the American College & University Presidents Climate Commitment, citing it as a source of sustainable goals for the university.

At Palestra Green, sustainable design is defined as the use of ecological concepts in tandem with the classic design of places on campus to create a dynamic, hybrid place. The main point to keep in mind when thinking about the role of sustainability of the project is: do not be redundant with the use of sustainability and its definition in the project. In other words, understand that as a landscape architect, one already has the charge of being "sustainable" in the way he/she goes about thinking about and designing a project. When thinking about sustainability in this way, one can begin to see that the term does not apply solely to nature, but also in large part to society and economics. The goals for ecological sustainability at Palestra Green are taken directly from the Sustainable Sites Initiative.

1. Utilize eco-water systems that reuse all water from the site for irrigation and grey water purposes.
2. Because there are little-to-no healthy soils on the existing site, improve the health of the area by importing soils for green use and maintaining both the existing and new soils in a responsible manner.
3. Examine and assess the health of existing trees in order to determine their role in any new design. If existing trees are deemed healthy, strongly consider keeping them in the new design.
4. Select regional materials for their durability.
5. Consider replacing existing or constructed surfaces with vegetated surfaces.
6. Explore appropriate energy systems and introduce them into the design repertoire and vernacular of the project.
7. Create a place that sustains social growth and harbors social peace
8. Create a place that will, in theory, pay for itself and create an economic surplus for the university.

3. Personal Goals & Intentions

Along with sets of project and design goals and intentions, personal objectives must be conveyed. I would not have chosen this project as my Master's Project if I didn't have strong personal feelings and beliefs about the place, the people, the concept of the project and the way I feel I can improve my own abilities through the project.

1. Use the Palestra Green *project as the primary piece in a new portfolio*
- a. Involves implementing each of the project and design goals

2. Improve the way I tackle design problems in landscape architecture
- a. Involves adjusting, discipline and a learning attitude

3. Improve skills in various design media and make an effort to learn new ways of communicating design
- a. Digital tools
- b. Non-digital tools
- c. Graphic design

4. Balance the progress of this project with other personal, academic and extracurricular activities

iii - Penn in the 21st Century

$48,148 TUITION *259,807* LIVING ALUMNI

24,107 STUDENTS *6:1* STUDENT-FACULTY RATIO

51.7% WOMEN *10.1%* INTERNATIONAL STUDENT POPULATION *98.9%* OF FIRST-YEAR STUDENTS CAME FROM THE TOP *10%* OF THEIR HIGH SCHOOL CLASSES AND SCORED A *1437* ON THE SAT *94%* UNDERGRADUATE GRADUATION RATE

8,578 STUDENTS PARTICIPATING ON *529* INTRAMURAL TEAMS IN *12* SPORTS *1,200* STUDENTS PARTICIPATING ON *36* CLUB SPORTS

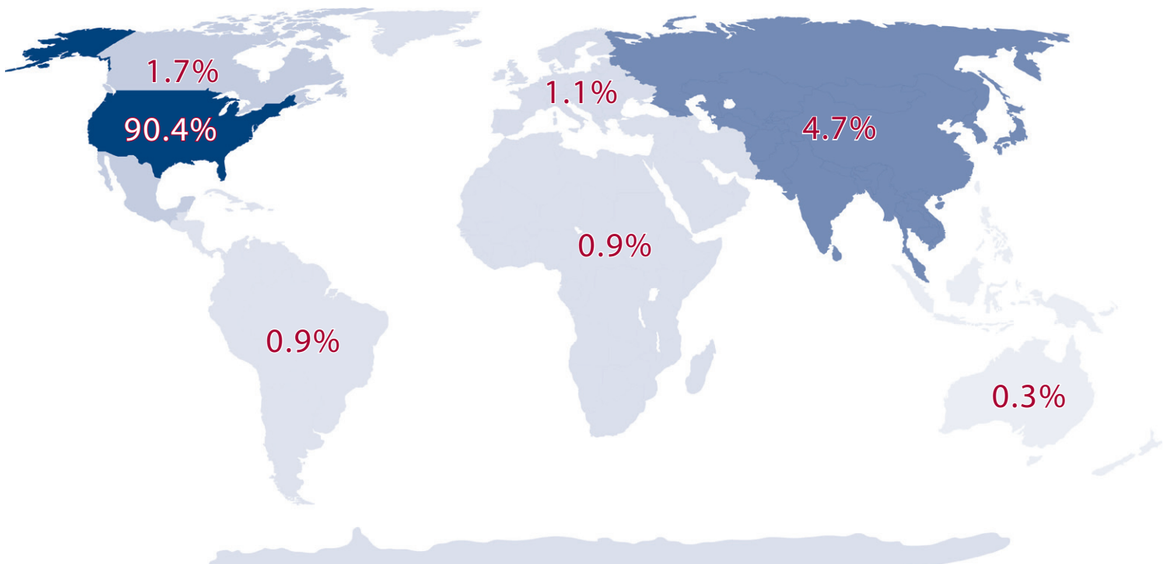

Figure A.1
Penn in the 21st Century

iv - Campus Development Plan (OLIN, 2001)

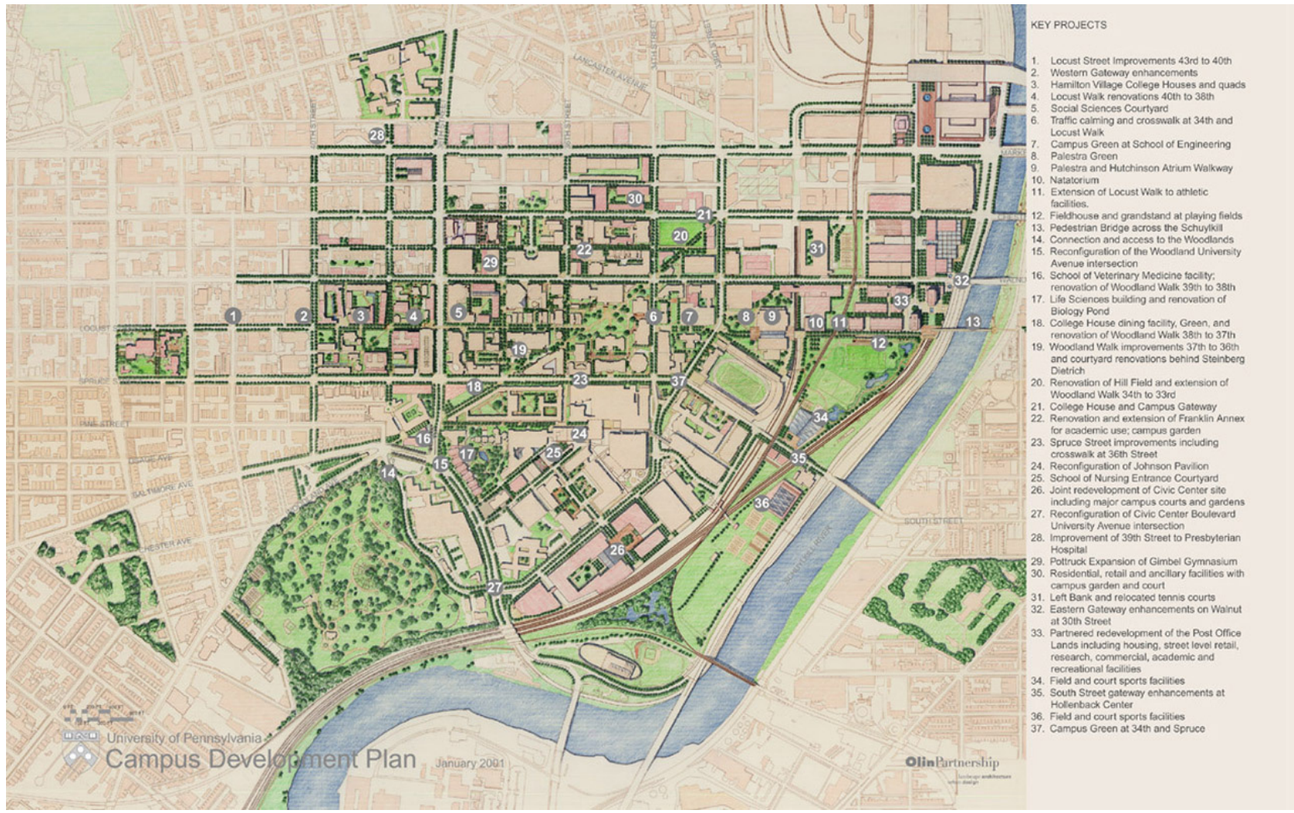

Figure A.2
Campus Development Plan

v - Penn Connects (Sasaki Associates, 2006)

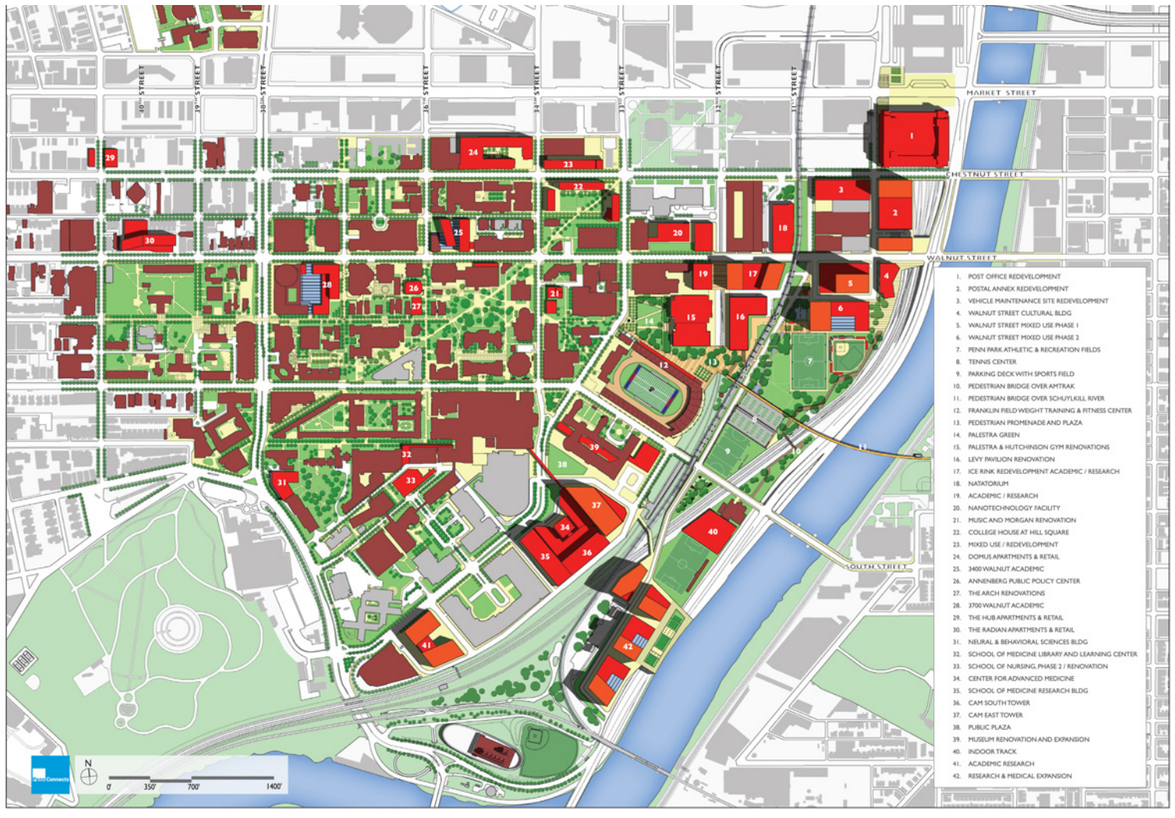

Figure A.3
Penn Connects

vi - Rooftop Runoff Volumes

Based on a 50 year 24 hour rainfall
Philadelphia, PA = 6.33 in.

	Green Roof (gal)	Existing Roof (gal)
The Palestra	321,428.00	1,180,861.16
Hutchinson Gym	161,573.43	605,040.94
Rittenhouse Lab	441,798.64	1,555,574.01
3216 Chancellor	108,288.58	366,118.52
Dunning	101,413.11	101,413.11
	1,134,452.06	3,809,007.11

Overall volume per 50 year 24 hour rainfall decreases by 336%
calculated by Ian Scherling

If Penn could work with its neighbors to bring jobs, investment and life back to one distressed neighborhood, why not tap the collective power of the city's universities to reverse the flight of jobs, families and talent throughout Philadelphia?

dr. Judith Rodin - former president of the University of Pennsylvania
2001. *Common Cause: Investing in the Community*