

Historic Landscape Conservation at the UNC in the early 21st century (2001-2010)

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Abstract

Based on the two successive plans of the University of North Carolina (UNC) at Chapel Hill from 2001 to 2010, we review the conservation and planning philosophy of the five landmark landscapes in the master plan, and the historical context, content and aesthetic culture of the plans, with an emphasis on the objectives, principles, methods and implementation of the historic landscape plan. Since its foundation in 1795, the University of North Carolina has gone through five different phases of landscape planning and management, directed by a professor of natural philosophy, a historian, a botanist, a landscape architect and an architect. The spatial form of its campus plan reflects the great changes in the economic development of the United States over 200 years, reflecting the process of American campus construction during that period. It is argued that the guiding principles developed by the University of North Carolina at Chapel Hill for the preservation of historic landscapes reflect the important role that human intervention and the power of restraint play in the preservation of landscape heritage.

Keywords

Sustainable landscape design, University of North Carolina, Chapel hill, Historical landscape, Campus planning, Plant protection

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Fig. 1. Sketch of the McCorkle place & McCorkle Place existing condition, 2008

INTRODUCTION

Historic campuses have carried the sweat of generations of teachers and students, and every building and landscape on the campus is a cultural precipitation with two levels of significance: physical space and spiritual connotation. At present, the conservation of historic campuses in China is beginning to take shape, but due to space, time and financial constraints, there is still a tendency to focus on buildings and a lack of connection to the campus landscape and the overall campus environment. The campus preservation efforts of the University of North Carolina, the first state university in the United States founded in 1795, began in the early 21st century by creating a unique planning philosophy that looked for the key elements of a viable past around which the university was founded and then looked for the forward-looking visionary needs and desires to successfully embrace the future. Through archival research, interviews with visiting scholars, and interactive displays, we explain the important role that restrained dignity plays in campus landscape preservation and explore new ideas for historic campus preservation.

I. STUDY ON HISTORIC CAMPUS LANDSCAPE PLANNING

At present, the conservation practices and related research on historic campuses at home and abroad are mostly focused on historic buildings, sorting out conservation values, analyzing restoration techniques and exploring strategies for the reuse of historic buildings, laying a solid foundation for the deepening and expansion of historic campus conservation¹. Another example is Yishi Liu who, through interviews with old men, sorts out the history of campus planning and construction at Tsinghua University from the oral accounts of historical parties. He analyzed the close connection between academic development and campus construction. The trend of campus planning in the United States is to increase the density of the core area of the campus, enhance the safety and walking experience of teachers and students, enhance the connectivity of academic buildings on campus, and strengthen the transparency and functional mixture of buildings.² This will help to respond to the way in which learners acquire knowledge, enhance interdisciplinary communication between disciplines and improve the efficiency of knowledge exchange and creation. Make campus planning serve personnel training.

In reviewing and translating UNC campus planning materials, it was found that the same campus plan and construction was done at the beginning of UNC's existence, and the needs of academic development directly influenced the construction of the campus. The need for more students and faculty, the need for new laboratories, and the need for a new library were all factors that directly influenced the construction of the campus. The excellence of the UNC campus, however, is that no matter how many new houses are built, from the colonial period, through the classical period to the modernist period, the campus has always been nestled in the forest, and this sublime setting has not been greatly damaged. After the campus has taken on a certain size and grown steadily, botanists and architects have taken over to guide the planning of the campus, so that the plants and buildings blend together to form a unified landscape. The details of the master plan created and implemented by the University of North Carolina are highly informative and provide lessons for other universities concerned with long-term sustainability planning.

II. THE HISTORY OF UNC'S LANDSCAPE CONSERVATION PRINCIPLES AND PLAN DEVELOPMENT

UNC began a brand-new planning process in 2001 and the decade to 2011 has been called the dynamic decade, a decade of development that has seen an interesting mix of planning, politics and design transform the old campus into a beautiful new sustainable environment for the 21st century.

2.1 THE JOURNEY OF DEVELOPING A MASTERPLAN FRAMEWORK: FROM OBSERVATION TO POLICY FORMULATION

The development of the UNC master plan honors a uniquely American invention that views the campus as the ideal, self-contained village that provides a social and cultural setting while representing a viable exploration of the past and embrace of the future.

The first part is to observe the natural systems. Topography, vegetation and water are decisive factors that influence planning. The use and demand for space are the underlying factors that shape the campus. The personality and soul of the university in the minds of its users is represented by the campus and its patterns of activity. The beautiful sunlight filtering through the trees of McCorkle and Polk, the friendly conversations sitting on the stone walls after class, the stately academic buildings decorated in red brick and white form an unforgettable memory of one's time on the UNC campus. To capture this essence in drawings and figures, the planners analyzed the historic buildings and their placement, the old neighborhoods adjacent to it, the natural systems at the base of the it, and the built systems and infrastructure that serve the campus, including roads, pavements, traffic, parking and utilities. The existing systems were analyzed to better input into the future design.

The second part is the concept development stage, where we can see that these sketches are eventually implemented into the real campus, the concept development is a key step in making the campus plan come to life.

The third part is constituency research. It is to establish a consensus on the main elements and details. This is just like our country's analysis and treatment of the principal contradiction, because the principal contradiction plays a dominant role and plays a decisive role in the development of things. The planning process captures a comprehensive group of stakeholders: teachers, staff, students, neighbors and local officials. Withdrawing from the overall campus concept plan, the Regional study phase tested planning options for hundreds of discrete areas through intensive stakeholder discussion and comment. Individuals working and living in each constituency walked the campus and participated in two days of workshops led by the planning team. Participants meet in a campus design studio that contains sketches and models. A unique visualization method uses different design concepts to map out shear planes of different campus areas that can be pasted onto the entire campus plan for learning. These so-called "paper dolls" can be quickly revised, providing a simple and flexible way for stakeholders to see and evaluate their ideas in a larger context. Planners use this technique to help participants visualize alternative layouts for new buildings.

The fourth part is the final plan and design guide. The master plan is the long-term vision for the eventual development of the campus. It does not contain a specific date of completion. Instead, it will be implemented progressively through a ten-year development plan and in subsequent phases over the next few years. It highlights how the proposed housing fits into the existing campus structure.

2.2 PRINCIPLES OF HISTORICAL LANDSCAPE PROTECTION:

The five guiding principles that follow are the collective result of UNC and its consulting team. While the scope of work for the project primarily emphasized five distinct and historically significant campus areas, these principles should be used to guide and evaluate future work on campus-wide planning.

2. **New Foundation:** Incorporate cultural, scenic and natural values into the university's decision-making process.
3. **Pursuing dignity:** Consider the overall impact to safeguard and manage the cultural, scenic and natural values of the campus landscape.
4. **Recognition of uniqueness:** Balancing the site-specific design requirements of historic landscape characteristics while understanding this space within the larger campus landscape.
5. **Integration of civic intentions:** Preserve and respect the civic pursuits of patrons and ensure careful integration with the larger cultural landscape.
6. **Respect and worship heritage:** Preserving and revealing features and relationships of historical significance while adapting to change.

III. BASED ON THE INFORMATION COMPILATION AND THE CONSTRUCTION PROCESS OF THE FIVE LANDMARKS

Of the many landmark spaces that exist on the University of North Carolina campus, five representative sites form the historic core of the campus. These spaces are McCorkle Place, Polk Place, Forest Theatre, Kenan Stadium Woods, Morehead-Patterson Bell Tower and Formal Garden, which embody the unique character of the campus and are the detailed focus areas of this study. Looking at the landscape through a series of cultural, natural and scenic 'lenses', the strategy aims to preserve, rediscover and reaffirm the historical and botanical significance of this landmark campus.

1. MCCORKLE PLACE

McCorkle Place is the gateway to the University and demonstrates a strong sense of identity as it marks the historical beginnings of the campus. Survey existing trees in the area, their condition, canopy and soils, and speculate on nutritional growth patterns. Design a matrix for plant selection and planting the next generation of trees; develop a prototype layout; reconfigure pathways and planting areas; end material requirements for site furnishings.

2. POLK PLACE

The planner develops a strategy to maintain and enhance plant characteristics by taking an inventory of existing trees, their condition, canopy and soil in order to speculate on plant growth patterns. A plant selection matrix was made to plant the next generation of trees using tree interplanting strategies; Strengthen base plant planting and develop a prototype layout;

Redesign the quadrangle courtyard; Develop a method to locate and select significant site furnishings and materials: addressing site specific furniture and material that reflect the origins and development of Polk Place. Relocate site furnishings (e.g. bicycle racks) closer to the building envelope. Features such as light fixtures and flagpoles were rearranged to open up the main long-term views and the formal axial relationship of Polk Place was strengthened.

3. MOREHEAD-PATTERSON BELL TOWER

The distinctive Morehead-Paterson clock Tower was the campus's signature building in the 1940s. The semi-circular site is a formal landscape setting, slightly lonely behind a veil of overgrown boxwood hedges. Planners enlarged transitional woodlands and enhanced vegetation features; Part of the boxwood hedge was removed to improve visibility of the bell tower and reconnect it with the campus landscape; Pavements have been widened and sloped down to make it easier for people to cross; Install a curved limestone bench that can be engraved by the graduating class or patron as a memorial.

4. KENAN STADIUM WOODS

Kenan Stadium and the surrounding Kenan Forest are at the center of campus life, both physically and socially. In the face of forest decline, a reforestation program was established, with patches to keep the forest going; Rest areas and gathering Spaces are introduced on race and non-race days to help alleviate soil compaction on the roots. Use Chatham stone walls and understory plant materials to guide visitors through the space during play days and daily activities.

5. FOREST THEATRE

Set amid rolling terrain, the Forest Theatre is almost hidden among a mature collection of beech, maple and oak trees. Rehabilitate the existing theater and associated exterior buildings and apply for the National Register of Historic Places; Develop a plant selection matrix. Remove invasive species and plant understory plants along slope edges. Replacing empty tree pits with new trees and shading views from the parking lot with evergreens and native vines; Strengthen the forest path from the square to the woods to respect the existing lines of desire. Create a mid-block intersection at the formal entrance. Explore opportunities to close streets for special events and performances.

IV. THE CULTURAL LANDSCAPE OF THE UNC CAMPUS FROM DIFFERENT PERSPECTIVES

1. THE ARTISTIC DESIGN PERSPECTIVE

The most artistic design of the University of North Carolina's campus plan is not as ornate as that of ancient Rome, but gives a sense of overall unity. Its artistry is reflected in the visual openness, the accessibility of the site, the appropriateness of the materials used for the facilities and the continuity between the various landscape buildings.

2. THE ORGANISATIONAL MANAGEMENT PERSPECTIVE

One of the highlights of UNC's 2001 Campus Master Plan in terms of organizational management is peer review. While there is review of both municipal and special park planning documents in China, they are all bottom-up, with the final leadership group passing them to begin implementation, and then top-down to begin tracking them down when something goes wrong. In contrast, UNC's Chancellor President created a new design review committee of senior architects and planners from outside the university and gave them broad authority to work directly with project architects to ensure consistency of design and compatibility with the historical context of the campus. In essence, it is a peer review process in which qualified professionals provide objective commentary to enhance the quality of each design project. While the University's architecture faculty is constrained by the client status of external architects, the President's Building and Grounds Committee members provide a largely secular perspective, and the Design Review Committee has the time and ability to provide specific, broad professional design advice. They can ask pointed 'what if' and 'why not' questions. The effectiveness of their work is evident in outstanding projects across campus such as the Science Complex, the Rams Head Centre and the new student housing community on the South East Campus. This ensured that all plans were thoroughly researched and revised within the University's decision-making system before coming to town for formal hearings with community residents and elected officials.

3. THE PERSPECTIVE OF LANDSCAPE PLANNING

Quote by Principal Robert House:- "My first impression of Chapel Hill was of trees. My last impression was of trees." The genius of UNC's master plan is that it recognizes that the essence of the Carolina campus is not in the grandeur of the buildings, but in its landscape - the connective tissue between the buildings.

Landscapes should be self-sustaining and support biological and water conservation and restoration, including species diversity and habitat protection, soil stability, fertility and aeration. The main features of UNC's campus landscape -- mature individual trees in a park-like environment, and scattered remnants -- continue from the 18th century into the 21st. The tall trees are so commanding that the landscape is an equal partner with the campus buildings, working together to create UNC's iconic look. The trees unify the buildings of different architectural styles, creating an atmosphere of tranquility, closeness to nature and history, and providing outdoor Spaces for learning and recreation. Policy makers draw up guidelines to identify heritage trees and groves, significant trees and landscapes, and landmark Spaces to guide the siting of new buildings. Ensure proper design of new and refurbished landscaping prior to design approval, protecting significant existing trees and shrubs during construction.

4. A SUSTAINABILITY PERSPECTIVE

The University of North Carolina's dynamic decade is viewed through the lens of campus sustainability. While UNC's visionary 2001 Master Plan does not specifically address the concept of sustainability, it embodies basic sustainability principles. By viewing sustainability as a broader issue than simply saving energy and reducing pollution, the University of North Carolina's resolution of the deeper issues of campus planning, politics and design has produced

a uniquely sustainable solution. At the same time, a parallel sustainability effort is underway through administrative channels.

The implementation of the development plan was seen as an opportunity to instill Carolina values, which include an emphasis on sustainability, protecting environmental resources, maintaining architectural consistency and respecting historical integrity. Within the development plan, the parking policy, tree replacement policy, environmental policy and open space corridor all clearly reflect these values. To further enhance these values in the design process, historic landscape preservation and historic building preservation go hand in hand. Both are important elements of the planning initiatives that have maintained the historic appearance of the campus during a dynamic decade of development. Without them, the new projects at the University of North Carolina would not have been successfully integrated into the fabric of the campus and the spirit of the times. The long-term value of preservation for a university campus is reflected in the concept of 'adaptive reuse'. "The exterior appearance of historic buildings is preserved, while their interior functions are adapted over time to meet the changing needs and educational mission of the institution." The essential features of the historic landscape are retained, while their functions are adapted to contemporary patterns of use. This is in line with the definition of campus sustainability: creating continuity between the past and the present, while maintaining the flexibility required to meet future needs.

V. LESSONS IN SUSTAINABLE CAMPUS PRESERVATION

The University of North Carolina has learned important lessons about sustainable campus development during this dynamic decade of planning, reviewing and building a large campus, and they have learned to define sustainable campus development as a balance between historic preservation, current development needs and potential future needs. They have learned to use the university's mission statement as a touchstone for assessing development proposals. They have learned to collaborate in consensus building to address issues arising from the unprecedented scale and impact this entails. They have also learned to determine the affordability of the campus in terms of the sustainability of natural systems.

VI. CONCLUSION

The typical definition of sustainable development describes it as a balance between economy, environment and equity, which is the so-called triple bottom line, and insists that future generations must not be disadvantaged relative to the present. For university campuses, the concept of sustainability has a particular perspective. As historic campuses persist through generations, their maintenance must be the focus of current and future planning. The triple bottom line of campus planning should therefore be considered as preserving the past,

building on the present and looking to the future. The intersection of these issues defines the beauty and function of contemporary university campuses. We present them here not only to document the experience of the University of North Carolina, but also to provide lessons for other university campuses and their communities seeking to develop sustainably.

ENDNOTES

1. Tianjie Zhang, Kailai Wang. An exploration of historical campus preservation journey in the perspective of cultural landscape - an example of the World Heritage Site University of Virginia Academic Village, USA[J]. *Cultural Landscape*. 2018 (1) 32-37.
2. Wenyi Fan, Lei Peng. A study on the characteristics of a supportive student-centered learning environment - an example of campus planning in four American universities[J]. *Decor*. 2021(10) 110-115.
3. Yubo Liu, Yitian Lu. Analysis of campus planning update documents of the University of Michigan in the United States for the past 55 years[J]. *Southern architecture*. 2015(6) 4-9.

REFERENCES

- David R. Godschalk and Jonathan B. Howes. *The Dynamic Decade*[M]. eBook Collection (EBSCO-host),2020,2.
- Andropogon and Cahill, *Stormwater Management Plan*[G]. the University of North Carolina at Chapel Hill, 2004,12.
- H. Holden Thorp, *The Dignity of Restraint*[G]. UNC Historic Landscape Framework Plan, 2004.
- Task Force on Landscape Heritage & Plant Diversity 2nd Edition[G]. the University of North Carolina at Chapel Hill, 2005.

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