Beneficent Beauty: Refining the UW–Madison Campus

Dan Okoli, NCARB, AIA
University Architect
What should our campus look and feel like in the near and long term?
GOOD EXAMPLES OF WHAT NOT TO DO

McFadden Hall, 1919
GOOD EXAMPLES OF WHAT NOT TO DO

McFadden Hall, 1919

After 1960’s Renovation

Schear Hall, 1960’s Addition
GOOD EXAMPLES OF WHAT NOT TO DO

McFadden Hall, 1919

After 1960’s Renovation

2008 Renovation
GREAT CAMPUS PLACES

Memorial Union Terrace

Memorial Union

Memorial Union Terrace

Memorial Union Interior

Bascom Hill

Memorial Union Interior

Bascom Hall

Bascom Hill

Bascom Hall
NOT SO GREAT CAMPUS PLACES
NOT SO GREAT CAMPUS PLACES

Van Vleck Plaza

Humanities Building

Engineering Research Building

Van Hise Hall

Peterson Building

Social Sciences Building

Union South

Old Ogg Hall
Selected Design Option

EDUCATION BUILDING EXAMPLE

North Elevation of Education Building
Open Space North of Education Building
Atrium
Interior
ROAD MAP

2005 Campus Master Plan

Campus Master Plan Implementation
• Design Review Board
• Design Review Guide
• Hiring a University Architect
The purpose of the Campus Design Guidelines is to serve as the framework for fruitful dialogue between designers, the Design Review Board (DRB), the campus community, the UW System, the Division of State Facilities, and other stakeholders as we collectively seek to interpret the intent of the 2005 Campus Master Plan.

The ultimate goal of such an effort is to create a well defined, functional, sustainable, beautiful and coherent campus environment that promotes intellectual and social exchange.
The campus should be seen as one large and complex composition consisting of many neighborhoods. Each neighborhood, in turn, is a composition made of other compositions such as buildings, open spaces, and other site features. This represents a complex nested arrangement of compositions within compositions from the large scale down to the smallest perceivable details.
This map shows the campus as a tapestry of spaces, buildings, road networks and other site features.
The neighborhoods on campus sit within the traditional collegiate and urban campuses.
These neighborhoods have discrete characteristics which need to be understood and respected.

Neighborhood Characteristics Depend on:

• **Scale and Density (or Size and Massing)**
• **Topography/Landform/Natural Setting**
• **Urban Fabric/Neighborhood Setting**
• **History/Age**
• **Special Function**
• **Materials**
The massing of campus buildings, that is the overall geometry of their perceived forms – footprint, height, and roof form, should demonstrate sensitivity to nearby buildings within their neighborhoods.

Campus buildings can be broken down into various scales depending on its role in the campus and or urban context. Buildings can be:

- **Small** (5,000 – 40,000 GSF)
  - residential halls, or specialized buildings such as observatories or outdoor classrooms.

- **Medium** (40,000 – 80,000 GSF)
  - typically the generic academic buildings such as classrooms or small research facilities.

- **Large** (80,000 – 150,000 gsf)
  - may include heavy research and medical facilities.

- **Extra Large** (150,000 GSF+)
  - typically include large event facilities for athletics and hospitals.
No portion of any building or structure located within one mile of the center of the State Capitol Building shall exceed the elevation of the base of the base columns of said Capitol Building or 187.2 feet, City datum. This prohibition shall not apply to any flagpoles, communication towers, elevator penthouses, screened air conditioning equipment on existing buildings and chimneys exceeding such elevation, when approved as conditional uses.
Based on the neighborhood characteristics, we have the following 11 campus design neighborhoods:

1. Major Open Spaces
2. Health Sciences
3. Federal Neighborhood
4. Service and Infrastructure
5. Animal and Plant Sciences
6. Lakeshore Residence
7. Historic Campus
8. Lakefront
9. East Campus Mall
10. Urban Campus
11. Event Centers

Neighborhood boundaries are not precise. Buildings and spaces in the transition zone between neighborhoods may combine certain key attributes of both.
Example of a Neighborhood Specific Guideline

HISTORIC CAMPUS

University of Wisconsin-Madison
Historic Campus Neighborhood

- An academic center, classrooms, faculty and staff offices. Oldest section of campus.

- Restore sense of scale, open space structure and building massing to more traditional campus relationships.
HISTORIC CAMPUS - EAST
Buildings in the Neighborhood

- Bascom Hall
- North Hall
- Education Building
- Radio Hall
- Science Hall
- Law Building
- Music Hall
- Van Vleck Hall
- Birge Hall
- South Hall
- Sterling Hall
- Ingraham Hall
- Sewell Social Science Building
HISTORIC CAMPUS - EAST

Open Spaces in the Neighborhood

Bascom Hall Portico
Observatory Drive
Muir Woods
Steps to Van Vleck

Open Space by Van Vleck Hall
Open Space by Birge Hall
Abraham Lincoln Statue
Bascom Hill View to Capitol
HISTORIC CAMPUS - EAST

Massing

Key
- Existing University Buildings
- Existing Non-University Buildings
- Proposed Buildings

Proposed Building Heights:
- 4 – 6 Floors
- 60 – 90 Feet

Elevation (feet above sea level)
**Materials:** Madison Sandstone, Superior Sandstone, Grey and Red Brick, Bedford limestone, Terra Cotta Decoration, Berlin Rhyolite.

**Architectural Styles:** Beaux Arts, Classical Revival, Richardsonian Romanesque.

**Architectural Features:** Bascom Hall portico, Gothic arches in Music Hall, Edged mortar in North and South Hall.
Materials: Madison Sandstone, Cream and Dark Reddish Brown Brick, Bedford Limestone, Red Tile Roofing, Precast Concrete Panels.

Architectural Styles: Beaux Arts, Classical Revival, Queen Anne, Modern.

Architectural Features: Ionic columns in Agricultural Hall entrance, Dentilated cornice in Agricultural Engineering, Wood framing in Hiram Smith.
## BUILDING DATA INDEX

<table>
<thead>
<tr>
<th>Building Name</th>
<th>Date Constructed</th>
<th>Date Renovated</th>
<th>Architect(s)</th>
<th>Style</th>
<th>Materials</th>
<th>Design Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Engineering</td>
<td>1907</td>
<td>1968</td>
<td>Arthur Peabody</td>
<td>Georgian Revival</td>
<td>Dark brown paving brick, red tile roof</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Agricultural Hall</td>
<td>1901</td>
<td>1928, 1969</td>
<td>J.T.W. Jennings</td>
<td>Beaux Arts</td>
<td>Brick, Bedford limestone, terra cotta, copper metalwork, red tile roof</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Agronomy</td>
<td>1906</td>
<td></td>
<td>Arthur Peabody</td>
<td>Beaux Arts</td>
<td>Dark brown brick, red tile roof</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Bock Labs</td>
<td>1965</td>
<td>1997</td>
<td>Durrand &amp; Bergquist</td>
<td>Post World War II</td>
<td>Steel, reinforced concrete, cut stone, precast concrete, face brick</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Carillon Tower</td>
<td>1936</td>
<td>1963</td>
<td>Arthur Peabody</td>
<td>Renaissance Revival</td>
<td>Madison rubble stone, turned stone balusters</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Education Building</td>
<td>1899</td>
<td>1910, 1951</td>
<td>J.T.W. Jennings</td>
<td>Beaux Arts</td>
<td>Grey pressed brick with pink mortar, Bedford limestone, terra cotta trim</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Elizabeth Waters</td>
<td>1938</td>
<td></td>
<td>Roger Kirchoff</td>
<td></td>
<td>Lannonstone facing, red tile roof</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Genetics</td>
<td>1961</td>
<td></td>
<td>Siberz &amp; Purcell</td>
<td></td>
<td>Precast concrete curtain wall panels, face brick</td>
<td>Historic Campus</td>
</tr>
<tr>
<td>Hiram Smith</td>
<td>1891</td>
<td>1901, 1909</td>
<td>Alfred &amp; Clas</td>
<td>Queen Anne</td>
<td>Cream brick, wood framed upper floors, half timber and pebble trim, red tile roof</td>
<td>Historic Campus</td>
</tr>
</tbody>
</table>
This local light-colored buff sandstone is the primary material in the historic campus neighborhood.

**Source:** Stephen’s Quarry, which was located about two miles west of campus at the present site of Hoyt Park in Madison. Stephen’s Quarry closed in 1933 due to lack of stone. After the quarry closed, the campus was forced to find alternatives to the favored Madison sandstone.

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
<th>Use</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Sandstone</td>
<td>This local light-colored buff sandstone is the primary material in the historic campus neighborhood.</td>
<td>Facades of historic buildings on Bascom Hill including North Hall, South Hall, Bascom Hall, Music Hall, Birge Hall, and Washburn Observatory</td>
<td>Stephen’s Quarry, which was located about two miles west of campus at the present site of Hoyt Park in Madison. Stephen’s Quarry closed in 1933 due to lack of stone. After the quarry closed, the campus was forced to find alternatives to the favored Madison sandstone.</td>
</tr>
<tr>
<td>Superior Sandstone</td>
<td>This dark-colored red-brown sandstone is used as contrasting trim against Madison sandstone in the historic campus neighborhood.</td>
<td>Trim in Music Hall.</td>
<td>Quarry near Bayfield, Wisconsin by Lake Superior.</td>
</tr>
</tbody>
</table>

**MATERIALS INDEX**

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bascom Hall</td>
<td></td>
</tr>
<tr>
<td>Birge Hall</td>
<td></td>
</tr>
<tr>
<td>North Hall</td>
<td></td>
</tr>
<tr>
<td>Wasburn Observatory</td>
<td></td>
</tr>
<tr>
<td>Bascom Hall</td>
<td></td>
</tr>
<tr>
<td>Music Hall</td>
<td></td>
</tr>
<tr>
<td>Science Hall</td>
<td></td>
</tr>
</tbody>
</table>
What is the role of the designer?

The task of the designer is to create a well functioning and sustainable composition that is pleasing, at the detail scale and at the building scale, in a way that is in harmony with the larger urban scale within the neighborhood and campus at large. Buildings and campus places should contribute more, to their neighborhoods and to the larger campus, than their own inherent aesthetic value. In other words, the whole should always be superior to the aggregate of its parts; so that every new project progressively perfects the whole.
What makes a composition pleasing?

Whereas the functional and sustainability requirements of buildings and campus places are more easily explained and understood because standards about them exist, it is the notion of achieving a pleasing composition on our campus that needs to be addressed more clearly in this guide.

For the purpose of this guide, the composition is pleasing when it is:

Rich, Balanced, Unified
Richness is exhibited by such works on campus that employ diversity of *compositional elements* such as:

- Details
- Patterns
- Textures
- Materials
- Layers of depth and connections
- Contrasts in Light and Shadow
- Transitions
- Colors
- Scales and Proportions
- Solid and Void
The appropriate placement and use of these compositional elements, in space and in two dimensions, creates balance by conveying a sense of visual equilibrium. This requires sound judgment about size relationships, appropriate use of scales and proportions, colors, patterns, textures, contrasts in light and shadow, solid and void, relating interior and exterior, and balancing small parts against larger forms. Although the concept of balance is most readily evident in a symmetrical arrangement, our campus buildings and places are mostly asymmetrical. Therefore, the task of appropriately distributing visual weight presents greater challenge for designers, but also provides opportunities to create more dynamic arrangements that embrace the desirable pattern of activities on our campus.
The composition is unified when it is perceived as a whole. The University of Wisconsin-Madison has neither advocated stylistic consistency nor prescribed particular roof forms, colors or materials throughout its campus; instead it is our expectation that buildings and campus places should be designed to be sensitive to their neighborhood context. Clearly such intimate dialogue between new projects and their context will take account of materials, colors, quality, scale, proportions, massing, and overall character of existing buildings and spaces in the neighborhood. **Unity** also demands scaling coherence such that there is a perception of an inherent natural scaling factor that pervades the composition, and relates it to the human scale.
“Development is sustainable when it meets the needs of the present without compromising the ability of future generations to meet their needs.”

- United Nations World Commission on Environmental Development, 1987
In implementing the 2005 Campus Master Plan, these criteria: richness, balance, and unity, should be applied to the treatment of open spaces, buildings, and primary interior spaces. Open spaces on our campus are deemed as important as the buildings that help to frame them; so they should both be designed in an integrated fashion. In designing the buildings, special attention should be given to the volumetric treatment of exterior architecture as a whole, as well as the architectural treatment of the building facades. Finally, the primary interior spaces should be considered in relation to the exterior architecture, open space, and patterns of movement around the site and campus.

So what architectural style should we employ? What are the heights of buildings? What about colors and materials? Answers to questions such as these are not prescribed; instead the guideline focuses on a process, through dialogue that would lead to answers that are appropriate for our campus. It suffices to say that every project on campus should be acutely sensitive to its immediate and larger contexts, and contribute to a greater sense of coherence, even as it expresses its uniqueness and embodies the spirit of its age.
What is the role of the Design Review Board (DRB)?

The Design Review Board Serves essentially as the facilitator of the conversations that must take place in order to accurately interpret the intent of our 2005 Campus Master Plan.
Existing Education Building
EDUCATION BUILDING EXAMPLE

Proposed Design Options
Selected Design Option
Selected Design Option
EDUCATION VERSUS LAW BUILDING

Education Building Versus Law Building Design

Education Building Rendering on Bascom Hill

Law Building on Bascom Hill
CONCLUSION
CONCLUSION

Buildings and campus places must function well and adequately meet the needs of users. We must design sustainable facilities so that we can meet our needs without jeopardizing the ability of future generations to meet theirs. It is equally important that the physical learning environment we create be pleasing. Therefore it must be rich, unified and balanced.

The academy is enriched, intellectually and socially, by its embrace of diversity in all its forms; but it is unified by a common purpose centered on its mission. It thrives when it achieves a harmonious balance between unity and diversity. The physical campus should reflect this ideal; so that it not only supports learning but encourages us to learn from it.

In the end, the way that our campus community and visitors experience our campus is very important. They must see it as sublime and functional at the same time. It must also be sustainable and make them feel comfortable. The designers’ role is to help create appropriate stage sets for the plays that take place every day in our campus community. These plays, or patterns of events and activities, infuse the campus with energy; therefore buildings and campus places should incorporate draws that could support and enhance these patterns. Ultimately, our campus must be a place the campus community and visitors want to be rather than just a place they have to be. When we succeed in transforming our campus within its boundary, then our success will influence similar transformations across the state and beyond. This is the Wisconsin idea!
Questions?

Dan Okoli
dokoli@fpm.wisc.edu