Maintaining, Renovating, Restoring, and Preserving Historical Properties

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UNIVERSITY of VIRGINIA

TODAY WE WILL COVER

1. Various definitions of "historic"
2. Efficient use of space
3. Difference between renovation, restoration, preservation and maintenance
4. Current historic restorations on the Lawn

Have a question or comment?

Feel free to ask or share during the presentation

Open discussion format

VARIOUS DEFINITIONS OF "HISTORIC"

UVA's "Historic" Structures

Evaluation Methodology

One goal of the Historic Preservation Master Plan was to develop a ranking of historic structures and landscapes which lists them with respect to their importance to the University's historic development and character.

To establish the list, an approach was developed which allowed all of the resources to be judged in a consistent manner.

This required understanding how the building or landscape fit within the history of the University, and included an interior and exterior survey of each building or landscape and an evaluation of the building's or site's integrity.

Definition of Historic Property from Secretary of the Interior Standards

A district, site, building, structure or object significant in American history, architecture, engineering, archeology or culture at the national, State, or local level.

Definitions

- Fundamental
- Essential
- Important
- Contributing
- Not-contributing

Ranking

Based on the information gathered, each building and landscape was assessed and assigned a preservation priority – a ranking identifying the resources level of importance in terms of the University's historic character. The priorities are divided into six groups:

- Fundamental to University history and present character, which applies exclusively to the Jefferson building and Grounds.
- Essential to University history and present character.
- Important to University history and present character.
- Contributing to University history and present character.
- Not Contributing to University history and present character.
- Significant outside the University context.

BUILDINGS BY PRESERVATION PRIORITY

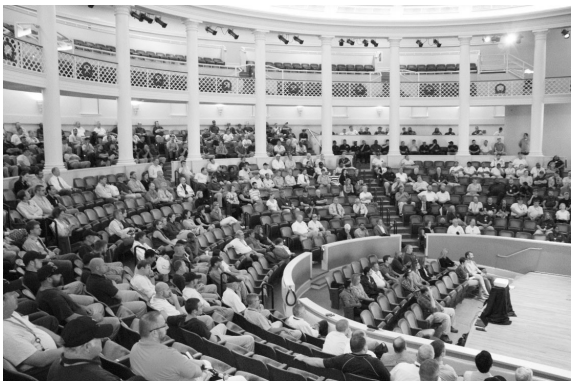
FUNDAMENTAL	ESSENTIAL	IMPORTANT	CONTRIBUTING	NOT CONTRIBUTING
Jefferson Precinct-East Lawn Dorms	Alderman Library	Alden House - Observatory House #3	Aerospace Research Lab	1308 Westland Street
Jefferson Precinct-East Range Dorms	Bayly Museum	Birdwood - NE Storage (Ice House)	Alumni Hall	1308 Westland Street Lab
Jefferson Precinct-Hotel A	Birdwood Mansion (Pavilion)	Birdwood - NW Storage	Barringer Mansion	Albert Small Building
Jefferson Precinct-Hotel B	Birdwood Slave Quarters	Birdwood - SE Storage	Birdwood - Brick Barn	Astronomy Building (Forestry and Natural Resources)
Jefferson Precinct-Hotel C	Birdwood Water Tower	Birdwood - SW Storage	Birdwood - Stone Barn	Birdwood - Caretaker's House (Cash House)
Jefferson Precinct-Hotel D	Brooks Hall	Brown College-Monroe Hill Dormitories	Carr's Hill-Leake Cottage	Birdwood - Middleton House
Jefferson Precinct-Hotel E	Carr's Hill-President's Garage (Carriage House)	Carr's Hill-Guest House	Dawson's Row #1	Birdwood - Stone Shed
Jefferson Precinct-Hotel E Annex	Carr's Hill-President's House	Carr's Hill-Buckingham Palace	Dawson's Row #2	Birdwood - Wood Garage
Jefferson Precinct-Hotel F (Levering Hall)	Clark Hall	Cobb Hall	Gilmer Hall	Birdwood Silo
Jefferson Precinct-Pavilion I	Cocke Hall	Dawson's Row #3	Halsey Hall	Heating Plant
Jefferson Precinct-Pavilion II	Corner Building-Women's Center	International House- Lorna Sundberg Center	J. Beams Physics Laboratory	Jefferson Precinct-Poe Alley #1
Jefferson Precinct-Pavilion III	Dawson's Row #4-Parsonage	Little Monea	Lady Astor Pavilion (Squash Court)	Jefferson Precinct-West Lawn Garage
Jefferson Precinct-Pavilion IV	Fayerweather Hall	Madison Hall	Lambeth House	Jefferson Precinct-West Lawn Wash Room
Jefferson Precinct-Pavilion IX	Garrett Hall	Monroe Hall	Mary Munford Hall	Kerchof Hall
Jefferson Precinct-Pavilion V	Jefferson Precinct-McGuffey Cottage	Montebello	Maury Hall	Kluge Children's Rehab Center
Jefferson Precinct-Pavilion VI	Jefferson Precinct-Cracker Box	Monea	McCormick Road Dormitories	Kluge Cochran House
Jefferson Precinct-Pavilion VII	Jefferson Precinct-Mews	Small Observatory	McKim Hall	Kluge Commonwealth Court
Jefferson Precinct-Pavilion VIII	Lambeth Colonnade	Sunnyside	Midmont	Leake Building
Jefferson Precinct-Pavilion X	McCormick Observatory	Thornton Hall	Miller Center Carriage House	Monroe Hill Garage

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

EFFICIENT USE OF SPACE

OLD CABELL HALL
Secretary of State
John F. Kerry

OLD CABELL HALL
Dalai Lama

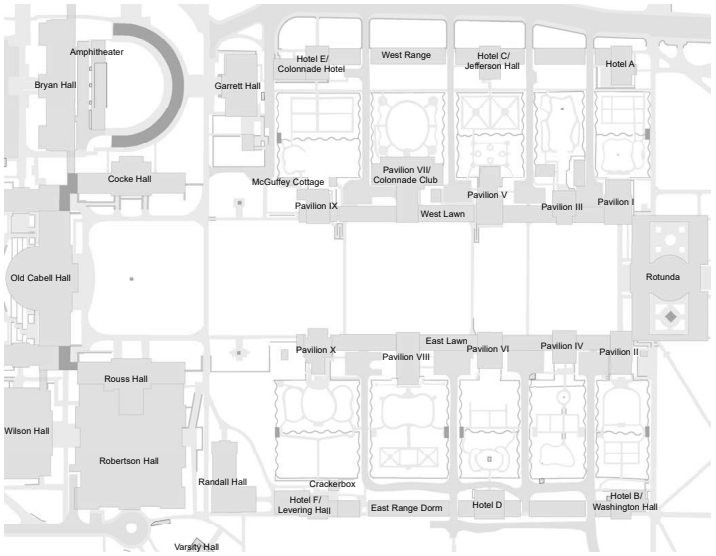


OLD CABELL HALL
Facilities Management Town Hall Meeting

ROTUNDA
Dome Room

DIFFERENCE BETWEEN

Renovation
Restoration
Preservation
Maintenance



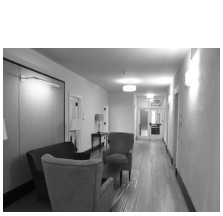
PAVILION X
old

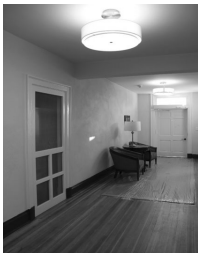
PAVILION X
newly renovated

PAVILION X AND ROTUNDA

O'NEIL HALL
old

O'NEIL HALL
newly renovated





O'NEIL HALL
interiors

PAVILION III
columns

BUILDING WITH LIME

HISTORY

Limes have been used in buildings for a least 7000 years, since at least 5000 B.C. Evidence of remaining structures and ruins we know that the Romans developed lime technology around 2000 years ago. Achievements of medieval cathedrals and castles were dependent upon lime technology.

It is essential to understand building limes for the proper repair and health of our historic structures.

LIME

stone, oyster shell, chalk, coral, marble - whose main constituents are calcium carbonate ($CaCO_3$)

Limes vs. Cements (OPC)

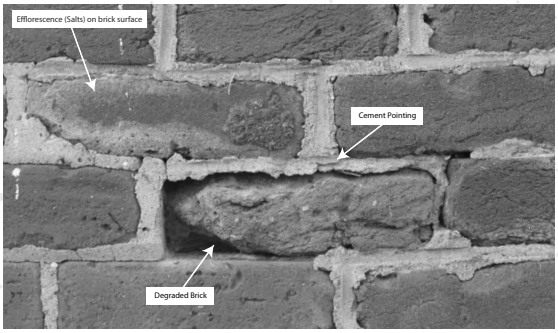
LIME

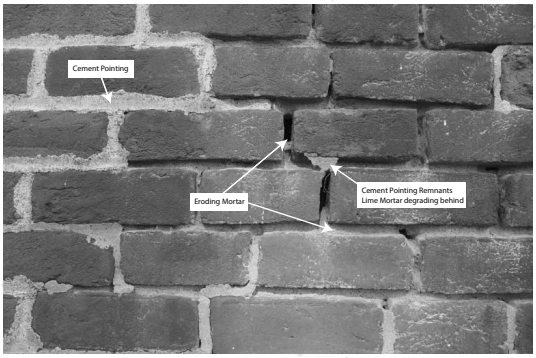
- Strength (like for like)
- Vapor permeability
- Autogenous healing
- Flexibility (accommodates movement structural as well as thermal and seasonal)
- Environmentally friendly (reabsorption of Carbon dioxide CO_2)

CEMENT

- Hardness
- Non-vapor permeable
- Soluble salts production
- Rigid
- Entrapment of moisture thus causing greenhouse affect producing Unhealthy Building Syndrome

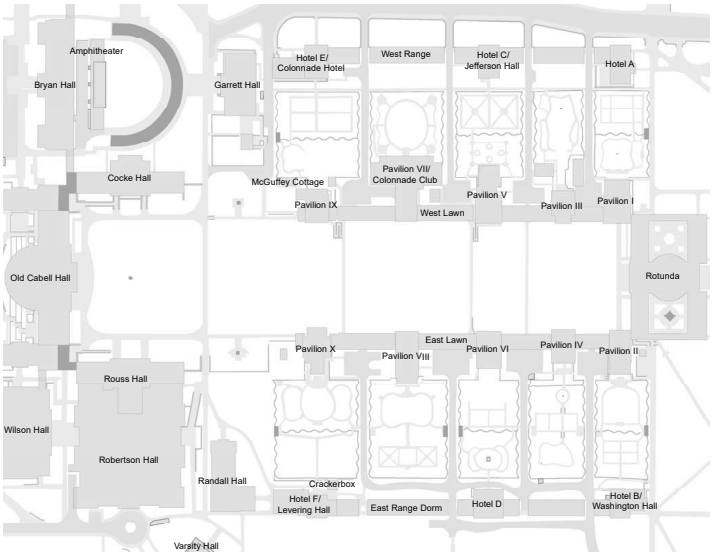
Examples


Efflorescence (Salts) on brick surface
Cement Pointing
Degraded Brick


Cement Pointing
Eroding Mortar
Cement Pointing Remnants
Lime Mortar degrading behind


Intact lime mortar
Rotten wood repaired with epoxy
Heavily eroded mortar
Spalling brick
Cement pointing

Current Historic Restorations & Renovations on the Lawn



Fall of 2016 a project to restore the original Jefferson Tuscan columns was developed

UNIVERSITY OF VIRGINIA - PAVILION VIII

Before restoration - Tuscan columns

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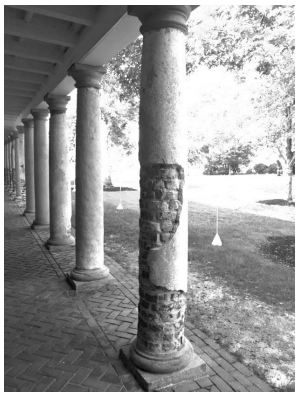
East Lawn student room colonnade between Pavilion VIII and X.
Removal of cementitious and paint coatings.



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Colonnade columns - viewing north to south between Pavilions VIII and X
Column 1 having original render (plaster) with cement removal
Column 2 - first coat (scratch coat) applied

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Column had split in half this was due to the deterioration of mortar. The column being non-vapor permeable due to cement patching and modern paint coatings.

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Original wood – molded Tuscan column brick

UNIVERSITY OF VIRGINIA
Original brick column – cement plaster has been completely removed

UNIVERSITY OF VIRGINIA
Tuscan stone base before removal of patching and coatings

UNIVERSITY OF VIRGINIA
Tuscan sand stone base after removal of coating and modern paints.
Local sandstone was used to carve the original bases.

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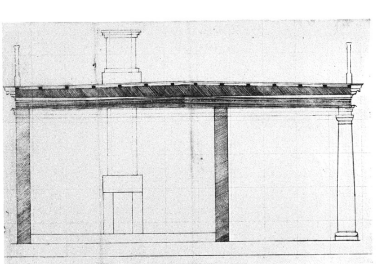
TUSCAN COLUMN REPAIR

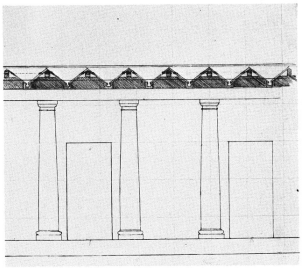
Mason/plasterers Zack Mays, Tim Proffitt, Lance Rothgeb and Robby Kolb repaired the 200-year-old Tuscan columns that line the Lawn within the Academical Village.

Pavilion Roof & Railing

HISTORY

An important aspect of Thomas Jefferson's design for the Academical Village is the inclusion of the colonnade connecting the ten pavilions on either side of the Lawn, which provides weather protection to the walkways beneath. Originally, the colonnades were covered with what Jefferson called a "terras roof", an Intricate system of tapered joists and serrated framing topped with a deck and railing that provided a walkway between the second floor en trances to the pavilions while also achieving the desired aesthetic effect of a flat roof above the dormitories.





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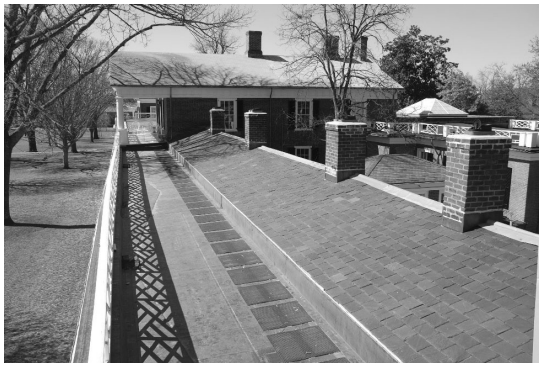
Thomas Jefferson’s flat roof design (left)

A key component was a “serrated” roof (right)



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Before renovation

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UNIVERSITY OF VIRGINIA

UNIVERSITY OF VIRGINIA

Plywood deck is installed over the beams, then a deck made of ipe wood is installed over the sleeper joints.

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During and after renovation

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Railing renovation

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Most of the existing railings on the Lawn date to the 1970s, and have deteriorated to the point of replacement.

In addition, they were built to an historically inaccurate design.

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The railings are fabricated in UVA's own cabinet shop.

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Before (top) and after (bottom)

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New roof and railings

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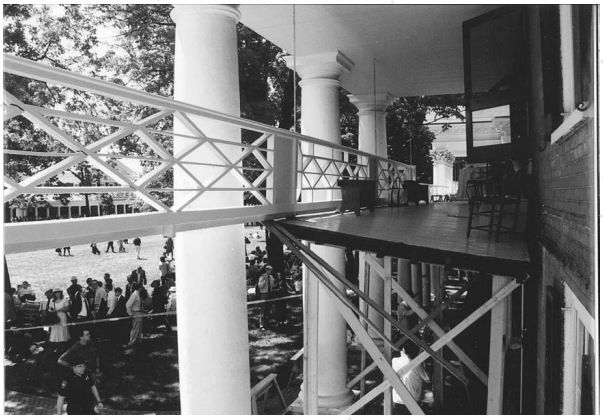
Team members included staff from Project Services (carpenters, masons, …) and Facilities Planning & Construction (Historic Preservation)

Balcony Collapse



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Explanation of AIA credits

Credit(s) earned on completion of this course will be reported to American Institute of Architects (AIA) Continuing Education Session (CES) for AIA members.

Certificates of Completion for both AIA members and non-AIA members are available upon request.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

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Course description

Many higher education campuses have facilities designated as historic property. Using these facilities efficiently, while preserving their historic character can be challenging. This elective course will include such topics as non-invasive maintenance practices, artisan training, preservation techniques and the value of research.

Faculty Member: Mark Stanis

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Learning objectives

1) Learn how navigate the codes and standards for historic buildings
2) Learn how to use the historic building while preserving its historic value
3) Learn non-invasive maintenance practices, artisan training, preservation techniques
4) Learn of the value of research

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This concludes
The American Institute of Architects
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Questions and/or comments?

Thank you

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