Section 106 Consulting Parties Meeting
January 27, 2016

SMITHSONIAN SOUTH MALL CAMPUS MASTER PLAN
Agenda

• Welcome and Introductions
• AIB Update
• Master Plan Update
• Cultural Landscape Report  
  – Discussion/Comments
• Smithsonian Garden Programs  
  – Discussion/Comments
• Next Steps/Schedule
Master Plan Update:

• NOI has been officially posted for the undertaking of an EIS
• Determination Of Eligibility for the Hirshhorn completed
• Study being by Smithsonian on Seismic approaches
  – Traditional and Base Isolated for preservation impacts
• Organization on Website homepage improved:
  – www.southmallcampus.si.edu
## Schedule

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>NEPA Public Scoping Meeting</td>
<td>December 16, 2014</td>
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<tr>
<td>Section 106 Overview &amp; Purpose and Need</td>
<td>March 30, 2015</td>
</tr>
<tr>
<td>Master Plan Alternatives</td>
<td>June 9, 2015</td>
</tr>
<tr>
<td>Castle Seismic and Treatment</td>
<td>October 9, 2015</td>
</tr>
<tr>
<td><strong>Cultural Landscape Report</strong></td>
<td><strong>January 27, 2016</strong></td>
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<tr>
<td>Landscape Concepts</td>
<td><strong>April 13, 2016 (anticipated)</strong></td>
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<tr>
<td>Continuation of Section 106 and EIS Assessments</td>
<td>ongoing</td>
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<tr>
<td>Draft &amp; Final Master Plan to NCPC</td>
<td>Summer and Fall 2017</td>
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Cultural Landscape Report (CLR)
Then and Now

1887

2015
CLR Goals and Objectives

1. Document the history of the South Mall Campus and its physical development over time;
2. Describe the existing conditions of the site;
3. Formulate an assessment of significance and integrity, both for the site as a whole and for its component features;
4. Provide recommendations for the site’s treatment and management;
5. Provide a sound basis to inform Master Plan decision-making and development
National Register and CLR Guidelines

• A Guide to Cultural Landscape Reports: Contents, Process, and Techniques
• Secretary of the Interior’s Guidelines for the Treatment of Cultural Landscapes
• Preservation Brief 36: Protecting Cultural Landscapes
• National Register Bulletin How to Evaluate and Nominate Designed Historic Landscapes
• National Register Bulletin How to Apply the National Register Criteria for Evaluation
## Major Periods of Development

<table>
<thead>
<tr>
<th>Period</th>
<th>Description</th>
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<tbody>
<tr>
<td>Prehistory to 1840s</td>
<td>Before the Smithsonian Institution</td>
</tr>
<tr>
<td>1840s-1900s</td>
<td>“Smithsonian Pleasure Grounds”</td>
</tr>
<tr>
<td>1900s-1950s</td>
<td>Effects of the McMillan Commission</td>
</tr>
<tr>
<td>1950s-1970s</td>
<td>Modernism and the Mall / Victorian Garden</td>
</tr>
<tr>
<td>1970s-1980s</td>
<td>The Quadrangle and Haupt Garden</td>
</tr>
<tr>
<td>1980s-Present</td>
<td>Subsequent Changes</td>
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Summary of Findings

1. Profound Changes to landscape over time; horticulture a relatively recent development from the 1970s.

2. The character of the landscape defined primarily by its major buildings leading to 6 character zones.

3. The quality, maturity, and variety of plant materials are also major, if secondary, contributing features.

4. The rich qualities of landscape can be reincorporated as part of a Rehabilitation Treatment to the 6 zones or subsequent work.

5. Hirshhorn and Quadrangle landscapes needed more assessment for Eligibility.
Six Character Zones:

- Castle
- Quad and Haupt Garden
- Freer Gallery and courtyard
- Arts and Industries Building with Ripley and Folger Gardens
- Hirshhorn Museum and Sculpture Garden
- Jefferson Drive
Characteristics of the Gardens to be incorporated into new work

Intimate seating areas
Contemplative areas
Long views to buildings
Variety of shade and sun plantings
Integration of sculptures and fountains
Informational interpretation and learning experiences

International references to underground museums
Meandering paths as well as formal garden areas
Horticultural richness

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Rich variety of landscape characteristics
1860s-1900

U.S. National Museum (AIB), Army Medical Museum, South Yard buildings

1887
Pre-1865
National Museum (A&I)  
1880s
1900-1940s

McMillan Commission, Freer Gallery, National Air Museum

1936
Freer Gallery of Art

Courtyard

1920s
National Air Museum

1920s
National Air Museum

Astrophysical Observatory

Staff tennis courts

1920
1950s-1970s

Ninth Street Tunnel, Hirshhorn Museum and Sculpture Garden, Victorian Garden

1976
1970s-1980s

Quadrangle and Haupt Garden, Hirshhorn Sculpture Garden Renovations, Ripley Garden

1988
Hirshhorn Sculpture Garden rehabilitation completed in 1978
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Hirshhorn Plaza Rehab, Folger Garden

1980s-Present

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• Hirshhorn Plaza renovations
Current Appearance

Haupt Garden

Ripley Garden

Hirshhorn Sculpture Garden

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Smithsonian Institution
South Mall Campus Master Plan

Then and Now

1850s

1890s

1970s

1987 to present

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Summary of Findings

• Changes in landscape over time leaves flexibility for future changes

• Hardscape changes and plantings responding to building evolution and can respond to new circulation patterns

• Influence of the Office of Horticulture in educational programs defined many of the garden designs and needs

• Treatment recommendations are for a rehabilitation approach to allow for variety of uses and character

• Many existing features can be reincorporated or reinterpreted once garden plans are further developed
Historic Preservation Findings

- Folger Rose Garden; first efforts 1970s; dedicated in 1998
- Mary Livingston Ripley Garden; sensory garden completed 1981
  - These two gardens found not to meet National Register of Historic Places criteria for listing as part of the CLR analysis.
- Hirshhorn Museum and Sculpture Garden;
  - this complex is found to have enough integrity of design to be eligible individually in the National Register of Historic Places (DOE 2015)

- Quadrangle and Haupt Garden; The CLR recommended an in-depth study to determine eligibility; The National Register criteria is to evaluate building and garden together and a DOE will be initiated.
Questions concerning CLR
Smithsonian Gardens Program

Mission: To enrich the Smithsonian experience through exceptional gardens, horticultural exhibits, collections, and education.
Smithsonian Gardens Operations

57 Employees, 75 Volunteers
Maintain over 180 acres of grounds in the Washington, D.C. area
Greenhouses & Storage at Suitland, Maryland
Educational Programs
Educational Programs
Educational Programs
Educational Programs
Exhibits
Exhibits

Terrariums

A terrarium is a miniature ecosystem housed in glass or clear plastic. Terrariums create a unique, sustainable environment for plants. Transparent walls transfer heat and light, elements necessary for plant life.

Water is another essential element for plants. A terrarium is closed system, once water is provided it is maintained through transpiration, condensation and precipitation. A water cycle is established.

What is a water cycle?

A water cycle is the natural movement of water on, above and below the earth's surface.

How does the water cycle work in a terrarium?

- A large part of evaporation is absorbed by the plant's leaves.
- During the process of photosynthesis, water moves through the plant creating the roots.
- Transpiration: plants use their leaves to release excess moisture back into the air.
- Condensation: when temperature in the terrarium increases, water in the planting media vaporizes.
- Water vapor is trapped inside the terrarium and condenses on the inside of the container. Condensation in turn, provides moisture to the terrarium walls.
- The water then returns to the terrarium, causing the plant's leaves to grow again. The cycle continues.

Orchids

Orchids Up Close

Before the invention of Victorian cases and terrariums, transporting orchids over long distances was difficult. Potted plants, field notes, botanical illustrations and dried specimens were the only sources of information botanists had on many exotic plants. Botanical gardens were especially important for botanists, as they worked to classify newly discovered plants.

How do botanists decide if a new plant is an orchid?

Look closely. All orchids have:

1. Lip, a lip is the most important part of an inflorescence which attracts pollinators.
2. Dorsal sepal, ventral sepal, outer petals, petals and lip are usually visible. Orchids other than orchids have petals that have both internal and external parts.

Orchids and other angiosperms:

Orchids have four petals: dorsal sepal, ventral sepal, petals and lip. The lip is the most important part of an inflorescence, which attracts pollinators. Orchids other than orchids have petals that have both internal and external parts.

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Growing Orchids at Home

Orchids are an amazing family of plants with more than 25,000 different species. Orchids grow in every continent except Antarctica. In all types of environments, dry deserts, rainy jungles, rocky swamps, temperate woodlands and forest edges.

Most orchids suitable for growing at home are hybrids that have been created specifically for their flowers and ease of care. Many of them are epiphytes, epiphytic growth in trees, not soil like terrestrial orchids.

Basic Orchid Care

- Water thoroughly once a week and forget it, allowing the media dry slightly between waterings.
- Do not overwater. Some orchids have special culture media that need to be kept from harsh, direct overhead light or any direct sun.
- Provide bright light, but no direct sun.
- Fertilize when not flowering.
- Provide humidity for the plants by placing them on a partially filled container water dish. Keep the humidity above 70% in the nighttime temperatures. 50% during the day.
- Choose a transparent pot. Orchids can be grown in opaque pots, but it is difficult to check the moisture level. An orchid pot should be heavy when over watered. A small orchid pot may need to be watered every two to three years, while a larger orchid pot may need to be watered every one to two years.

January 27, 2016
Research and Collections
Archives of American Gardens
South Mall Garden Program Needs
Improve and increase on-site storage for tools and equipment
Space needed for vehicle parking/maneuverability, plant delivery, mulch laydown, and recycling program
Dedicated outdoor education space and direct access to indoor space (w/storage)
Solidify Identity of Smithsonian Gardens across the South Mall
Maintain & enhance botanically interesting gardens related to SG & Museum Programs
Existing conditions in the Haupt Garden show a large number of service projections and entry areas within the Haupt Garden that restrict or could be improved for Smithsonian Garden programs and plant maintenance.
South Mall Program Needs Summary

- Dedicated outdoor and indoor education spaces

- Enhance Smithsonian Gardens identity and continuity across the campus

- Storage of tools, equipment, recycling and supplies as well as vehicle and plant management

- Maintain & enhance botanically rich gardens related to garden and museum programs
Questions and Answers
Smithsonian Institution
South Mall Campus Master Plan

January 27, 2016
Next Steps

Future Consulting Parties Topics

• Infrastructure
• Seismic Treatment
• Review of additional DOEs

Refinement of Alternatives
Next Steps

Analysis of Alternatives

Prepare Draft EIS for Public Comment

Commission Review
ideal campus plan (2022)

The ideal campus plan in 10 years, with a healthy funding climate and AIB in interim use. Colored areas indicate general program location preferences, approximately scaled. Arrows indicate above- and below-grade connections.

Retreat Report 2012 to be posted at [www.southmallcampus.si.edu](http://www.southmallcampus.si.edu)
Please send written comments to Michelle Spofford at SpoffordM@si.edu by Wednesday, February 10.

www.southmallcampus.si.edu