

**Museums & Cultural Meaning
Agriculture on America's Front Lawn**

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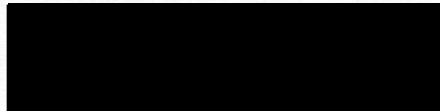
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ABSTRACT

The United States' National Mall is a landscape unlike any other. The expansive – seemingly endless – lawn, flanked by enormous museums, memorials, and galleries, is the end of a pilgrimage for American civil religion. The Mall is a cultural landscape that communicates to a diverse audience (domestic and international) the virtues and values of American society. Through classical and Christian imagery, the Mall reinforces American exceptionalism.

American agrarianism, as informed by the frontier myth, has insulated farmers from positive adaptation, reinforcing instead the self-image of a hero victimized by circumstances. These myths of the yeoman farmer are inconsistent with today's tech-savvy, agricultural industry.

The United States Department of Agriculture (USDA) is the only office building on the Mall. Furthermore, the USDA has no public programming. This thesis proposes a science of agriculture museum – adjacent to the USDA's building – that reframes agriculture as a S.T.E.M. profession. Moreover, this intervention responds critically to the scale, architectural styles, and materiality of the Mall by introducing human-scaled public spaces and greenhouses.

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DEDICATION

This thesis is dedicated to my strong, talented, and artistic grandmother, Rae Tobias.

PART ONE: SYMBOLISM & MEANING IN ARCHITECTURE

We are living through what is perceived to be one of our democracy's most intense crises in generations, which means it is in fact the perfect moment to build Monuments to its rebirth. In crisis lies the greatest opportunity for reinvention. In each island of progress may there rise Democratic Monuments of symbolic sustenance, and practical pageantry, for our sprawling cities, for our expanding towns, for the many, and for the few; beauty, but for everyone. - Adam Nathaniel Furman, The Democratic Monument¹

1. Adam Nathaniel Furman. "The Democratic Monument: Adam Nathaniel Furman's Manifesto for a New Type of Civic Center." ArchDaily. July 03, 2017. Accessed December 14, 2018. <https://www.archdaily.com/874860/the-democratic-monument-adam-nathaniel-furmans-manifesto-for-a-new-type-of-civic-center>.

1.1: THE PROBLEM OF MODERN MONUMENTALITY

In 1937, American architectural theorist Lewis Mumford proclaimed in his seminal essay, *The Death of the Monument*, that, “The very notion of a modern monument is a contradiction in terms; if it is a monument, it cannot be modern, if it is modern, it cannot be a monument.”² He believed that monuments “no longer represent the deeper impulses of our civilization³” and “are completely irrelevant to the living.”⁴

Responding to Mumford’s paradox architectural theorist, Sigfried Gideon, along with artists, Jose Sert and Fernand Leger, argued in their manifesto *Nine Points on Monumentality*, that monuments “must satisfy the eternal demand of the people for translation of their collective force into symbol.”⁵

Modern architecture needed to shift its focus towards the spiritual enrichment of people and away from scientific reason. Their emphasis on symbolism within architecture established a new relationship between creator and reader, a relationship built on the phenomenological and experiential qualities of the building.

Asserting meaning into modern architecture lead to a renewed interest in historical architecture. Continuity with the past served as a way to engage with local culture. Modern architects began to acknowledge historical precedents and studied their experiential qualities and communicative powers. Renewed interest in historical architecture provoked innovative forms of engagement.

2. Lewis Mumford, *The Death of the Monument*, in *Circle: International Survey of Constructive Art* (London: Faber and Faber, 1937), 263-270.

3. Ibid.

4. Ibid.

5. Sert, J L., F. Leger and S. Giedion. *Nine Points on Monumentality*. *Harvard Architecture Review* 4:62-63.

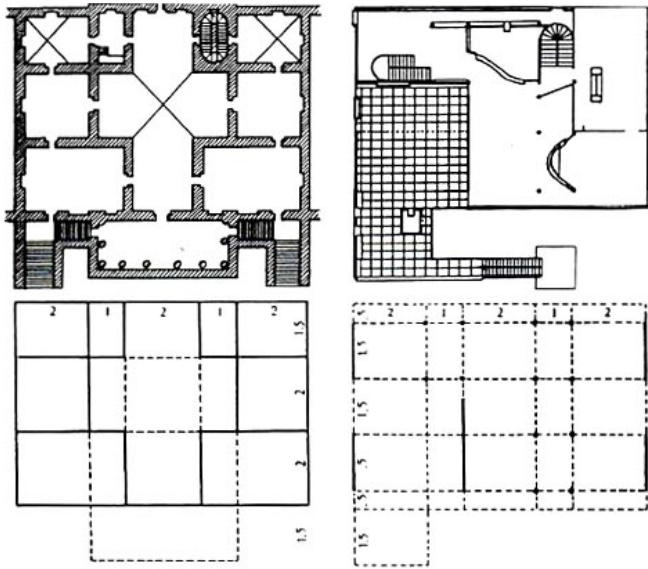


Figure 1.1.1: The mathematics of an ideal villa

Architectural theorist Colin Rowe pioneered the non-chronological relationship between modernity and classicism, reinforcing the theory of natural law by laying claim to classicism as the foundation of modern architecture.

By alluding to the past, architects could express a complex and varied view of the present. Theorist Charles Jencks contended that architectural symbolism has political connotations. He hoped that an “architecture of resistance” could be formed using “the language of the local culture.”⁶

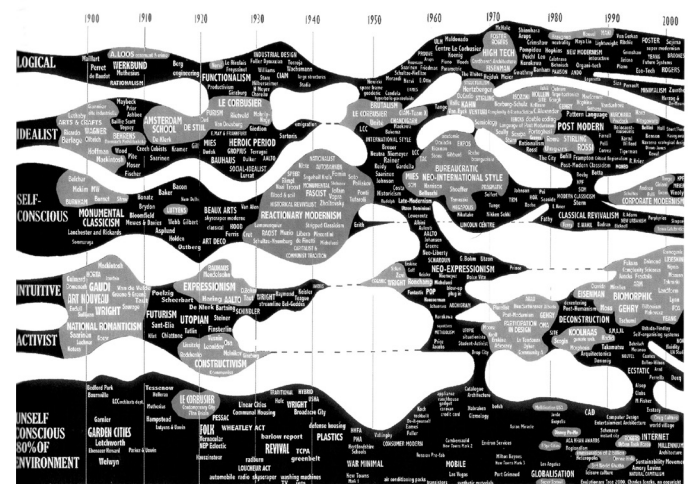


Figure 1.1.2: Evolutionary tree to the year 2000

6. Mary, McLeod, “Architecture and Politics in the Reagan Era: From Postmodernism to Deconstructivism.” *Assemblage*, no. 8 (1989): 22. doi:10.2307/3171013.

1.2: POSTMODERNISM & PUBLIC ENGAGEMENT

Modernism's "messianic faith of the new"⁷ and eradication of the past was eroded by a new generation of architects who sought to re-engage with history "[in] an attempt, and an important one, to respond to the problem of meaning which was posed but never solved by the modern movement."⁸ As Mary McLeod contends, "history provided a communicative language, it was a means for architecture to regain the public role that the hermeticism of modernist abstraction had denied it."⁹ The meaning of architectural form, stifled by modernism's slavish devotion to efficiency and simplicity, was rebuffed by postmodernists advocating for architecture's re-engagement with the public.



Figure 1.2.1: Typical Main Street U.S.A. From Venturi's *Complexity and Contradiction*

Postmodernism's skillful combination of "the elitist appreciation of high art and populist embrace of main street,"¹⁰ rekindled the public's interest in architecture. Postmodernism's approachability and unrestrained aesthetic, combined with

7. Ibid.

8. Beyond the Modern Movement, *Harvard Architecture Review* 1 (1980):4.

9. Mary, McLeod, *Architecture and Politics in the Reagan Era: From Postmodernism to Deconstructivism*. *Assemblage*, no. 8 (1989): 22. doi:10.2307/3171013.

10. Ibid.

references to the past, subverted conventions and “[made] explicit the inherent paradoxes and provisionality [sic] of a historical moment.¹¹” Furthermore, the dichotomies inherent in postmodern architecture such as “tradition and innovation, order and fragmentation, figuration and abstraction,¹²” demonstrated a depth of complexity that could not be expressed by modernist architecture. By holding two ideas in tension, postmodernism created a third meaning – a version of history – that served to that further undermine modernist architecture’s public role.



Figure 1.2.2: Interior of the Salisbury Museum addition by Venturi Scott Brown.

11. Ibid.

12. Ibid.

1.3: A POSTMODERN CASE STUDY

The American bicentennial sparked a number of government funded projects such as Franklin Court by post-modern architects Venturi, Scott Brown, and Rauch.



Figure 1.3.1. The remains of Benjamin Franklin's home with postmodern additions such as windows, doors and floor plans demarcating rooms.

Franklin court does not faithfully recreate Benjamin Franklin's home and print shop, but rather uses architectural language to help the public recreate the spaces. The combination of elite and popular culture creates an extremely successful space that enhances the public realm.

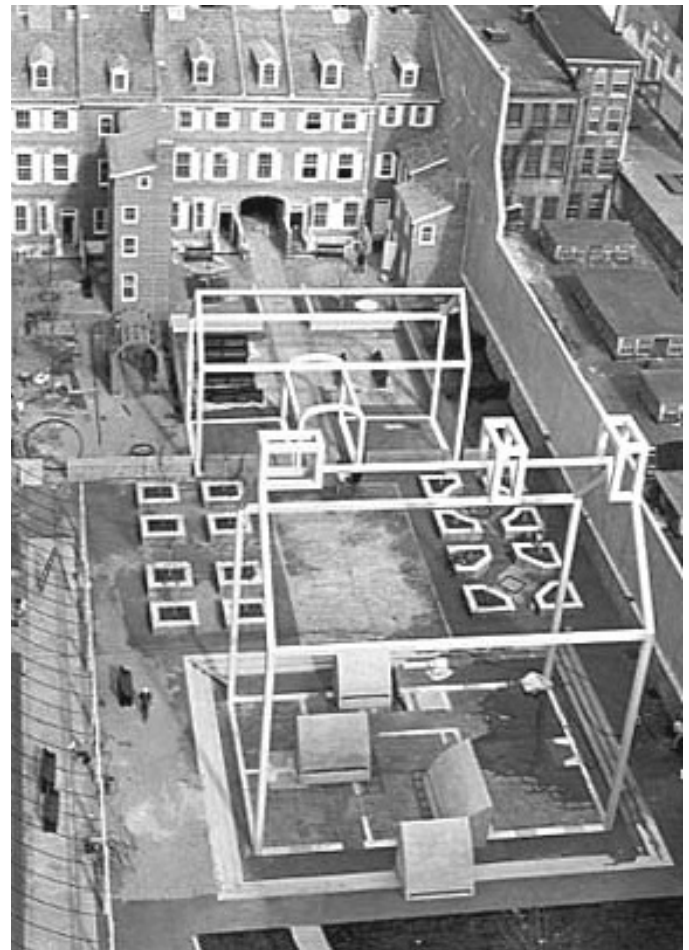


Figure 1.3.2. Aerial view of Franklin Court with wireframe structures.

1.4: FAILURES OF POSTMODERNISM

Postmodernism's practice of historical allusion quickly became "nostalgia, escape, or enjoyable simulacrum - a denial of history itself."¹³ Moreover, postmodernists' farcical interpretation of historic references coupled with arbitrary historic references used "to create an aura of historical depth,"¹⁴ was no more respectful of local traditions than modernist architecture.

Postmodernism drew on references that "evoke a one-sided past,"¹⁵ reducing the complexities of history in order to emphasize symbolism intended by the victors. Drawing on primarily classical (Greco-Roman) imagery, postmodernism continued to promote the notion of western superiority.

As Mary McLeod explains, "[there are inherent] difficulties equating architectural form with words, the problem of consensus concerning architectural meaning, the distracted mode of architecture's reception, and the shifting nature of

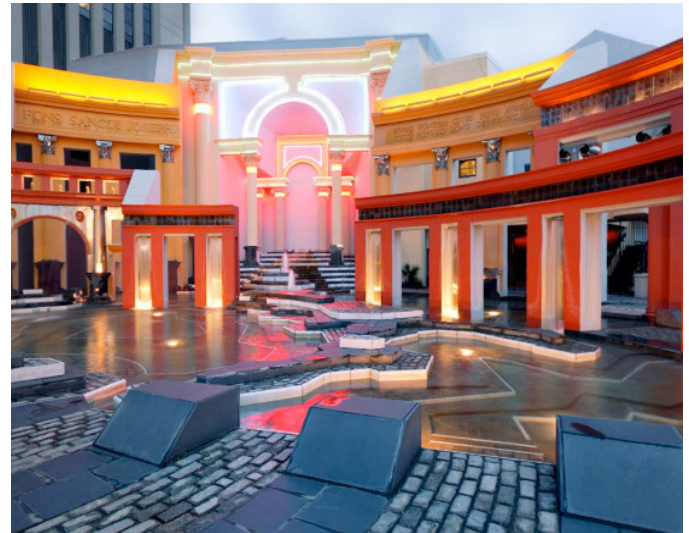


Figure 1.4.1 Piazza d'Italia

any meaning that might be conveyed."¹⁶ In other words, architectural meaning is unstable and ambiguous.

13. Ibid.

14. Ibid.

15. Ibid.

16. Ibid.

1.5: A NEW GENERATION OF POSTMODERNISTS

It is true that, “architecture is not a literary form,¹⁷” and therefore cannot communicate a singular narrative. As Sean Griffith explains, “signifiers – the vessels that convey meanings – have a tendency to become untethered from their moorings.¹⁸” Nevertheless, societal norms and values embed architecture with meaning and symbolism, and therefore, architecture cannot help but inherit a communicative power. In Martin Lamprecht’s essay entitled, “**Now is not the time to be indulging in postmodern revivalism,**” Lamprecht concisely explains the role of symbolism in architecture, “architecture cannot not communicate.¹⁹”

A resurgence over the last 10 years in postmodernism amongst a new generation of architects has sparked a critical look at the ambiguity of architectural symbolism in society. The recent re-engagement with architectural symbolism explores architecture’s communicative powers in order to explore architecture’s role in “rewriting sociological narratives and reveal societal values.²⁰” As Adam Furman describes, “a fragmenting society and a diffuse urban realm is given new symbolic anchors that neither ignore the deep veins of difference, nor impose an arbitrary uniformity, but celebrate the constant tensions, debates and engagement that keep any one aspect of society from eclipsing the others.²¹”

17. Sean Griffiths, “Sean Griffiths: ‘It’s Not the Time to Be Indulging in Postmodern Revivalism’,” Dezeen. November 01, 2017. Accessed December 14, 2018. <https://www.dezeen.com/2017/10/30/sean-griffiths-fat-postmodern-revivalism-dangerous-times-opinion/>.

18. Ibid.

19. “Postmodern Revivalism Doesn’t Exist; Now Is Not the Time to Be Criticizing It,” ArchDaily. November 02, 2017. Accessed December 14, 2018. <https://www.archdaily.com/882824/postmodern-revivalism-doesnt-exist-now-is-not-the-time-to-be-criticizing-it>.

20. “About,” Bureau Spectacular. Accessed December 14, 2018. <http://bureau-spectacular.net/about/>.

21. Adam Nathaniel Furman. “The Democratic Monument: Adam Nathaniel Furman’s Manifesto for a New Type of Civic Center.” ArchDaily. July 03, 2017. Accessed December 14, 2018. <https://www.archdaily.com/874860/the-democratic-monument-adam-nathaniel-furmans-manifesto-for-a-new-type-of-civic-center>.

Neo-postmodernism is disorienting, dizzying, and resistant to a unified aesthetic, reflecting a diversity of stakeholders and the instability of architectural symbolism. Neo-postmodernists' loud attention-getting aesthetic "draws the observer into a highly engaging interaction with the work."²²

Architecture will continue to accumulate new meanings and resist a singular theme. I am interested in how the unstable and ambiguous meaning of architecture changes the ways in which we engage and relate to historical architecture. I am arguing in favour of radical historical preservation because a monument that "no longer represent[s] the deeper impulses of our civilization" becomes "completely irrelevant to the living."²³

22. Martin Lamprecht, Postmodern Revivalism Doesn't Exist; Now Is Not the Time to Be Criticizing It, ArchDaily, November 02, 2017, , accessed April 23, 2019, <https://www.archdaily.com/882824/postmodern-revivalism-doesnt-exist-now-is-not-the-time-to-be-criticizing-it>.

23. Lewis Mumford, The Death of the Monument, in Circle: International. Survey of Constructive Art (London: Faber and Faber, 1937), 263-270.



Figure 1.5.1 The Democratic Monument

1.6: NEO-POSTMODERN CASE STUDY



Figure 1.6.1 Jumenez Lai's White Elephant is simultaneously a large piece of furniture and a very small room.

The White Elephant has a small, plush cowhide interior that snugly envelops one person. The interior starkly contrasts the White Elephant's durable polycarbonate exterior. Because the White Elephant does not have a fixed position it cannot be described by a single plan or section. The White Elephant defies all expectations of traditional architecture.

Jumenez Lai's White Elephant plays with scale in order to act as both a large piece of furniture and a small building at the same time. Its odd shape and 10' x 10' x 10' dimensions invites individuals to explore the object by spinning, pulling, pushing and kicking it.

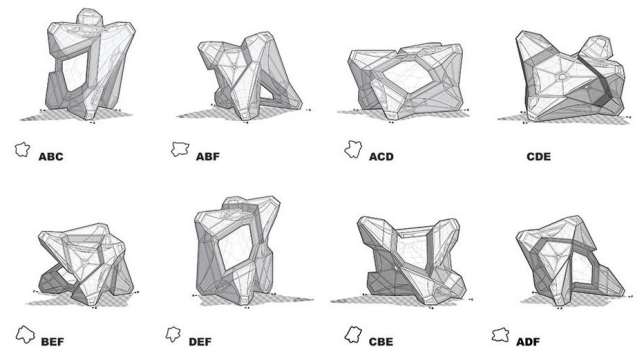


Figure 1.6.2 White Elephant has no fixed position.

PART TWO: AMERICAN CIVIL RELIGION

The collapse of modernist ideals in architecture occurred at a pivotal moment in American society. Protests erupted across the nation. Civil unrest not seen since the Civil War ensued. In the midst of this social upheaval, sociologist Robert Bellah came up with the theory of American Civil Religion. His theory describes the ways in which classical Greek and Roman imagery along with Christian imagery reinforce American Exceptionalism.



Figure 2.1.1: Civil Right Protest



Figure 2.1.2: The painting on the Capitol Dome entitled, The Apotheosis of Washington.

Bellah builds on Rousseau's theory of civil religion mentioned in Book 8 of the Social Contract which proposes that a civil religion is necessary to bind a republic. Similarly, Bellah's theory of American civil religion explores the roles Christian and classical allegories play in attempting to unify America's deeply fractured society.

By using classical imagery, American society lays claim to Roman lineage (the foundation of all "civilized" Western European nations) and asserts its role as the successor of Western civilization. While Christian imagery expresses that American society is governed (and guided) by a higher power.

Together, classical and Christian imagery frames America as a morally superior nation, rationalizing American exceptionalism.



Figure 2.1.3 Martin Luther King Jr. Memorial, Washington

American civil religion evolves with social values and norms by emphasizing specific principles of the religion that match the current socio-political climate. Over time, American civil religion has shifted from deifying leaders of warfare to leaders of civil rights.

2.2: THE YEOMAN FARMER & JEFFERSONIAN IDEA OF DEMOCRACY

The Jeffersonian ideal of the yeoman farmer and the individual participant in democracy promoted the settlement of the west. Problematically, Jefferson's ideal of the gentleman farmer conflicted with the harsh realities of farming in the mid-west.

Westward expansion relied on the exploration, sales, and settlement of agricultural land. The National Land Ordinance of 1785 provided a method for settling and purchasing land.

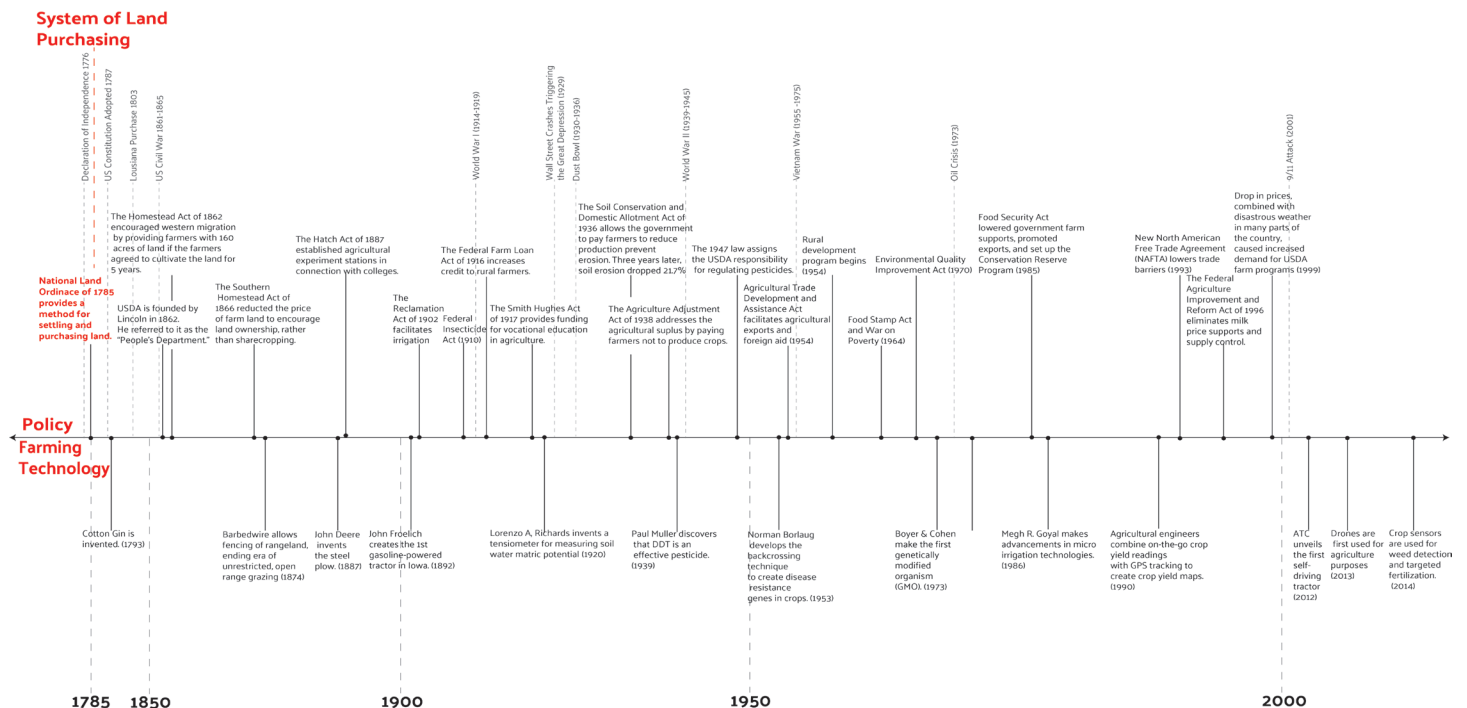


Figure 2.2.1 Farming in America Timeline

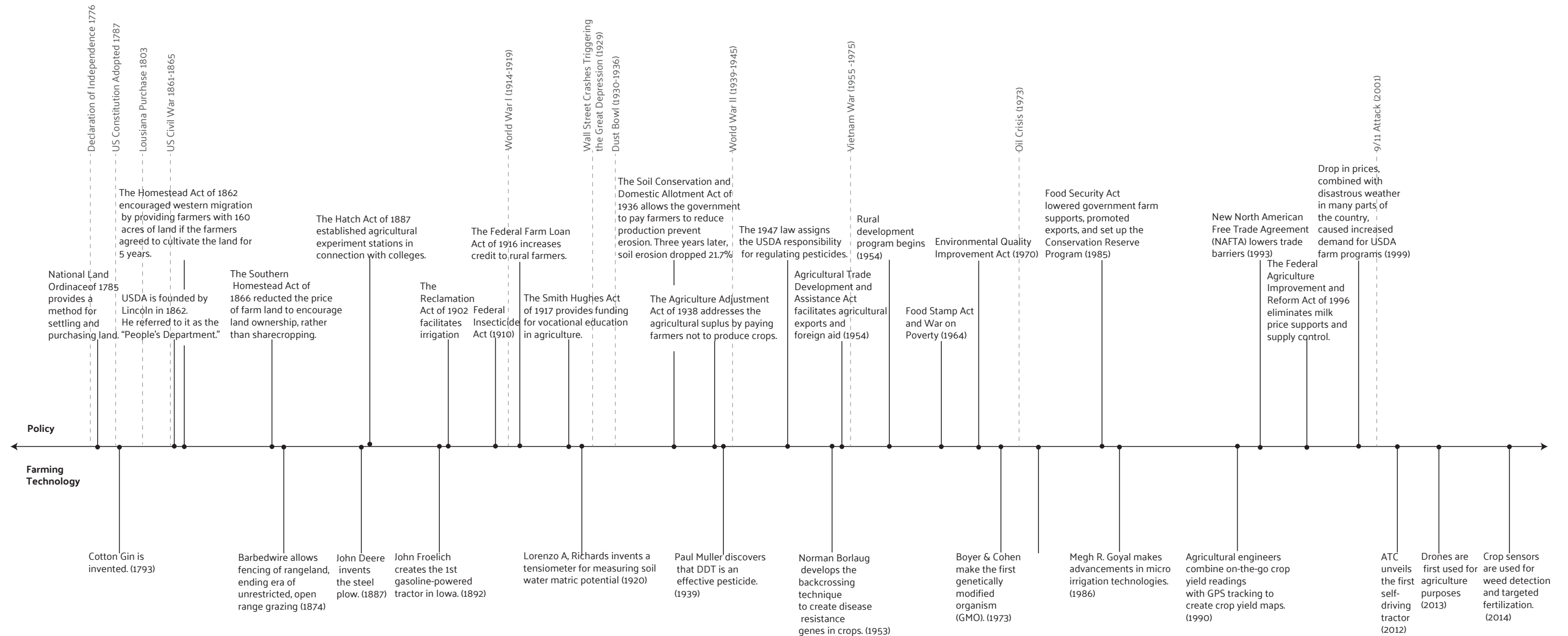


Figure 2.2.2 Farming in America Timeline

American agrarianism, as informed by the frontier myth, has kept farmers from positive adaptation, reinforcing instead the self-image of a hero victimized by circumstances. These myths of the yeoman farmer are inconsistent with today's tech-savvy, agricultural industry.



Figure 2.2.3 American Gothic



Figure 2.2.4 Cover of Newsweek Magazine October 2015.

Today, the agriculture industry in America bears little – if any – resemblance to the bucolic, quaint image of the small American farm. The industry is characterized by precision technologies, large scale production of genetically modified cash crops, and massive industrialized farms.



Figure 2.2.5 A landscape painting of a peaceful American farm with cattle grazing freely .



Figure 2.2.6 An agrobot harvesting strawberries at an industrial scale farm in the USA.

2.3: WASHINGTON D.C. & SYMBOLISM IN THE FEDERAL CITY

Washington DC, the American capital, was a swamp marsh in 1776. DC was strategically chosen because of its location between the urban, industrialized north and the rural, agrarian south.

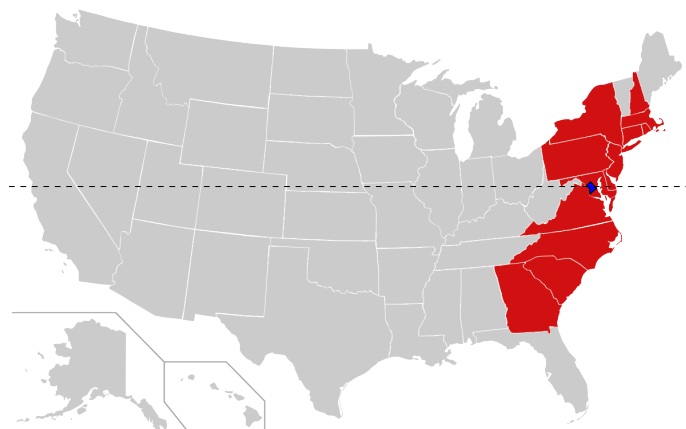


Figure 2.3.1 Washington D.C. and the thirteen American colonies

In addition to representing the interests of the northern and southern states, Washington DC had to communicate to a global audience the worthiness and importance of this newly founded nation and its revolutionary government.

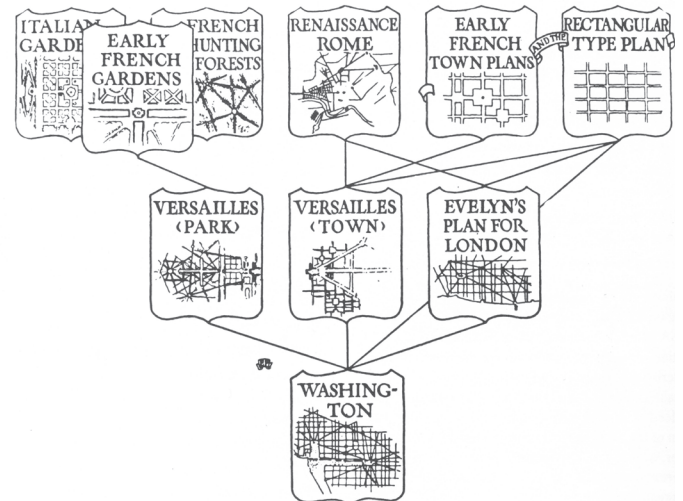


Figure 2.3.2 The family tree of Washington D.C.

Borrowing directly from the gardens at the Palace of Versailles, Charles L'Enfant focused particularly on sightlines for the new capital. He created vistas which highlighted the Capitol and the White House to denote the government's power.

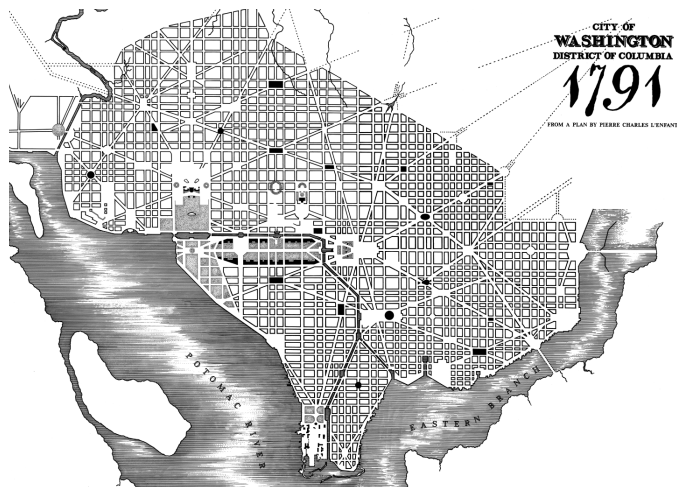


Figure 2.3.3 L'Enfant's master plan for Washington D.C.

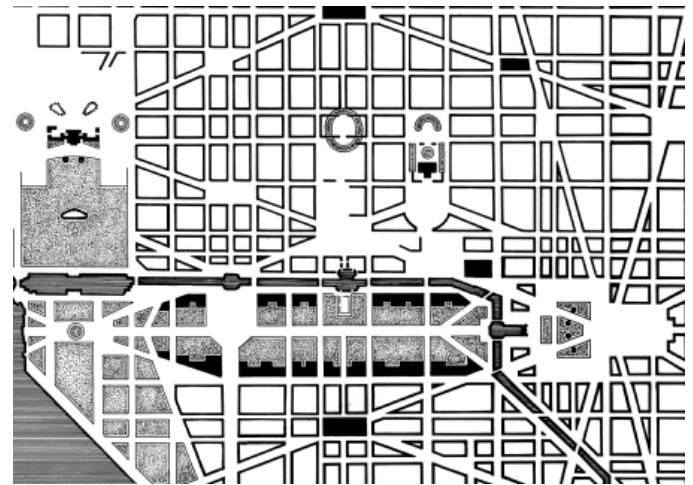


Figure 2.3.4 L'Enfant's plan for the National Mall

L'Enfant designed a “grand avenue” stretching west from the Capitol to the Potomac River. Over the last 200 years, this grand avenue (known as the National Mall) has transformed into a symbol of American culture.

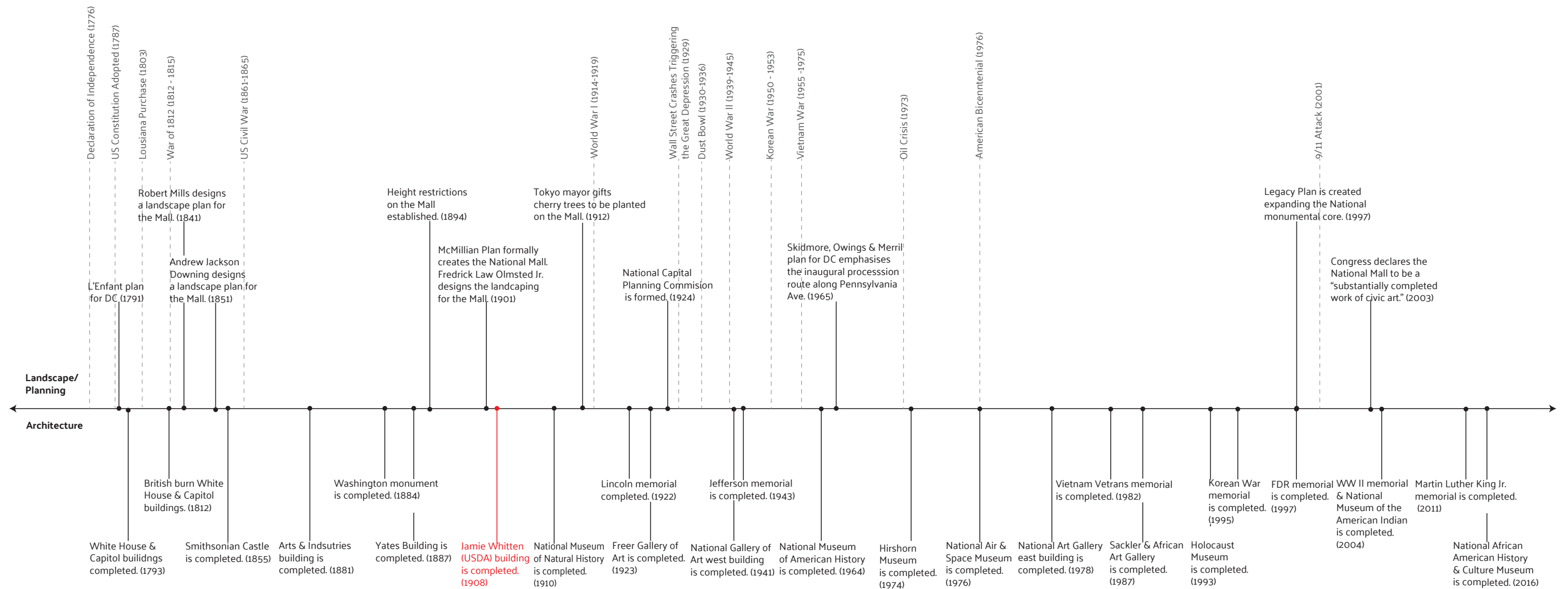


Figure 2.3.6 A timeline of the National Mall

The mall has gone through many iterations and comprehensive plans over the last 200 years. These plans have been stitched together to make the patchwork that is the current National Mall.

In contrast to the pristine and minimalist lawn of the Mall, the 1851 landscape plan by landscape architect, Andrew Jackson Downing, proposed a series of circuitous gardens with many different plant species with the intention of educating a broader public.

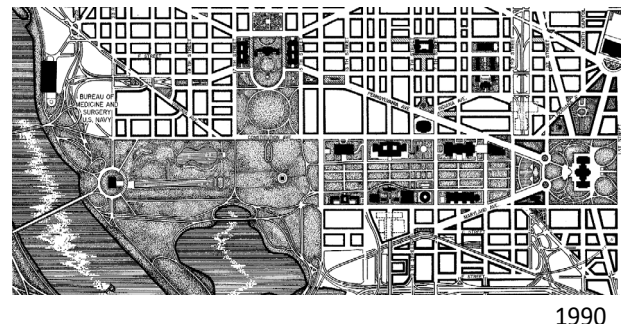
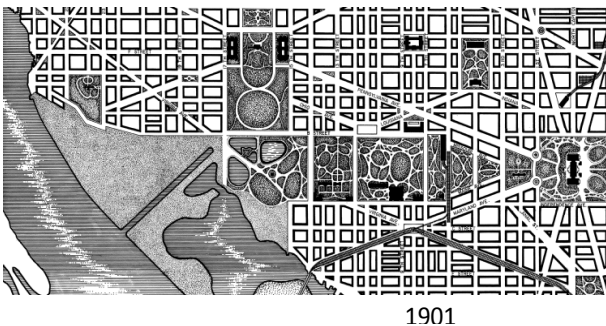
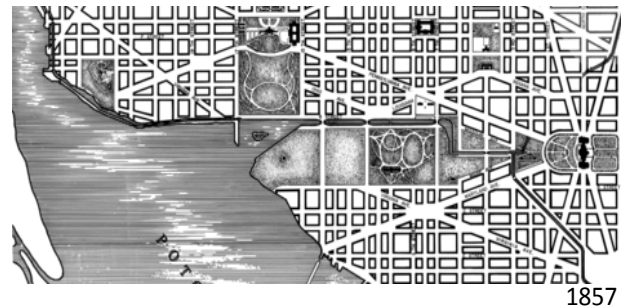
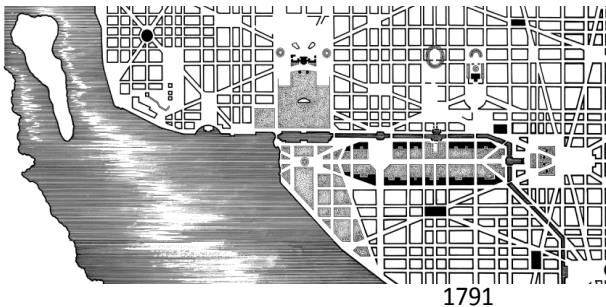


Figure 2.3.5 Master plans for the National Mall

Today, the United States' National Mall is a landscape unlike any other. The expansive – seemingly endless – lawn, flanked by enormous museums, memorials, and galleries is a cultural

landscape that communicates the virtues and values of American society.

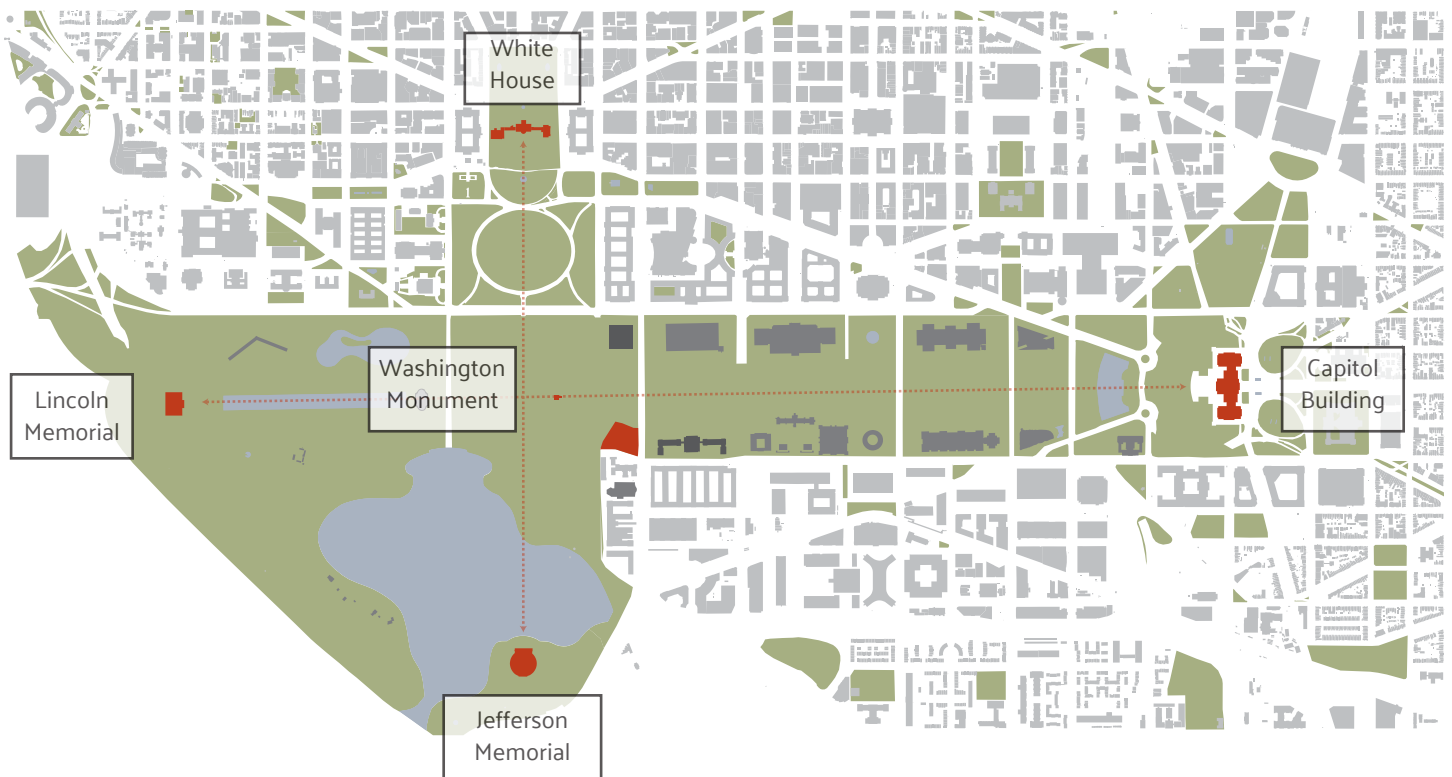


Figure 2.3.7 The National Mall

2.4: THE USDA COMPLEX & THE MALL

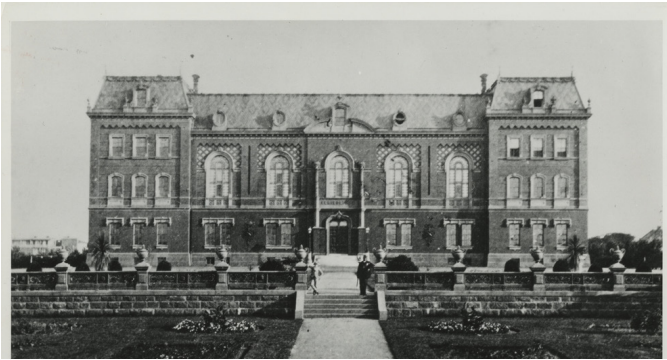


Figure 2.4.1 Victorian style USDA building (1876)

The 1901 McMillan plan proposed a comprehensive strategy for the turning the National Mall into a monumental core of the growing city. The McMillan plan - based on the City Beautiful movement - sought to use beauty as a means of social control and civic enhancement.

The plan proposed an orderly row of neoclassical style buildings along the east-west axis of the Mall. The cluster of Victorian-style brick buildings that comprised the USDA complex were razed and replaced by a large reinforced concrete neoclassical building in 1908.

Today, the USDA main building is the only office building on the Mall. It holds a very prominent site, south of the Washington monument and directly across from the National Museum of American History & Culture.

Over time, the USDA's need for office space has grown. The USDA is now a complex comprised of three buildings (the USDA main building, south building, and Yates building) - none of which have any public facing programming.



Figure 2.4.2. The USDA main building was the first building built after the McMillan plan in 1908.

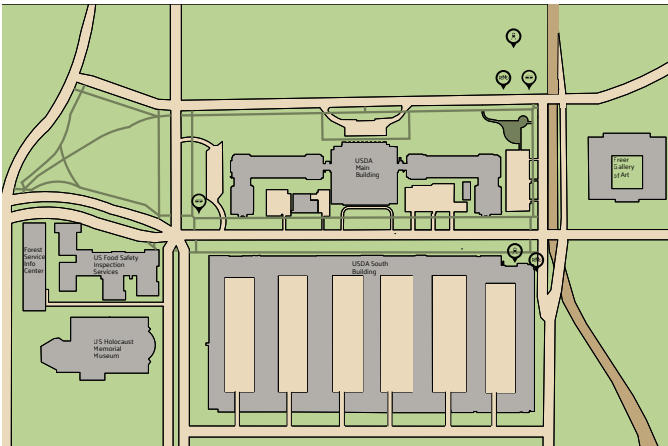


Figure 2.4.3. The Smithsonian metro station has two entrances to the right of the USDA complex.

The USDA, referred to by Lincoln as “the People’s Department,”²⁴ only communicates with the public through its neoclassical façade. The neoclassical style evokes a bucolic image of farming that does not represent the current state of farming in America nor the work of the USDA.

This thesis looks at the ways in which the theory

24. “Lincoln’s Agricultural Legacy,” United States Department of Agriculture, accessed April 24, 2019, <https://www.nal.usda.gov/lincolns-agricultural-legacy>.

of American Civil Religion and neo-postmodernism can inform a public-facing program for the USDA. I have decided that this public program should take the form of a museum adjacent to the USDA main building on the Mall.

It is a museum that discusses the history of agriculture but isn’t the Jeffersonian story of the Yeoman farmer and the individual participant in democracy, but rather, a museum that admits that agriculture has always been industrial and has always involved a scientific and methodical approach to production.



Figure 2.4.4. A frieze on the USDA main building.

[illegible]

Figure 2.4.5 Agricultural symbolism on the National Mall

PART THREE: DESIGN PROPOSAL

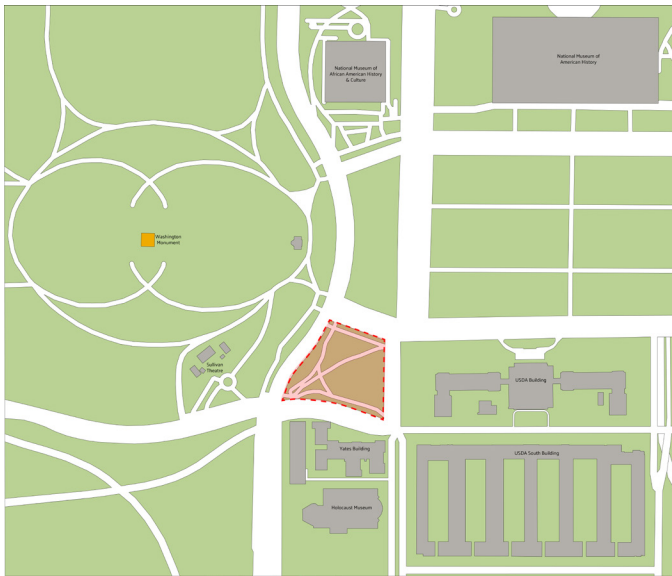


Figure 3.1.1 Site Plan

Located west of the USDA main building and directly in front of the Yates Building, the proposed Science of Agriculture Museum occupies the unprogrammed north-western quadrant of the USDA complex.

Unlike most of the mall, this site is not orthogonal. Its shape is a response to the landscaping of Washington Monument. This site is the only

unprogrammed plot of land along the Mall's east-west axis between the Washington Monument and the Capitol.

The proposed Science of Agriculture Museum is in dialogue with the Washington Monument and the National African American Museum of History and Culture (NAAMHC). Together, they create a compelling narrative that highlights the connection between agriculture, technology, and slavery rooted in American history.

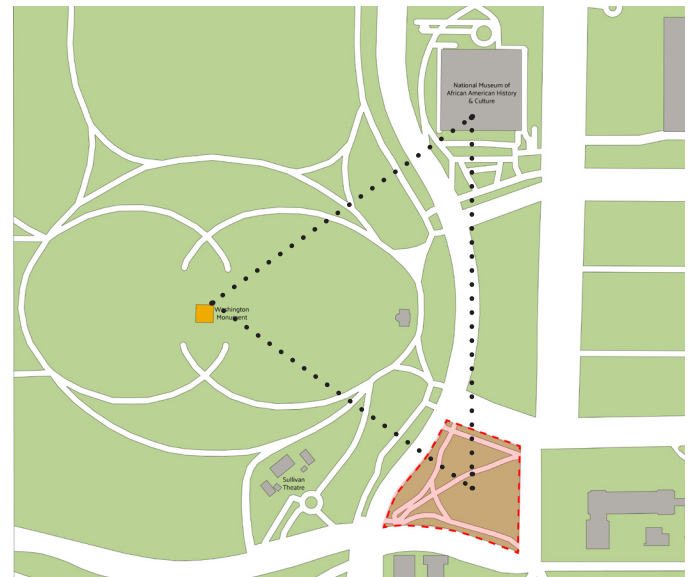




Figure 3.1.2 An aerial view of the Science of Agriculture Museum

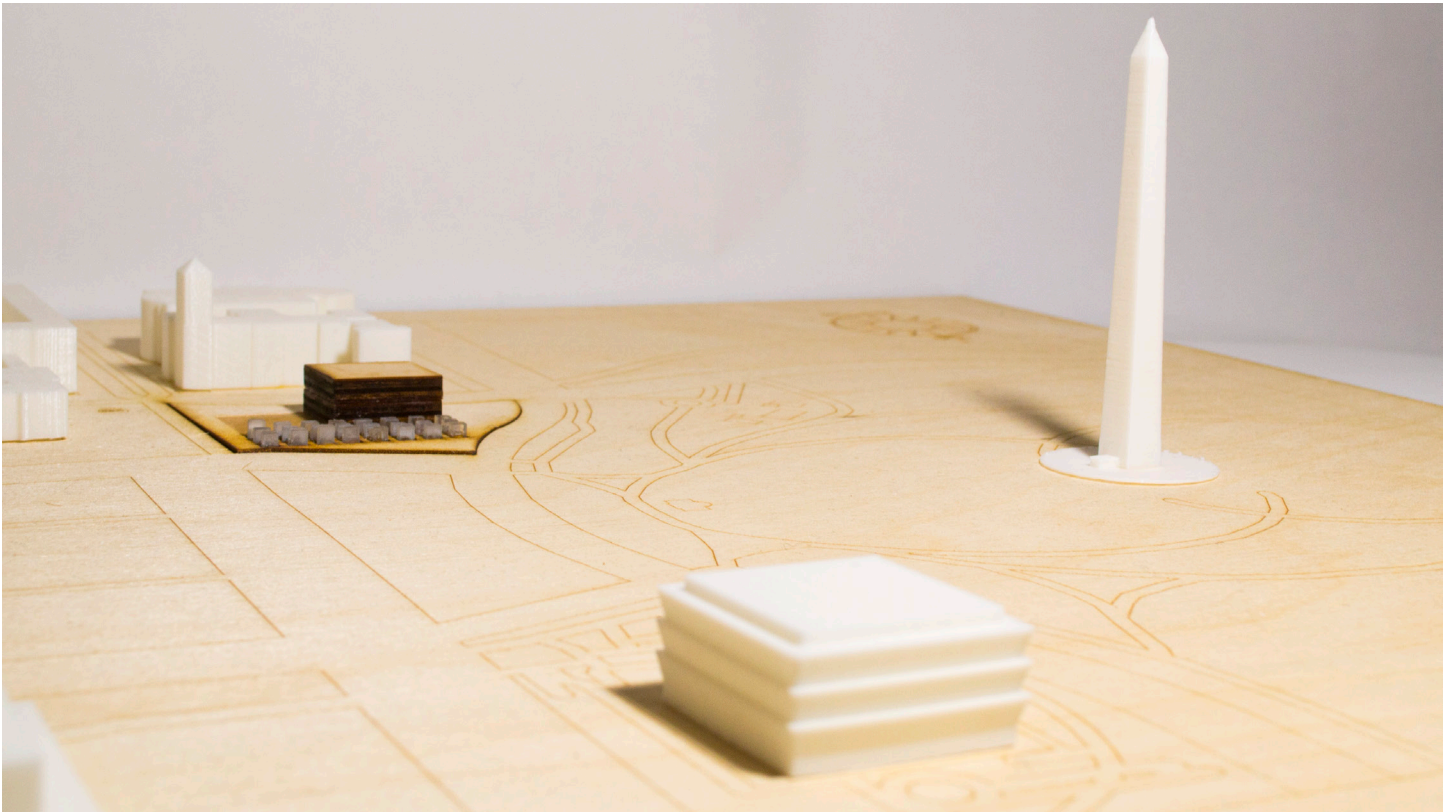


Figure 3.1.3 Photograph of Site Model showing the relationship between the proposed Science of Agriculture Museum, Washington Monument, and National African American Museum of History and Culture.

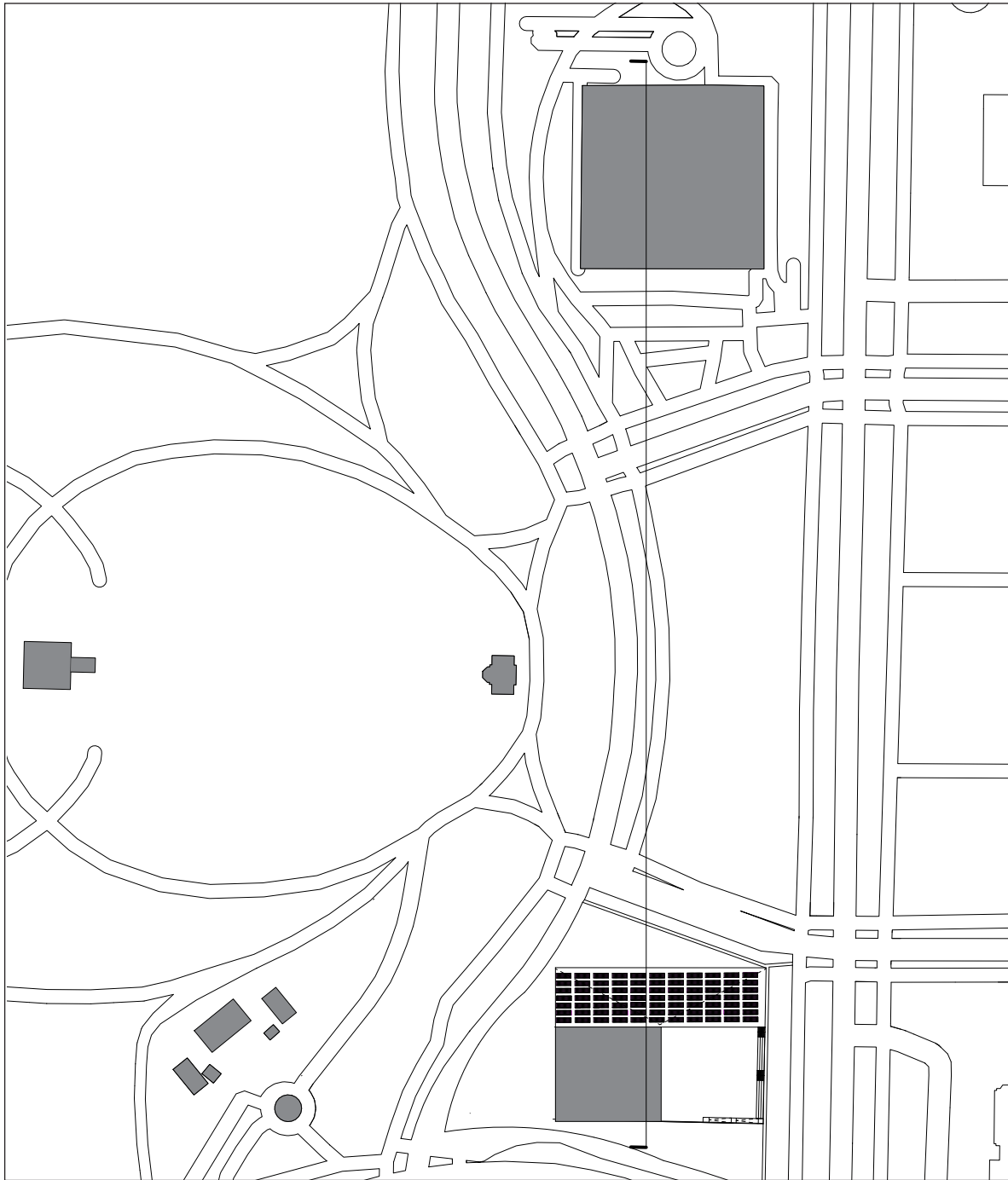


Figure 3.1.4 Site Plan of Science of Agriculture Museum

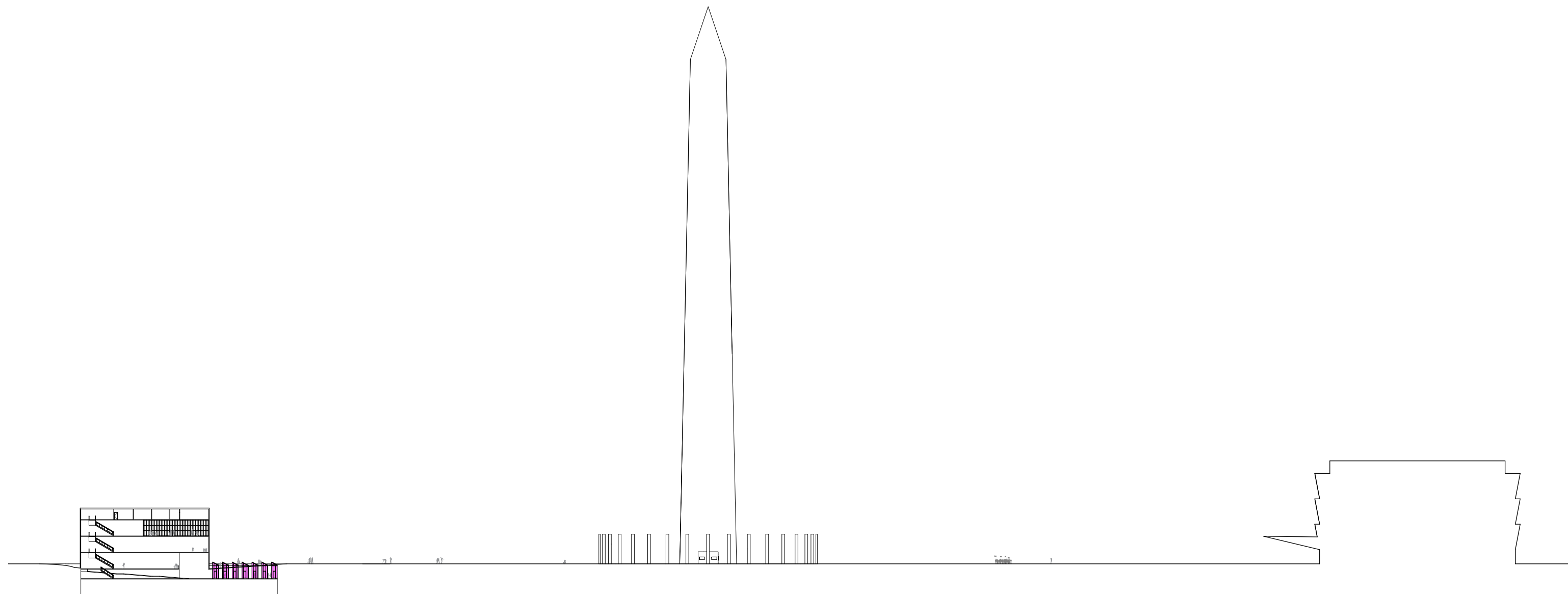


Figure 3.1.5 Site Section of the Science of Agriculture Museum

3.2 THE PROGRAM

The program of this site reflects the scientific, methodical, and efficiency-driven approach to farming demonstrated by large-scale industrial farms. Focusing on demonstration labs, greenhouses, as well as, temporary and permanent exhibition spaces, the 110,000ft² Science of Agriculture museum, establishes science and technology as the backbone of American farming.

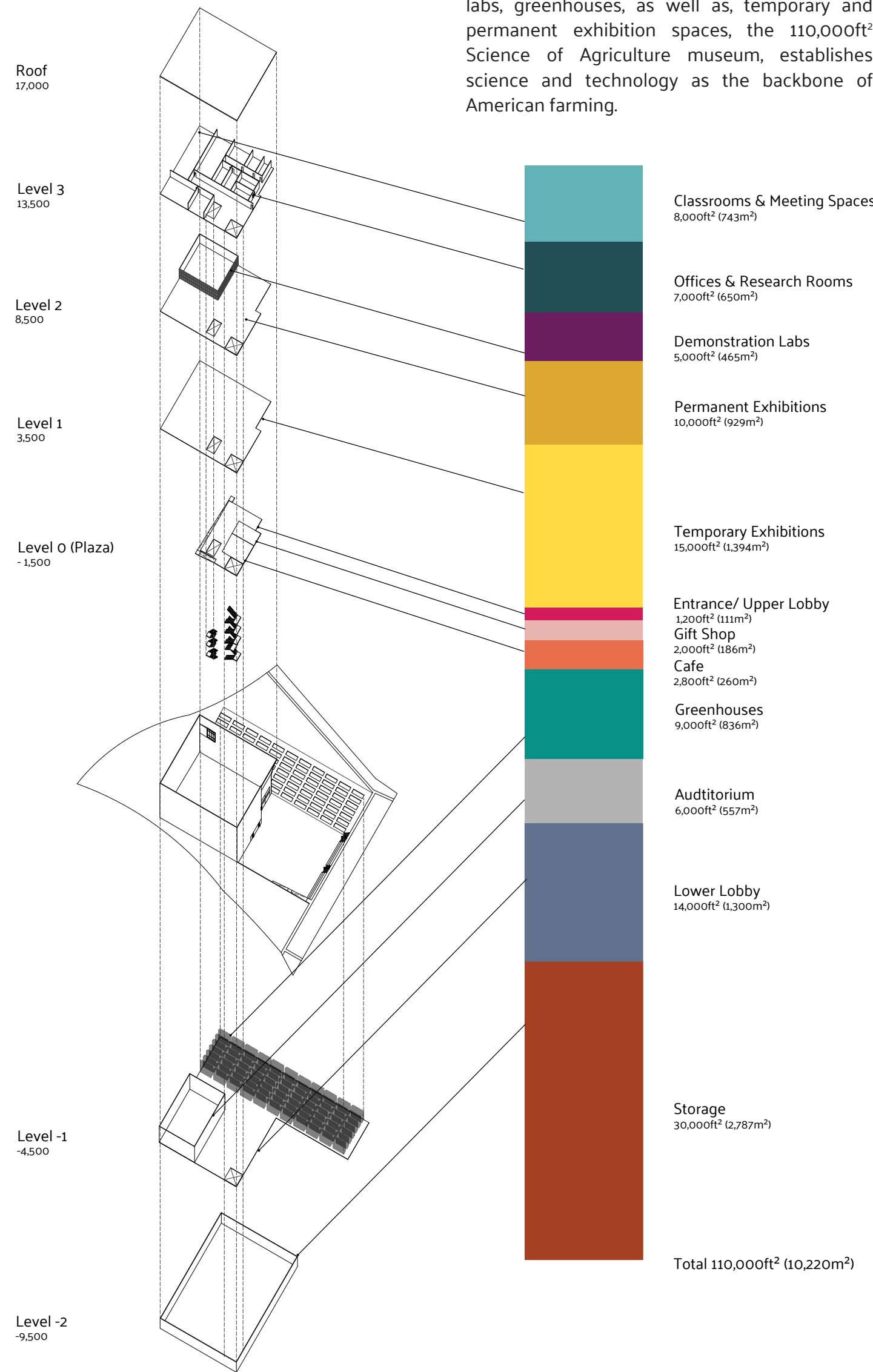


Figure 3.2.1 Exploded Program Axonometric

3.3 THE GREENHOUSES

When entering the site from the Mall, there is gentle 1:20 slope towards a plaza that is located 1.5m below grade from the Mall. The slope is populated by a field of greenhouses that are accessible via the lower lobby level of museum. Since the greenhouses are located below ground, only the tops of the greenhouses are visible from the ground plane.

Due to the gentle slope of the lawn, the greenhouses appear taller and more visible from the ground plane. The effect is monumental. The field of glowing purple greenhouses slowly envelops visitors as they descend towards the plaza.

The greenhouses play with scale and perspective to juxtapose the distant buildings on the Mall. From inside the field of greenhouses, they appear big and important while everything monumental on the Mall is small and obscured from view.

This compact row of productive greenhouses are a stark contrast to the Mall's expansive, bucolic, well-groomed grass. The human-scale of the

greenhouses distinguishes this site from the enormous museums and monuments that flank the Mall. Moreover, the diminutive scale of the greenhouses demonstrates the ways in which science and technology create more efficient methods of land management. Lastly, the field of greenhouses subtly but definitively separates the plaza from expansive lawn of the Mall.

The greenhouses challenge the public perception of agricultural production. By locating the compact greenhouses below ground and away from the sun, visitors to the site immediately identify the ways in which farming depends on science and technology to cultivate plants. Moreover, the glowing purple light emitted by the greenhouses - used to stimulate flower and fruit production - signifies to the artificial modifications made to plant species and their environments.

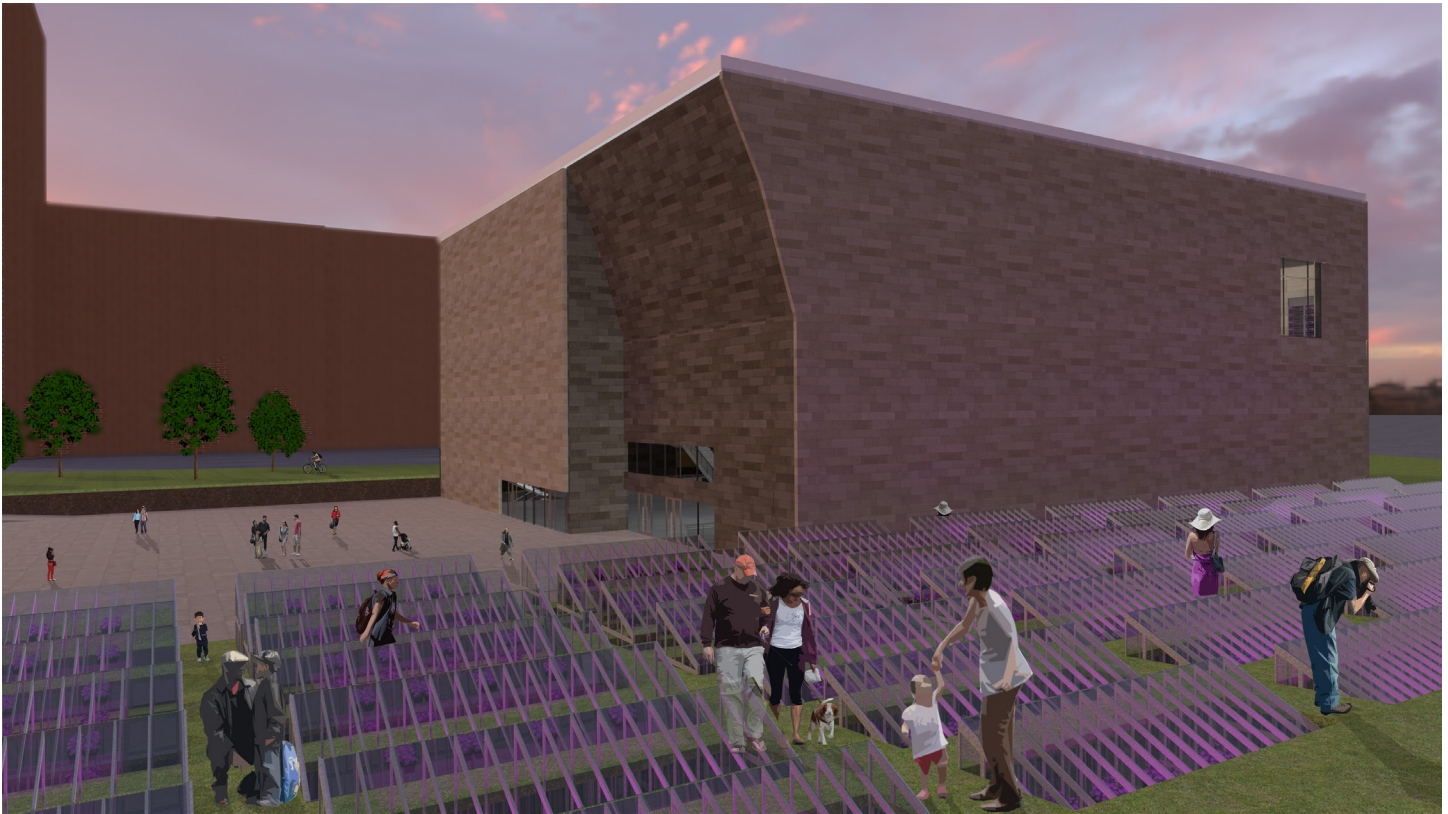


Figure 3.3.1 As visitors walk towards the Science of Agriculture Museum from the Mall, they encounter a field of greenhouses that get taller as they descend into the plaza. When they reach the plaza the greenhouses obscure the visitor's view of the Mall which in turn makes the plaza a separate space from the expansive Mall.



Figure 3.3.2 Photograph of the Greenhouse Section Model

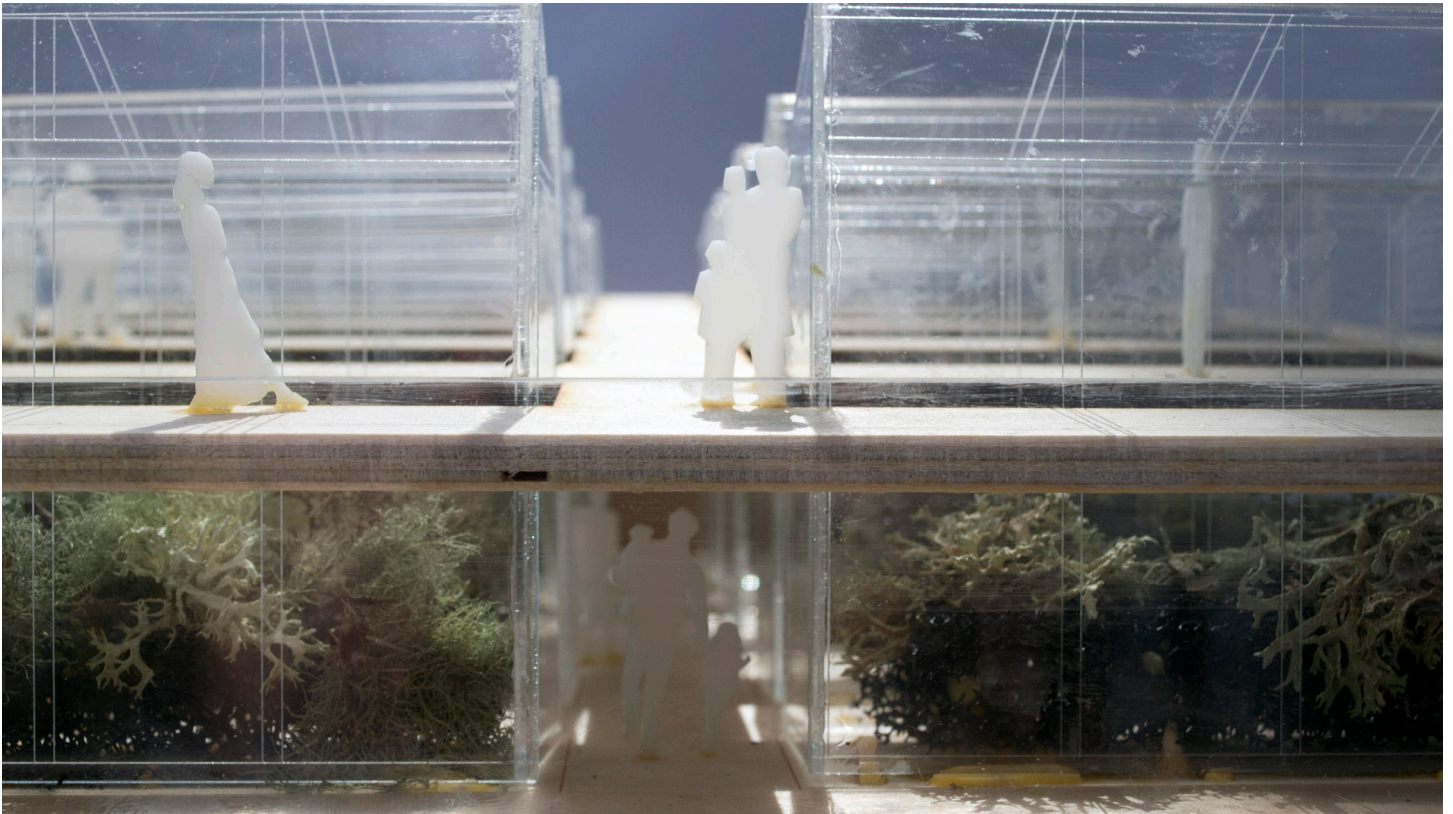


Figure 3.3.3 Photograph of the Greenhouse Section Model

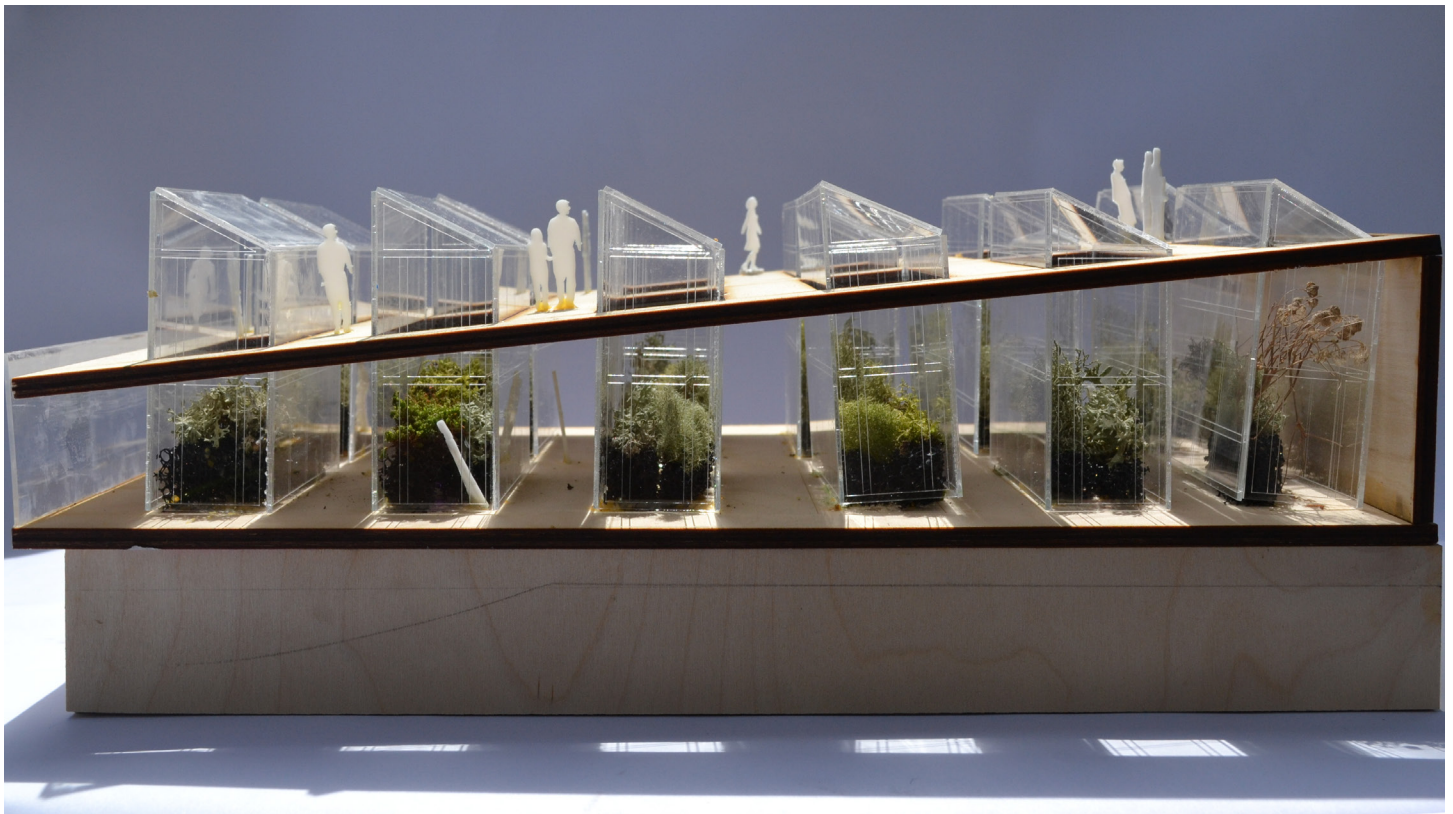


Figure 3.3.4 Photograph of the Greenhouse Section Model



Figure 3.3.5 A data server room filled with rows and rows of glowing servers. Greenhouses, like data server rooms, operate day and night and require highly controlled climates to function.



Figure 3.3.6 From the lower level of the Science of Agriculture Museum, visitors can enter the greenhouses. The well organised rows of glowing purple greenhouses resemble a data server room.

3.4: THE DEMONSTRATION LABS

The demonstration labs underscore the role of science in America's agricultural history by encouraging visitors to critically engage with the scientific principles that influence plant growth. Interacting with plant matter and soil in a laboratory setting allows visitors to concretely understand the inherent complexity and ambiguity of natural phenomena. Moreover, the demonstration labs make science "come alive," and as a result, visitors walk away interested in learning more about science and its role in agricultural production.



Figure 3.4.1 The demonstration labs are located on the second floor of the museum and look out at the Washington monument. The labs in the foreground recontextualizes the Washington monument and the lore of George Washington as a yeoman farmer.

3.5 THE PLAZA

The Mall works from a distance. It works from an airplane, or from the top of the Washington Monument or the steps of the Lincoln Memorial, but it doesn't work as a place to experience. The problems is that the Mall is not a place for people, it is a backdrop for impressive monuments and museums. The mall is not a great urban park, but rather "a place to view grandeur in the distance."

Mall itself feels empty. Few of its spaces have a sense of enclosure, and some of them are just too vast. The well- defined plaza adjacent to the Science of Agriculture Museum is a welcomed change from the immense 3-mile long Mall.

The plaza provides space for public-facing programming for the Museum such as farmers markets and community lunches as well as a place for tour groups and school groups to organize.

25. Kaid Benfield, "A National Mall People Actually Want To Visit," CityLab, April 18, 2012, , accessed April 25, 2019, <https://www.citylab.com/design/2012/04/hopes-people-friendly-national-mall/1794/>.



Figure 3.5.1 Rendering of the Entrance to the Museum looking at the Plaza

3.6 THE MUSEUM FACADE

The entrance to the museum is marked by a cut out in the shape of a traditional Prairie barn (also known as a Western barn.) The iconic shape of the barn is subtracted from the Science of Agriculture Museum to suggest that this symbol of the idyllic, pastoral farm is absent in today's large-scale agricultural industry.

Together the negative space of the barn and the purple glowing greenhouses signifies to visitors on the Mall that our widely held assumptions of agricultural production and farming are inconsistent with reality.

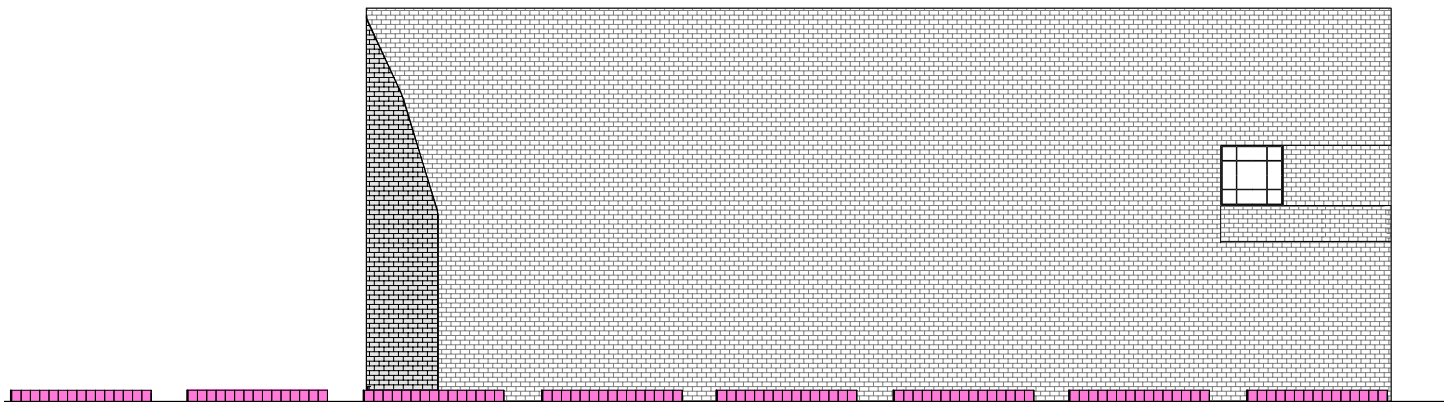


Figure 3.6.1 North Elevation of the Science of Agriculture Museum



Figure 3.6.2 Rendering of the Science of Agriculture Museum with the Washington Monument at night. The purple glow emitted by the field of greenhouses contrast the white light of the Washington Monument.

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