

A report by
JSA/MIXdesign
and The
Architectural
League
of New York

MAKING INCLUSIVE
MUSEUMS NOW



MAKING **INCLUSIVE** **MUSEUMS** NOW

**T H E A R C H I
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JSA / **MIX**design

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Half-title page: Access Cohort members participate
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INTRODUCTION

Acknowledgements

The Architectural League of New York and JSA/MIXdesign are indebted to many for the work that is published in this report, which has been generously supported, in part, by the National Endowment for the Arts (NEA).

Two January 2024 events co-organized by the League and JSA/MIXdesign, excerpts from which make up much of this document, were drawn from years of preceding work by JSA/MIXdesign in close coordination with partner institutions and workshop participants—including a partnership with the Queens Museum, supported by the Institute of Museum and Library Services (IMLS). The first event, held on January 26, was co-sponsored by The Irwin S. Chanin School of Architecture of The Cooper Union, and special thanks goes to Hayley Eber and her team, including Mauricio Higuera and Michael Carrasquillo for their technical support. In addition to Joel Sanders and Seb Choe, speakers Keonna Hendrick, Maria Nicanor, Dyeemah Simmons, and Sally Tallant brought their expertise to bear in an illuminating conversation, moderated by Ignacio G. Galán. Multilingual grounding and Spanish interpretation were provided by Gloria Delgadillo and Joel de Andrade, videography by Kenzie Ryan, and catering by Pixie Scout. Their nuanced and careful attention to detail were crucial for the warmth and sensitivity of the event. Our deepest thanks also go out to all the participants of the accompanying January 27 workshop for their openness and commitment to this work. (Please see Part 2 of this report for more details.) We are immensely grateful to Marvel Architects for hosting—with special thanks to Anya Ramirez-Jiménez and Krystal Nieves, and to Pushkar Khanal and his team.

Both programs were supported, in part, by the National Endowment for the Arts, and by the New York State Council on the Arts with the support of the Office of the Governor and the New York State Legislature. The Making the Inclusive Museum panel event received additional support from the New York City Department of Cultural Affairs in partnership with the City Council. Ultimately, the work represented here is due to so much work done elsewhere over many years. Engagement from museum visitors, expertise from museum employees, and persistence from advocates have brought these challenges and opportunities into the spotlight. We are grateful and humbled by the role we are able to play in helping to keep them there.

Foreword from the League's Executive Director

The Architectural League of New York is a unique institution, and this report—prepared alongside our partners at JSA/MIXdesign—is a unique document.

Founded in 1881 by a group of young architects seeking to support one another's work, the League has always existed in an institutional in-between: neither museum nor school, neither club nor professional association. We regularly collaborate with organizations that more firmly fit into those categories, and oftentimes our programs and projects take those cues. Nonetheless, with everything we do we try to lean into the strength of our not-quite-academic, not-officially-professional status by stretching ourselves to ask questions and gather audiences that also don't fit neatly into those molds. This report—part of larger efforts to better understand and situate our work relative to the calls of disability justice organizers—is a prime example of such a stretch.

Growing out of years of engaged research done by its authors, JSA/MIXdesign, in collaboration with numerous partner institutions and multiple cohorts of museum visitors, activists, and institutional consultants—with a special focus on a pair of events we co-organized in January 2024—this document is many things. It is a record of unwelcoming spaces in many art museums, as well as of the architectural possibilities therein. It is a reflection on the challenges and opportunities of participatory design processes that are intended to improve those conditions and spaces. And we hope that it is a catalyst for further, ever more critical work centering the people and experiences these designs are meant to address, with institutional decision-makers as a key audience.

There are also many things this report is not. It is not a stand-in for expertise that is best gathered and mobilized via the employment of people with wide-ranging life experiences directly at the institutions in question. Though much of the language is professionally specific in nature, given the aforementioned core audience, it is not an indication that only design and institutional representatives are (or ought to be) the primary holders of this knowledge. And finally, perhaps most importantly, it is not an assertion that design professionals have got it all figured out when it comes to inclusion and access—quite the contrary.

As co-editor and publisher, The Architectural League humbly hopes that this report, and the many collaborators to whom it is indebted, represents simply a move in the right direction, and a call for more people to join together in that work.

Thank you for reading.

Jacob R. Moore
Executive Director
The Architectural League of New York

Opposite: Georgina Kleege touching *Nydia, the Blind Flower Girl of Popelii*, 1853–54; carved 1859. Emily Harr.





CHALLENGE: MIXmuseum Overview

Black Lives Matter and COVID-19 have underscored the imperative for American art museums to reckon with a challenge they have been grappling with for decades: rectifying their reputations as exclusive bastions of White male privilege that do not represent nor welcome diverse local and international audiences. In response, museums are investing in a variety of social equity measures that include human resources (recruiting minority curators, administrators, and board members); curatorial practices (mounting exhibitions that showcase the work and experience of underrepresented artists, including BIPOC, LGBTQ+, and disabled artists); and education programs (American Sign Language tours for d/Deaf people, tactile tours for blind people, and sensory-friendly hours for autistic people).

However, museums are only just beginning to consider the spatial consequences of accessibility beyond code compliance by improving their facilities to meet the needs of the diverse visitors they hope to attract. Their efforts manifest themselves in two ways: 1) by drafting accessibility guidelines for gallery spaces geared primarily toward people with physical and sensory disabilities, like the Smithsonian Guidelines for Accessible Exhibition Design (2010), and 2) hiring famous architects to make their buildings less intimidating by replacing traditional opaque facades with transparent window walls leading to spectacular atriums, often animated by adjacent retail and dining venues. However, our research indicates that these architectural interventions fall short; for the most part, they still presume a normative visitor—one who is White, cisgender, English-speaking, and non-disabled.

In 2018, JSA/MIXdesign, our New York-based inclusive design studio, responded to these challenges by launching the MIXmuseum Initiative. We have been conducting participatory design research in collaboration with partner museums—including the Queens Museum; the Brooklyn Museum; Cooper Hewitt, Smithsonian Design Museum; the Whitney Museum of American Art; Yale University Art Gallery; and the San Diego Museum of Art—to understand the common and conflicting spatial and social barriers that diverse users face at museum buildings. The outcome is the MIXmuseum Toolkit, a work in progress that consists of design recommendations for transforming galleries as well as the key public spaces that shape the visitor's arrival and entry experience—reception, lobby/atrium, circulation, and restrooms—into physically and socially accessible spaces that welcome and allow people of different ages, genders, and abilities to mix. Our research operates across scales and disciplines, thinking about the role architecture, interiors, exhibition design, graphics, and landscape play in shaping the visitor experience. Rather than come up with interventions that are building-specific, we propose generalizable solutions that can be adapted and implemented by a wide range of institutions on a case-by-case basis.

Opposite: Seb Choe conducting engagement at the Queens Museum. JSA/MIXdesign.

REPORT SUMMARY

This report, *Making Inclusive Museums Now*, documents the proceedings of a two-day symposium hosted by The Architectural League of New York, which was intended to provide an opportunity for JSA/MIXdesign to present our research, receive feedback, and build a broader conversation.

On the first day, two JSA/MIXdesign members, Joel Sanders and Seb Choe, presented our findings in a public lecture. This was followed by a panel discussion moderated by Ignacio G. Galán that asked representatives from four partner museum collaborators—Queens Museum; Brooklyn Museum; Cooper Hewitt, Smithsonian Design Museum; the Whitney Museum of American Art—to reflect on our findings and their experience participating in our workshops. On the second day, we convened a day-long workshop attended by an invited cohort of museum professionals, architects, and accessibility advocates to solicit their feedback on our Toolkit findings, as well as to respond to the challenges and opportunities posed by implementing inclusive design projects that we had raised on the previous day.

The organization of this report synthesizes the findings and responses discussed over those two days into five chapters that situate recent diversity, equity, access, and inclusion (DEAI) challenges in a historical context and describe the participatory design approach that informs our research, the Toolkit findings we shared, and the responses we received from panelists and workshop attendees.

1

Essay: Embodied Spectatorship: 1500–2024

The DEAI issues that museums are grappling with today are not new, but rather just one iteration of an ongoing historical problem. From the first art galleries built in Renaissance palaces, to the advent of purpose-built nineteenth-century civic museums, to the emergence of the twentieth-century “White Cube,” museum administrators and designers have struggled to reconcile the ideal spectator—free to visually commune with great works of art—with the reality of the embodied viewer whose movements must be regulated due to practical considerations like security, conservation, and crowd control. Since the 1960s, three generations of feminist, queer, and Black artists have exposed how museums have resisted diversifying their collections and exhibitions, which have historically been dominated by White, heterosexual male artists.

2

Participatory Design

This section describes how from 2019 to 2024, JSA/MIXdesign generated findings through a participatory design process that blends techniques (surveys, focus groups, and workshops) from architecture and public health to gather feedback from museum staff and visitors. Over the years we have developed this process by working with a variety of constituents including our MIXmuseum Network of partner organizations and clients, an IMLS-funded study with the Queens Museum that engaged a broad cohort of diverse end-users, NEA-funded workshops with four partner museums, and a two-day symposium co-hosted with The Architectural League of New York.

3

Findings and Responses

This section presents preliminary findings from our Toolkit of design recommendations for non-gallery museum spaces, divided into three categories central to the museum visitor’s spatial experience: *Arrival + Information*, *Circulation + Wayfinding*, *Wellness + Atmosphere*. Each sub-section begins with our Findings, describing the barriers we observed and our recommendations for addressing them, and is followed by Workshop Reactions, a synthesis of the input provided by the symposium panelists and workshop attendees.

4

Implementation

This chapter presents some of the complex practical and ideological challenges faced by institutions seeking to implement inclusive design projects. These include promoting interdepartmental communication and collaboration, conducting and paying for participatory design workshops, and creating shared spaces that meet the intersecting needs of diverse communities while recognizing that some visitors have unique functional and privacy needs. It also considers how architects and museums need to move beyond a reductive “functionalist” mindset to develop spaces that promote social as well as physical accessibility.

5

Conclusion: Beyond Functionalism

This section critiques functionalist thinking that dominates contemporary approaches to accessibility—a mindset that creates “fixes” for people with “impairments” to allow them to approximate “normative” behaviors. Instead, bringing disability perspectives from the margins to the center of the design process is an opportunity to enhance everyone’s experience by encouraging all visitors to embrace alternative ways of experiencing museums that are not mobility, sight, and hearing dependent. The chapter concludes by reassuring readers that making inclusive museums need not be overwhelming. Consider this report a guide filled with a range of ideas that can be adapted and implemented incrementally on a case-by-case basis.

Principles That Inform the Report

The participatory design process and recommendations described in this report are informed by design principles that build upon but differentiate themselves from the important foundation laid by the Universal Design movement, as well as the Americans with Disabilities Act (ADA), a federal law passed in 1990.

Intersectional

Rather than narrowly focus on people with physical or sensory disabilities alone, we consider the intersecting needs of a broader spectrum of the population. We study the overlapping spatial needs associated with user groups across body type (age, size), culture (race, language), disability (physical, sensory), gender, neurodiversity, and religion.

Accessibility Beyond Code Compliance

We offer an alternative to the “separate but equal” approach that is far too often a characteristic of accessibility in the United States. For example, physical accommodations such as ramps are available but require going to a separate entrance, which can unintentionally segregate and stigmatize people with disabilities.

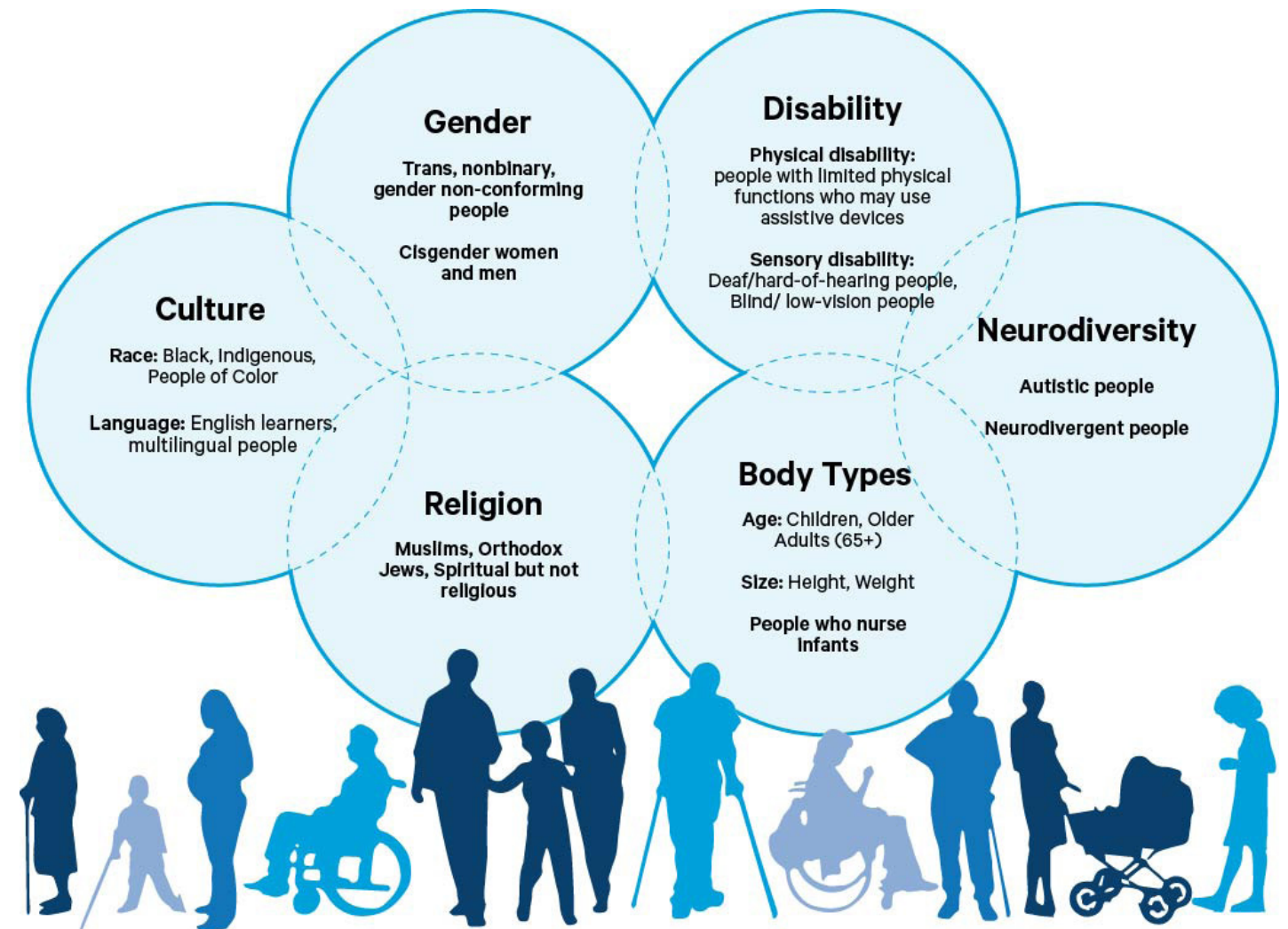
Our goal is to enable the maximum number of differently embodied and identified people to interact in different settings. However, we recognize that because of differences among all humans, there cannot always be one-size-fits-all solutions. For this reason, our designs provide options for some people and communities with functional and privacy needs that require unique solutions

Participatory Design: Top Down vs. Bottom Up

JSA/MIXdesign offers an alternative to the top-down approach exemplified by the heroic Modern Architect or today’s “Starchitect” who is more often than not a celebrated White male “genius” whose vision is compromised by the input of clients and users. Instead, we follow the disability rights motto, “Nothing About Us, Without Us.” Inclusive design depends on engagement—the active participation of users who provide valuable insights from their lived experience of the designed environment.



Left: Ramp, Beyond Separate but Equal. JSA/MIXdesign. Middle: Sign, Beyond Separate but Equal. JSA/MIXdesign. Right: Seb Choe conducting participatory design at Queens Museum. JSA/MIXdesign.



Intersectionality Diagram. JSA/MIXdesign



Report Objective and Audience

Neither the symposium nor this report is intended to offer museums or designers with definitive or comprehensive inclusive design guidelines to follow. Instead, we hope this report, like the symposium, sparks a larger conversation among two overlapping groups who are invested in these issues.

First are the wide range of people who conceive, design, and build renovation, expansion, and ground-up museum projects, including museum stakeholders (curators, administrators, staff) and design professionals (architects and exhibition designers), as well as government agencies, foundations, and donors who support these projects. In addition, we hope this report can benefit students, artists, and scholars from cross-disciplinary fields like art and architectural history, as well as race, gender, and disability studies. Our hope is to encourage others in the museum, design, and academic communities to investigate a timely and urgent issue: the design implications of DEAI.

JSA/MIXdesign values process over end-product. Rather than concentrate on sharing design recommendations from our Toolkit alone, this report deliberately emphasizes the participatory design process that led to the generation of these design recommendations, which in turn need to be evaluated and adapted by stakeholders and designers through a rigorous co-design process.

Since the MIXmuseum Initiative was launched in 2018, we have made a concerted effort to engage with hundreds of different people representing a diverse spectrum of

museum stakeholders, design professionals, and visitors with different backgrounds and abilities. Nevertheless, we try to be self-critical by acknowledging the limitations of our research, shaped by a variety of factors that were heated topics of discussion at the 2024 conference and workshop, addressed in Part 4 of this report. While we have tried to conduct our research in a methodical way based on rigorous data-gathering processes learned from our colleagues in public health, we recognize that we are missing crucial voices. In the future, we hope to increase the size and breadth of our pool of respondents. Moreover, since we, the authors of this report, are architects, its contents are inevitably filtered through ways of thinking and working that are based on our professional education and training, which often contain problematic assumptions about power dynamics and embodied subjectivity. But perhaps our most difficult struggle is coming to terms with and calling into question our own professional expertise. At JSA/MIXdesign, we pride ourselves on having assembled a diverse team composed of members with professional expertise, informed by their own lived experience, that represent the diverse communities that our projects aim to serve. Nonetheless, while we believe architects and professionals do have unique skills to offer, we also realize that “experts” have historically silenced and co-opted the marginalized populations that they claim to serve. Sometimes, the best thing professionals like us can do is help open a door, provide resources and tools if requested, and then get out of the way.

Opposite: Signage with QR code to museum app, San Diego Museum of Art. JSA/MIXdesign.

ESSAY: Embodied Spectatorship: 1500–2024

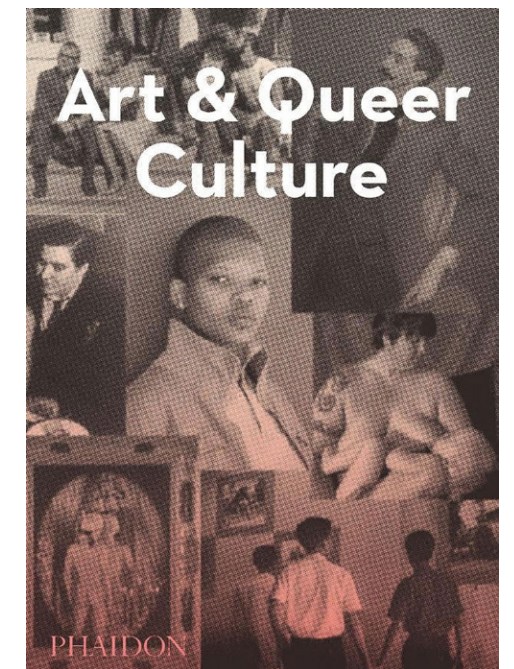
by Joel Sanders

Introduction

The DEAL issues that museums are grappling with today are not new, but rather just one iteration of an ongoing historical problem. This essay situates contemporary challenges in a historical context by tracing milestones in the intertwined history of art and museum architecture that anticipate the DEAL challenges that museums are currently navigating.¹

Retrospection is valuable for at least two reasons. First, it reveals that the challenge of accommodating the bodies of visitors is not new. For over 400 years—beginning with the first art galleries built in Renaissance palaces, to the advent of purpose-built nineteenth-century civic museums,

to the emergence of the twentieth-century “White Cube”—curators, administrators, architects, and designers have dealt with the thorny problem of designing galleries. They must shape spectatorship—the visitor’s visual and physical encounter with works of “visual” art—while considering practical factors like security, conservation, and crowd control. Since the 1960s, three generations of feminist, queer, and BIPOC artists and scholars have urged museums to diversify their collections and exhibitions, dominated by White, heterosexual male artists. Their critiques are the precursors of the DEAL initiatives that museums have pursued in the last two decades. Rigorous socio-historical research can allow us to avoid repeating past mistakes and learn from the productive insights and approaches of those who came before us.



Left: Jan van Raay, Faith Ringgold (right) and Michele Wallace at Art Workers Coalition Protest. Whitney Museum of American Art. 1971. Middle: Linda Nochlin. *Why Have There Been No Great Women Artists?* 1971. Right: Catherine Lord, Richard Meyer. *Art & Queer Culture*. 2013.

Second, retrospection enables us to call into question the formulaic design conventions that we accept at face value, but that implicitly transmit problematic assumptions that determine who is valued and who is not. Consider the following examples: monumental exterior and interior staircases found in classical and modern museums that lead to grand lobbies and galleries located on upper floors; the hanging height of pictures, calibrated according to the standing eye-height of a youthful White man; and the replacement of the comfortable upholstered double-sided couches once found in nineteenth-century museums with the hard, armless, and backless benches found, if at all, in the austere corridors and galleries of many contemporary art museums. These are just three instances of how the conventions of museum design that we take for granted or value for historical authenticity centers visitors who are assumed to be White, cisgender, non-disabled, and male, thereby excluding populations who deviate from that arbitrary norm. A critical analysis of the ideological

impact of these elements found in both the classical and modern museum buildings, especially in landmark buildings that require renovation, can help us make difficult design decisions that have ethical consequences. Which elements should be saved, and which ones should be modified or replaced?

Moreover, making inclusive museums demands we consider another related issue: dubious collection and curatorial practices that promote Western hegemony and settler colonialism, a system of oppression based on genocide and colonialism that aims to displace a population of a nation and replace it with a new settler population. It is now well-documented that the collections of many art museums in Europe and the United States were acquired as trophies of war or through illegal means that stripped conquered nations as well as non-Western and indigenous people of their cultural heritage. In response, many museums are rethinking collection practices, both by mounting

revisionist exhibitions with narratives that hold museums accountable and through repatriation, a contested issue no longer confined to museum professionals and now covered in the mainstream press.

However, what at first glance appears to be solely a curatorial issue manifests itself in problematic museum layouts and exhibition designs that reinforce Western cultural and racial superiority. In contrast to Western art collections that dignify the achievement of White male Western artists by presenting them in a series of spacious galleries arranged by chronology, national school, and medium (e.g., painting, sculpture, applied arts), non-Western art is more often than not relegated to subordinate areas of the museum where visitors encounter galleries crowded with an array of art and utilitarian objects that do not acknowledge historical or regional differences. When contrasted with displays of Western art, these presentations of artifacts of often questionable provenance convey to visitors that American and European artistic culture is superior, and by extension justify Western domination and settler colonialism.

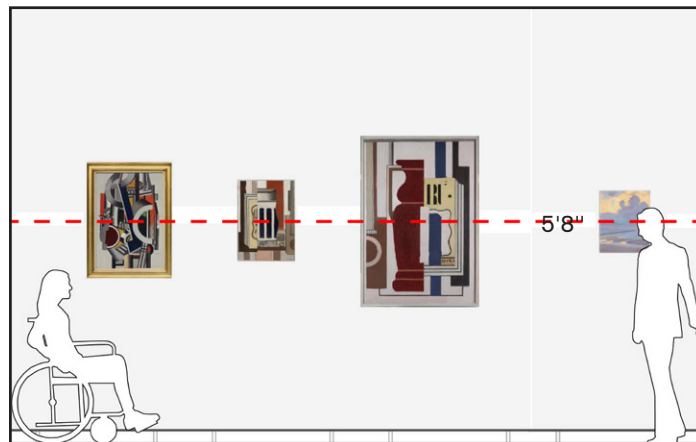
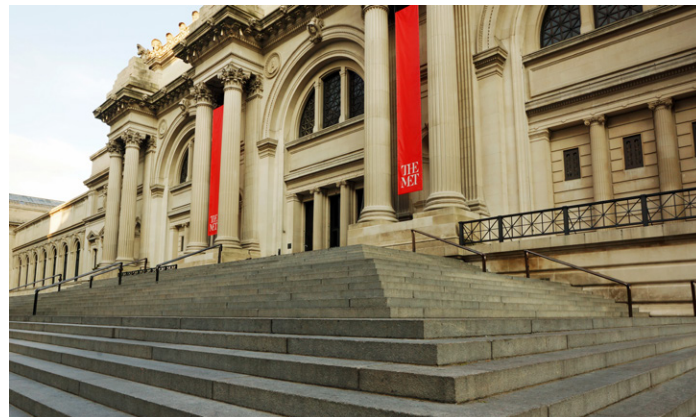
Although not the immediate focus of the MIXmuseum Initiative, the goal of making museums inclusive requires us to reckon with the museum's historical complicity in promoting Anglo-American Eurocentrism and settler colonialism through suspect curatorial and collection practices—ideologies that are in turn manifested in exhibition design. Unless we confront these broader questions head on, there is a risk that the inclusive design recommendations described in this report will only be a bandage placed on a much broader institutional problem.

Palace Museum

Since the advent of what is considered the first purpose-built picture gallery—the Tribuna, installed in the Uffizi in 1584—human bodies have posed a problem for art museums. These first palace museums, like the Uffizi and the Louvre, made possible a conception of the ideal Humanist spectator, a disembodied eye that visually communes with paintings—framed illusionist images hung floor to ceiling in sumptuous, ornamented rooms. In keeping with perspectival theory of Alberti, spectatorship is an out of body, optical experience: the spectator's eye is invited to take leave of the body situated in actual time and space, pass through the border defined by the picture frame, and enter pictorial space through visual identification. In this scenario, looking at art



Top: Albrecht Durer. Illustration from *Four Books on Measurement*. 1525. The Met Open Access. **Bottom:** Johann Zoffany. *The Tribuna of the Uffizi*. 1772–77. Wikipedia Commons.



Top left: Exterior stairs at the Metropolitan Museum of Art, New York, NY. Serge Yatinin. **Top right:** The Grand Staircase at the Metropolitan Museum of Art, New York, NY. Wikipedia Commons. **Bottom left:** Diagram depicting standard hanging height for paintings by Yale students. Robert Coombs, Michael Gasper, Alicia Jones, **Bottom right:** Greece Solidarity protest at the British Museum. Jubilee Debt Campaign. Kelsey Rico.



perpetuates the age-old Western opposition between mind and matter, spirit, and flesh: vision—the master sense affiliated with immaterial intellect—is opposed to the body—the earthly container of the soul—and subject to temptation and desire.

Civic Museum

This Humanist ideal of disembodied spectatorship posed a new dilemma with the emergence of the first public museums in nineteenth-century Europe and America. The agenda of institutions like the National Gallery in London, opened in 1838, was to educate citizens of all classes by exposing them to great works of art previously seen by a privileged few in private palace galleries. This mandate presented the first museum administrators with a challenge not so different from what many museums face today: crowd control.



Records kept by exasperated museum staff describe people pushing, shouting, and even dining in packed galleries. When Thomas Unwins, the keeper of the National Gallery, admonished a group of “country people” not “to partake of meat and drink,” they “good humoredly offered him a glass of gin.”

Driven by the need to protect and conserve the cultural patrimony of priceless masterpieces, designers were enlisted to invent tactics that would transform the unruly public into respectable, well-behaved citizens. For the first time, paintings were hung less densely in narrative formats organized by national school. Guardrails were installed to encourage viewers to circulate around the perimeter of the room at a safe distance from works of art. Freestanding chairs and easels that obstructed traffic flow were removed and replaced by couches marooned in the center of the gallery.²

White Cube

The advent of the White Cube in the twentieth century as the optimal environment to display Modern art only exacerbated the eye/body problem. Although many scholars consider the White Cube a Bauhaus invention, it became a museum standard in the United States with the opening of the Museum of Modern Art's International Style building in 1939. By the post-war years, with the rise of movements like Abstract Expressionism and Minimalism, the White



Top: Giuseppe Gabrielli. *The National Gallery 1886, Interior of Room 32*. 1886. Wikipedia Commons. **Middle:** Stanley Anderson RA, RE. *The National Gallery*. 1925. The Anderson Estate. **Bottom:** The Museum of Fine Arts, Boston. Timelessmoon.



Left: Installation view of the exhibition *50 Years of Art*. The Museum of Modern Art. Paris, France. 1947. **Right:** Thomas Struth. *Museum of Modern Art, New York*. 1994. High.org.



Cube established itself as the dominant gallery type that prevails today. It was and still is considered a suitable environment for the display of non-figurative, large, and often abstract paintings, as well as sculptures without pedestals.

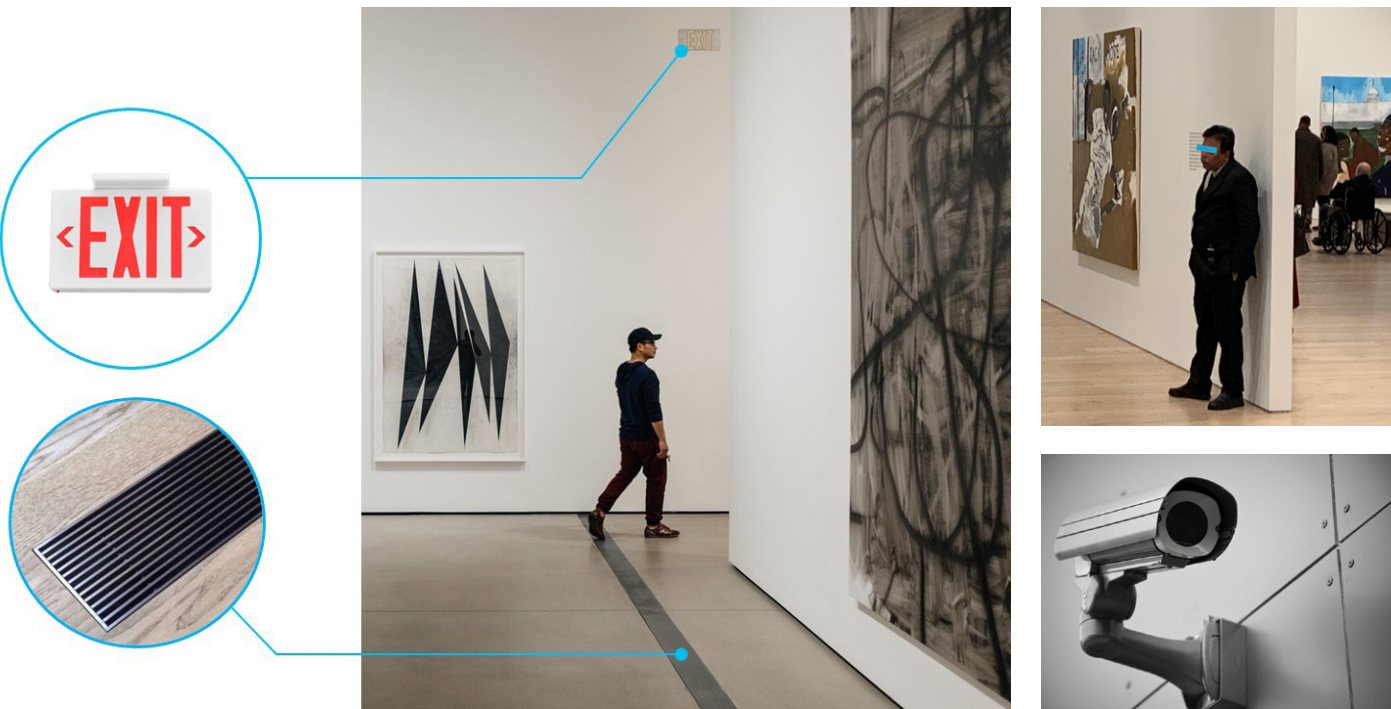
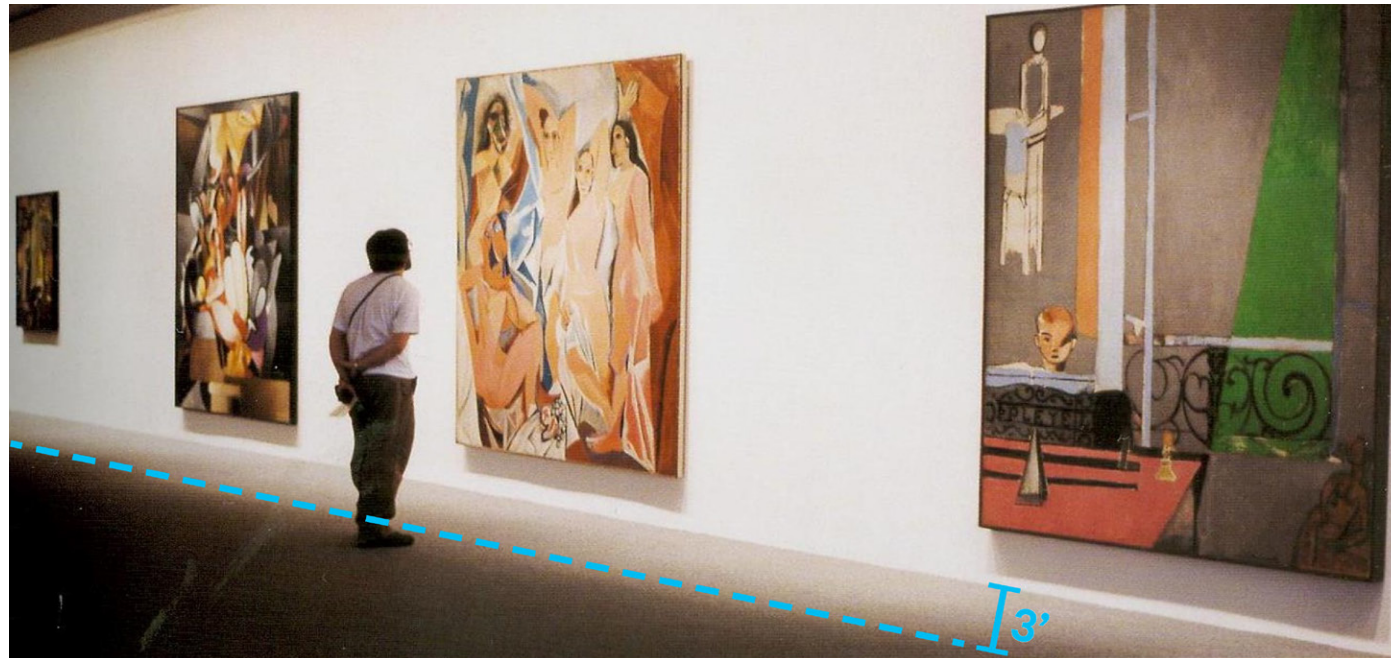
At first glance, the austere white walls, ceiling, and wood floor of the White Cube seemed like a radical alternative to the galleries found in nineteenth-century museums, adorned with classical moldings and ornaments and often painted deep shades of green and red to complement the colors of old master paintings. Nevertheless, despite its formal differences, the White Cube, like its nineteenth-century predecessor, gave spatial expression to Western art's ongoing investment in perpetuating the fiction of disembodied spectatorship. Influential post-war critics like Clement Greenberg championed what was essentially a classical conception of spectatorship: he described viewing abstract pictures as an instantaneous optical experience, which he compared to the speed of a baseball pitch.³

Again, architecture is enlisted to transform the potentially unruly viewer into an obedient disembodied eye. The track light, placed out of sight on the ceiling, replaced the obtrusive guard rail; it distributes a band of light around the perimeter of the gallery wall and floor that situates the body at a prescribed viewing distance—typically 3 to 4 feet—from works of art. Track lights demarcate a circulation zone of looking but not touching.

In addition, designers of White Cubes take great pains to conceal mechanical grills that circulate climate-controlled

air, exit signs for life safety, and surveillance cameras and security guards—the eyes that watch you while you watch, both human and electronic. These elements associated with monitoring the human body are not only visually distracting, but also are reminders of our physical selves. White Cubes also tend to eliminate what was once a common element of the traditional gallery: seating. In the twentieth century, the upholstered sofa islands that were a typical feature of the nineteenth-century museum were replaced by hard benches, typically rendered as a horizontal plane supported by skinny legs. Although its minimalist design was and still is intended to be visually inconspicuous so as not to compete with works of art, the presence of the bench is a threatening reminder that the act of spectatorship is not a disembodied experience but grounded in the body that has needs and limitations. When we encounter art, we move, linger, or relax in a lived sensory experience.⁴

In short, despite their apparent stylistic differences, the nineteenth-century gallery and the twentieth-century White Cube both respond to a common predicament that museums continue to face today: reconciling the ideal of disembodied spectatorship with the need to regulate the circulation of humans. On the one hand, museum buildings uphold the ideal of disembodied spectatorship, conceived of as environments where individual spectators are free to wander and visually commune with great works of art. On the other hand, embodied spectators experience museum fatigue and sensory overload. In addition, museums are cultural custodians, entrusted to store and conserve priceless treasures for posterity. Museums today face a



Top: Track lighting around the gallery perimeter indicates the intended viewing distance. JSA/MIXdesign. **Bottom left:** Concealed mechanical vents and exit sign at The Broad, Los Angeles, CA. JSA/MIXdesign. **Bottom right:** Museum guard and CCTV camera. JSA/MIXdesign.



Top: Upholstered sofa. The National Gallery. London, UK. JSA/MIXdesign. **Middle:** Minimalist bench in modern museum. JSA/MIXdesign. **Bottom:** Crowd around *Mona Lisa* in Louvre. Wikimedia Commons.

challenge they have inherited from the nineteenth-century civic museum: how to reconcile the design of galleries that sustain the ideal of autonomous spectatorship with the reality of actual embodied visitors that threaten to touch, damage, and steal vulnerable works of art.

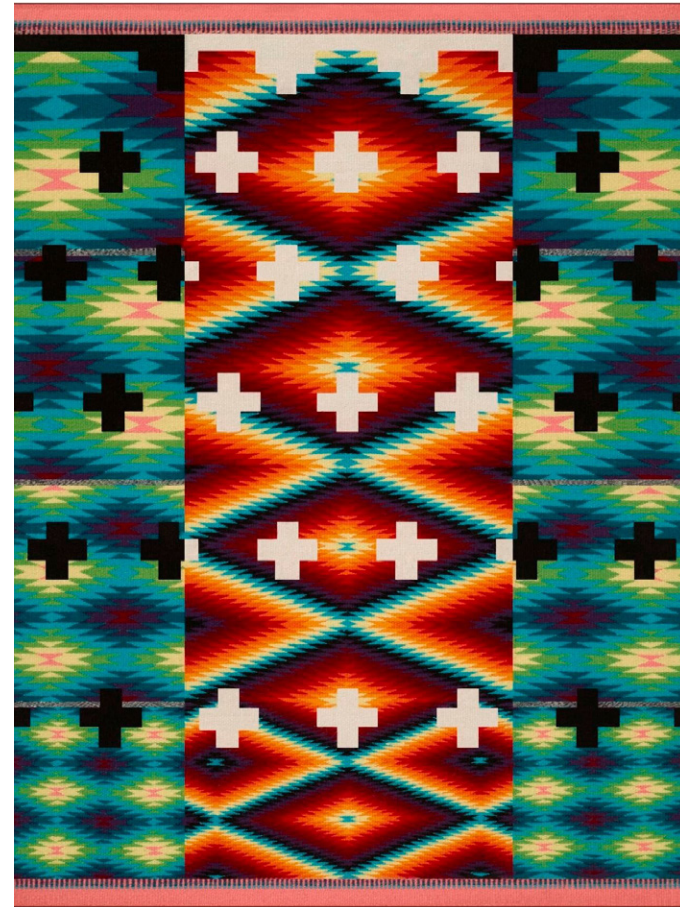
Institutional Critique

If accommodating embodied spectators at the museum has posed a problem for museum administrators, curators, and designers for over 400 years, today their job is made even more complicated by the emergence of DEAL initiatives with the goal of attracting not only larger, but also more diverse audiences.

Not new, this issue again needs to be considered in its historical context. Since the 1960s, many artists and critics looking at museums through the lens of “institutional critique” condemned them as elite bastions of White male privilege. Three generations of feminist, queer, and Black artists—including Carolee Schneemann, Cindy Sherman, Nayland Blake, Jacob Lawrence, Kerry James Marshall, Faith Ringgold, Carrie Mae Weems, Glenn Ligon, Kara Walker, and Simone Leigh, to name a few—have made works that both reveal and critique the systematic refusal of museums to collect and display art created by and representing the experience of people other than White, cisgender males. More recently, a new generation of disabled artists like Park McArthur and Christine Sun Kim have called attention to the museum’s investment in promoting ableism.

NOTE Ableism: attitudes, actions, and circumstances that devalue people because they are disabled or perceived as having a disability.⁵

Critiques of the White “male gaze” have demonstrated how gallery architecture is complicit in this erasure. Referring to examples of old master and Post-Impressionist paintings, from Titian’s *Venus of Urbino* to Manet’s *Olympia*, theorists have described how pictures reproduce dominant assumptions about race, class, and gender in two ways. First, through the narrative content of the image contained within the frame: what we look at. Second, through the spatial dynamics of spectatorship: how we look. No matter the medium, figurative paintings, photographs, film, and video all ask the embodied viewer “standing” in the gallery



Top: Titian. *Venus of Urbino*. 1534. Wikipedia Commons. **Middle:** Édouard Manet. *Olympia*. 1863-65. Commons. **Bottom:** Kara Walker. *Roots and Links, Inc.* 1997. Wikimedia Commons.

Top: Melissa Cody. *Deep Brain Stimulation*. 2011. Courtesy of the artist and Garth Greenan Gallery, New York. **Bottom:** Cindy Sherman retrospective at the Whitney Museum of American Art. JR P via Flickr.

to overcome the discrepancy between actual and virtual space and identify with the authorial point of view of the image, no matter their actual race, gender, or ability. In short, the image, working in conjunction with the gallery in which it is displayed, presumes and constructs a spectator who is by default non-disabled, cisgender, heterosexual, White, and male.

Museum DEAI: Accessibility Guidelines and Transparency

Over the past decade, museums have been pressured to absorb the lessons of institutional critique advanced by artists and critics since the 1960s. Studies that address social exclusion and accessibility in art museums date back to the turn of the twenty-first century. Statistics show that museum attendance in the United States is overwhelmingly White and middle class. A 2010 study by the American Alliance of Museums “predicted that in 2033 people of color would make up 46 percent of the country’s population, and yet they would still represent only 9 percent of museums’ core visitors.”⁶ Throughout the 2010s, the underrepresentation of people of color in museums triggered a wave of institutional reports as well as articles in the popular media advocating inclusion strategies not only for racial minorities but also disabled and LGBTQ+ people. In 2020, DEAI initiatives in art museums were further accelerated by the advent of the coronavirus pandemic and racial justice uprisings prompted by the murder of George Floyd, which cast widespread discrimination against marginalized communities into sharp relief.

In an effort to diversify their audiences, museums are investing in a variety of social equity measures. This includes recruiting curators, administrators, and board members from marginalized groups, as well as curatorial practices—mounting exhibitions that showcase the work and experience of underrepresented artists, including BIPOC, LGBTQ+, and disabled artists.

In addition, education departments sponsor programs geared to people with sensory disabilities. This includes American Sign Language (ASL) tours for d/Deaf people, tactile tours for blind people, and sensory-friendly hours for autistic people. Although a step in the right direction, these programs tend to isolate people with disabilities in activities that don’t allow them to mix with other museum visitors.

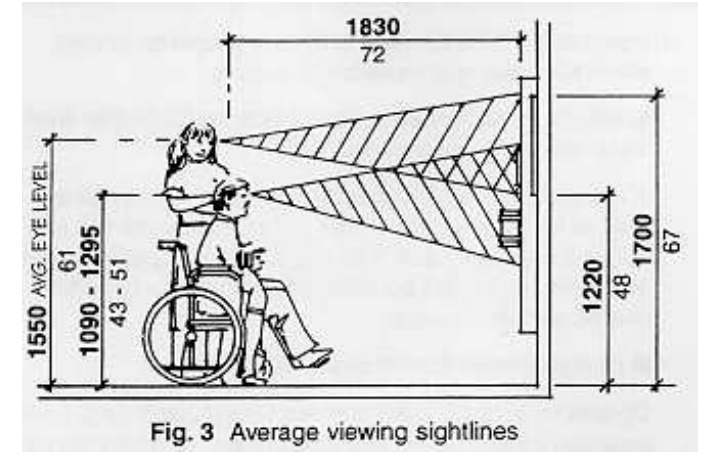


Fig. 3 Average viewing sightlines

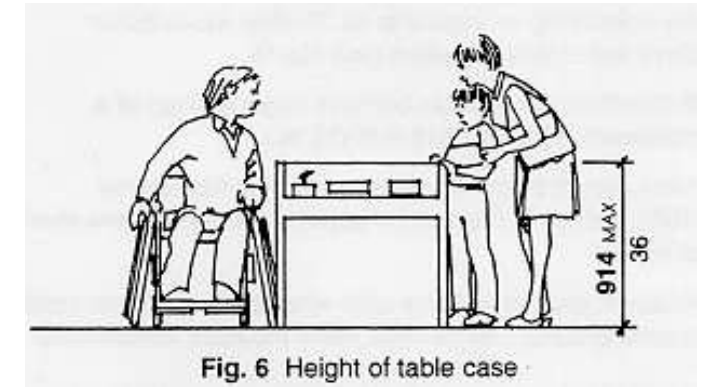


Fig. 6 Height of table case

Examples from Smithsonian Guidelines for Accessible Exhibition Design. 2010. Access Smithsonian.



DisOrdinary Architecture, workshop with wheelchair users. The DisOrdinary Architecture Project, Photo: Jos Boys.

While actions such as these are gaining momentum, museums are only beginning to explore the spatial implications of DEAI for non-normative users through design initiatives that go beyond ADA compliance. At the turn of the millennium, curators and exhibition designers began to consider the architectural implications of DEAI through accessibility guidelines for gallery spaces like the Smithsonian Guidelines for Accessible Exhibition Design (2010), a resource that instructs curators and exhibition designers on how to make exhibitions accessible to people with physical disabilities (e.g., wheelchair users) and sensory disabilities (e.g., people who are blind or have low vision, d/Deaf and hard of hearing people).

These guidelines focus on design elements like pedestals, hanging heights of paintings, and interpretive materials like labels and audio descriptions. Other organizations like Art Beyond Sight and the Museum, Arts and Culture Access Consortium have distributed resources describing accessible programming and staff practices to accommodate disabled museum visitors. In addition, groups like The DisOrdinary

Architecture Project in the United Kingdom bring disabled artists into museums, staging projects, and happenings that challenge existing practices and spatial conventions.

So far, DEAI advocates have concentrated on drafting accessibility guidelines to improve the experience of disabled visitors in the galleries. However, until recently, architects have not addressed head-on the imperative to design museum buildings that account for non-normative visitors beyond code-compliance. Instead, since the early 2000s, their efforts have been more general, focusing on design strategies that counter the so-called intimidating impression of museum buildings. The renovations of the Brooklyn Museum in 2011 by Ennead Architects, the Museum of Modern Art in both 1997 by Yoshio Tanaguchi and 2019 by Diller Scofidio + Renfro, and the Queens Museum in 2013 by Grimshaw Architects exemplify the dominant trend, which has been to substitute existing opaque masonry facades—both classical and modern—with transparent light-permeable glass facades that invite the public to enter spectacular lobbies, now reconceived as multi-purpose



Touch Tour. Minneapolis Institute of Art. Minneapolis, Minnesota. Minneapolis Institute of Art.

atriums often activated by adjacent cafes and shops. Although well intentioned, this prevailing design approach falls short; it still presumes a “normal” visitor.

Notes

1. This essay draws from two sources: a condensed overview of the essay “An Aesthetic Headache: Notes from the Museum Bench,” published in *CCS Readers, Vol. 1: Interiors*, ed. Johanna Burton, Lynne Cooke, and Josiah McElheny, (Berlin: Sternberg Press, 2012), as well as recent research examining museums’ DEAI initiatives from the 1960s to today.
2. Charlotte Klonk, *Spaces of Experience: Art Gallery Interiors from 1800 to 2000*. (New Haven: Yale University Press, 2009).
3. Clement Greenberg outlines his aesthetics of abstraction in numerous essays, including “Towards a Newer Laocoon,” in *Collected Essays and Criticism, Vol. 1*, ed. John O’Brian (Chicago: University of Chicago Press, 1988), 23–37, and “The New Sculpture,” in *Art and Culture; Critical Essays* (Boston: Beacon Press, 1961).
4. Diana Fuss and Joel Sanders, “An Aesthetic Headache: Notes from the Museum Bench,” in *CCS Readers, Vol. 1: Interiors*, ed. Johanna Burton, Lynne Cooke, and Josiah McElheny (Berlin: Sternberg Press, 2012), 64–79.
5. Emily Ladau, *Demystifying Disability: What to Know, What to Say, and How to Be an Ally* (Emeryville, California: Ten Speed Press, 2021).
6. American Alliance of Museums. “Museums & Society 2034: Trends and Potential Futures.” Center for the Future of Museums, 2008.



Top: Brooklyn Museum Exterior. 1910. Library of Congress. Middle: Brooklyn Museum Entry Plaza, renovation by Ennead Architects. 2005. Wikimedia. Bottom: Brooklyn Museum Entry Pavilion, renovation by Ennead Architects. 2005. Jacob R. Moore.



Participatory Design

This section documents the participatory design process that we have conducted since beginning our MIXmuseum initiative in 2018, the findings of which were presented in the symposium hosted with The Architectural League in 2024, and can be found in Part 3 of this report.

This section not only chronicles the various people we have engaged over the years, but also describes our evolving engagement techniques. Drawing from public health (surveys, literature reviews) and architecture (site assessments, co-design workshops), they are geared to obtaining data that measures the impact of the built

environment on health and well-being, information that we apply to create design recommendations. Because we consider the participatory design process, which is described in this chapter, to be as valuable as the end product, which is the Toolkit of recommendations described in Part 3, we hope that this section will be a relevant reference for other architects, museums, and accessibility advocates who may use it to inform their own participatory design methods.

MIXmuseum Network

The research described in this report is based on our engagement with the MIXmuseum Network from 2018 to 2024. It is composed of three overlapping groups:

Advisory Network

MUSEUMS

Bronx Museum Of The Arts
Museum Of The City Of New York
Frye Museum
Walker Art Center
Design Museum Helsinki
Hammer Museum
Nasjonalmuseet (Oslo National Museum)
Victoria and Albert Museum

UNIVERSITIES

Aalto University
University College London
Yale University

DESIGN ADVOCATES

Architectural League Of The City Of New York
Center For Curatorial Leadership
Museum, Arts and Culture Access Consortium
Disordinary Architecture Project

Projects



Stockholm
Nationalmuseum



Yale University Art
Gallery (YUAG)



Dallas Museum of Art
(DMA)



Museum of
Contemporary Art San
Diego (MCASD)



San Diego Museum of
Art (SDMA)

Research Partners

QUEENS MUSEUM

Queens Museum



Brooklyn Museum



Cooper Hewitt,
Smithsonian Design
Museum



Whitney Museum of
American Art



Institute of Museum and
Library Services (IMLS)



National Endowment for
the Arts (NEA)



MIXmuseum Network. JSA/MIXdesign.

Museum Advisors: We consulted with colleagues from American and European art museums like the Frye Art Museum, Hammer Museum, Brooklyn Museum, Yale Center for British Art, the V&A, and the National Museum in Norway.

Design Advocates: We received advice from organizations like the Center for Curatorial Leadership (CCL); the Museum, Arts and Culture Access Consortium (MAC); and The Architectural League of New York.

Project Clients: We learned from working as designers on projects, including the renovations of Yale University Art Gallery's lobby and the reinstallation of the permanent collection of Stockholm's Nationalmuseum. We worked as inclusive design consultants for the Museum of Contemporary Art San Diego. We also collaborated with Michael Maltzan Architecture on an invited competition for the renovation of the Dallas Museum of Art, as well as with Foster + Partners on the expansion of the San Diego Museum of Art.

Queens Museum

While we have connected with many members of the MIXmuseum Network over the years in different capacities, this section highlights our collaboration with the Queens Museum as a case study that illustrates our approach to participatory design.

From 2019 to 2023, we worked with the Queens Museum to study their building's non-gallery, public-facing spaces from an inclusive design perspective, supported by grants from the IMLS and Yale School of Architecture and Yale School of Public Health.

Rather than work with a prominent Manhattan institution, we chose to collaborate with the Queens Museum for a variety of reasons. The Queens Museum is a small community-oriented institution located in the most ethnically diverse borough of New York City. Of Queens' population of 2.3 million residents, 48 percent are born outside



Language Map of Queens. 2016. Endangered Language Alliance (ELA) and JSA/MIXdesign.



Top left: Queens Museum Exterior. 1964. Phyllis Bilick. Top right: Queens Museum Exterior, renovation and expansion by Grimshaw Architects. 2013. Courtesy of Grimshaw Architects. Bottom: Queens Museum Central Atrium, renovation and expansion by Grimshaw Architects. 2013. Courtesy of Grimshaw Architects.

the United States, and 56 percent speak a non-English language at home. It has a track record of putting on programs that reflect the borough's multicultural identity, including cultural festivals, the only LGBTQ+ film program in Queens, and a Cultural Food Pantry for low-income families. Furthermore, the Queens Museum's curatorial mission has long featured artists of color such as Sable Elyse Smith, Mel Chin, Tania Bruguera, Pedro Reyes, Ronny Quevedo, Alexandria Smith, Patty Chang, Pia Camil, Mobile Print Power, Beta Local, and Black Quantum Futurism.

Finally, the Queens Museum exemplifies how museums in the early 2000s commissioned architects to update their buildings to make them more welcoming. In 2008, the museum hired Grimshaw Architects to renovate the existing building, which had undergone a series of renovations over its 83-year history. Originally erected as the New York City Pavilion for the 1939 World's Fair, it was the temporary home of the General Assembly of the United Nations from 1945 to 1950, reborn again as the New York City Pavilion for the 1964–1965 World's Fair, and reopened in 1972 as the Queens County Art and Cultural Center. The architects replaced the existing east and west Stripped Classical stone facades with glazed curtain walls, each with their own separate entrances (one from the park, one from the highway), and connected them with a grand two-story central atrium that doubled as an event space, activated by adjacent cafes and shops.

Our work with the Queens Museum consisted of two phases:

Pilot Study: Grants from the Yale School of Architecture and Yale School of Public Health allowed us to collaborate with the Queens Museum staff members and Yale graduate students to conduct a "Pilot Study." We used site tours and staff surveys to understand how different visitor groups performed activities across key museum areas at different times of day to understand the barriers posed by the existing non-gallery museum spaces.

Central Atrium for All: Our Pilot Study generated a preliminary understanding of the building's access barriers as well as offered preliminary design solutions based on the perspectives of key staff members. However, at this juncture we recognized that something was missing from our process: engaging with a cross-section of the Queen community that the museum was hoping to attract. In 2020, we used this Pilot Study to successfully apply for a two-year grant from the IMLS to conduct "Queens Museum: Central Atrium for All." This project expanded the Pilot Study and built out a more substantial team, composed of members from JSA/MIXdesign, the Queens Museum, and Queens Community House (QCH—a multi-site settlement house), that helped us to recruit a diverse sample of Queens residents to participate in participatory design programs and activities. In addition, Yale graduate

students enrolled in an interdepartmental seminar helped us engage with museum visitors and the broader Queens community. The core project team met biweekly for two years, overseeing a challenging but rewarding team effort to retool our project on the fly to safely meet pandemic-imposed requirements.

Engagement Tools

Working with input from students and faculty from the Yale School of Public Health, our team created engagement tools—surveys, interviews, site assessment tours, and workshops—aimed at soliciting experience-based knowledge from stakeholders and visitors that would allow us to identify access barriers and co-create inclusive design solutions. Based on the results of the Pilot Study, we used these tools to explore the behaviors of a diverse cross section of the museum's demographic audience (categorized by age, gender, disability, and culture) as they performed four activities, including: 1) arriving at the front door from parking or public transportation; 2) getting oriented at the reception area; 3) waiting, resting, and participating in programs at the atrium; and 4) taking care of bodily needs in the restrooms.

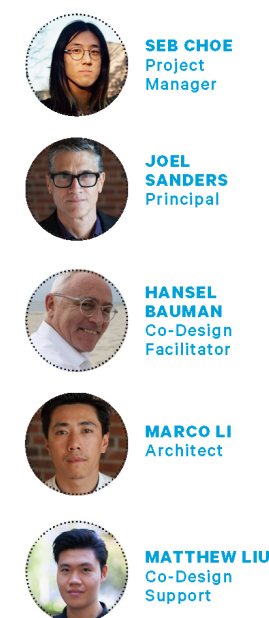
Literature Review: Abigail Ginader, a Yale School of Public Health graduate student, conducted a literature

review and produced an 80-page report analyzing over 150 peer-reviewed articles, reports, and guidelines. This provided us with an overview of the challenges different marginalized user groups encounter in museums, as well as ways that leading museums in the United States are trying to address them.

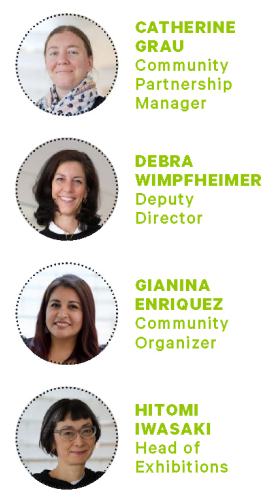
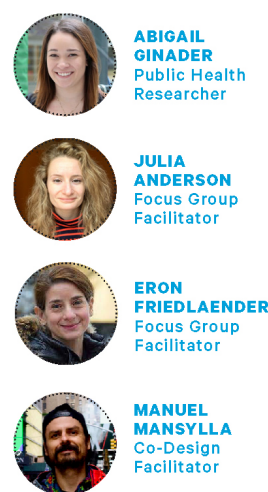
Staff and Visitor Surveys: We designed and distributed surveys to solicit feedback on the accessibility barriers posed by the Queens Museum building. Twenty-two Queens Museum staff members responded to an online survey. We distributed a visitor survey in two formats: an online survey to the entire Queens Museum email list and a paper survey that was filled out by visitors in person. We incentivized visitor participation with an offer of cash gift cards and Queens Museum merchandise. In total, we analyzed 300+ survey responses.

Public Programs and Surveys: In addition to distributing surveys to visitors who had come to see exhibitions during the day, we recognized that we needed to capture feedback from people who attend public programs, generally held in the evenings and on weekends. However, we wanted to capture a different demographic of Queens residents who rarely visited the Queens Museum in the first place, perhaps because of the very access barriers that our project aims to address.

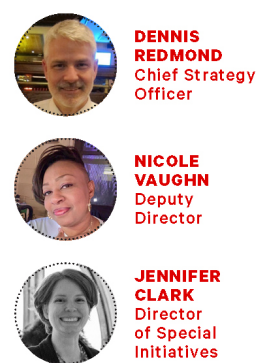
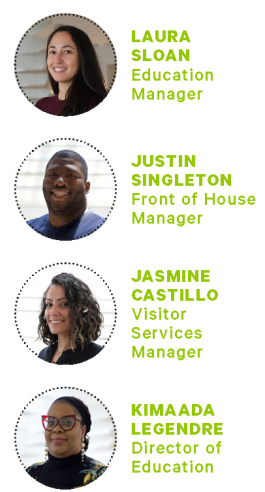
JSA/MIXDESIGN:



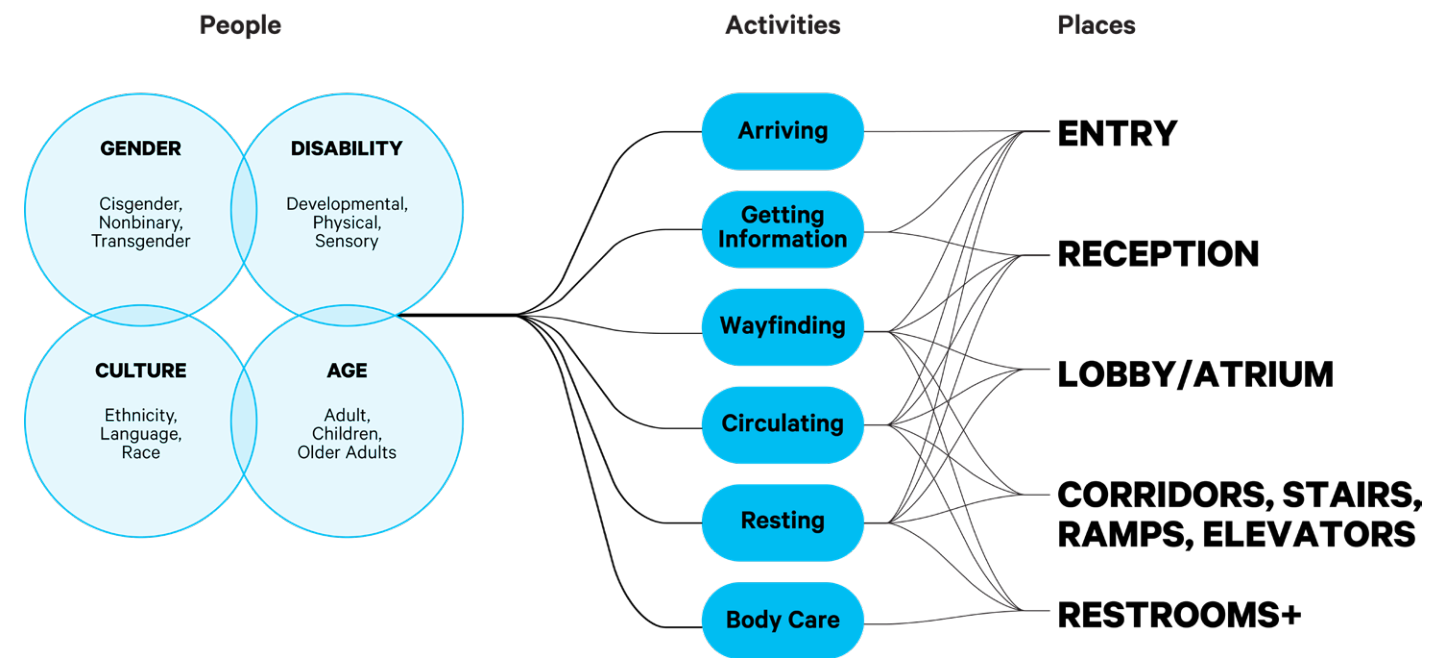
QUEENS MUSEUM:



QUEENS COMMUNITY HOUSE:



Project Team, "Queens Museum: Central Atrium for All." JSA/MIXdesign.



Process Diagram: People, Activities, Places. JSA/MIXdesign.

To expand our reach, we worked with Queens Community House and local community groups to plan 12 free public programs—one-time only events tailored to attract specific audiences. For example, we collaborated with QCH to organize a bilingual talk in English and Mandarin by Kenneth Tam for older Chinese adults, and with Generation Q, a queer teen center, to conduct a DJ workshop for LGBTQ+ teenagers. At these events we distributed surveys to over 700 participants targeted to understand the access challenges posed by attending a public program in the atrium as opposed to a typical daytime visit.

Professional Development Trainings: Recognizing that accessibility cannot be achieved by design alone, we offered eight professional development trainings for all Queens Museum staff that familiarized them with best practices in accessibility. Trainings facilitated by subject matter experts covered topics like writing alt-text and image descriptions for blind and low-vision individuals; language

justice principles when hosting programs for non-English speaking audiences; and cultural awareness trainings when working with groups such as autistic visitors, d/Deaf visitors, and visitors who have experienced domestic violence and might experience trauma responses to exhibition content.

Recruiting the Access Cohort: While using surveys, programming, and professional training allowed us to gather useful data, it was most rewarding to convene in-person workshops with the Access Cohort—a group of Queens residents who were paid to work with us over the course of the two-year project. With the support of Queens Community House, we recruited participants by distributing an application in English and Spanish to their internal network as well as to dozens of Queens-based organizations that provide services to people across age, culture, disability, family structure, gender, language, and more. After reviewing 90+ applications, we recruited 25 members composed of a representative cross-section of



Access Cohort at Queens Museum. JSA/MIXdesign.



Top left: Public Program: DJ Workshop with LGBTQ+ teens. JSA/MIXdesign. Top right: Focus Group at Queens Museum. JSA/MIXdesign. Bottom left: Co-Design Workshop at Queens Museum. JSA/MIXdesign. Bottom right: Student Visualizations at Yale School of Architecture. JSA/MIXdesign.

the museum's demographic audience. The Access Cohort included older adults; users of wheelchairs, scooters, and walkers; parents with young children; Native Spanish speakers; d/Deaf and hard of hearing folks; people with low vision; neurodiverse individuals; trans and nonbinary people; and other marginalized community members.

Co-Design Process: Focus Group, Workshops, Student Visualizations: We convened three types of meetings with the Access Cohort that took place in three phases: focus groups, workshops and design presentations.

Focus Groups: We hosted focus groups dedicated to identifying access barriers. These consisted of walkthroughs of the public-facing spaces of the Queens Museum, followed by group discussion. Walkthroughs began with arriving from Flushing Meadows Corona Park or the rear parking lot and took attendees on a tour of the four study sites, entry, reception, atrium and restrooms. We then analyzed workshop findings using notes and audio transcriptions.

Co-design Workshop: We convened co-design workshop dedicated to coming with design proposals to address the challenges identified during the first phase. Equipped with writing implements (pens, crayons, markers) and modeling materials (clay, cardboard, foam core), participants used words, sketches and models to express more than 100 different ideas.

Design Presentations: After reviewing and analyzing ideas from the Access Cohort, Graduate students from the Yale School of Architecture and the Yale School of Public Health developed them using architectural representation (diagrams, floor plans, renderings). Then, in an iterative process, the students presented their interpretations of the Access Cohort's work back to the Cohort for feedback during two design presentations.

For more comprehensive documentation of this project, please see "Queens Museum: Central Atrium for All." <https://queensmuseum.org/program/queens-museum-central-atrium-for-all/>



Top: Partner museum workshop at Brooklyn Museum. JSA/MIXdesign. **Bottom left:** Partner museum workshop at Whitney Museum of American Art. JSA/MIXdesign. **Bottom right:** Partner museum workshop at Cooper Hewitt. JSA/MIXdesign.

Partner Museum Workshops (2022)

In 2022, together with The Architectural League of New York, MIXdesign received a grant from the NEA to host in-person workshops with three partner museums from our MIXmuseum Network: Brooklyn Museum (38 participants); Cooper Hewitt, Smithsonian Design Museum (12 participants); and the Whitney Museum of American Art (38 participants). During the workshops, participants reviewed the findings from the Queens Museum Study and evaluated their relevance for their institutions.

In preparation for the workshops, we worked with staff from each institution to develop a list of attendees representing different departments including administration, education, curatorial, visitor experience, and facilities. We also drafted a pre-workshop survey that asked workshop participants to understand the accessibility barriers posed by the museum buildings at which they worked. At each workshop, we presented our process and findings from the Queens Museum project as well as results from the pre-workshop survey. This material was a point of entry for a facilitated discussion to see which findings were relevant for each



Symposium day 1, panel. The Architectural League of New York.

institution and if there were issues that might be missing or needed to be reframed. We conducted a comparative analysis of the meeting minutes and audio transcripts that is incorporated into our findings.

Symposium (2024)

Day 1: Lecture & Panel Discussion

Recording: Making the Inclusive Museum (Jan 26, 2024) <https://archleague.org/article/making-the-inclusive-museum/>
On January 26, 2024, JSA/MIXdesign and The Architectural League hosted the first day of a two-day symposium. The program began with a presentation, “Embodied Spectatorship in a Historical Context” from JSA/MIXdesign principal Joel Sanders. In his talk, a condensed version of the essay found in Part 1 of this report, Sanders situated contemporary DEAI challenges in a historical context: from the first purpose-built nineteenth-century civic museums to the advent of the twentieth-century “White Cube,” reconciling

the needs of the embodied spectator with practical considerations like security, conservation, and crowd control. Following Sanders’ presentation, JSA/MIXdesign associate director Seb Choe shared key findings from the MIXmuseum Toolkit generated through the research and participatory design methods described above. The program closed with a panel discussion and Q&A with representatives from four partner museums, moderated by Ignacio G. Galán, assistant professor of architecture at Barnard College and Columbia University GSAPP. Panelists included:

- Keonna Hendrick**, director of diversity, equity, inclusion, and access at Brooklyn Museum
- Maria Nicanor**, director of Cooper Hewitt, Smithsonian Design Museum
- Dyeemah Simmons**, director of social impact at the Whitney Museum of American Art
- Sally Tallant**, president and executive director of the Queens Museum



Symposium day 2, full group meeting. The Architectural League of New York.

Day 2: Workshop

On January 27, 2024, the second day of the symposium, we convened a day-long Inclusive Museums Workshop with a cohort of 22 invited participants, representing art museum stakeholders (directors, curators, educators), design professionals (architects, exhibition and graphic designers), and accessibility advocates.

In advance, participants completed surveys reflecting on accessibility barriers based on their own experience working at or with museum buildings, as well as recommendations to resolve them. This material formed the basis of the workshop, which was divided into a morning and afternoon session. In the morning, participants evaluated the MIXmuseum findings presented at the symposium in small breakout groups followed by a group discussion. Summaries of the feedback can be found in Part 3 of this report.



Symposium day 2, breakout session. The Architectural League of New York.

Participants included:

Amy S. Weisser, Deputy director, strategic planning and projects, Storm King Art Center

Annya Ramírez-Jiménez, Partner, MARVEL

Arthi Krishnamoorthy, Architect and senior principal, TenBerke

Brian Butterfield, Director, Museums, WHY

Catherine Grau, Community partnership manager, Queens Museum

Connie Butler

Director, MOMAPS1

David Gissen

Dyeemah Simmons, Director of social impact, the Whitney Museum of American Art

Eddie Opara, Partner, Pentagram

Francesca Rosenberg, Director, access programs and initiatives, Museum of Modern Art

Humberto Moro, Deputy director of program, Dia Art Foundation

Jing Liu, Principal, SO-IL

Kevin Gotkin

Kirsten Sweeney, Accessibility & inclusion manager, Cooper Hewitt, Smithsonian Design Museum

Klaudio Rodriguez, Executive director, The Bronx Museum of the Arts

Mabel O. Wilson

Mario Gooden, President, The Architectural League of New York; Director, Mario Gooden Studio:

Architecture + Design; Professor of practice, Columbia University GSAPP

Monica Coughlan, Design director, Studio Joseph

Nader Tehrani, Principal, NADAAA

Sally Tallant, President and executive director, Queens Museum

Stella Betts, Partner, Levenbetts

Wendy Evans Joseph, Principal in charge, Studio Joseph



Symposium day 2, breakout session. The Architectural League of New York.

Findings and Responses

This section presents an edited selection of findings from our MIXmuseum Toolkit, focusing on design recommendations for non-gallery public-facing museum spaces.

The Toolkit is a work in progress generated from our research conducted from 2018 to 2023 that included consulting with members of the MIXmuseum Network, working on commissioned projects, and analyzing data compiled from the participatory design process detailed in Part 2 of this report. The findings are not intended to be building-specific, but instead offer generalizable recommendations that can be adapted and implemented to meet the site-specific needs of a wide range of museum buildings on a case-by-case basis.

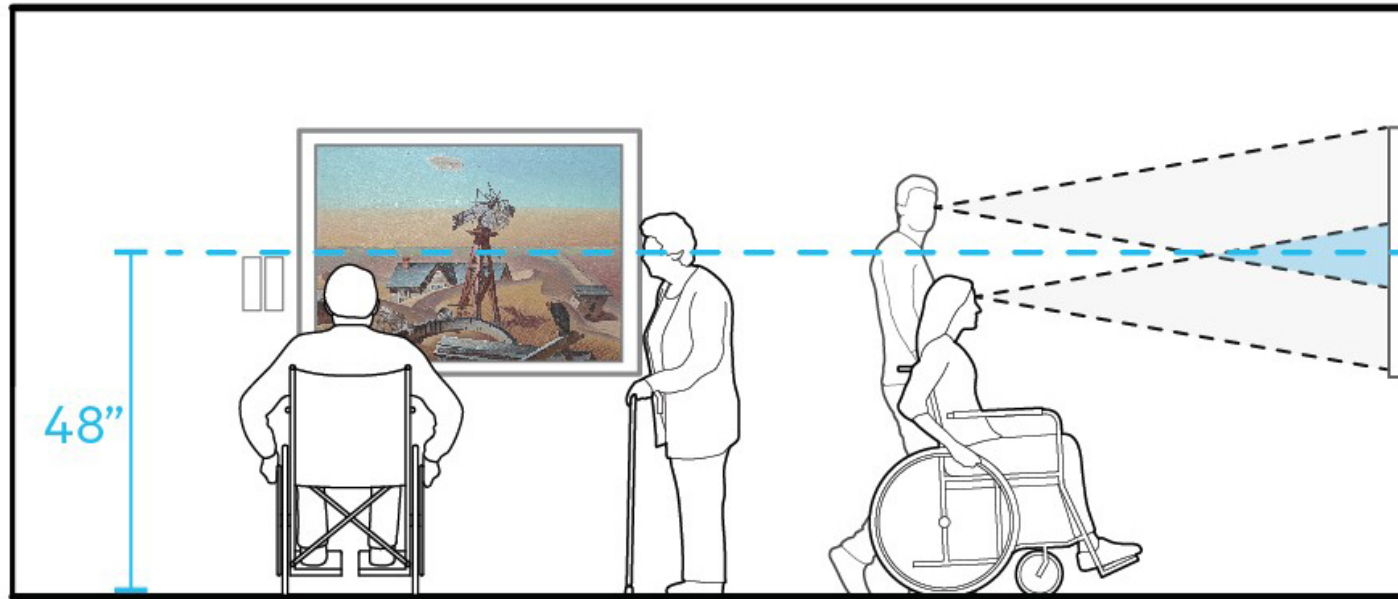
The findings are presented in three broad categories that consolidate material covered over the course of the two-day symposium:

- **Arrival + Information:** Arriving from the exterior to the entry lobby where visitors receive information of different types including logistics (visiting hours, admission), “what’s on” (exhibitions, programs), and accessibility offerings.
- **Circulation + Wayfinding:** Navigating to destinations using horizontal circulation (corridors, hallways), vertical circulation (stairs, ramps, elevators), and way-finding (directional signage and environmental graphics).
- **Wellness + Atmosphere:** Tending to physical, mental, and spiritual needs for individuals and caregivers. Environmental conditions like lighting, acoustics, materials, colors, and aesthetics that impact the visitor experience and sense of belonging.

Each of these categories are then divided into a series of subcategories based on the variety of factors or environmental conditions that shape a visitor’s experience as they perform activities either at specific sites or across multiple sites at the museum. Each experiential subcategory is further broken down into three parts. “Barriers” and “Recommendations” summarizes the Toolkit findings that we shared at the first session of the Symposium, and “Responses” summarizes the feedback we received from the events listed in Part 2 of this report (three partner museum workshops, the panel discussion from Symposium Day 1, and the workshop from Symposium Day 2). For example, the subcategory “Reception Desk” found under the “Arrival + Information” category includes Barriers (e.g., desks can be too tall and feature flat fronts, which presents a barrier to wheelchair users, little people, and children who cannot see or reach across the counter); Recommendations (e.g., multi-height counters whose dimensions accommodate a range of heights with kick-space for wheelchair users); and Response (e.g., pros/cons of centralized desk vs. freestanding kiosks).

Universalism vs. Pluralism

Coming up with viable design solutions that can be adapted for specific contexts raises a recurring theme that came up during the workshop on the second day of the symposium: the tension between “Universalism” (designing shared spaces that meet the intersecting needs of all visitors) and “Pluralism” (recognizing and celebrating human difference by designing spaces geared to different types of users). This opposition came up on numerous occasions. Workshop attendees discussed whether it is better to have one shared museum entrance as opposed to multiple entrances for different groups, one reception that consolidates information as opposed to multiple ones, or flexible multi-purpose spaces as opposed to areas tailored to specific activities.



Universal hanging height for paintings, as advised by Smithsonian Guidelines for Accessible Exhibition Design. JSA/MIXdesign.

Universalism is associated with Universal Design, a concept developed in 1997 by a working group of architects, product designers, engineers, and environmental design researchers led by Ronald Mace. It consists of principles aimed to design products and spaces that can be “accessed, understood, and used to the greatest extent possible by all people, regardless of age, size, or disability.” However, hindsight reveals some of the flaws of Universal Design. By seeking one-size-fits-all solutions, Universal Design cannot fully respond to human diversity, the varieties of ways of being human that are sometimes in conflict with one another. Consider, for instance, how the textured pavements used to aid people with vision disabilities who use white canes can create bumpy rides for wheelchair users. In addition, the complexity of human difference far exceeds the ways we attempt to categorize groups of people.

For example, although we use the umbrella term LGBTQ+, people within this larger group do not all share the same identities or experiences. Consider how spatial access needs may differ between a cisgender White gay man using a restroom and a trans Black woman using a restroom. Or, consider how neurodivergent people may respond differently to the same environment; some may be overwhelmed by loud, highly sensorial spaces while others may actively seek out more stimulating surroundings.

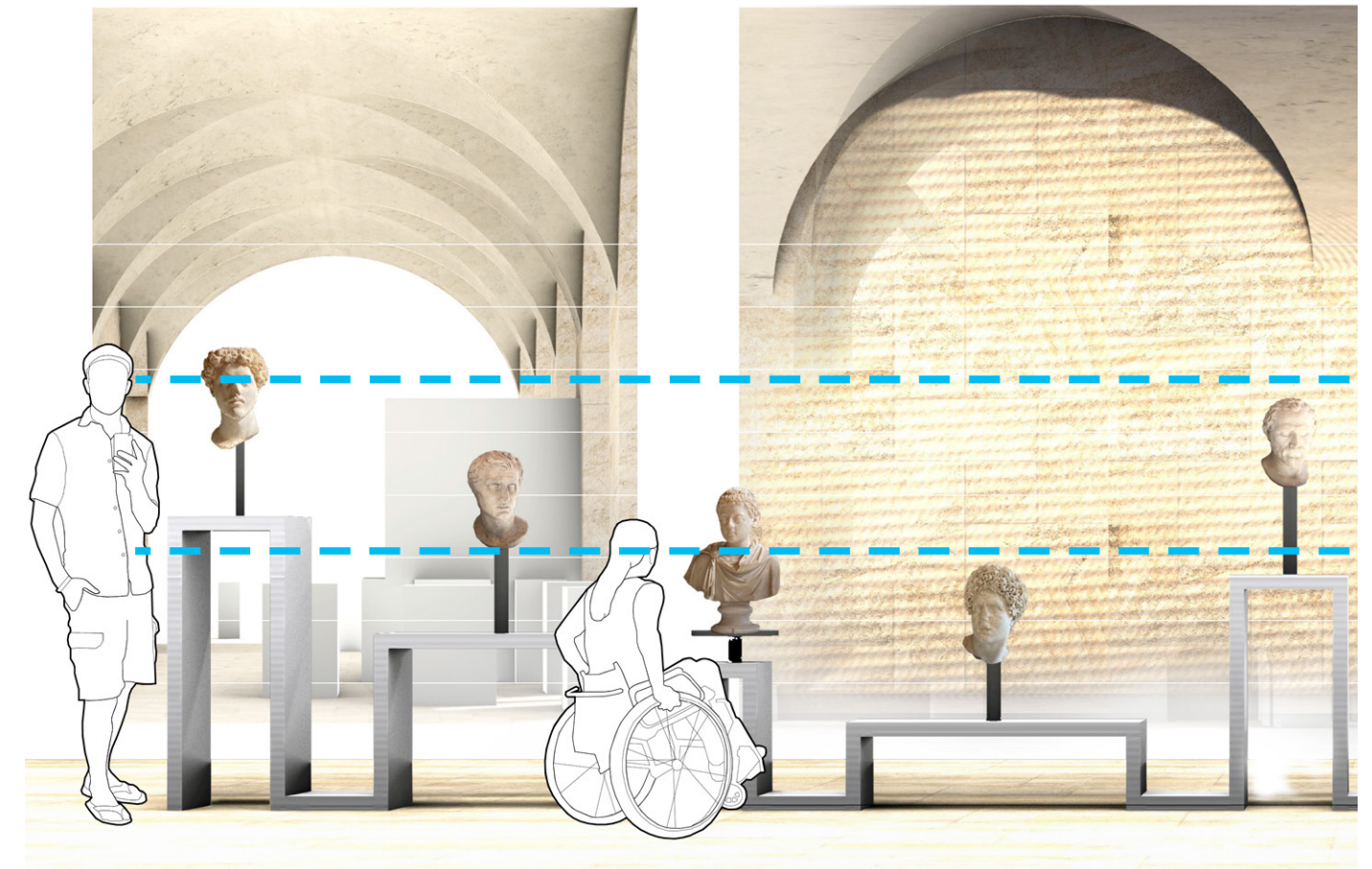
At MIXdesign, we frequently encounter these kinds of tensions between universalism and pluralism. Our overall objective is to arrive at recommendations that allow the maximum number of people with different minds, bodies, and identities to have the same shared experience in public space. However, we also recognize that there are certain user groups that have unique physical, religious, cultural, or privacy needs that require separate accommodations. Our strategy for reconciling these two approaches that seem at odds varies on a case-by-case basis.

In most instances, our approach is to design one communal area that offers choice, providing the option for most users to share while also having some separate spaces where they can meet specific needs. Our Stalled! design prototype for multi-user restrooms is a good example of this approach. It includes communal sinks and mirrors for grooming and washing and two types of individual toilet stalls (regular and ADA-compliant) with full-height privacy partitions that promote sharing. However, the prototype makes room for two larger Comfort rooms. Equipped with a mirror, sink, toilet, hand shower and changing table, this private option accommodates a multitude of individuals, such as Muslim or Orthodox Jewish women, people who may feel shy about using restrooms in public, and caregivers accompanying someone into the restroom. In addition, rather than force people

into uncomfortable situations, we recommend clients develop a bathroom distribution plan that offers users the choice of using one of three restroom types—traditional gendered rooms, single user, or Stalled! multi user—that best matches their physical, psychological, religious, and cultural access needs.

Another issue that often arises regarding the tension between universalism and pluralism is the relative value of establishing uniform design standards for displaying art, not only in galleries but also in corridors, lobbies, and atriums. For example, museum clients often ask us to recommend a standard hanging height for wall-mounted pictures, or dimensions for displaying objects on pedestals that have been traditionally calibrated at 57 to 60 inches (the eye level of an “average” human). We posed this question during a co-design workshop attended by wheelchair and scooter users at the Queens Museum. After a lively discussion, the group reached consensus: rather than display pictures

and sculptures at one lower-height standard in every space of a museum, they recommended that museums might employ different display techniques in different contexts. Yale architecture students tested this idea at the Yale University Art Gallery. In the European painting galleries, they recommended a solution that is increasingly becoming a common practice at many museums: hanging pictures according to a lower-height standard, a consistent height that is accessible to wheelchair users, little people, or younger children. However, in the Roman sculpture galleries, the students experimented with a different solution by electing to display antique busts at varying heights that roughly corresponded to the age and sex of the person being depicted. This approach was intended to take people out of their comfort zones by inviting everyone, regardless of height or ability, to encounter art from different visual perspectives, even if it means altering their habitual body postures to do so.



Yale Architecture student proposal for installing antique statues at varying heights. Shuchen Dong, Yue Geng.

ARRIVAL + INFORMATION

ARRIVAL + INFORMATION

Split Entry

Barrier:

The San Diego Museum of Art (SDMA) exemplifies a general problem that is relevant to other museums: entry sequences that split stairs and ramps. The main entry doors are found at a landing accessed by a flight of exterior stairs. This creates an obstacle for caregivers who have children in strollers and for people with mobility disabilities. There is also a poorly marked “ADA ramp,” which creates a route that stigmatizes disabled visitors by separating them from the rest of their companions.

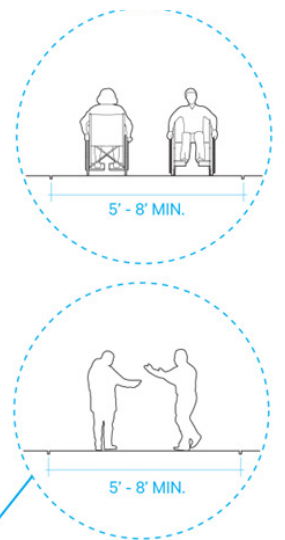
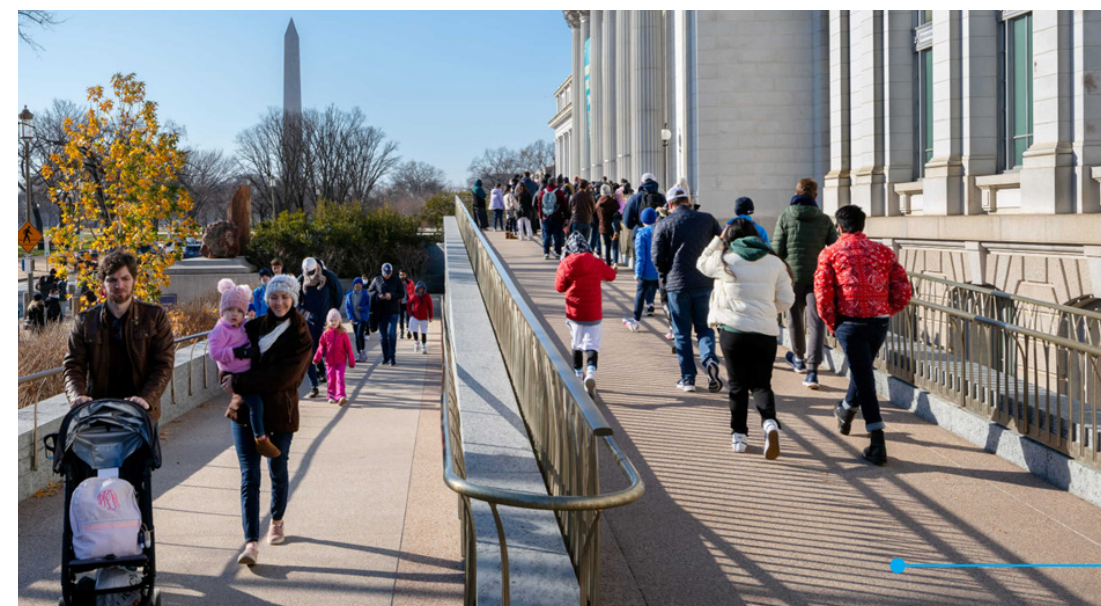


Recommendation:

When possible, try to provide one accessible route for everyone—ideally wide enough with a gentle incline for pairs of wheelchair users to use together, and for d/Deaf visitors to move side-by-side while communicating in sign language.

Response:

Some partners acknowledged that separate entries can reduce wait times for specific user groups such as disabled people or school groups. Others acknowledged that monumental staircases, by elevating the “museum on a pedestal,” succeed in creating a “transcendent” entry experience, which also responds to climate change by protecting the museum from rising sea levels and flooding. However, they acknowledged the resulting lack of accessibility, and noted the need for architects to consider other ways of responding to these needs.



Top: Aerial view of split entry, San Diego Museum of Art. JSA/MIXdesign. Bottom: Smithsonian Entry Walkway, wide enough for pairs. Quinn Evans.

ARRIVAL + INFORMATION

Facade/Building Exterior

Barrier:

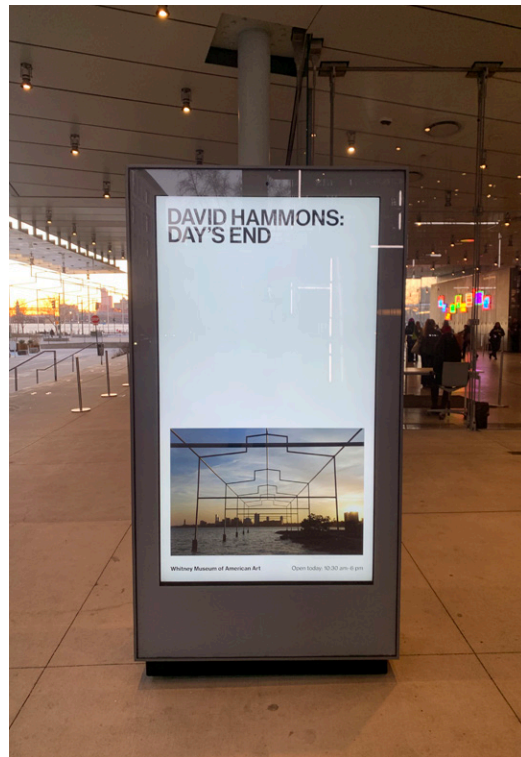
The SDMA also represents another common barrier: inadequate signage that fails to communicate the identity of the museum and its current programming. Located in Balboa Park with competing attractions, many park visitors don't recognize the SDMA—a major, encyclopedic art museum—as an option to visit. The museum's branding is minimal; the existing facade is mostly blank except for its ornate entry. Flanking this entry are two tiers of large banners that give the museum's name and the current exhibition. However, these signs are mounted high on the facade, making them difficult to read for many visitors. In addition, there is no legible signage at eye level that provides arriving visitors with the information they need about logistics (hours, admission, codes of conduct) as well as exhibitions/programming. This confuses many visitors and puts the burden on security guards or receptionists at the front desk to provide this information.

Recommendation:

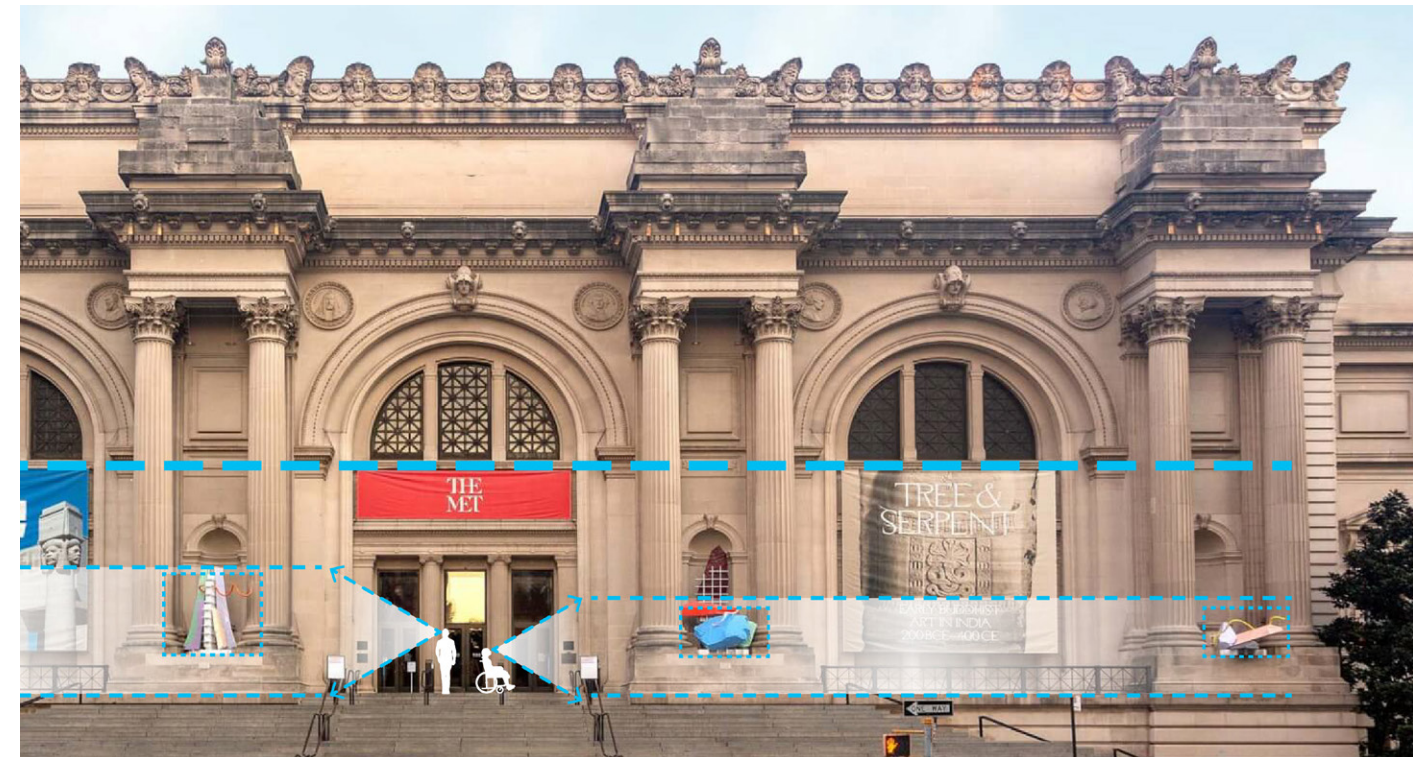
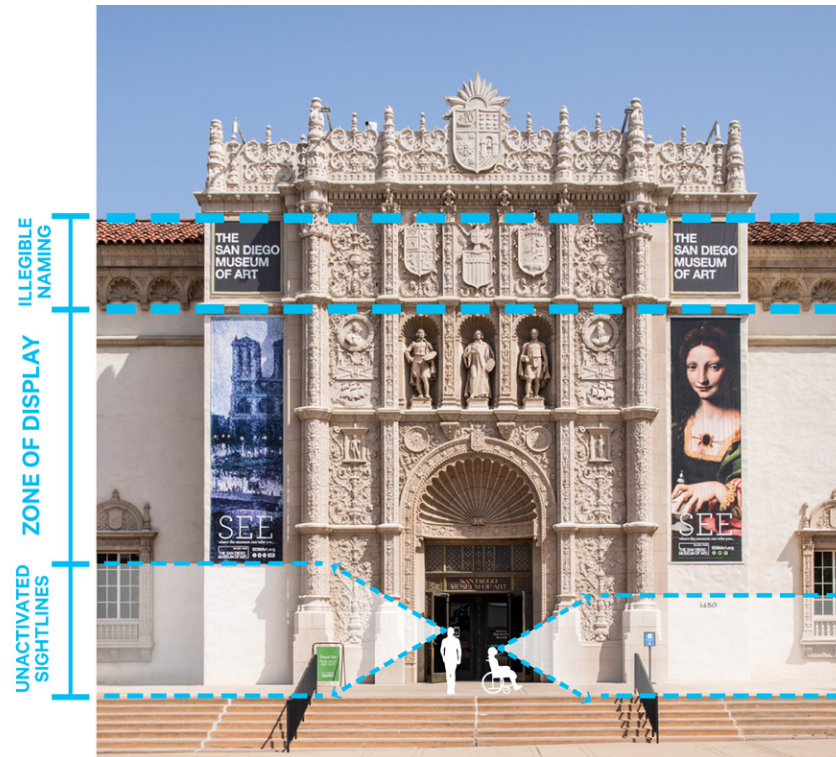
The Metropolitan Museum of Art in New York City does a good job of addressing this issue by offering signage that takes into consideration visitors' changing sightlines as they approach the museum. It introduces a variety of legible signage—both analog and digital—at different scales (banners, eye-level signs, and freestanding kiosks), conveying the building's identity as an art museum and providing information including hours, admission, codes of conduct, exhibitions, programming, and events. In addition to signage, the Met uses art to signal that they are an art museum. The "Facade Commission" project invites artists to create site-specific artworks displayed in niches on the front facade.

Response:

N/A



Left: Street kiosk, Whitney Museum of American Art. JSA/MIXdesign. Right: Facade sightlines, San Diego Museum of Art. JSA/MIXdesign.



Top: Art installation by Nairy Baghramian on facade of the Metropolitan Museum of Art. JSA/MIXdesign. Bottom: Facade sightlines, Metropolitan Museum of Art. JSA/MIXdesign.

Activate Entry Area

Barrier:

The SDMA poses another common issue: inhospitable entry plazas. The plaza directly in front of the museum lacks seating and shade, making it unwelcoming for visitors who would benefit from outdoor areas to gather and rest before and after visits. The plaza also lacks a place for vehicles to drop off visitors, making it difficult for elderly and disabled people to easily enter the user without traversing the plaza. The curb can be a tripping hazard.

Recommendation:

The Metropolitan Museum of Art effectively addresses this common access problem by treating the plaza in front of the museum as a welcoming destination. It is equipped with shade (trees and umbrellas), planters, fountains, and places to sit that encourage visitors to gather, rest, and eat.

Response:

Participants affirmed our recommendations to activate exterior entry plazas as multisensory welcoming destinations, enlivened by amenities (greenery, shade, seating) as well as art, including installations and performances.



Top: Plaza de Panama, San Diego Museum of Art. JSA/MIXdesign. **Bottom:** Shaded dining area in The Met's entry plaza. Photo: Sahar Coston-Hardy, Courtesy of OLIN.

Security / Lobby

Barriers:

Security poses a problem for many museums, especially those located in metropolitan areas with a large volume of visitors like the Metropolitan Museum of Art, the Whitney Museum of American Art, and MoMA.

Screening: Upon entry, visitors are often screened by security guards, where they must go through ugly metal detectors that are not integrated into the entry sequence design. These post-9/11 security measures are at odds with the transparent entry facades installed to make renovated and ground-up construction museums more welcoming from the street. Aside from being an architectural afterthought, these security measures, both human and electronic, often make visitors and the security guards that monitor them uncomfortable—especially people of color, trans people, and immigrants who may already have fraught relationships with security and policing.

Codes of Conduct: Many visitors are unfamiliar with the codes of behavior governing how people should behave in museums, like standing back from and not touching works of art. It often falls on security guards to approach visitors and enforce these rules.

Recommendations:

While more research is required to reconcile the tension between hospitality and security, here are a few suggestions:

- Rather than intimidate visitors with security guards and equipment immediately upon entry, enable visitors to pass through security after obtaining information and purchasing tickets.
- Create opportunities for staff and visitors to interact outside, in pre-ticketed areas, or while waiting in line, rather than setting up security as the first interaction.
- Introduce "Ambassadors," like those at the Met and the Whitney, at the front entrance and lobby, who aren't wearing uniforms and can greet visitors, give directions, and answer questions.
- Use signs and apps to acquaint visitors with codes of conduct before they enter the galleries.

Response:

Participants affirmed our recommendations to activate exterior entry plazas as multisensory welcoming destinations, enlivened by amenities (greenery, shade, seating) as well as art, including installations and performances.



Left: Security guards outside the Metropolitan Museum of Art. JSA/MIXdesign. **Middle:** Bag checks at security inside the Metropolitan Museum of Art. JSA/MIXdesign. **Right:** Security guards inside the Whitney Museum of American Art. JSA/MIXdesign

Top: Greeter staff at the Whitney Museum of American Art. Whitney Museum. **Bottom:** Greeter staff at 9/11 Memorial & Museum. 9/11 Memorial & Museum.

Information

Reception areas bear the burden of communicating three kinds of necessary information to visitors in human, analog, and digital formats: logistics (hours, admissions, rules governing behavior), “what’s on” (exhibitions, programming, tours, events), and accessibility offerings (interpretative content, devices, and services that will allow a wide range of visitors with different identities and embodied experiences to come to the museum confident that their needs will be met).

Barriers:

- Many museums with limited lobby space, like the SDMA, compress information services into a small area. This can overburden staff at reception and visitors alike, resulting in long lines for obtaining information that in turn delay visitors from taking care of other needs like using the restroom.
- In addition, some museums like the SDMA, have replaced analog maps and brochures with a digital app, which creates linguistic barriers as well as a “digital divide” that alienates older adults who are not comfortable operating smartphones, as well as visitors who cannot afford to own them.
- Many visitors including older adults, caregivers, and disabled people are reluctant to visit museums in the first place because it’s unclear if the museum will be able to meet their needs. While many museums do provide accessibility accommodations and equipment, it may not be obvious where to find them.

Recommendation:

If space allows, conceive of the entry lobby as a Welcome Center—a hub that provides information in two formats: analog (e.g., printed maps, brochures, pamphlets, labels) and digital (e.g., QR codes, app, digital monitors, interactive touchscreens).

Accessible Content: Offer analog and digital content (labels, brochures, apps, monitors) with graphic options including legible high contrast graphics as well as large fonts, braille, and audio descriptions.

Language: Visitors should be able to obtain multilingual information using either interactive digital touchscreens

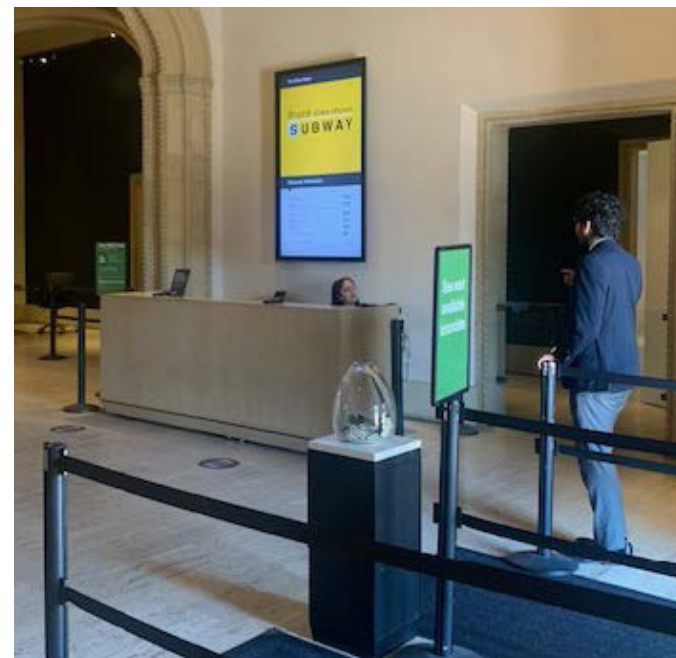
or large font printed material. Since multilingual signs and brochures are more costly to produce and take up more space on walls and shelves, determine what languages are most represented in the museum’s specific community and offer multilingual information based on budget and space limits.

Accessibility Offerings: Make accessibility offerings visible. One idea is an integrated Access Shelf at reception that offers equipment like fidget toys, noise-canceling headphones, assistive listening devices, information on seating/wheelchair rentals, and an ASL welcome video.

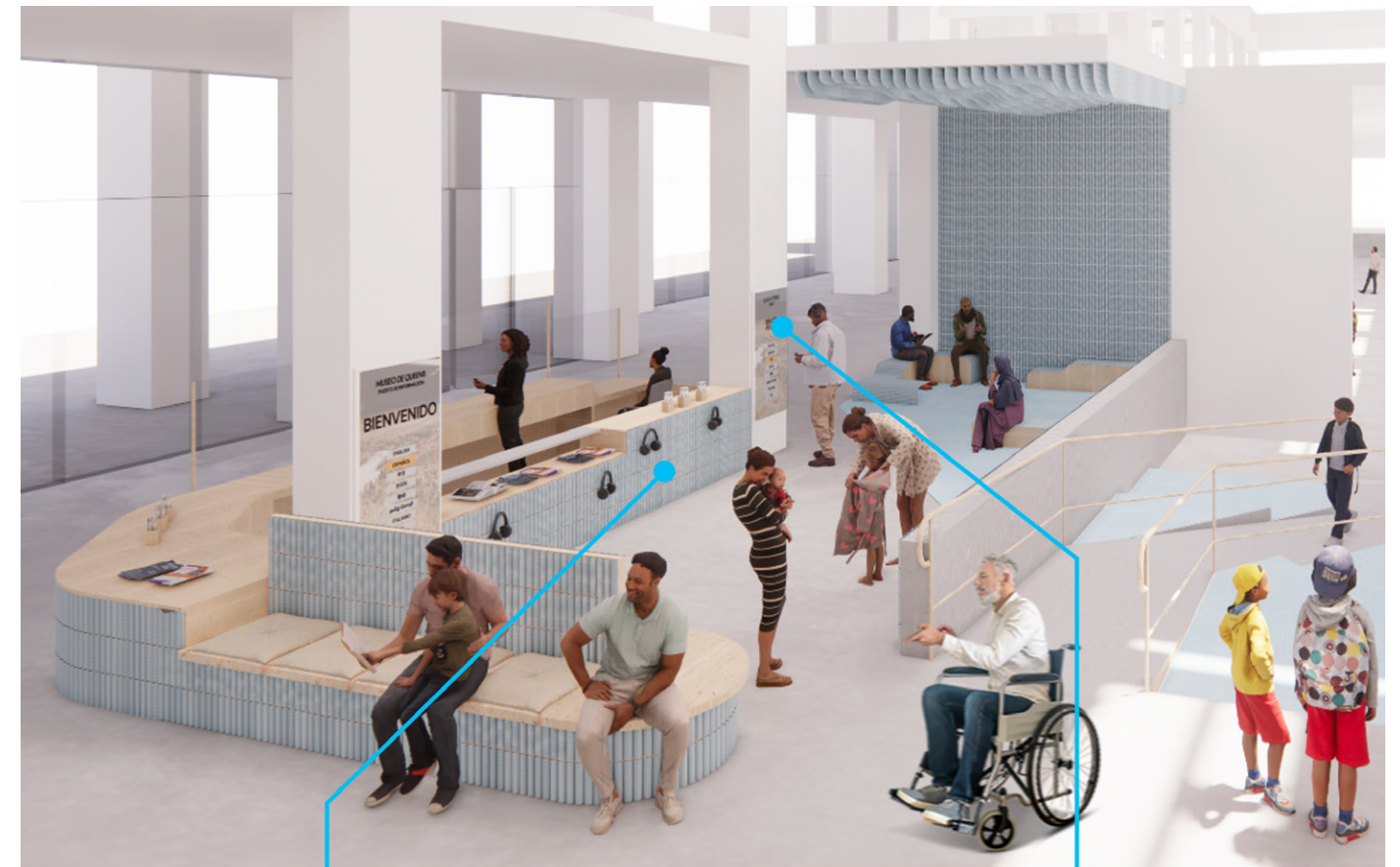
App and/or Website: Adapt apps (e.g., Bloomberg Connect) that offer museum guides for hundreds of museums to supplement other information offerings.

Response:

If staffing budget allows, participants recommended placing trained greeters in areas known to be points of visitor confusion. They also noted how museum information should be written in plain language, avoiding academic jargon that may be confusing for visitors with diverse education levels and cognitive abilities.



Information Services at the San Diego Museum of Art. JSA/MIXdesign.



Rendering of a “Wellness Hub” with reception desk, interactive touchscreen, accessibility offerings. Denise Chow, Maya Gamble, Reem Khorshid, N’Dos Onochie, Kalla Sy.

Reception Desk

Barriers:

A barrier common to many museums is the design of the reception desk itself. An example of this is the reception desk at the Queens Museum.

Visibility + Location: Reception desks are often too far from museum entrances. In the case of the Queens Museum, the desk is freestanding and poorly marked, resulting in visitors walking right past it.

Ergonomics: Desks can be too tall and feature flat fronts, which presents a barrier to wheelchair users, little people, and children who cannot see or reach across the counter.

Visual and Acoustic Barriers: Computer monitors and hygiene shields restrict communication with reception staff, making it especially difficult for hard-of-hearing individuals and d/Deaf people who may rely on lip-reading.



Reception Desk without overhang for wheelchair users, Metropolitan Museum of Art. JSA/MIXdesign.

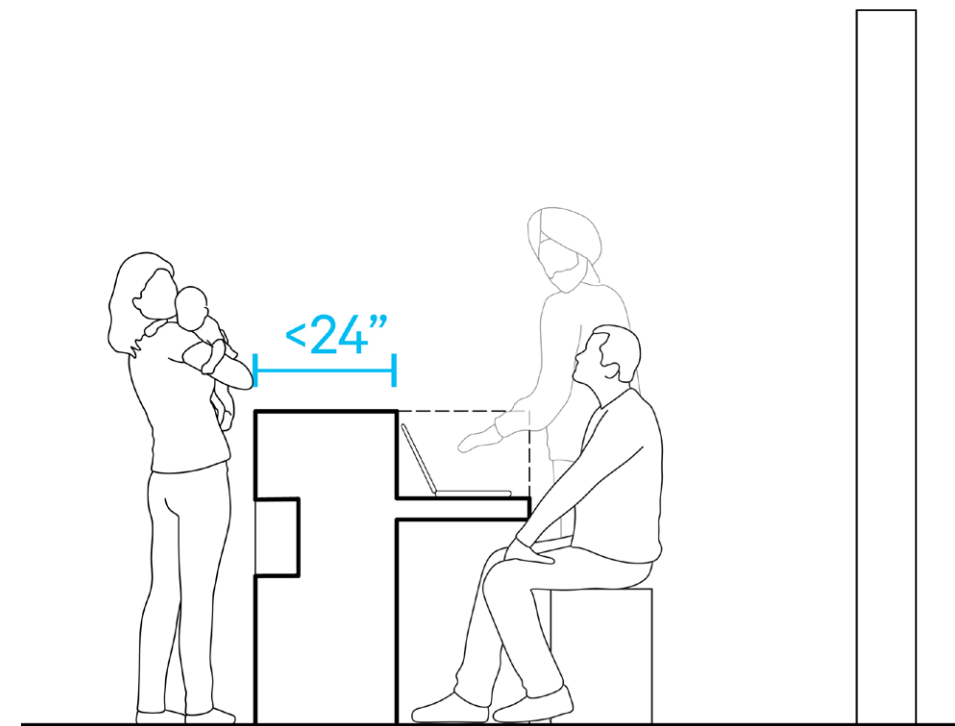
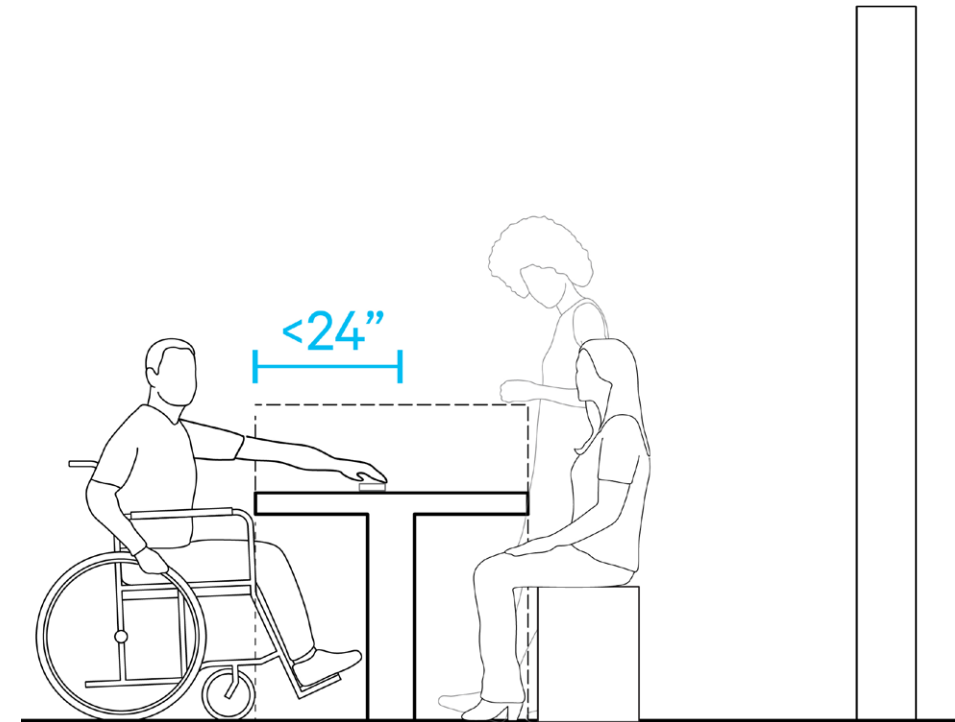
Recommendations:

Welcome Hub: Treat reception as a Welcome Hub that offers visitors three types of information (logistics, “what’s on,” accessibility offerings) either in multiple desks or one centralized desk, subdivided into clearly defined zones each devoted to offering visitors different types of information in multiple formats (human, analog, apps).

Ergonomic Design: Reception and Docent Desks should feature multi-height, overhanging counters whose dimensions provide leg room and range of motion for people in wheelchairs, children, and little people, ensuring that users of all heights can approach and easily communicate with museum staff. Design desks with unobstructed sight lines between visitors and reception staff, rounded corners and edges for safety, and display analog maps and brochures in a visible location.

Response:

Participants noted pros and cons of how museums can distribute reception desks. For example, one reception desk can be effective as a centralized point to receive all visitors in smaller museums with a single entrance and low visitor traffic. However, larger museums with multiple entrances and high visitor traffic could benefit from multiple freestanding kiosks positioned at key points to maintain an unobtrusive feeling of spatial openness. In other cases—such as in museums with free admission where tickets are not required and visitors are encouraged to enter and immediately begin their experience—a reception desk might not be necessary at all, and stationed greeter staff could suffice.



Side view, reception desk ergonomics. JSA/MIXdesign.

ARRIVAL + INFORMATION

Visit Begins at Home

Barrier:

Many potential visitors are reluctant to come to the museum unless they are assured in advance that their needs will be met. This includes disabled and neurodivergent people, people with medical needs, and caregivers accompanying young children, older adults, and disabled visitors.

Recommendation:

Museums should allow visitors to plan their visit in advance of arrival by providing accessibility information online via websites and Social Narratives, which are documents that help visitors forecast their museum experience with aids like maps and walkthroughs.

Response:

Participants suggested improving pre-visit “onboarding” hospitality processes by learning from other building types (e.g., stadiums, airports, commercial stores).



Left: Social narrative, San Diego Museum of Art. San Diego Museum of Art. Right: Visit begins at home. JSA/MIXdesign.

CIRCULATION + WAYFINDING

Vertical + Horizontal Circulation: Stairs, Ramps, Elevators

Barriers:

Vertical circulation consists of steps, stairs, ramps, and elevators that allow visitors to navigate level changes. Art museums, both classical and modern, often feature a monumental “Grand Stair” that takes visitors from the ground level lobby to upper floor galleries. These are often equipped with skylights and dedicated to the display of paintings, which are traditionally considered the “highest” art form, as opposed to sculpture and decorative art, which are considered a “lower” art form and therefore usually displayed in the building’s ground floor. Although often impressive, the Western architectural tradition of the grand stair is ableist; it celebrates a feature that is inaccessible to disabled visitors and disrupts the visitor experience by forcing non-disabled visitors to split-up from disabled visitors and stroller users, who must find alternatives like ramps and elevators, which are often poorly marked and located away from the Grand Stair.



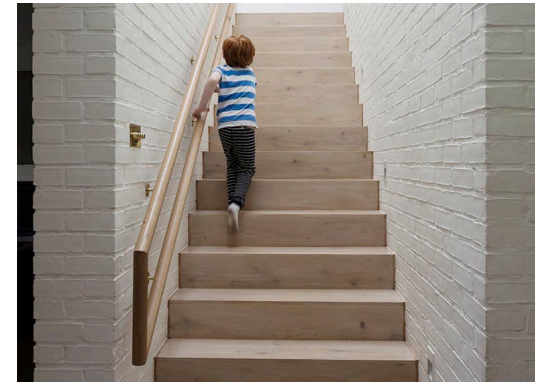
Museum of Fine Arts, Houston. JSA/MIXdesign.



Grand staircase, Philadelphia Museum of Art. Sang-Min Yoon.

Elevators are often too small and ramps too steep and few in number, causing confusion, bottlenecks, and disruptive detours.

- Museum hallways and corridors are often circuitous, narrow, poorly lit, and lead to dead ends, which creates confusion, especially for neurodivergent people and people with physical and sensory disabilities.
- Stairs and ramps usually have one ADA-compliant handrail at a height that fails to accommodate all wheelchair users, children, and little people.
- Interior and exterior doors are often too heavy and feature handles that are not within reach of all wheelchair users, children, and little people.



Top: Multi-height handrails. Photo: Aisling McCoy, Courtesy of PLA Architects. **Bottom:** Automatic door-opening button. Yesenia Torres.

Recommendation:

- As a rule of thumb, design vertical circulation to promote sharing, so that the maximum number of individuals, friends, families, companions, and groups can have the same shared experience.
- Where space allows, create barrier-free circulation routes and ramps wide enough for a pair of wheelchair users or a pair of sign-language users to travel side-by-side.
- Predictable circulation is especially important, especially for disabled and neurodivergent people. Provide generously sized stairs, ramps, and elevators in visible locations near the lobby and adjacent to clearly marked circulation routes. If possible, consolidate vertical circulation elements in a stacked core in a visible location, preferably near the lobby.
- All handrails and door handles should be positioned at heights (and when required, at multiple heights) to accommodate wheelchair users, little people, and children.

Response:

Participants questioned the idea that museums want to promote a single, ideal circulation flow from public-facing spaces to galleries. They suggested that circulation design could offer visitors multiple sequences geared towards different scaled visits (e.g., a short visit that intuitively leads visitors from entry to gallery and back out, vs. a longer visit that encourages exploration and unplanned discovery).

- Contrary to the idea that circulation should assist with crowd control, participants mentioned that in some cases, museums might actually want to promote crowding in some areas as a way to attract more visitors.
- Participants wondered if wheelchair-accessible routes that are currently separate from main circulation paths must be seen as only negative, and instead could be an opportunity to be enhanced as a place for disabled visitors to build community.
- They also noted the paradox of the desire to abolish the “monumental stair” and New York City’s “Healthy Building Initiative,” which encourages stair use as exercise. Participants considered design alternatives to the monumental stair (e.g., large elevators) that could promote a visitor experience of prestige, excitement, beauty, and spatial dynamism.

Wayfinding

Barriers:

Museum wayfinding is often inadequate, illegible, and inconsistent. Circulation zones often lack sufficient directional signage. Wall-mounted maps are often difficult to locate and read, putting the onus of giving directions on staff, security guards, and docents.

Recommendations:

Legible and Consistent Graphics: Create a holistic, consistent, museum-wide signage and wayfinding system that considers multiple sightlines and viewing heights, large fonts, high-contrast colors, and multilingual options, including braille.

Multilingual: Adopt bilingual English/Spanish signage, which has become a standard in many American museums. If physical space and budget allow, consider offering additional language options. Apps are a more cost-effective way to expand language offerings and test other accessible media formats, like audio descriptions.

Environmental Graphics/Multi-sensory Wayfinding:

Supplement conventional signage with environmental graphics applied to walls and floor surfaces. In addition, consider multi-sensory wayfinding strategies that use color, materials, and textures that differentiate between areas of movement (barrier-free circulation) from activity zones. This can help everyone, including people with sensory disabilities and neurodivergent people, to intuitively and confidently navigate the museum without relying on signs. Embedding braille signage on wall surfaces and including tactile paving and floor tracks for white cane users can help blind and low-vision visitors.

Response:

Participants affirmed MIXmuseum findings around accessible, multisensory wayfinding and suggested that all museum maps (digital and physical) incorporate a layer of access information including slopes, path materials, sensory zones, and distance between attractions.



Left: Multilingual digital touchscreen, Queens Museum. Denise Chow, Maya Gamble, Reem Khorshid, N'Dos Onochie, Kalla Sy. Right: Tactile floor trail. JSA/MIXdesign.

WELLNESS
+
ATMOSPHERE

This category is divided into two sections. Wellness covers two types of accommodations—restrooms and seating—that promote health and wellbeing by allowing people to take care of their physical, mental, and spiritual needs, regardless of their age, gender, religion, and ability. Atmosphere covers three environmental conditions—acoustics, lighting and materials—found throughout the museum that shape the visitor experience, especially for disabled and neurodivergent people.

WELLNESS + ATMOSPHERE

Restrooms

Barriers:

Inaccessible for Trans/Nonbinary People and Disabled People:

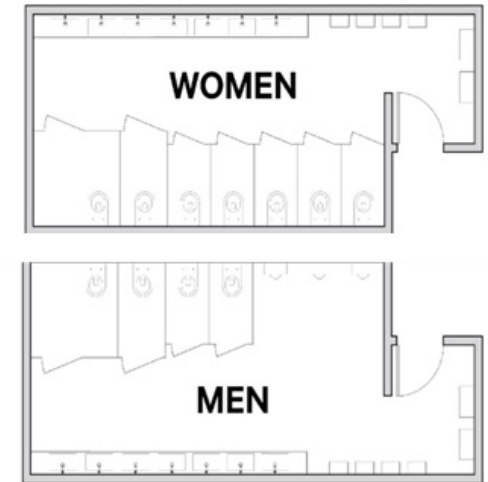
Although many American museum institutions are beginning to offer all-gender restroom options, most institutions offer traditional men's and women's multi-user restrooms, which have serious drawbacks.

- Such spaces force transgender, nonbinary, intersex, and other gender nonconforming people to choose between two spaces that sort people by a binary (male and female) that doesn't align with their gender identities.
- Additionally, such spaces force families, school groups, and caregivers to have to separate, which prevents supervision of young children or accompanying individuals of a different gender identity to support them.

Poor Wayfinding / Signage:

- There is often inadequate signage to direct visitors to the restrooms. Existing directional signage may be low contrast or feature confusing anthropomorphic pictograms that perpetuate the gender binary.

- Existing restrooms are often entered from narrow corridors that cause bottlenecks. They lack seating and places to wait for groups, caregivers, and those who cannot stand comfortably for long periods.
- Narrow entries and heavy doors without automatic openers pose barriers for wheelchair users.



Left: Gendered male and female restrooms. onurdongel. **Right:** Inaccessible restroom sink counter. JSA/MIXdesign. **Top:** Floor plan, gendered multi-user restroom. JSA/MIXdesign.

Ergonomics:

- Existing restrooms are often undersized with narrow corridors that terminate in dead ends, causing congestion and making it difficult for people using mobility equipment or pushing strollers to pass and turn.
- Sink counters are often too high and too deep, creating obstacles for wheelchair users, little people, and children.
- Accessible restroom stalls may be located furthest from the restroom entrance, exacerbating bottlenecks.
- Restroom fixtures (e.g., automatic faucet and soap dispensers, hand dryer, paper towel dispenser, waste bin) may be low-contrast, and thus difficult for people with low vision to use.
- Bathrooms typically lack hand-showers, which accommodate Muslim toilet etiquette.

Recommendation:

Multi-user Prototype: Include a multi-user prototype that treats the restroom as a single open space subdivided into the following zones:

Communal Washing/Grooming Station:

A multi-height counter (or step stool) allows people of varying heights to groom and wash together. Touch-free, high-visibility fixtures are hygienic and easier to use for some people with disabilities. Ensure menstrual product dispensers and sharps disposal bins are at lower heights. Install hooks for coats and bags at varying heights.

Toilet Stalls: Have three sizes (standard stalls, ambulatory accessible stalls, wheelchair accessible stalls). Have floor-to-ceiling partitions, hooks, occupancy indicators, a quiet automatic toilet (for people with auditory sensitivities), sanitary disposal bin, and grab bars (for the ambulatory accessible and wheelchair accessible stalls).

Comfort Rooms (aka Single-User Restrooms):

Should be equipped with full-height privacy doors and partitions. Comfort rooms include a sink, mirror, and toilet, offering a space for modest and religious people to wash and groom in private. There should also be a baby changing table and adult changing table, as well as a bidet/hand-shower.

Distribution Plan: Some visitors may be unfamiliar or uncomfortable with the inclusive multi-user restroom typology. Offering all three types of restrooms (gendered multi-user, single-user, inclusive multi-user) throughout the museum would give visitors an appropriate range of choice during their visit. JSA/MIXdesign recommends distributing restrooms in predictable locations and ensuring short and equitable travel distances to the nearest restroom in each part of the museum.

Response:

N/A



Exterior, inclusive multi-user restroom, J-SAC Gallaudet University. JSA/MIXdesign.



Interior, inclusive multi-user restroom, J-SAC Gallaudet University. JSA/MIXdesign.

Wellness Hub: Lactation Room, Sensory Room, Interfaith Space

Barriers:

Many museums do not offer spatial accommodations for additional wellness needs, including lactation, sensory escape, and religious/spiritual practices.

Recommendation:

Create a Wellness Hub that consolidates an inclusive multi-user restroom with spaces for lactation, sensory escape, and religious/spiritual practices. Locate the Wellness Hub in a clearly marked place, ideally close to the main entrance, to serve as an amenity supporting visitors' arrival and departure, or adjacent to places of assembly like education, programming, and event spaces.

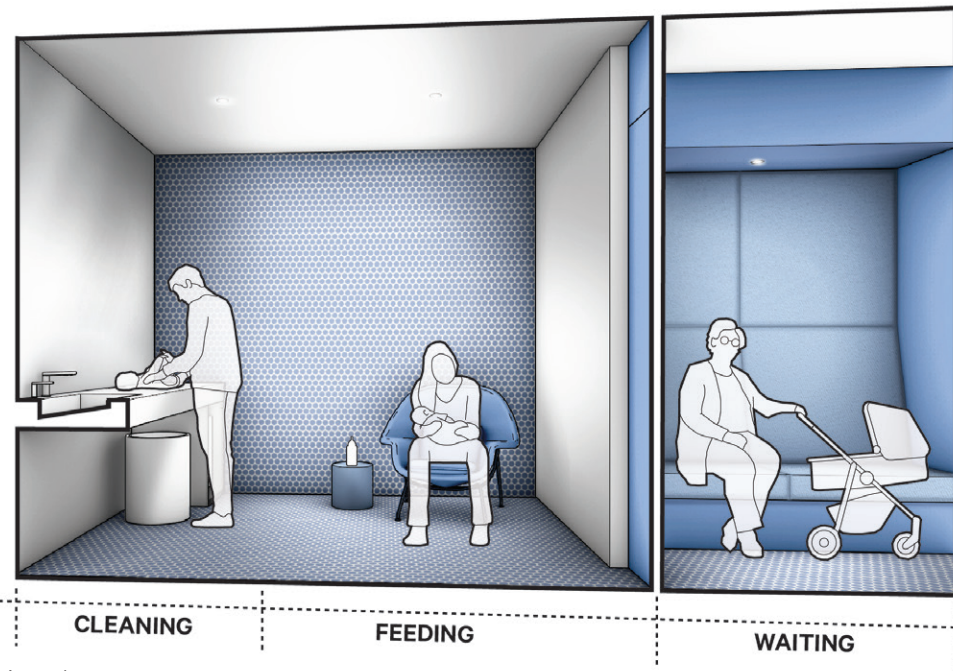
Lactation Room: A visually- and acoustically-private space with a sink, dry counter for baby changing, mini-fridge (for storing milk/formula), and a comfortable chair for nursing and pumping.

Sensory Room: A place to rest and recharge for people experiencing sensory overstimulation. We recommend soft, tactile acoustic wall panels and diffused lighting, providing a quiet, glare-free interior.

Interfaith Space: A space for religious and spiritual individuals to conduct prayer and meditation. The space should include quiet acoustics, filtered light, rounded walls, water features, and greenery. There should also be practical fixtures like an ablution bench and foot shower (for Muslim pre-prayer washing), sink, shoe racks, and storage chest with materials for different religions (holy texts, prayer mat, Qibla compass).

Response:

- Bathrooms raised a recurring theme: the pros and cons of universalism (shared spaces that meet intersecting user needs) vs. pluralism (spaces that meet user-specific needs).
- Participants discussed whether it is appropriate for museums (generally considered to be secular institutions) to provide spaces for religious and spiritual activities.
- Sensory spaces were critiqued as potentially "outing" for neurodivergent people, and as sites of behavioral policing (quiet), as opposed to the need for loud spaces for play.

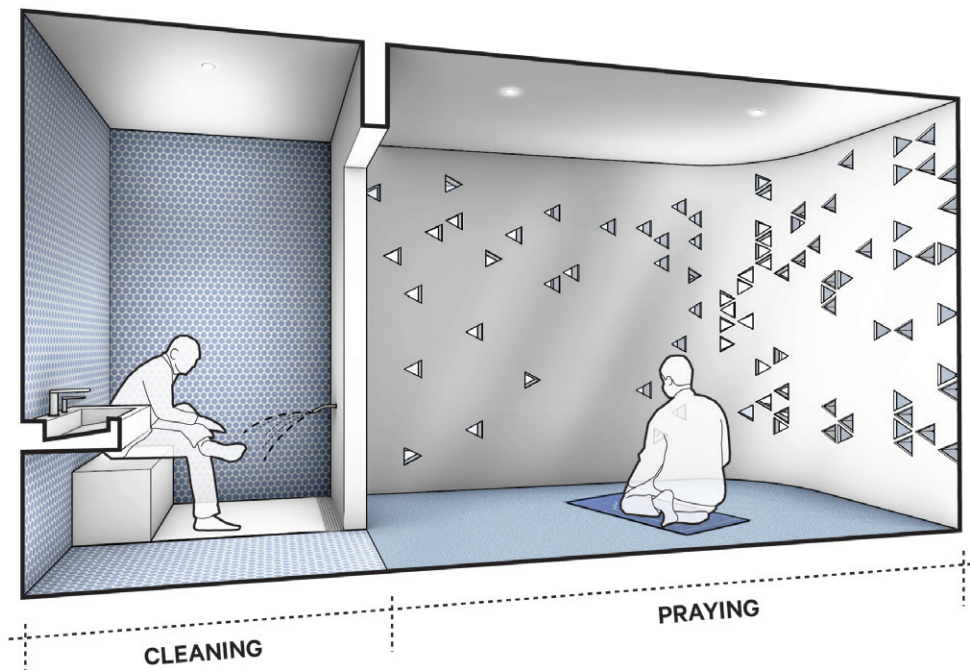
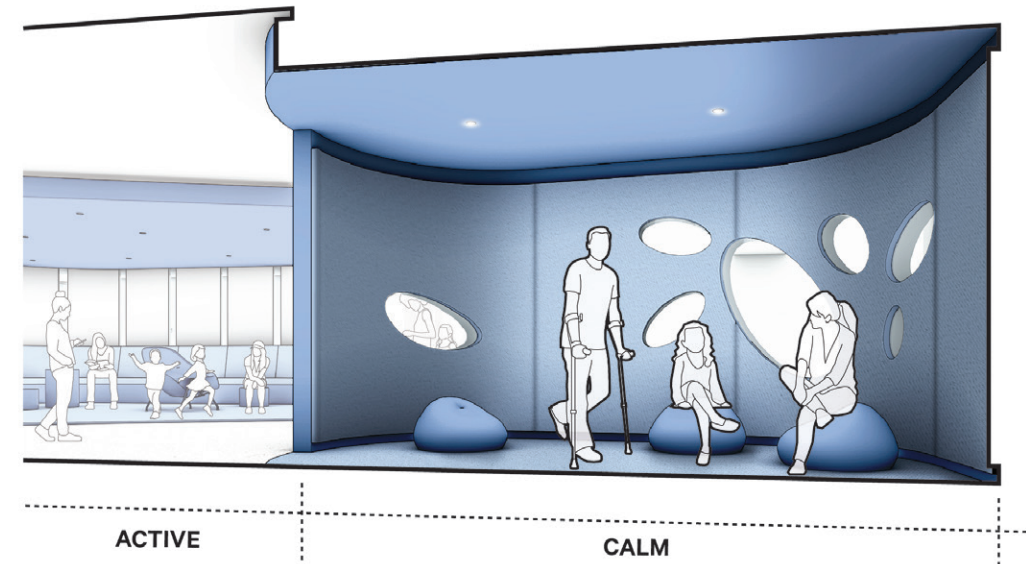


Lactation room. JSA/MIXdesign.

- Participants also discussed the idea of "pop-up" multi-purpose spaces that could be transformed on an as-needed basis to accommodate interfaith use, lactation, and sensory escape.
- A participant noted that providing food and drink-friendly spaces, as well as offering food in general, is important when promoting diverse communities to attend museums.

"I want to share a characteristic from my experience directing the exhibitions at the National September 11 Memorial and Museum. We endeavored to create spaces that feel emotionally safe for our visitors. In the space that most visitors encounter at the end of their visit, West Chamber, we treated it somewhat like the 'Central Park' of the museum: an aspirational place for those who might want a release from the intensity of their response to the content!"

Amy Weisser, Storm King Art Center



Top: Sensory room. JSA/MIXdesign. Bottom: Interfaith space. JSA/MIXdesign.

Non-Gallery Seating

Although this section concentrates on seating for non-gallery public-facing spaces, most but not all recommendations can be applied to seating found in the galleries. Gallery seating must take into account a range of practical considerations related to bringing visitors into close proximity to valuable works of art including traffic flow, security, and conservation.

Barriers:

Design: Museum seating design can often be uncomfortable. Low, hard benches without backs or armrests are difficult for many to use, especially older adults, people with physical disabilities, and children.

Distribution: Museums often lack an adequate number of comfortable places for diverse visitors to queue, rest, charge devices, and escape overstimulation.



Top: Seating at Whitney Museum of American Art. JSA/MIXdesign. Bottom: Lack of seating, Museum of Contemporary Art San Diego La Jolla atrium. JSA/MIXdesign.

Recommendation:

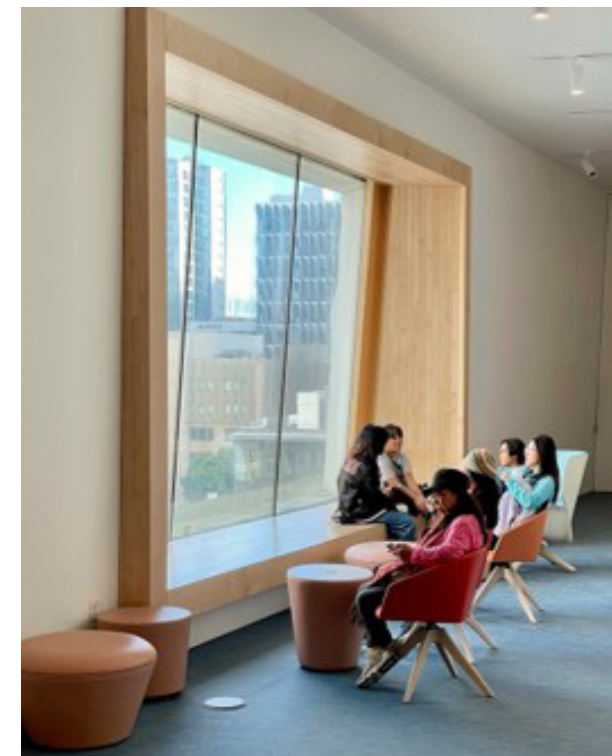
Design: Consider ergonomic factors including multi-height and double-sided options, as well as armrests, footrests, back-support, and slots for wheelchair users (to allow for side-by-side conversations). Use furnishings with high-contrast colors for conversations in ASL, and lightweight modular products that can be reconfigured by staff and patrons.

- Arrange seating into multi-purpose areas that offer visitors the opportunity to learn by browsing through museum brochures, books, catalogs, and the museum's app. These could be multigenerational activity spaces where groups and families with different interests, body types, and languages could each find something that further engages them in their museum experience.
- Seating can integrate information in multiple formats, both analog and digital, to enhance the museum's educational and wayfinding goals.

Distribution: Create a seating distribution plan that activates different areas of the museum with different types of comfortable seating (fixed and mobile) that allow visitors to rest and engage with museum content. Use seating to activate underutilized hallways and corridors, as well as high-traffic areas and gathering spaces like entry/lobby, elevator/stair cores, auditorium, event spaces, and restaurants.

Response:

Although participants endorsed the need for museums to offer a variety of ergonomic seating options in non-gallery public spaces, they mentioned that some staff resist the popular demand for additional seating, because seating can obstruct traffic flow and become an obstacle for viewing artworks displayed in non-gallery spaces.



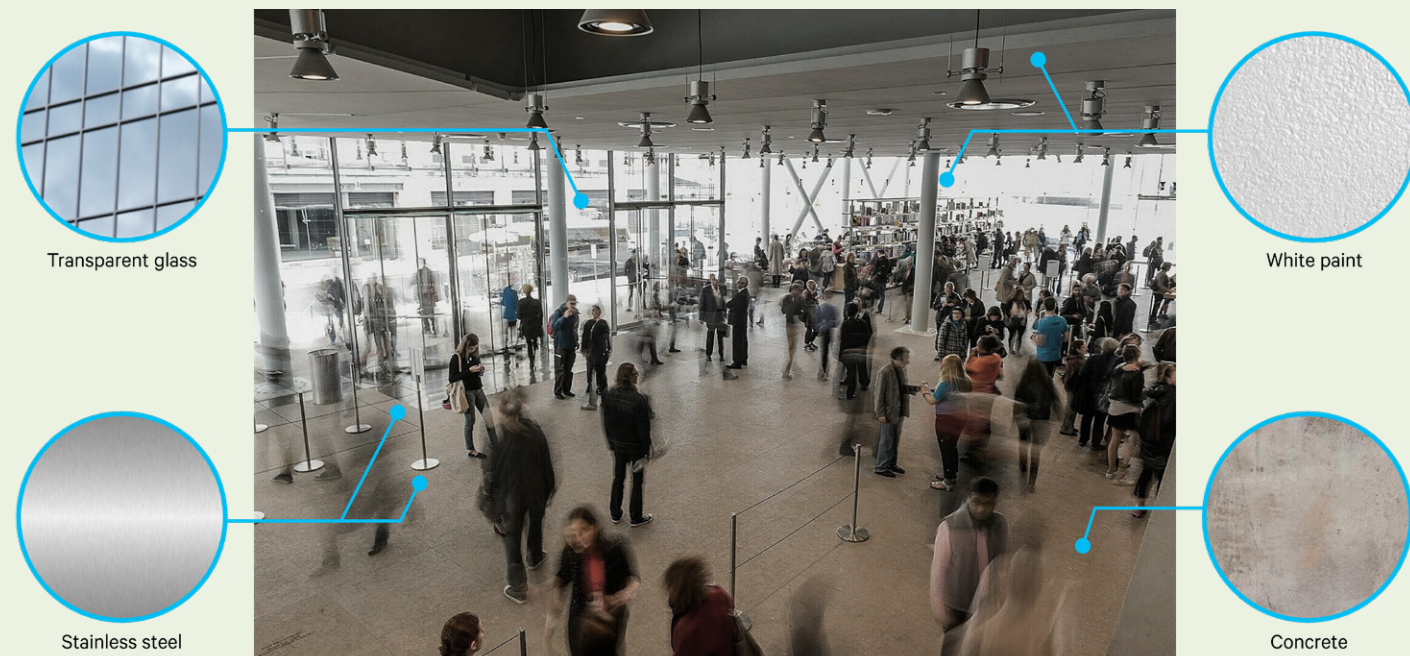
Left: Seating at the San Francisco Museum of Modern Art. JSA/MIXdesign. Right: Seating at The National Museum of Art, Norway. JSA/MIXdesign.

The following section considers inclusive design challenges posed by the “Atmosphere” of a museum’s public-facing spaces composed of 3 elements: lighting, acoustics, and materials.

Many museums, especially ones that display contemporary art, employ a generic palette of materials sometimes associated with the “White Cube” consisting of large expanses of glass window walls; ambient and directional electric lighting; hard, reverberant wall and floor surfaces (e.g., concrete, stone, terrazzo, sheetrock); and metal window frames, hardware, and

fixtures. Our findings demonstrate how this common palette can be 1) overwhelming for some neurodivergent individuals and people with sensory disabilities (e.g., d/Deaf or hard-of-hearing people, people with low vision) and 2) uninviting for culturally and linguistically diverse visitors.

Unlike galleries that must meet strict conservation and security requirements, designers have more leeway to make non-gallery spaces feel comfortable and inviting. Nevertheless, many of the recommendations can be applied to the galleries as well.



Clinical building material palette, Whitney Museum of American Art. JSA/MIXdesign.

WELLNESS + ATMOSPHERE

Atmosphere: Lighting

Barrier:

The non-gallery spaces of museums often include a mix of natural and electric lighting that produces glare (which can disrupt communication for d/Deaf people who use sign language and lip reading), flickering (which can overstimulate some autistic people), and underlit areas (an obstacle for low-vision individuals). Furthermore, the public-facing spaces of museums often feature artworks (e.g., paintings, drawings, and sculptures), with conservation requirements (e.g., light sensitivities), or conditions of display (e.g., backlighting) that can make it difficult for low-vision people to clearly view them. In addition, abrupt transitions between bright and darker areas (e.g., from outdoors to indoor entrances or between brightly lit and darker art displays) can cause discomfort for low-vision people, people who communicate using ASL, and autistic people.

Recommendation:

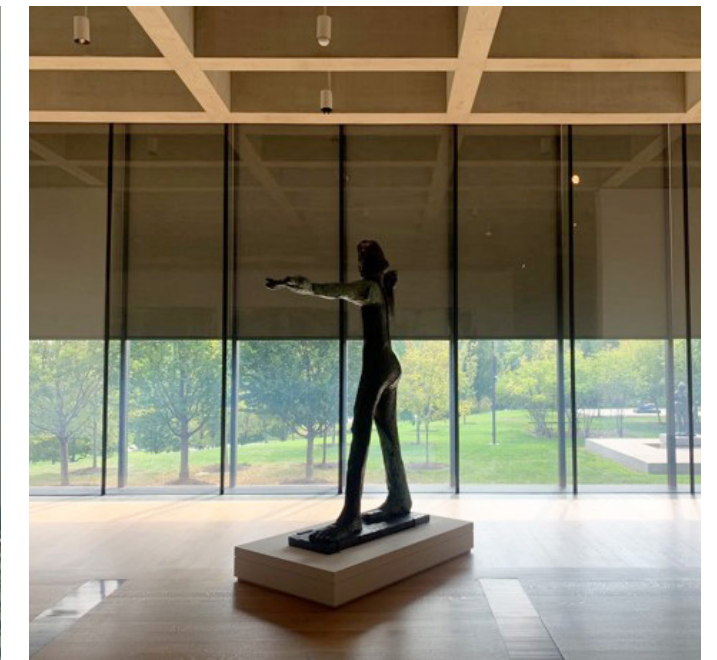
Use operable louvers and shades to create glare-free spaces that monitor and balance natural and electric light. Acclimate visitors to the low light levels they will encounter by including this information in labels and didactic materials. Provide additional aids for navigating dark spaces (e.g., headphones for audio tours, tactile strips for wayfinding) that could aid all visitors in these spaces. Avoid abrupt transitions between dark and bright daylight spaces.

Response:

N/A



Left: Light: Disorienting glare, reflections and shadows. University Museum for Contemporary Art, Mexico. wikiarquitectura. Right: Shaded window walls, St. Louis Museum of Art. JSA/MIXdesign.





Stairwell with acoustic dampening wooden wall surfaces at the Museum of Modern Art, New York. Renovation by Diller Scofidio + Renfro. 2019. Brett Beyer.

WELLNESS + ATMOSPHERE

Atmosphere: Acoustics

Barrier:

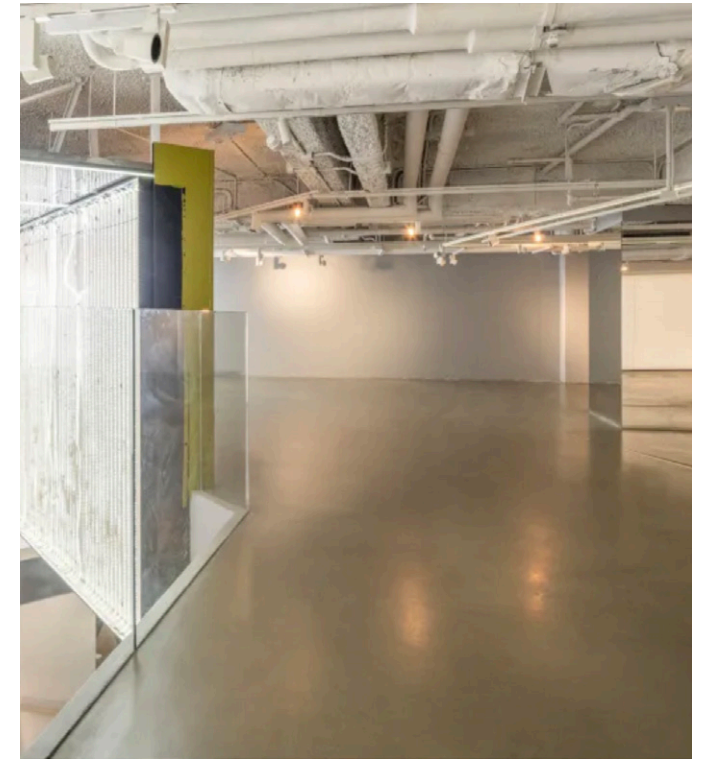
The generic materials palette found in many museums is reverberant and transmits noise and echoes that can be harsh and distracting. Noise can further be exacerbated by peak crowd times, the background hum of HVAC mechanical systems, and amplified artworks installed in the public-facing museum areas (e.g., video, sound art). The combination of these factors can overstimulate many visitors, (e.g., autistic people and others with auditory sensitivity) and make it difficult for hard-of-hearing individuals to communicate.

Recommendation:

Coordinate with an acoustic engineer to design non-reverberant spaces that use sound-absorptive/dampening materials to regulate noise. Offset large expanses of reverberant sheetrock walls by cladding walls, floors, and ceilings with sound-absorbing materials such as perforated wood, carpet, durable textile wall panels, and upholstered furniture.

Response:

N/A



Reverberant floor and wall materials; noise from exposed HVAC ducts.
Edward Wilson via Medium.

Atmosphere: Materials

Barrier:

Our initial investigation of lighting, acoustics, and materials was motivated by the need to identify and rectify the negative impact they had on the physical and mental health of visitors, especially ones with sensory and cognitive disabilities. However, focus groups with these user groups generated reactions that surprised us: without our prompting, they criticized the formulaic glass, white, black, and gray materials that designers employ because they are supposedly neutral, non-distracting, and give off a modern vibe. Instead, they found them cold, clinical, and antiseptic, creating an uninviting and intimidating atmosphere, especially for culturally and linguistically diverse visitors, who did not see their community's multi-cultural identities reflected in contemporary museum design.

Recommendations:

Consider color, pattern, and texture: Create an appealing atmosphere by selectively using colorful and textured finishes, furniture, and equipment that compliment and enliven large expanses of glass, white sheetrock walls, and concrete floors. Consider introducing “feature” walls and “micro-climates” (that subdivide vast open spaces into designated activity zones) by using color, paint, natural materials like wood and stone with intrinsic grains, and upholstery to create inviting colorful, comfortable, tactile environments.



Clinical material palette, Queens Museum. JSA/MIXdesign.

Understand the museum audience's cultural identity:

Research colors, materials, and patterns that are sourced from and reflect the multicultural identities of the museum's local audience. Commission local artists and artisans to develop patterns and textiles derived from craft traditions for upholstering furniture or enlivening blank wall spaces.

Introduce greenery: Install easy-to-maintain interior plants that foster connections with nature and create indoor/outdoor connectivity with the museum's exterior. This can include planters, green walls, and vines. However, keep in mind that caring for interior plants and the insects they attract is an added maintenance responsibility.

Response:

Participants generally endorsed strategies for incorporating warm, natural, and colorful materials on both the exteriors and interior of buildings as a welcome “relief from neutrality,” but underscored the need to tailor them to each individual building's architectural vocabulary and brand identity. They also felt these techniques could reinforce the objective of curators and exhibition designers who are expanding the canon by collecting works of non-Western and indigenous art and artifacts.

Attendees condoned using natural materials and vegetation, as well as employing techniques for cutting down on the transmission of natural light, not only for health reasons but also for the environmental and educational impact. Using locally sourced low-carbon materials and devices like louvers, shades, overhangs, and green roofs that reduce solar gain can help to mitigate global warming and improve energy performance. For museums located in regions with hot climates, they operate as cooling centers that attract visitors in the summer months. In addition, they educate by making sustainability experiential, reinforcing a commitment to sustainability.



Top left: Colorful and inviting material palette. Being Human exhibition design by Assemble for Welcome Collection. Thomas Adank. **Top right:** Multicultural patterns on upholstered furniture. JSA/MIXdesign. **Bottom:** Greenery at a Smithsonian museum. Hannele Lahti, Courtesy of Smithsonian Gardens.

4

Implementation

This section chronicles the proceedings of the afternoon session of the January 27 workshop, which was divided into two discussion sessions.

The first, “Implementation,” asked participants to consider some of the practical challenges faced by institutions seeking to implement inclusive design projects. Examples of such challenges include promoting interdepartmental communication and collaboration between siloed curators, administrators, and front-of-house staff; recruiting and paying for participatory design workshops; and creating shared spaces that meet the intersecting needs of diverse communities while recognizing that some visitors have unique functional and privacy needs. The second, “Beyond Functionalism,” asked attendees about some of the high-level ideological challenges and opportunities raised by inclusive museum design. The prompt specifically focused on two issues:

- How can museums move beyond reductive “functionalist” mindsets to develop spaces that promote social as well as physical accessibility?
- Can marginalized perspectives be a catalyst for creativity, resulting in innovative multi-sensory designs that enhance everyone’s museum experience?

This report presents the material covered in the afternoon workshop in a format that mirrors the agenda of the discussions. Each topic is subdivided into a series of themes that begins with a **Prompt**, posed to the group by a member of JSA/MIXdesign, that identifies an issue and offers initial suggestions for addressing them. Each Prompt is followed by **Workshop Responses** that encapsulate the responses from the group, and in some cases also followed by selected quotes from individual participants.

Design recommendations alone aren’t enough; their implementation depends on changing institutional culture so that inclusive design values are integrated into museums’ governance, internal communication, and funding structures.

Interdepartmental Conflict Resolution and Soul Searching

Prompt

Interdepartmental Communication: In many museums, curators are siloed from the staff who oversee DEAI and visitor experience, and the two departments don’t always see eye to eye. The development and implementation of viable and sustainable accessibility measures requires adopting strategies for fostering interdepartmental communication between three constituencies, often divided into departments that can be found at most museums no matter their size. They consist of:

- **Curatorial:** People in charge of curating specific departments as well as people who work in conservation.
- **Visitor Services:** People in charge of education as well as the public-facing staff who interact with the public daily.
- **Operations:** People in charge of the museum’s finances, facilities, and operations.

Response

Historical Accountability as a Prerequisite for Change: We must first define the museum’s existing “function” to go “beyond” it. That is to say, we cannot focus solely on spatial accessibility without also accounting for and working to rectify the overarching problematic legacy of museums (as discussed in Part 1 of this report). Participants noted that museums’ perpetuation of ableism, arbitrary societal norms, and power relations are barriers to co-creating inclusive and accessible places that could go “beyond functionalism.”

Conflict Resolution: Participants highlighted conflicting approaches to accessibility between different stakeholders (i.e., donors, leadership, curatorial, conservators, facilities), and challenges to making decisions such as the allocation of back-of-house (e.g., staff offices) and front-of-house (e.g., visitor service and exhibition) spaces. They recommended that museums (especially boards and donors) conduct “soul searching” to reach consensus on their comfort level with a more robust culture shift to render truly inclusive community space, and then restructure hierarchies and organizational charts accordingly.

**Maria Nicanor
(Cooper Hewitt, Smithsonian Design Museum):**

“There’s a variety of ways to engage in the work. One is through the design of spaces. The other way is to deepen the relationships that we have with our audiences. Then there’s the third way, which is how we all take on an accessibility role in our institutions, and it’s not just given to one member of staff in charge of inclusion, but spreading the load and raising awareness and training internally across the board so that it’s everybody’s job.”

**Maria Nicanor
(Cooper Hewitt, Smithsonian Design Museum):**

“I think all the time about the current political climate of the country and what that means for us as civic spaces of convening and representation. One of the challenges I have encountered over the years is the lack of agreement on definitions on what ‘inclusion’ or ‘accessibility’ should be, which can lead to thinking about accessibility as a nice to have, rather than a must have. There’s a great need for having shared definitions around shared values that are understood to be universal. Language is crucially important in this effort. It is always more effective to advocate for a shared value that is more universally understood to be a right for all.”

**Kirsten Sweeney
(Cooper Hewitt, Smithsonian Design Museum):**

“If we [a museum] are a group of individuals in a collective, the person making the decision is whoever has the expertise in that moment. Imagine a flock of birds and the bird leading the way is just whoever is at the front of the ‘V’ at that moment in time, and you’re always swapping out. The leadership and decision-making doesn’t always have to come from one place.”

“... There’s a great need for having shared definitions around shared values that are understood to be universal. Language is crucially important in this effort.”

Maria Nicanor (Cooper Hewitt, Smithsonian Design Museum)

Keonna Hendrick (Brooklyn Museum):

“How do we shift our expectations of how people to show up? I feel the pandemic has presented learning opportunities and examples of how we might shift expectations. We saw people doing things differently and still getting to the outcomes... I’m not saying that experiencing a global health pandemic was beneficial for any of us, it could have been culture shifting in a way that really helps us think about new worlds or new ways of being within our institutions. Unfortunately, we seem to be reverting back to more exclusionary practices.”

Institutional Size: Participants noted that smaller museums (both in size and staffing) are nimbler in decision-making, but lack the resources of larger institutions.

Annya Ramírez-Jiménez (Marvel):

“Some institutions are smaller and more nimble than others, so their decision process has fewer tiers to go through. So perhaps dedicating a non-exhibition space to test out different access possibilities and create a live record of what the possibilities could be, what works and what doesn’t, could be better than jumping into formalizing something and fixing it in space.”

Leadership: Participants discussed filling leadership positions with disabled people (and people of other marginalized identities), noting that “experts” (e.g., administrators, architects) might best support change by relinquishing their decision-making power to others.



Joel Sanders conducting co-design workshop with Yale Students and Access Cohort, Queens Museum. JSA/MIXdesign

Annya Ramírez-Jiménez (Marvel):

“In order to redefine certain things, certain people need to be in the room... from the board members, directors, and visitors of the museum, there has to be more diversity and different points of view. And I think each one of us can continue to do that work in order for it to become second nature that certain conversations that feel uncomfortable today, in ten years, start to evolve and become more natural, because the people that are in leadership positions, in places to make the big commitments, are diverse, are coming from different aspects of society, and that will be reflected in how we approach a lot of these issues.”

Participatory Design

Prompt

Community Outreach: Recruiting participants who reflect a diverse sampling of stakeholders and visitors who can provide feedback based on their lived experience can be a challenging effort, as it requires community outreach to identify people who do not regularly visit museums.

Response

Facilitation: Participants emphasized the importance of museums hiring qualified community engagement facilitators who are experienced in building trust with diverse audiences, managing expectations, and cataloging results.

Outreach and Community Advisory Boards:

Participants recommended the formation of community advisory boards, as well as conducting outreach to communities missing from the conversation, which could include creating tailored “bite-size experiences” with low barriers to entry to attract new audiences (e.g., a free, one-hour workshop for LGBTQ+ teens).

Connie Butler (MOMA PS1):

“The biggest shift that I see is in how we think about it [the museum] being a space that the public feels is theirs, which I don’t think, historically, has been the case at all.”

Role of Artists: Participants recommended involving exhibiting artists in the participatory design process, noting that currently, artists have more influence over spatial decisions (i.e., working with exhibition designers on how their work will be displayed in galleries) than museum staff and visitors.

Sally Tallant (Queens Museum):

“We’ve benefited over the last few years of having incredible exhibitions that center artists like Christine Sun Kim, who is a very political, very brilliant Deaf artist, and through working with her we all learned a lot about how better to work with people in the Deaf community.”

Engagement During Construction Phase:

Participants noted construction periods as an opportunity to engage visitors, using fences as surfaces to display information about upcoming changes to the building.

Prompt

Managing Expectations: It is essential to recruit participants and assure them their time is not being wasted. And once they have signed on, it’s important to develop a transparent process that manages expectations, being honest about the fact that practical constraints like budgets and schedules, as well as the input of other experts and decision-makers, will not allow all their recommendations to be implemented. Be sure to inform participants in advance how their input will factor into the overall decision-making process. Also, assure them that there will be follow-through, and that museum organizers will share the outcome of the process and how their input was registered.

Response

Risk of Tokenization: Participants agreed that the participatory design process must not be “cosmetic,” but rather properly planned to avoid common pitfalls like too few meetings, too limited a sample size, or being conducted by untrained facilitators. There must also be meaningful communication about how engagement feedback will be used. Otherwise, participatory design risks tokenizing end-users.

Risk of Co-optation: Participants warned against the risk of accessibility initiatives co-opting ongoing work by disability justice advocates. They also noted that the disability justice movement is not monolithic and that often, in disability-related work, certain perspectives are sometimes overrepresented (e.g., older White people taking up more space than younger BIPOC people)

Prompt

Compromise and Establishing Priorities: Practical constraints like limited space, tight project schedules, and finite budgets do not allow inclusive designers to accommodate everyone’s needs. For example, if a bathroom were to provide accommodations for every type of visitor, it would take up too much valuable space and be too costly to build. Rather than attempt to satisfy everyone, we recommend narrowing down the scope to prioritize the needs of the specific demographic audience that the project will serve. However, rather than ask the designer to make these difficult decisions alone, it should be stakeholders, along with the input of visitors, who ultimately

“The biggest shift that I see is in how we think about it [the museum] being a space that the public feels is theirs, which I don’t think, historically, has been the case at all.”

Connie Butler (MOMA PS1)

establish priorities. Participatory design is a two-way street. While it enables museum staff and visitors to become more involved in designing spaces that cater to their lived experiences, they must then also share the responsibility for making compromises involved in any building project.

Response

No Guaranteed Outcomes: Participants acknowledged that architects do possess expertise, and that just because participatory design is conducted, doesn’t mean that end-users alone will come up with the best ideas. It’s important to balance their feedback with the expertise of design professionals.

Nader Tehrani (NADAAA):

“The participation of multiple groups is not a guarantee of a good ideas. You can collect a lot of data, but in itself, that information has no value. The expertise of the architect, in part, is their capacity to translate this data into formal, spatial, or material terms. Unquestionably, people in other fields bring a wealth of ideas to our collaborations, but often they are unable to translate them into architectural form. In turn, as they participate in the design process, seeing the architectural repercussions of those ideas, they can say ‘no, that’s not what I had in mind,’ or ‘yes, that’s exactly it.’ To the extent that participatory design has gained traction in recent years, it may have to do with the capacity of architects to internalize the imaginative intelligence of those in fields external to design, and in turn, others’ abilities to see where the architect’s agency matters in a collaborative process.

My other point has to do with the architect’s capacity for synthesis. When you invite a group of people to participate, chances are that they’re going to disagree with each other at some level. For the architect to be able to find a common foundation among discordant voices, is also the capacity to say that ‘you may have differences, but you also have these critical commonalities.’ The capacity for synthesis, technically speaking, is analytical—the ability to build relationships between fragments and create something larger than the sum of their parts. But beyond the analytical acumen, great architects also have the empathy, and diplomatic skills, to bring people into dialogue, effectively inviting them into the design process, demonstrating how their voices matter, and allowing great design to emerge from a collective intelligence.”

Prompt

Action Plans and Post-Occupancy Assessments:

It is not enough to only solicit feedback from stakeholders and visitors at the beginning, pre-design stages of a project. Their ongoing participation is essential to ensure continuity so that the inclusive design principles derived from the pre-design engagement are meaningfully maintained over the course of the project; too often inclusive design elements are lost because of practical considerations and value engineering/budget constraints. We recommend developing a participatory design process that allows a select group of participants to review and provide input at key milestones as the project develops from schematic design through construction documentation. And once a project is completed, it can be difficult to convince stakeholders to commit time and resources to conduct a post-occupancy assessment that solicits stakeholder and visitor feedback to evaluate which aspects of the finished project work and don’t work, and to come up with a viable work plan for rectifying these flaws in the future.

Response

Action Plans: Participants recommended that accessibility action plans be open-ended rather than closed and solution-oriented, tailored to each museum’s unique institutional identity and building qualities.

Dyeemah Simmons

(Whitney Museum of American Art):

“Often when we’re having conversations around accessibility there’s the pressure of an exhibition that’s coming and we have to make decisions right away. But to be able to have this conversation without specific time pressures is really freeing for a lot of people.”

Keonna Hendrick (Brooklyn Museum):

“What do we actually mean when we say ‘access’ at Brooklyn Museum? Our approach to defining and providing access may differ from access at Queens or Whitney or Cooper Hewitt. How can we look at what they’ve [JSA/MIXdesign] presented us and ask ‘What does it mean for those practices to be done the Brooklyn way?’”

Prompt

Staffing, Budget Constraints: Staff, visitor, and community engagement must be conducted in a way that considers limited staff resources, project schedules, and budgets. Engagement can be expensive and time-consuming. It requires allocating additional staff and financial resources to developing engagement tools—like surveys, programs, and workshops—that can in turn extend project schedules. Once a capital improvement project is approved, finding the money to facilitate it is a complex and time-consuming proposition. Dealing with local and federal government bureaucracies, such as building departments and preservation commissions, to obtain permits and approvals, is a further obstacle.

Response

Staffing: Participants acknowledged understaffing and under-trained staff as barriers to enacting accessibility goals. They also emphasized the importance of professional development, including staff training, employee resource groups, task forces, and hiring initiatives that improve an institution's capacity to enact accessibility work.

Anonymous:

"I think that [having a recently completed renovation] really worked against us because it was like, 'okay we're done for at least a while' whereas it's really obvious now—getting visitor feedback and reflecting on accessibility constantly—that it is so important that accessibility needs to be built into our ways of working."

Funding: Participants noted that the cost to effectively implement and construct facility improvement projects requires funding amounts that far exceed those provided by the few existing accessibility grants that are small in number, funding amount, and duration. These capital improvement projects need to be folded into the museum's holistic funding priorities rather than be relegated to a secondary "checkbox" item with separate earmarked funding.

Stella Betts (LEVENBETTS):

"We can hope for do-gooders, but ultimately, policy is going to change culture. We need to get at that level, because then it will be embedded in the funding. For instance, we can't question whether we have to pay for a fire-rated wall. We have to, so it is necessarily part of the budget. We need similar policies for inclusive design."

While the following issues were not responses to JSA/MIXdesign prompts, they were raised by workshop attendees:

Government Policies and Certifications

Municipal Policy: Participants critiqued city regulations including landmark preservation policies, which can make it difficult to implement required building changes due to the slow, bureaucratic process for amending policy or receiving policy exceptions to allow for said changes. Participants noted the importance of engaging city agencies (e.g., for example in New York, the NYC Department of Buildings, NYC Department of Design and Construction, NYC Economic Development Corporation) to raise awareness about inclusive design, update preservation policy to allow for accessibility, and elevate (true) accessibility to the same priority as fire safety and energy efficiency.

Federal Policy: Participants also critiqued the ADA's limited definition of disability and the usage of words like "accommodation" and "impairment" (which can perpetuate ableist notions that only the non-disabled experience is "normal").

Building Industry Certifications: Participants considered existing certifications like LEED, WELL AP, and isUD, and how folding inclusive design requirements into these could incentivize clients and funders to implement accessibility improvements, in the same way that LEED incentivizes sustainability improvements.

"We can hope for do-gooders, but ultimately, policy is going to change culture. We need to get at that level, because then it will be embedded in the funding."

Stella Betts (LEVENBETTS)

"Could that be an end goal: something that could hold museums accountable?"

Mabel Wilson

Mabel Wilson:

"Have you thought about, or could you incorporate, some notions about accountability somehow? It makes me think of WAGE [Working Artists and the Greater Economy], which is the organization that has created some kind of accountability around artist fees and payments. Someone brought up LEED certification. Could that be an end goal: something that could hold museums accountable?"

Flexibility Over Time: Pros and Cons of Multipurpose Space

Adaptation: Participants raised the need to measure and assess the usefulness of spaces over time (i.e., how they age, who they serve, for how long) to inform decisions around reappropriated use (e.g. converting the museum's bookshop into an interfaith space, or vice versa).

Multipurpose Space vs. Multiple Spaces:

Participants noted that "multipurpose spaces" are not always functional, accessible, and welcoming (due to their generic nature that does not necessarily meet any user group's needs especially well). They also considered how museum design can celebrate difference rather than flatten identity by providing multiple spaces geared towards different audiences. This broad ideological issue has practical implications that inform decisions for determining how to allocate space and budgets.

Annya Ramírez-Jiménez (Marvel):

"I think that the consistent struggle that we as designers have is flexibility, right? The most possible flexibility . . . but then suddenly, a space can be so flexible that it loses its identity. So it becomes very challenging . . . How do you preserve your identity [as a museum], but allow for flexibility?"



Symposium day 2, breakout Group. The Architectural League of New York.

Design Teams and Consultants

Project Team: Participants recommended bringing graphic/wayfinding designers and inclusive design consultants into projects much earlier in the process. Architects need to proactively educate clients on vital accessibility advocacy issues that they may not be knowledgeable about.

Seb Choe (JSA/MIXdesign):

"Too often it's the staff that are disabled or the staff that are trans that have to voice concerns, and then all of this burden falls onto people like us, and then we're not paid for it and we're already overextended. Architects need to be informed about these issues, so that they can educate the client if they're not already aware, so it doesn't fall upon some poor staff member who then needs to just fight for their own existence."

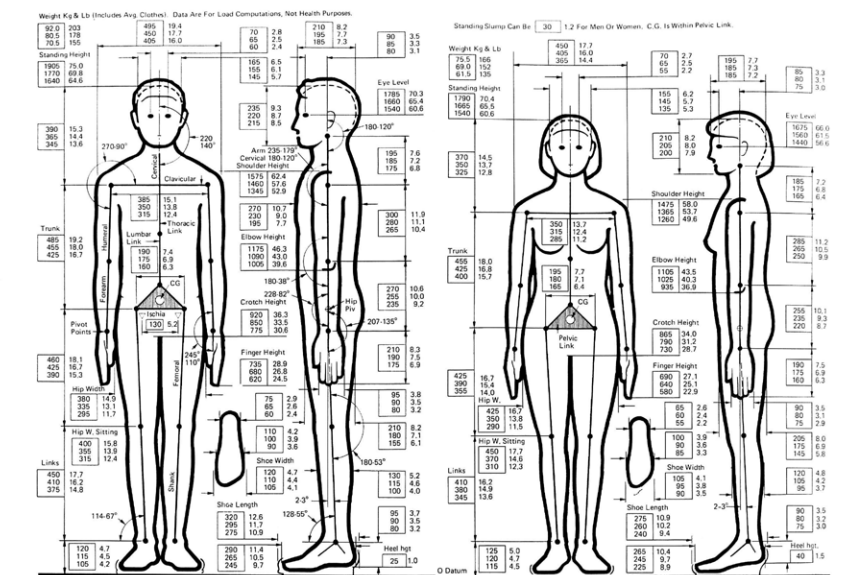
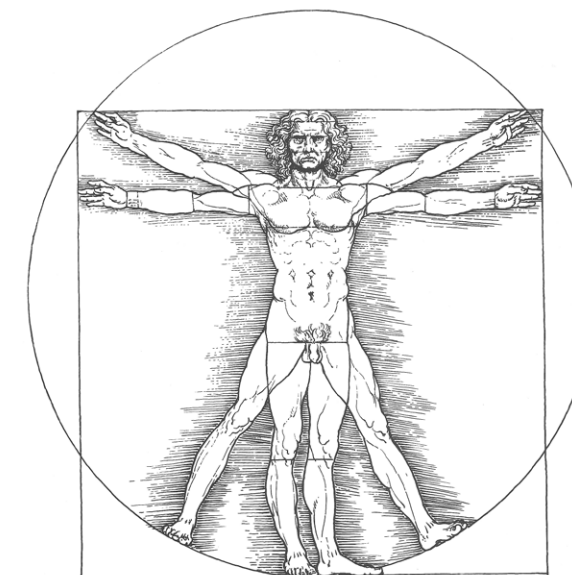
5

CONCLUSION: Beyond Functionalism

Critique of Functionalism

In addition to tackling the practical complexities posed by the planning, funding, and execution of capital improvement projects discussed in the last section, making inclusive museums requires us to step back and take a broader view to consider other related high-level ideological issues that inform the practice of inclusive design. We touched on one of those in the introduction to this report, the imperative to reckon with the museum's historical complicity in promoting Anglo-American Eurocentrism and settler colonialism through suspect curatorial and collection practices—ideologies that in turn manifest in exhibition design. This concluding section of the report takes on another parallel challenge: the imperative to expose the limitations of functionalist thinking that dominates approaches to accessibility and inclusive design.

Functionalism, a concept inherited from Modern Architecture and associated with the aphorism “form follows function,” evaluates architecture for its ability to enable people to perform specific tasks or activities in a particular space based on a mechanistic interpretation of our bodies and minds. Since antiquity, the layouts of spaces and the dimensions of furniture and equipment have been created by studying the characteristics of two kinds of bodies: an “ideal” classical body represented by Leonardo da Vinci's *Vitruvian Man*, or a so called “normal” body represented by Henry Dreyfuss's anthropometric charts. Anthropometrics—the dimensions and ranges of motion of normal or average bodies as they perform activities in space—has been the basis of design standards encoded in the architectural textbooks, guidelines, and regulatory codes that are still in use to this day.



Left: Leonardo DaVinci. *Vitruvian Man*. Wikimedia Commons Right: Henry Dreyfuss, Male and female anthropometric diagram. Wiley.

While this approach yields useful data that helps designers create accessible spaces, functionalism on its own is a reductive way of thinking that does not account for the variety of changing cultural, political, and ideological forces that regulate how human beings engage with one another in the built environments that we design.

At JSA/MIXdesign, we frequently find ourselves in the position of educating clients to shift their functionalist preconceptions. Often, institutional clients hire us to help them accommodate the unmet physical needs of a specific user group. For example, universities and museums retain us to help them respond to an urgent and timely need, pressured by their constituencies to create all-gender restrooms that are accessible to trans and gender non-conforming people. We begin by conducting awareness-raising workshops that encourage them to adopt a more nuanced perspective—one that considers not only gender but also how to meet the intersecting needs of many different user groups through an improved restroom design.

Once they have adopted this broader intersectional approach, we then challenge them to consider that architectural types as described in the textbooks, manuals, and building codes used by designers are not determined by “functionalist” precepts alone. For example, at restroom workshops, we urge participants to reconsider the assumption that restroom design should be determined only by factors like human physiology and plumbing. Designing bathrooms

that foster a sense of safety and belonging requires understanding how the ambivalent and often anxious feelings triggered by public restrooms can be traced to sociological and psychological conditions. Such conditions are shaped by evolving cultural and religious norms that influence how people feel about embodiment (interacting in close proximity with their own and other people’s waste products), privacy (between individuals and the presumed gender binary) and hygiene (sanitary standards they believe to be healthy).

Another way we ask clients to shift engrained functionalist attitudes is by asking them to look at the design projects they are currently working on through a historical lens. This demonstrates how the architectural typologies and conventions that we believe are determined by biological and technical parameters are not fixed, but instead evolve over time and reflect changing cultural biases about human difference. For instance, at restroom workshops, we counter arguments from attendees who are resistant to inclusive multi-user restrooms in favor of sex-segregated bathrooms based on the commonly held belief that men’s and women’s rooms answer to a transhistorical human need for “privacy between the sexes.” This argument reinforces a notion, foundational to Western culture, that there are only two genders—men and women—whose identities are defined by anatomy assigned at birth. During workshops, we show how restroom design history refutes this idea. Separate accommodations for men and women were not introduced until the mid-nineteenth century in response to bourgeois



Left: Hans Bock the Elder. *The Bath at Leuk*. 1597. Kunstmuseum Basel. Right: Eighteenth-century privy used by family members of different ages and genders, Sylvester Manor. JSA/MIXdesign.

Victorian puritanical values that opposed women leaving the domestic realm and entering the public realm as middle-class consumers or working-class laborers. In fact, from Roman antiquity to the mid-nineteenth century, men, women, and children toileted together in public latrines or “privies.”

“Functionalism” vs. Disabled Experience as Multisensory Enhancement

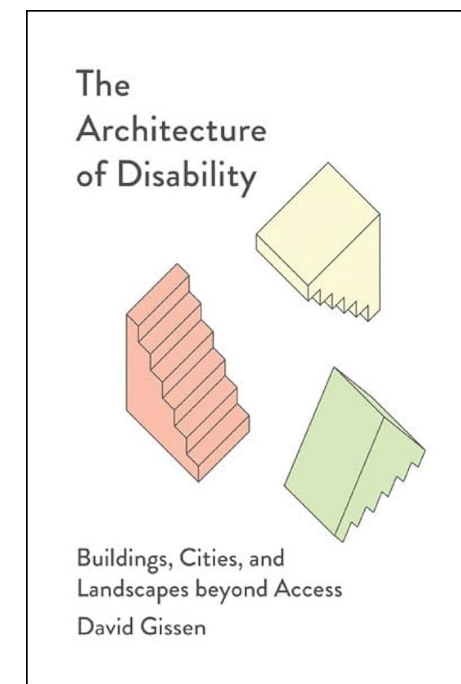
Complementing our request of clients to adopt a critical historical perspective, we aim to offset reductive attitudes based in biological and technical determinism by foregrounding the contemporary critique leveled at functionalism by activists and scholars such as disabled designer and historian of architecture David Gissen. In his book, *The Architecture of Disability*, Gissen—who attended the Workshop on the second day of the symposium—acknowledges that designers perform an important service: in the spirit of social equity, they create provisions that allow disabled people to gain access to spaces from which they were historically excluded. These stem from a bio-mechanical way of thinking focused on creating “fixes,” “solutions,” or “accommodations” that allow people with “impairments” to approximate the behavior of so-called “normal” people as they perform activities in public spaces such as museums. According to this view, hands that cannot grip and legs that cannot walk are “aberrations” that require either medical corrections like a prosthetic or spatial provisions like ramps. The conception of disability as physical or mental defects that can be overcome through spatial interventions perpetuates age-old Western hierarchies that place value on non-disabled people and deem disabled people as subhuman.

Gissen invites us to shift this line of thinking by adopting a “critical” view that regards disability not as a liability, but rather an essential quality of being human—an asset that can be “unleashed, gained, and preserved,” and mined for its creative potential. Gissen advocates that the discipline of architecture as well as our culture at large must enlist the participation of disabled users and the expertise of disabled designers. Drawing from their lived experience, both can offer valuable perspectives to help us reimagine architectural spaces in new and innovative ways. Bringing disability perspectives from the margin to the center of the design process is an opportunity to enhance everyone’s experience by encouraging all of us to embrace alternative ways of experiencing the built environment that are not mobility-, sight-, and hearing-dependent.

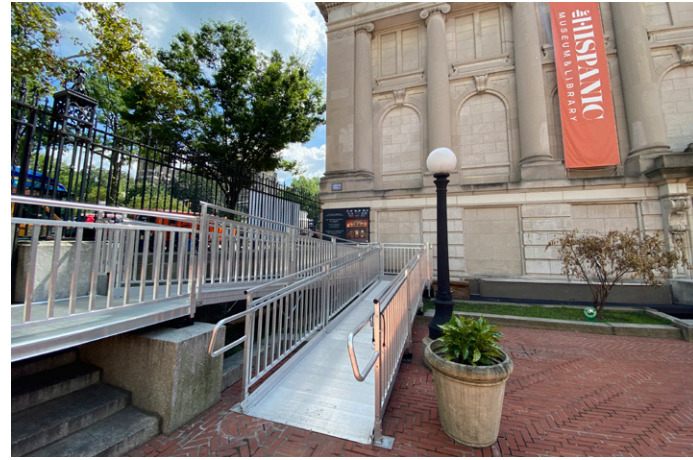
Gissen applied this concept to museum spaces as a way of calling into question the paradigm of spectatorship encoded in traditional museum design. Described in Part 1 of this report, it presumes a non-disabled ambulatory spectator who roams museum galleries on foot and optically communes with great works of “visual” art.

According to Gissen, “It’s not necessarily about how able-bodied people can help disabled people, but how people with very serious impairments can elaborate the experience of artworks or other museum artifacts for people that are able-bodied. So, for example, my colleague Georgina Kleege often says, ‘How can I help people, who are visually dependent, be less visually dependent?’ Similarly, I would ask: How can I help people that have two legs, who feel that they have to move around so much to experience culture or life, experience the pleasures of immobility?’ And then you have Hansel [Bauman]’s famous coinage, ‘How do you help people that hear, gain deafness?’ . . . It’s not only about accommodation and aid, but we can help you live better lives too, we can enhance your capacities into incapacities.”

Gissen’s centering of the disabled perspective and reimagining of disability as a creative opportunity can also be applied to other non-normative user groups that museums



David Gissen. *The Architecture of Disability*. 2023. University of Minnesota Press



Left: Prosthetic limb as a medical solution to disability. iStock. **Right:** ADA-compliant ramp at the entrance to the Hispanic Society Museum & Library, New York. MDoculus

serve. Not only can everyone learn from people with different physical, sensory, and cognitive abilities, but also from people of different racial, ethnic, and religious backgrounds who engage with built environments through different faculties, senses, and customs.

Ultimately, incorporating the fresh perspectives of non-normative users will enable designers to offer an alternative to the tradition of the Western ocular-centric museum where spectators expect to look at works of visual arts. Instead, it will enable us to reimagine museums as multi-sensory environments—places that welcome each one of us to encounter works of art using multiple sense perceptions: sight, hearing, and touch. In this way, participatory design will allow us to build on the work of artists who, since the 1960s, have used sound, video, and performance to create artworks that expand our sensory horizons. Ultimately, inclusive design promises to be a catalyst for creativity. Bringing marginalized perspectives to the center of the design process challenges museum stakeholders and designers to generate innovative design ideas that can enhance the museum experience for everyone.

Getting Started

If we have achieved our objective, this report has asked you to think comprehensively and holistically about a wide range of issues that might initially seem overwhelming. The Introduction and Part 1 advised that before embarking on inclusive design projects, it is essential to situate contemporary DEAI issues in a historical context to learn from and avoid repeating the mistakes of the past. Part 2

familiarized you with co-design engagement practices to obtain valuable feedback from the lived experience of stakeholders and users. Part 3 presented a selection of findings from the MIXmuseum Toolkit that encouraged you to think across a range of scales and design disciplines (graphics, interior design, architecture, and landscape) to take into account small design details, mid-range circulation elements, building infrastructure, and exterior urban design components. Part 4 called attention to the challenges of implementation that involve changing institutional mindsets and organizational structures to promote interdepartmental communication and collaboration so that inclusive design value and principles become encoded in a museum's mission and ways of working. This final section of the report offered a critique of the reductive functionalist mindset that shapes accessibility approaches, inviting you to learn from the perspectives of marginalized user groups who can offer inventive multi-sensory design ideas that can enhance everyone's museum experiences.

Perhaps you are worried that making inclusive museums simply cannot happen without large staffs and multi-million-dollar budgets, but quite the opposite is true. Consider this report a guide filled with a range of ideas at different scales that can be adapted and implemented on a case-by-case basis—a menu of options that can be implemented incrementally, focusing on “progress over perfection.”

A modest first step might be convening an awareness-raising workshop or site assessment that asks stakeholders from across museum departments to initiate a dialogue and develop an action plan. The action plan could begin with



Janet Cardeff. *Forty-Part Motet*. Nelson-Atkins Museum of Art, Bob Greenspan.



Georgina Kleege in midst of haptic encounter with work by Michael Arcega. Gary Sexton Photography, Courtesy of The Contemporary Jewish Museum.

“low-hanging fruit,” like improving restroom signage or updating the accessibility section of a website. Or, it could start with undertaking modest interior design improvements like purchasing comfortable lobby seating or upgrading the lobby reception desk.

Making inclusive museums is a journey that has no fixed route or inevitable destination. Each institution will need to map its own path ahead. But rather than make the trip alone, they can enlist the services of experienced consultants who can act as guides, and seek insights from others doing the same work. And since there is no single right way to begin (other than to begin), there is no better time to move forward than now.



Installation view of *untitled 1990 (pad thai)*. Rirkrit Tiravanija: *A LOT OF PEOPLE 2023*, on view at MoMA PS1 from October 12, 2021 through March 8, 2022. Marissa Alper.

