MAP
Museum of Art
& Photography

Inclusion in Museums:
Perspectives of People with Disabilities

Commissioned by Museum of Art & Photography,
(MAP) Bengaluru and Compiled by ReReeti Foundation.

About Museum of Art & Photography

The Museum of Art & Photography (MAP) is a new museum, recently opened in the heart of Bengaluru, India. Its mission is to democratise the arts and make them accessible to the widest possible audience. MAP strives to change the general perception of museums in the country and show that they are in fact engaging spaces of ideas, storytelling, dialogue, and cultural exchange that will encourage a museum-going culture. Ultimately MAP seeks to inspire people to interact with art in ways that encourage humanity, empathy and a deeper understanding of the world we live in.

MAP Team
Carolina Artegiani, Shailesh Kulal

About ReReeti Foundation

ReReeti Foundation, a not-for-profit organisation based out of Bengaluru, India, works with museums, galleries and heritage sites to observe, evaluate and provide solutions for the organisation, their staff as well as audiences. Our vision is to transform Indian museums into spaces of learning, delight and meaningful engagement for its visitors. The guiding principle of our work is inclusivity and participatory development.

ReReeti Team

Lead Researcher
Suchaita Tenneti

Research Assistants
Anantha Madhava ,Anjali Pujari
Dr. Payel Rai Chowdhury Dutt

Transcribers
Garima, Shreya B, Sapna, Sravanthi, Karen D'Mello

ReReeti Core Team
Bhanu Ghalot, Shalaka Redkar
Tejshvi Jain

Advisors

Devika Sundar
artist, art critic, and founder of Hanno Terrace studio

Rama Chari
Co-founder and Director, Diversity and Equal Opportunities Centre (DEOC)

Ruchira Sarin
Principle Architect, Diversity and Equal Opportunities Centre (DEOC)

Sudarshan Kottai
clinical psychologist and an assistant professor at IIT Palakkad

Cover: Vari da Bagh (Phulkari Shawl) tactile response created by Gurjeet Singh

Content

Introduction

The twentieth and twenty-first centuries have witnessed the rise of disability movements and disability rights across the world. People with disabilities have begun to demand inclusion - in all areas of social, cultural, and political life. The responsibility lies on everyone to ensure inclusion and access for people with disabilities. While these movements have witnessed several gains over the years, inclusion in terms of leisure and recreational opportunities has been relatively sidelined in countries like India. As access to fundamental necessities such as education, employment, public transport and others is a major hurdle for people with disabilities in India, there is a tendency for leisure and recreation to be relegated to a lower rung in the list of priorities for people with disabilities. Heena, one of the women with disabilities interviewed for the present study, observed, "for People with Disabilities, leisure is an alien word." However, access to leisure and recreation opportunities are indispensable for the enrichment of the lives of people with disabilities and to secure their holistic inclusions in all avenues of social life.

Museums and cultural spaces are essential components of leisure, education, and recreation. Unfortunately, as Montsho (2022) observes, museums tend to be much more inaccessible for people with disabilities than many other social institutions. Many museums across the world have realised this lacuna and have incorporated disability concerns into their efforts to encourage greater participation of the public in their activities. The present study is an effort in this direction.

This study aims to understand the challenges that people with disabilities face while accessing museums and other arts and cultural spaces as well as the expectations that people with disabilities have from museums. A total of ninety-nine people including people with disabilities, parents and caregivers of people with disabilities, educators, and accessibility professionals were interviewed to learn about their perspectives on accessibility and inclusion.

Visual disabilities

- Twelve visually disabled people
- One educator for children with visual disability
- Two caregivers at an inclusive residential facility for children
- One educator who works with people with different kinds of disabilities
- Three accessibility consultants

Neurodiversity and mental illness

- Nine people with neurodiverse experiences and mental illness
- Nine parents and caregivers of children with neurodiverse variations
- Seven educators working with children with neurodiverse variations
- Six accessibility consultants

Deaf and Hard of Hearing

- Nine people who identified as either Deaf or Hard of Hearing
- Six educators and professionals in the disability sector who specialise in working with people who are deaf or hard of hearing.

Orthopaedic disabilities

- Sixteen people with orthopaedic disabilities
- Six people with multiple sclerosis
- Three people with cerebral palsy
- Three relatives of people with orthopaedic and multiple disabilities
- Nine professionals who work with people with these disabilities

People interviewed were invited to speak about the following:

- Their expectations from the physical infrastructure of the museum and its facilities,
- Their expectations about the display of accessibility information
- Ideal arrangements of artworks

- The kind of education and outreach programmes that would ensure meaningful participation for people with disabilities.

This report presents the details of these findings from the study and corresponding recommendations to increase accessibility for people with disabilities to the museum.

Methodology

Qualitative methodology was used for the study. A questionnaire was prepared for each of the five categories – visual, neurodiversity and mental illness, Deaf and Hard of Hearing, Orthopaedic disabilities. This questionnaire was designed based on a secondary literature review as well as in consultation with the MAP's staff regarding specific questions about accessibility on which they wanted feedback from people with disabilities. Two research consultants, Sudarshan Kottai and Devika Sundar reviewed the questionnaires and provided inputs for the report. For the educators, parents, and accessibility consultants, the questionnaires were customised based on their expertise and the nature of the disability of their students or children.

The participants were recruited through reference sampling by acquaintances of the researchers. Organisations working with people with disabilities based predominantly in Bangalore were contacted, and their staff and beneficiaries were interviewed. Invitation sampling was also used by posting calls for participants on a Google group dedicated to people working in the area of disability studies.

What is not covered in this study?

The study does not cover the evaluation of the building or infrastructure of the museum as per predetermined standards or an access audit of the built spaces. The artworks on display have not been reviewed by the research team or the participants. Hence, a content audit of the artworks has not been conducted. However, suggestions by them have been incorporated for future reference.

Team

Consultants

Devika Sundar is an artist and art critic based out of Bangalore. Devika runs Hanno Terrace studio, a collective open studio founded to facilitate art as an accessible, inclusive, therapeutic medium of release and outlet for children and adults from diverse backgrounds. She is a recipient of many awards like Inlaks Fine Art Awardee 2020, Prince Claus Fund Seed Award Recipient 2021 and IFA Arts Research grant (2021-2022).

Sudarshan Kottai is trained as a clinical psychologist and an assistant professor at IIT Palakkad. Before this, he taught at OP Jindal Global University, CHRIST, and JAIN (Deemed to be Universities) as well. His areas of research and interests include mental health interventions with minority/marginalised populations, mental health in the context of gender, disabilities, sexualities, relationship diversities, social disadvantage, and public health ethics. He is also the author of Mental health and critical community care: Pestilent encounters from India (to be published by Routledge in 2023)

Lead Researcher

Suchaita Tenneti believes in the power of interdisciplinarity and has herself been trained in English Literature, Education and Sociology. She holds a PhD in Sociology from the Jawaharlal Nehru University (Delhi) where she worked on exploring the ways in which the depathologizing of queerness possibly translates into the depathologizing of disability. Suchaita has five years of experience as a researcher, programme manager, content developer and trainer and is passionate about all things gender, disability and social inclusion.

Research Assistants

Anantha Madhava is en route to becoming an educationist. He is passionate about working towards education equality in the North East.

Anjali Pujari is an artist and aspiring sign language interpreter.

Dr. Payel Rai Chowdhury Dutt holds a Ph.D. in Human Rights and Peace Studies. Her research interests are in the areas of human rights, disability studies, inclusive education, and peace studies.

Accessibility:
The Big Picture

Accessibility as a dynamic process

Accessibility requires ongoing work and cannot be thought of as a one-time task. It is an evolving process that involves research about new ways to increase the participation and engagement of people with disabilities in art spaces. There are some critical practices that are premised on a recognition of accessibility as a dynamic process, some of these include:

- Collaborating with people with disabilities to conduct continuous reviews of the museum and related spaces.

- Having a vision for incremental growth opportunities for participants in the programmes being conducted at the museum.

- Committing to developing a strategy to improve accessibility. This could be done over a period of three years.

Several participants appreciated the efforts of the museum to make specifically focused attempts to include people with disabilities. One of the participants, who is an advocate for universal design and accessibility, praised the museum for taking into account all the accessibility needs of people with disabilities from its very inception instead of struggling with modifying the infrastructure later. Amidst these recognitions, it is, however, essential to realise that this effort is only the beginning. In order to sustain it, the museum is required to continuously reflect, expand and improve on its inclusivity provisions.

Another participant, who is an artist with a disability and a faculty of art, brings in another nuance to how one thinks about accessibility. She emphasises that the kind of contemplation and reflection that the museum evokes about disability itself is an essential part of the legitimising disability. She says, "There needs to be a critical way in which things are represented. It is not just about placing artefacts sociologically or historically, but even about bringing in a perspective about how [disabled] bodies are looked at."

She further elaborates that the selection of the artefacts for a museum's collection should also

For many disabled people, leisure is an alien word

demonstrate the museum's commitment to bringing disability issues to the public's attention. This recommendation is fundamental to the discussions presented in this study. She emphasises the necessity of having a disability consciousness at the core of all significant decisions made inside the museum, the kind that could benefit everyone, not just those with disabilities. This means that the representation of disability and illness, the normal and the pathological, should be explored throughout the work of the museum.

They are similar to another participant's recommendation that the museum should consider having exhibitions dedicated to gender and sexuality and bring in disability perspectives therein. Together these recommendations echo the views of other participants about the museum being a representative space, one that speaks to people with disabilities and also serves as a holding space for works by disabled artists.

An integral part of accessibility design is building public awareness about accessibility and disability rights. A participant who manages an organisation that helps people with disabilities become financially independent, says that 'word-of-mouth' is the first step to creating awareness about the museum among people with disabilities. One of the ways this could be achieved is by organising a few tours of the museum for people with disabilities. This could help to spread the word about the museum being an accessible place. She also notes that after the museum is built, regular audits and evaluations would provide more insights into how the space can be made more accessible. These reviews could be conducted by experts in the accessibility needs of people with various kinds of disabilities.

Another perspective on this is put forth by a participant who is an advertising professional and runs an organisation for people with disabilities. He

says the branding of accessibility should ensure that the public perception is not that the museum focuses solely on people with disabilities. It is important for the public to feel that this museum is a place where they can have fun and it will be worth the commute and the investment of time. According to the participant, the museum should be more than just a repository of "knowledge," and visitors should have the chance to unwind, mingle, and interact with the exhibits rather than merely view them.

Ginley (2013) emphasises the need to have a clear Disability Action Plan in order to ensure that the efforts taken to make the museum inclusive are coherent and not scattered. This also includes increasing public awareness about the accessibility features of the museum.

The study suggests that there should be a minimum three-year inclusivity and action plan for the museum. It should outline how the museum will increase its accessibility and outreach activities to ensure the inclusion of people with various disabilities. Some of the ways in which this could be achieved are as follows:

Conducting an analysis of patterns in the disability audience profile on a monthly basis: The aim of this analysis would be to capture information about the composition of the audience including qualitative details about the nature of their experience. However, it is important to bear in mind that the process of increasing the participation of people with disabilities in the museum is slow and often takes time. This is because of the limited awareness the museum sector has on the subject and the constant disappointment that people with disabilities face owing to the inaccessibility of most spaces, which dissuades them from visiting.

Training and Sensitising the staff of the museum. Regular trainings should be conducted for the museum staff to educate them about the needs of people with different kinds of disabilities and about their role in making the museum accessible for visitors with a wide range of accessibility needs. The staff should be trained to provide support to visitors only when requested and must be guided to understand what kind of support would be most appropriate.

Creating an understanding of the museum's inclusion vision and the staff's position within it. This would allow the staff to ensure that the support they offer visitors with disabilities to the museum aligns with the overall vision of inclusivity of the museum and would keep them inspired to contribute to the realisation of this vision.

Through all this work, the museum and staff should be careful not to overreach and presume that people with disabilities might require help when they do not.

Overview of Accessibility Features
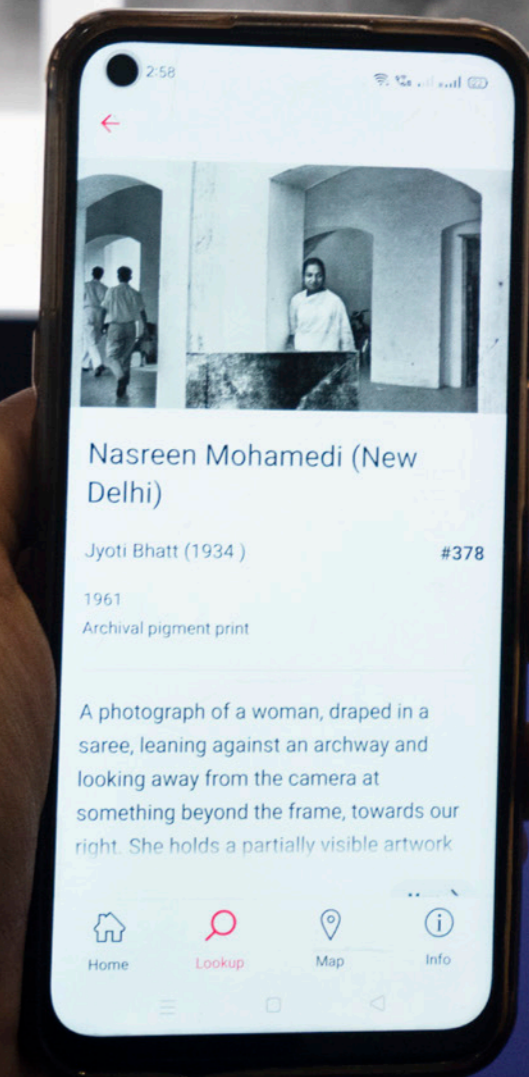
Essentials of accessibility

This chapter of the report is an overview of the accessibility features that a museum should adopt to be an inclusive space for people with disabilities. The task of making a museum accessible for people with disabilities is not an easy one. At times, accessibility requirements for one category of people with disabilities clash with another and, at other times, a feature intended to increase the participation of people with one kind of disability might inadvertently improve the experiences of people with another kind of disability.

Therefore, an essential component of this study has been to analyse the expectations that people with different kinds of disabilities have about a specific accessibility feature and how diverging or contradictory expectations can be reconciled.

To reconcile varying expectations regarding a specific accessibility feature, the rationale adopted has been to determine who would be most significantly affected by the feature. This is the underlying logic of the chapter.

1. Display of the artworks

- The artworks should be displayed at a height that is suitable for a wheelchair user. This would also benefit people with certain kinds of growth-related disabilities, children, and anyone else who is seated.

- Avoid displaying sharp odjects during curated visits for people with neurodiversity conditions. This decision should ideally be made after consultation with the staff from the concerned organisation.

2. Exhibitions

- While describing the theme of the exhibitions, it would help if it were addressed simultaneously to an audience that was a blend of those with a serious interest in the arts and lay people. This is an important strategy to encourage the participation of people with disabilities in the museum since many do not have opportunities to engage with art spaces owing to inaccessibility. Demystifying the themes of the museums could potentially encourage their participation. At the same time, the aesthetic rigour and nuances of the exhibitions should be preserved. Realising this accessibility measure would lie with the creativity and skill of the content writer and how they are briefed about the vision of accessibility that the museum has adopted.

- Provide video and audio support for artworks.

- All audio descriptions of the artworks should be detailed enough to ensure that people with visual disabilities comprehend all details of the works as thoroughly as possible.

- Audio descriptions should be provided in both English and Kannada.

- Ensure that the staff providing guidance speak loudly, and clearly and understand that some visitors might take longer to understand what they say than others.

- Providing live transcriptions wherever possible is desirable. If this is not possible, ISL interpretation should be provided.

- Inform deaf or hards of hearing visitors in advance that ISL interpretation will be provided at the museum and that if they require any other kind of sign language then they would have to get their interpreters but that MAP would pay for the same.

- Ensure that ISL interpretation services are easily accessible at the museum.

- Consider having recorded ISL descriptions of artworks for deaf or hards of hearing people who might prefer the same. This can be done for a selected set of artworks and be tested out with a group of deaf or hards of hearing visitors before expanding them for standardised use across the museum.

- Ensure that artists with disabilities have the opportunity to display their works at exhibitions. Ideally, their works should be interspersed with the works of people without disabilities.

- Provide artists with disabilities adequate physical support to display their artworks (if required).

- Accessibility accommodations that are not only functional or infrastructurally supportive but tactfully interwoven into the museum space e.g film viewing rooms that also serve as quiet resting rooms allowing viewers to lie down and pause while still engaging with an artist's work. Sensory rooms integrated into silent installations with pillows and blankets.

3. Tactile usage

- Tactile pathways could be helpful.

- Regarding the selection of objects for which tactile replicas should be made, Ginley (2013) observes,

"The importance of selecting any object is that it fits in with the story of the gallery and conveys what the Curator wishes it to say. An object should not be chosen because it looks good to touch; it must have qualities which help the visitor to understand the object with the collection and the technique by which it is made."

- Ginley (2013) further observes that the height of the tactile replicas should also be considered, keeping in mind that children, adults, and arguably people who use wheelchairs or have orthopaedic disabilities should all be able to access them seamlessly.

- If braille descriptions are placed next to the tactile replicas or to any other artworks, Ginley (2013) suggests that they be placed flat to facilitate reading as this is what audience research with visually disabled visitors has revealed.

- Tactile replicas of selected artworks as well as exhibitions of tactile works would be engaging for all visitors, particularly for those with visual and neurodevelopmental disabilities.

- Gloves could be worn by visitors while accessing the tactile exhibits.

- Tactile books or tactile line drawings could be provided. These are the contents of tactile books identified by Ginley (2013): "Braille information of gallery panels; gallery plans so the visitor can orient themselves in the gallery; and descriptions of the tactile images as well as the tactile image itself. Where necessary, the images have been simplified to highlight the key elements of a picture."

4. Virtual Reality

- Give all people with disabilities the opportunity to access VR.

- Have a small focused group study with people with neurodiversity conditions to check out the VR and provide feedback.

5. Indicators to identify the museum

- For the benefit of visually disabled visitors, a number could be provided on the website for all people who wish for any kind of assistance. People with visual disabilities who need assistance in identifying the museum could call this number either a day before their visit informing the date and time of the visit or when they are in the vicinity of the museum and ask for assistance in identifying the museum.

- It is not recommended that there be any sort of audio indicators to assist visually disabled participants to identify the museum as these indicators could trigger some people with neurodiversity and could completely deter them from entering the museum.

6. Internet connectivity

Ensure that there is adequate internet connectivity in the museum as some visitors might prefer using online sign language services or might wish to speak with someone through a video call using sign language.

7. Website accessibility

- The website should ensure that it caters to visitors who might not be familiar with the museum or with art spaces. The arrangement of the information on the website should be systematic with clear guidance to the visitors on how the website is to be navigated and a description of the various components.

- All accessibility and inaccessibility features along with pictures should be displayed on the website and on Google through a map of the museum.

- Sans serif fonts and a light background other than white should be used.

- The layout of the website should ideally follow a similar, predictable pattern to help people with learning disabilities and neurodiverse conditions navigate the website.

- It is not advisable to have music play automatically when a web page opens as this could be uncomfortable for people with a range of disabilities. It is better to have a sound icon at a specific location that is silent by default and which contains a sign to click to listen to a specific kind of sound.

- It is a good idea to display trigger warnings for disturbing artworks. But this could be woven into the aesthetics of the content so that it does not deter people from visiting the artworks as much as preparing them for what they are likely to encounter. For instance, if there is an art collection on war, the text could read: 'This is a collection of works by _____ that captures some of the untold stories of animal-human relations during World War I. Deep bonds between horses and their riders, desperate soldiers using carcasses as shields from rains of bullets, and a dog's longing gaze into his little owner's eyes as canyons roar in the background are some of the hallmarks of this collection.'

- MAP could focus on increasing the footfall of visually disabled visitors to the museum and then introduce them to the website. The audio descriptions could also contain suggestions that one could visit the MAP website to access other related artworks. If they are being guided, they could be told about the website at the end of the tour.

8. Emergency and Safety Information

- Display the emergency numbers clearly throughout the museum including the washrooms.

- Display emergency numbers for women's safety.

- Ensure that fire exits are indicated pictorially. Flashing lights could indicate a fire emergency. These lights should be synchronised to prevent the possibility of some people with epilepsy getting a seizure.

9. Flooring

- The floors should not be slippery or too smooth and should allow wheelchair users to navigate easily.

- Notices for wet floors should be put up clearly.

Where carpets are used in the circulation area, they should be securely fixed, have firm cushioning, pad, or backing; and have exposed edges of carpets fastened to the floor surface and trim along the entire length of the exposed edge.

10. Lighting

- Avoid bright and flashy lights but ensure that there is enough lighting to enable clear readability and viewing experiences. The lighting requirements are also applicable to washrooms, restaurants, and all other spaces in the museum.

- In case of bright lights need to be used for a specific artwork or gallery, provide a clear marking at the entrance about the kind of lighting to be expected.

- Avoid dark spaces as much as possible and put up signage for dark spaces wherever necessary.

- In the sensory room, consider putting mellow lights. It is also possible for these lights to change gradually although this is not imperative.

- For artworks that need to be preserved from harsh light, it is necessary for them to be preserved in the dark. But having lights that can be turned on for 30 seconds will make

these artworks accessible to people with partial blindness.

11. Seating arrangements

- Have adequate seating arrangements spread throughout the museum.

- Ensure that at least some of the seats have backrests.

- Try to provide foldable seats in the galleries.

- Ensure that the VR room has soft cushions for the benefit of people who might feel uneasy and need to lie down.

12. Sensory room

- The sensory room could have mellow lights that probably change gradually, a bean bag, some fidget toys, different types of material in the interiors for the person to touch, a long bench with cushions to lie down, a blanket and drinking water facility.

- It should be big enough for two people to ensure that a caregiver or a staff member can also be in the room along with the person if necessary.

13. Signage in the museum

- Use pictorial signage as much as possible for the benefit of neurodiverse visitors and for those who might not be familiar with either of the languages being used in the museum.

- Ensure that the pictorial signage is clear and consistent throughout the museum.

- An audio guide for navigation is essential for the benefit of visually disabled visitors.

- A tactile map at the reception is helpful for the visually and hearing impaired.

- Braille signage is helpful. But it should be borne in mind that not all people with visual disability can read braille.

- Written signage should be in clear sans-serif and legible font with proper lighting to ensure readability.

- Ensure that the location of washrooms, galleries, exit, fire exit, and other features are clearly and consistently indicated.

- Details of the signage used in the museum should be displayed at the entrance of the museum and on the website.

- The information should also be provided at the reception.

- Glencross (2019) emphasises the need to use bold fonts for emphasis, avoid italics, have

14. Sound, smell, and colour

- Avoid room fresheners or strong-smelling substances or put up a notice when some kind of a substance has been used in a specific place.

- Do not have loud sounds anywhere in the museum. If a sound is to be heard by clicking a button or putting on a headset, write down what the listener can expect.

- Do not have even soft sounds playing in galleries as this could be triggering. If these sounds must be used, then a clear sign regarding what one could expect from the gallery should be displayed..

- Avoid bright and flashy colours and provide clear signs for where they are used.

- Madge (2019) recommends not having loud automatic hand dryers in the bathrooms, which might be disturbing for some people with neurodiversity. If these devices are used, they could be switched off when curated visits of people with neurodiversity take place or a sign could be put up near them alerting people to the sound that they would make.

15. Staircases, Ramps and Elevator

- Ensure that the staircases and the ramps have railings.

- Each stair should be demarcated with luminous ridges to distinguish them.

- The railings should be sturdy and slip resistant..

- The gradient of the ramps should not be too steep.

- It is not advisable to use loudspeakers or automatic announcements too often in the museum for the benefit of some neurodiverse visitors who might be triggered by a range of sounds.

- Glencross (2019) emphasises the need to use bold fonts for emphasis, avoid italics, have borders around the text for emphasis, use sans serif fonts, left align the text, use short and concise sentences, avoid glossy lamination that might glisten and compromise clear readability, the headings should be 20% larger than the regular text, use dark text on a light background.

- An elevator should ideally be provided and the location of the elevator should be clearly indicated throughout the museum.

16. Wheelchair accessibility

- There should be a clear and direct entrance from the parking lot into the museum for the benefit of wheelchair users.

- The entrance for wheelchair users should be the same as the one for the rest of the visiting population to avoid feelings of segregation.

- Wheelchairs should be provided in the museum and preferably dispersed throughout.

- There could be 1-2 motorised wheelchairs if possible else regular wheelchairs are a must.

- Staff should be trained to navigate wheelchairs.

- The location of wheelchairs should be clearly indicated at the entrance of the museum, throughout the museum, and on the website.

- There should be a clear path to navigate through the museum that is unhindered.

17. Crowd management

- Mention events that are likely to have a large number of attendees on the website.

- Have a separate slot for planned visits and also give individuals with neurodiverse conditions the opportunity to book early visits.

- Ensure that there is no crowding around exhibits that hinders clear viewing during planned visits.

18. Organising events for children with disabilities

- For children with intellectual disabilities and autism, ensure that they are given enough time and opportunity to get comfortable with the smell of paints and with the feeling of having paint on their hands.

- Provide multisensorial and hands-on opportunities at the workshops and throughout the museum.

- Plan to try to stick to the child's daily routine. This is especially true for children with neurodiversity. This would mean trying to ensure that the person eats according to their usual routine, is engaged in a classroom-like interaction at their usual time, etc.

- Art education has the potential to help students increase their general knowledge and exposure to the world beyond social and emotional development. Therefore, learning opportunities should be designed keeping this broader range of objectives in mind.

- While planning events plan for both single-disability and cross-disability. This means having events for people with just one category of disability as well as for people with different kinds of disabilities.

- Have events that involve children with and without disabilities participating together. This would help leverage MAP's role in the inclusive education space. The disability community would eventually raise an objection to conduct events solely for children with disabilities as this could be interpreted as promoting segregation.

- While engaging with disability partners for programme planning is critical, it is also important for MAP to develop its own approach towards art education for children with disabilities and pitch this vision to various organisations to ensure alignment in values and beliefs. For instance, some schools for children with disabilities insist that children with speech impairment use an app to communicate while the children's parents sometimes feel that the children communicate in a range of ways including words, gestures, and emotions and they would like to encourage this communication diversity and encourage their children to communicate in a range of ways. The museum would have to decide how it would like to address this issue. This would involve clearly

determining what MAP's expectations from partner organisations would be and if there is an alignment in vision and values.

- Ideally, it is recommended that the "child's best interests" approach be adopted and the children should be given the freedom and the autonomy to express themselves as much as possible. This principle would need to be operationalised at the level of partnerships and collaborations, programme design, curriculum design, facilitation style, and monitoring and evaluation.

- When designing educational programmes for children with disabilities, focus on a range of learning objectives including creativity, knowledge building, perspective building, increasing curiosity, and social and emotional learning. As revealed by parents and special educators, museums have the potential to contribute to the development of children with disabilities across a range of domains and not limited to behaviour change but also social and emotional learning. Helping children identify their skills and strengths and potentially planning for future careers are also important areas where museums can contribute. The monitoring and evaluation system to track the students' learning will have to reflect this diversity of learning outcomes.

- It is recommended to provide transport for some children or organisations who might not be able to afford it.

- It is advisable not to have too many events that have digital access as a significant component since most children with disabilities seem to have limited digital literacy and limited access to technology. Unless a specific organisation prefers digital engagement, leveraging most offline

- activities would provide greater inclusivity and diverse participation, including enabling children from various socio-economic backgrounds and with various disabilities to participate.

- Provide constant encouragement to children during the activities while strategically challenging them to delve deeper into the tasks at hand.

- Have sensory activities such as a sensory path, an indoor swing, fidget toys, and other sensory equipment in the activity area or very close to it so that the children can take breaks during the activities whenever they feel the need to.

- Clear visual and audio instructions as well as demonstrations for all activities should be provided.

- There should be as little use of abstractions as possible such as asking children to draw specific objects or scenes in the absence of clear demonstrations.

19. Socialising opportunities

- Design dining and seating areas where people can spend leisure time.

- Display information about dining and seating arrangements on the website and word it to invite people to spend time with their friends and family and get to know other people..

- Have people with disabilities display their work at the museum and organise audience interactions with the artists over high tea or another similar event.

20. Solo visits

- Providing information on the website and on Google about the accessible and inaccessible areas of the museum could help disabled visitors plan their solo visits.

- Provide a motorised wheelchair (if possible) to allow orthopaedically impaired visitors to access the museum on their own.

- Museum staff should be around the museum and be easily identifiable.

- Do not assume that people with disabilities would always come to the museum accompanied by someone. People with orthopaedic disabilities were most likely to report travelling on their own although provisions should be made for people with all kinds of disabilities to visit the museum by themselves.

21. Sources of information about events

- Social media platforms including Instagram and Facebook were mentioned as useful places for MAP to advertise their events. Instagram seemed to be the most preferred medium.

- Reaching out to NGOs and schools working with people with disabilities and the District Welfare Office could be effective ways of expanding the disability audience in the museum and encouraging the participation of disabled people in the various activities in the museum.

- When reaching out to people with hearing impairments, ensure that the notifications are sent out in both written form and in Indian Sign Language.

- Integrating inclusion and accessibility into MAP's branding strategy is important. Also spreading awareness about the work that the museum is doing in creating accessible museum experiences for people with various kinds of disabilities is required. This is especially important since accessibility is not at the core of most arts and cultural spaces and people with disabilities often do not expect these spaces to be accessible given their prior disappointments and the general inaccessibility of public places.

- MAP could encourage all visitors to register at the beginning or the end of their visit. They could send them updates about new events via the newsletter or WhatsApp.

- The e-mail newsletter and all other printed materials should be accessible. This would mean ensuring that all images have alt text and a sans serif font should be used for all the text.

22. Museum staff

- Educate the staff about different kinds of disabilities, self-calming and self-stimulating behaviours that some people with neurodiverse conditions might demonstrate.

- Guide them to offer help without making prior assumptions about the needs of people with disabilities.

- Staff should not be intrusive of the privacy of people with disabilities by asking personal questions or offering help even after the visitor has turned it down. They need to maintain boundaries and at the same time be present around the museum and be easily approachable.

- The staff should be polite and patient with people with disabilities.

- They should not make assumptions about what people with disabilities can or cannot do. Instead, they should simply ask visitors with disabilities what kind of support they would like.

- Train the staff on the 'why' of inclusion to ensure that they are oriented about the overall vision of the museum.

- The staff should be trained on how to push a wheelchair.

- They should know how to guide people with visual disabilities.

- A few members of staff trained in ISL is desirable.

- They should be knowledgeable about the artworks in the museum. They should be able to guide the participants to access any additional information, deeper descriptions, or background information about the artworks.

- They should be able to help people with different kinds of disabilities locate, enter, and leave the museum.

- They should provide information to the visitors about the layout of the museum as well as the location of the various accessibility features.

- A list of checkpoints that they need to keep in mind is a good practice.

- Owing to previous negative experiences with museums and other public places, visitors with disabilities might be hesitant or unprepared for the opportunities for engagement with the museum. This makes it important for the staff at the museum to be encouraging and to urge visitors to further explore the museum without seeming too intrusive.

23. Advocating for Disability Rights

- MAP could organise events to mark important calendar highlights pertaining to disability rights such as International Deaf Day on September 18th, World Cerebral Palsy Day on October 6th, and others.

These recommendations have to be reviewed in comparison with the content of the following chapters and then have to be adapted in accordance with the vision and action plan for inclusion developed by the museum. It's important for the museum to bear in mind that creating an inclusive space is not a one-time effort but a continuous process that requires all aspects of the museum to work together. A crucial step of this process is working with the community, in this case, people with disabilities, and regularly taking feedback from them.

Responses of Participants with Visual Disabilities

ಕ 657

This tactile response to **Portrait of a Courtesan (The Beauties of Lucknow Album)** was made by **Akshata Mokashi**.

ಗಣಿಕಾ ಸ್ತ್ರೀಯ ಭಾವಚಿತ್ರ (ದಿ ಬ್ಯೂಟೀಸ್ ಆಫ್ ಲಕ್ನೋ ಆಲ್ಬಂ) ಕೈ ಈ ಸ್ಪರ್ಶ ಪ್ರತಿಕ್ರಿಯೆಯನ್ನು (ಟ್ಯಾಕ್ಟೈಲ್ ರೆಸ್ಪಾನ್ಸ್) ಅಕ್ಷತಾ ಮೊಕಾಶಿ ರಚಿಸಿದ್ದಾರೆ.

One of the key assumptions about museums is their ocularcentrism or the emphasis that museums place on sight as the primary sense through which engagement takes place. This premise evidently marginalises people with visual disabilities more than any other category of people with disabilities. Over the years, making museum exhibitions more interactive and multisensorial has been regarded as an important strategy to generate more interest in the museum across all backgrounds of society, especially for people with disabilities. Leveraging senses beyond sight opens up new avenues for experience and enjoyment of the museum's offerings for people with visual disabilities.

Vas, Freitas, and Coelho (2020) identify three kinds of accessibility that need to be borne in mind in order to make museums accessible for visitors with visual disabilities: sensory, intellectual, and physical.

- **Sensory accessibility** includes the ability to utilise one's senses to engage with the artworks/collections to understand the nuances of their form and meaning.

- **Intellectual accessibility** refers to the ability to comprehend the artworks. It also means accessing information about the accessibility features of the museum and to be able to obtain more information about the exhibitions post the museum visit.

- **Physical accessibility** refers to one's ability to navigate through the museum. The participants with visual disabilities for the present study were asked about their expectations regarding accessibility based on these three categories.

This chapter analyses the key accessibility features required for people with visual disabilities. **A total of 19 people were interviewed.** These included:

- **Twelve visually disabled people** were interviewed about their experiences with museums and art spaces, and allied topics including the assistive technologies they used, their preferred modes of transport, and their socialising preferences.

- **One special educator** for children with visual disability was also interviewed.

- **Two caregivers** at an inclusive residential facility for children, both with and without visual disability, were interviewed about their opinions on accessibility and support systems necessary for the children with whom they work.

- **One educator**, who works with people with different kinds of disabilities, also contributed to the interview.

- **Three accessibility consultants** were also interviewed.

1. Accessibility requirements of people with visual disabilities

The following section is a theme-wise presentation of the accessibility requirements of people with visual disabilities in museum spaces based on the interviews conducted. The following accessibility features have been presented:

- Information to be displayed on the museum's website

- Navigation preferences

- Expectations from the museum staff

- Recommendations for audio guide

- Tactile representations

- Museums as places to socialise
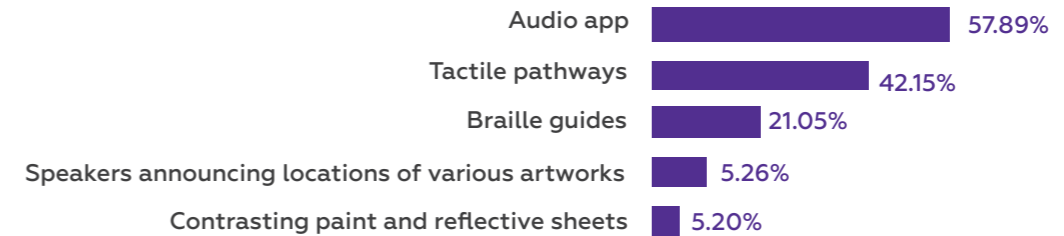
- Digital access to art spaces

1.1 Information to be displayed on the museum's website

Most participants did not have any specific preferences about the information that they would like to be displayed on the website. The few who shared said that having an app that could be downloaded in advance would be helpful as it would save time during the actual museum visit. Instructions to download the app should be provided on the website.

This app should help navigate the museum, identify the accessibility features and get additional information about exhibits. It would be helpful to have a handheld device provided at the museum for those who do not have their own smartphones.

94.74% of participants claimed that tactile replicas would be very helpful in enhancing the quality of their experience.

1.2 Navigation preferences

Audio app	57.89%
Tactile pathways	42.15%
Braille guides	21.05%
Speakers announcing locations of various artworks	5.26%
Contrasting paint and reflective sheets	5.20%

1.3 Expectations from the museum staff

Empathy, patience, awareness, respect for privacy, and knowledge of the artworks were some of the main expectations that 100% of participants had from the museum staff.

1.4 Recommendations for audio guide

Most participants preferred an audio guide in the form of a handheld device. This could be a device provided at the museum or an app that can be downloaded on a smartphone. The participants did not make a clear distinction between an audio guide as a directional tool and one for audio descriptions. They emphasised that the audio guide should have clear descriptions of all the artworks and should be used consistently.

Three participants out of nineteen (15.79%) asked for the audio guide to have very detailed descriptions of the artworks. One participant specified that an easy-to-hold audio guide should be used for the artwork. This person also mentioned the use of RFID technology, which could be scanned for audio descriptions in English or Kannada.

1.5 Tactile representations

Vas, Freitas, and Coelho (2020) consider tactile representations in addition to audio descriptions to be important ways of leveraging the sensory engagement that people with visual disabilities could have in museum spaces. Based on their interviews with people with disabilities regarding their experience with museums, the authors observe that having "complementary" ways of accessing the artefacts in the museum is very important. This includes a combination of tactile and audio engagement. The present study had a similar finding.

There was a high preference for tactile representations of artefacts

15.79%
Asked for audio guide to have very detailed descriptions of the artworks.

5.20%
specified that an easy-to-hold audio guide should be used for the artwork

- **94.74%**
claiming that tactile replicas would be very helpful in enhancing the quality of their experience.

1.6 Museums as places to socialise

Museums are generally conceived as spaces for solo engagement. This perspective is however limited, as museums can also leverage socialising by providing opportunities for people to make new acquaintances, expand their networks, and appreciate artworks collectively.

Participants felt positive about the museum as a place to socialise if the ambience and dining spaces are conducive. Five participants (26.32%) felt that **socialising could be an important part of the museum experience** but the essence of the museum, which is an emphasis on culture and history, should not be lost. Three participants (15.79%) **claimed that the museum could be a place for people without disabilities to learn about disability.**

One of the participants mentioned that displaying information about the dining facilities in the museum on the website could be a good idea to keep people apprised about the possibilities of meeting for a meal. This information would help to leverage the perception of the museum as a place to socialise.

1.7 Digital access to art spaces

Most participants did not exhibit any specific preference for digital access to art spaces and most of them did not agree to review MAP's website and social media platforms. This suggests that visually disabled visitors to MAP's website might not be very common and most might prefer to visit the museum in person. However, it is likely that before a visit, they might visit the website for information on accessibility including a point of contact who they would reach out to while planning their visit. One participant was an exception as she expressed a preference for digital access to museums owing to barriers entailed in the physical infrastructure. She also reviewed the MAP website and social media platform and claimed that they were accessible in terms of the textual support for the visual materials.

Experiences

Bholanath

"So you are saying that this is sweet. But the person who doesn't know what sweetness is wouldn't know what it is. I cannot imagine how a person who has never experienced the concept of seeing will really be able to relate to anything. It is very challenging."

"In Europe, historical monuments and museums had these audio descriptions. Most of them were accessible, some were not accessible. So I used to have my friend or some able-bodied person so that I could hear about it. But one nice experience was in Thailand, Ayodhaya. There it was an open museum. At every point we used to go, there was a button. We would press it and it would start telling you the story with all audio of that time. We could hear elephants and all those things with nice descriptions. In Rome, the audio descriptive gadgets were very helpful but I also regretted that some places were very restrictive and did not allow visitors to touch the artefacts because they had to preserve the art. But most of them had these miniature models. For example, the Kohinoor diamond. Of course, I couldn't touch the real one but they had the model out there so that I could touch it. It was a real treat for me in Pisa. In an adjacent place, there are many sculptures. They were all openly kept and I could touch them. Hampi was a very enjoyable experience for me because there was so much that I could touch. There were all these minute, intricate carvings that just came alive."

"Descriptions of artworks are sometimes not effective. Some portrait of Vincent Van Gogh, I think it was Starry Night. The description of my wife was much more potent than what was written there. There was an attempt but it was not put in perspective of a visually disabled person. Without even thinking that you are designing for a visually disabled person, it was given as a matter of fact. So you are saying that this is sweet. But the person who doesn't know what sweetness is wouldn't know what it is. I cannot imagine how a person who has never experienced the concept of seeing will really be able to relate to anything. It is very challenging."

Akhileshwari

"My one dream is to have an art exhibition that does not depend on human guides at all. I was thinking of having such an exhibition where when people walk in, from the entrance to the exit, everything will be audio-described and they will have the tactual experience as well."

"I enjoy visiting museums. But since it is difficult for me to actually go to museums, I visit museums online. Honestly, I can't remember a time when I went to a museum that had adequate accessibility measures in place. I remember going to the Salar Jung museum in Hyderabad as a kid when I was sighted. There was a room with steam engines and trains with railway tracks. It was amazing! But now I know for a fact that they wouldn't let me touch it. Even though there is a description when you touch it, it is just a completely different thing rather than just getting an audio description of what it is. So that deters me from visiting museums to a certain extent. Recently, when I visited the Taj Mahal and I was very excited. But unfortunately, they had barricades. You couldn't even touch the walls. I understand that our people spoil heritage sites by writing something on the walls. But then you think because of their mistakes, I am supposed to suffer."

"A few years ago, I visited a museum with some of my visually disabled friends and the authorities told us, "This museum is not accessible for people like you." They showed us a film about the museum and took us to a room where there were small models that we could touch. They also took us to another room with old models of large aircrafts and we could touch some of the models. That was very enjoyable. But we could not visit the rest of the museum because it mainly had photographs."

Shivam

"We keep banging into everything. It's a horrible situation."

"I enjoy museums but they are not accessible. When I was in London, I visited Buckingham Palace and there was a guide who as soon as we entered who took us around. In parks and museums in Bangalore and Delhi, right from the entry to the exit, we are clueless. Where are the displays kept? What do they say? And the washrooms are not marked properly and are not accessible. We keep banging into everything. It's a horrible situation."

Mahesh

"I have visited some very good museums all over the world including Islamabad, Boston, Chicago, Mysore, and Hyderabad. There is a nice museum in Mysore where they have audio descriptions. They give you headphones and you can move about the museum without much dependence. I like museums because they are relatively stationary. So, depending on your interest, you can stop. If you want to spend more time in front of one picture, you can stay there for ten minutes, five minutes, or two minutes. It is better than moving visuals that go too fast."

Recommendations

The following recommendations are a combination of the interviews conducted and research on the existing literature on this subject. The flow of the recommendations is based on the visitor journey of the museum.

How and what content should be displayed on a museum website?

- Provide detailed information about the accessibility features of the museum, along with the inaccessible aspects of the museum.

- Provide a detailed layout of the museum and an explanation of the artworks. This information is often not displayed on museum websites but would be very useful for visitors to plan their visits. While the layout helps in planning a visit to the museum, the information about the artworks allows the visitor to explore them post-visit in the comfort of their homes. Vas, Freitas, and Coelho (2020) observe that the museum website should contain more details about the artworks, and allow for in-depth exploration of new exhibitions. The authors identify this as an important aspect of the post-visit experience for visitors.

- Information in an audio format is especially useful for people with low vision who may not use a text to speech software.

Preference for navigation

- Audio guides that provide accurate directions to the participants to navigate the museum could be helpful. These guides could provide the participants with a general description of the layout of the museum and the division of artworks based on category, genre, style, or any such criteria.

- Visitors to the museum must be shown how to use the audio guides and it must not be assumed that they will be able to figure out how to use them independently.

- A speaker that mentions the contents of each section of the museum as soon as someone enters might be helpful.

- Braille signage for directions is essential.

- Tactile paths could be installed. Inform the visitors about the accessibility features that are available at the museum.

Expectations from the museum staff

- Train staff on the needs of people with visual disability and provide relevant support.
- Provide detailed descriptions of the artworks to ensure that the visitors get a good sense of what the artworks are about.
- Use specific words rather than 'this, that, here, there'. For instance, instead of saying 'This is a painting by Ravi Varma', one should say 'The first painting is by Ravi Varma.'

Audio Guide

- The audio guide should provide both directions and descriptions.

- The above could be in the form of an app that could be downloaded on a smartphone as well as a handheld device that is provided at the museum for those who do not have phones.

- Information about the audio guide should be included under a section called 'Accessibility Features' on the museum website.

- An announcement system at the entrance of the museum and at the entrance of each gallery that functions as an introduction to the overall contents of the exhibits is recommended.

- The audio descriptions should be detailed and should give the visitors a clear sense of the artwork and not just an impression.

- The voice in the recordings should be clear and there could be music or other sound effects to give the visitor a better experience of the artwork.

- Ensure that all audio descriptions are in English and Kannada.

- The audio guides should clearly mention the location of the tactile artefacts in the museum.

- For audio guides to be used for navigation purposes, using stride length or the distance covered by taking two steps as a guide rather than touch or visual clues is likely to be more beneficial, especially in smaller museums (Ginley 2013).

Tactile Engagement

- Since people with visual disability appear to have limited opportunities for tactile engagement with artworks, MAP could make tactile accessibility as one of the important goals. This could be a part of a broader endeavour to create avenues and experiences of accessibility for people with visual disability that they might not have previously imagined.

- Try to provide at least one tactile representation for each category of artwork.

- Provide a tactile map of the museum. The tactile map is an important way to open new possibilities for sensorial navigation.

- Tactile engagement with artworks could be a specific focus for organised tours for the blind (Deakin 2022). In case there is apprehension about the tactile artefacts being damaged by the visitors due to constant touching, a minimum number of these artefacts could be for the general public and the majority could be made available for visitors with visual disabilities.

- It is a good idea to provide all visitors with disposable gloves to put on when they engage with the tactile artefacts. If this is not possible, the gloves could be used specifically during the guided tours for visually disabled visitors. This will perhaps serve as an incentive to develop high-quality tactile artefacts and widen their access to a larger public without significant concern about their damage. This would address the concern raised that using poor-quality tactile artefacts is unlikely to serve the purpose of enabling visitors with visual disabilities to understand the details of the object.

- Providing tactile books or tactile line drawings of some of the artworks to visitors with visual disabilities is useful. This could increase the range of artefacts to which people with visual disabilities could have access.

- Barry Ginley mentions that the tactile books provided in museums should contain information about the floor plans of the museums, the layouts of the galleries, tactile images, as well as descriptions of tactile images. He says that highly complex images could be simplified to represent only their key elements.

- Regarding the selection of objects for which tactile replicas should be made, Ginley (2013) observes,

"The importance of selecting any object is that it fits in with the story of the gallery and conveys what the curator wishes it to say. An object should not be chosen because it looks good to touch; it must have certain qualities which help the visitor to understand the object in relation to the collection and the technique by which it is made."

- Ginley (2013) further observes that the height of the tactile replicas should also be considered, keeping in mind that children, adults, and arguably people who use wheelchairs or people with orthopaedic disabilities should all be able to access them seamlessly.

- If braille descriptions are placed next to the tactile replicas or to any other artworks, Ginley (2013) suggests that they be placed flat to facilitate reading as this is what audience research with visually impaired visitors has revealed.

- Some artworks are deliberately kept in darker displays with dim lighting to protect them from damage. A light that can be turned on for 30 seconds to allow people with low vision to view the artwork is recommended in order to protect the artwork and at the same time ensure accessibility.

Preference of the museum as a place to socialise

- Food is one of the most common ways in which people socialise, and therefore, having a good seating arrangement in a cafe is important.

- Information about dining and seating arrangements should be displayed on the website.

- Organise workshops, guided tours, and other events where people with and without disabilities are invited to participate together.

- Invite people with disabilities to display their work at the museum, and organise audience interactions with the artists over high tea or another similar event.

Digital access to art spaces

- MAP could focus on increasing the footfall of visually disabled visitors to the museum and then introduce them to the website. The audio descriptions could also contain suggestions that one could visit the MAP website to access other related artworks. If they are being guided, they could be told about the website at the end of the tour.

The Department of Cultural Affairs of the Government of Assam (2022) has issued an Accessibility Statement, which can be accessed at https://directorculture.assam.gov.in/policy/accessibility-statement

Exhibit-related modifications

- Vas, Freitas, and Coelho (2020) mentions that for people with low vision, being able to view magnified images of objects on screens that are displayed next to the artworks or that can be accessed through handheld devices, could increase their ability to view the displayed objects more clearly. Increasing the brightness of the lighting around the exhibits could also enhance their viewing experience.

- Spiral-bound booklets with large print is a great solution for people who have low or partial vision.

- Making museums inclusive for people with visual disability not only involves a range of features to help navigate the museum and ensure an immersive experience with the artworks but also involves promoting the work of artists with visual disabilities, as one of the interviewees mentioned. Moreover, as Deakin (2022) observes, representing visual disability itself through art is an important strategy to bring blindness into the mainstream, increase public awareness about visual disability and acknowledge visual disability as an important aspect of human experience with its own cultures and histories.

Other Information

- Ginley (2013) talks about three questions that museums could keep in mind in order to ensure that their exhibits are accessible for people with visual disabilities:

- Is the provision clearly marked and easy to use?

- Does the provision significantly aid understanding of the subject matter?

- Does the provision encourage further exploration of the museum by the user?

These guiding questions are useful as they help facilitate a greater understanding of the subject matter of the artwork encouraging reflection and prompting visitors to explore other artefacts.

- In addition, Vas, Freitas, and Coelho (2020) suggest that the museum could give a souvenir to visitors with disabilities. This would stand as a visual and intellectual recall of their experience in the museum. In case art workshops are conducted at the end of the guided tours, then visitors could take their artworks home. Alternatively, some tactile line drawings could be given for them to take home.

Responses of Participants who are Deaf or Hard of Hearing

This chapter presents an analysis of the main accessibility features for people with who are deaf or hard of hearing as stated by the participants themselves. The accessibility features analysed in this chapter are

- Preferences for interpretation and subtitles
- Perspectives on the induction loop system
- Expectations from the museum staff
- Strategies to create meaningful engagement for visitors who are deaf or hard of hearing
- Sources of information about events

A total of 15 people were interviewed. The breakup is as follows:

- Nine people who are deaf or hard of hearing were interviewed regarding their expectations from the museum. The participants were chosen to ensure a diversity of hearing impairments across gender and backgrounds.

1. Accessibility requirements of people with hearing impairment

1.1 Preferences for interpretation and subtitles

The participants were asked two main questions: if they preferred sign language – and if so, what kind of sign language? if they preferred subtitles and captions?

- **93.33%**
  claimed that they would prefer Indian Sign Language (ISL). All these fourteen participants claimed that subtitles or captions were an absolute necessity in addition to ISL interpretation. They pointed out that the ISL interpretation service should be easily available, and they shouldn't have to struggle to acquire this service. Two of these participants said that they could lip read, however, it was impossible for them to lip read long discussions and they needed ISL.

93.33% of the participants claimed that they would orefer Indian Sing Language

- One participant (6.67%) cautioned that the subtitles and the captions should not change very rapidly and that there should be a reasonable time for the visitors at the museum to read them, especially because some people with hearing impairment find it difficult to read. Another participant suggested that the script of the speech or the performance could be provided to the participants at the beginning of the event so that they could follow along at their own pace.

1.2 Perspectives on the induction loop system

- **33.33%**
  mentioned that the induction loop system would be very useful for people who use hearing aids. However, the other participants were not very clear about what an induction loop system was or how it would function.
- **6.67%**
  who was hard of hearing mentioned that the sound system in the museum should be adjusted such that it is neither too loud nor too soft. He mentioned that he uses hearing aids and extremely loud sounds are intolerable with the aids. He recounted how he had to leave a movie theatre once because he was unable to bear the loud sound.

1.3 Expectations from the museum staff

- **100%**
  stated that the museum staff should be aware of the needs of people who are deaf or hard of hearing, offer support to help them navigate the museum and at least some of the museum staff members should be trained in ISL.
- **26.67%**
  observed that having at least some people who are deaf or hard of hearing as guides would help visitors with hearing impairment feel more at home at the museum.

1.4 Strategies to create meaningful engagement for visitors with hearing impairments

- Some strategies to encourage these visitors to enjoy museum spaces were recommended. Most of these recommendations were premised on multisensorial engagement.
- Four participants (26.67%) claimed that more visual signage and visual exhibits would pique

the interest of visitors with hearing impairments, particularly children. Three participants (20%) recommended a few strategies to engage visitors with hearing impairment, for example - increasing the use of videos, simple and easy language in the descriptions of artworks and subtitles, and less dependence on text. Three participants (20%) recommended tactile engagement quite strongly for hearing-impaired visitors.

- Two participants (13.33%) claimed that the museum should provide opportunities for deaf people to engage with sound and music by touch.

- One participant (6.67%) claimed that the museum should provide opportunities for deaf people to engage with smells.

- Other participants did not have anything specific to say regarding ways in which museum experiences could be made more enriching for

26.67% claimed that more visual signage and visual exhibits would pique the interest of visitors with hearing impairments, particularly children.

1.5. Sources of information about events

- **93.33%**
  recommended WhatsApp groups for people with people who are deaf or hard of hearing, as well as Instagram and Facebook as important platforms for providing information about events. One participant (6.67%) claimed that newspapers and word-of-mouth were his major sources of information about events.

- One participant (6.67%) claimed that notifications about events on social media platforms should be provided in both written form as well as through ISL recording, as some people with hearing impairments might not be able to read the written message.

Notifications about events on social media platforms should be provided in both written form as well as through ISL

Recommendations

Interpretation Preferences

- An ISL interpretation service should be provided for all live events. It could be pre-recorded for exhibits or events if it turns out to be feasible.

- It would be a good idea to have a script for live events printed and made available to participants who are interested.

- All exhibits should have simple and clear captions/subtitles. The captions/subtitles could be in English and Kannada. If possible, this could be customizable such that the visitors could choose the language they prefer.

- Some of the museum staff members could be trained in ISL so that they can guide the visitors through the museum. If visitors desire end-to-end support to navigate the museum or wish to access the services of an ISL interpreter for a complete tour of the museum, there should be an option of booking these services in advance.

- The sound system in the museum should be set at an optimal level, and visitors who use hearing aids could be asked for their preferences to help them set the volume according to their comfort level.

- In case there is an exhibit where the sound levels are necessarily high, trigger warnings should be put up. These would also be suitable for visitors with neurodevelopmental or intellectual disabilities. Similarly, if an exhibit necessarily has a very low volume, then textual descriptions and pre-recorded sign language interpretation should be available.

- ISL and captions/subtitles should always be used simultaneously.

- Ensure that videos without any sound have a clear caption that says 'There is no sound in this video clip', as hearing impaired people will not know that the video does not contain any sound and might assume that they are missing out on the audio content.

- If people bring in their own sign language interpreters, then there could be an option of charging this person only half the price of the ticket or not charging them at all.

- If participants prefer Kannada Sign Language or American Sign Language, the option of booking these services could be given to them in advance. The website should clearly mention that ISL interpretation services would be provided but any other sign language interpretation would have to be booked in advance.

Induction Loop System

- It is very useful to have an induction loop system but the website should clearly explain what this system is, and who and how it is likely to benefit.

- This information should also be provided at the reception and should be displayed at places where the system is located.

- It is a good idea to have the induction loop system reviewed by people who use hearing aids.

Expectations from the museum staff

- Some of the staff should be trained in ISL and in the nature and diversity of people with who are deaf or hard of hearing and the needs of people with different kinds of hearing impairments. This training should involve sensitiSation and awareness about how not all people with who are deaf or hard of hearing know sign language.

- The staff should be patient and be willing to speak louder for the benefit of the visitors.

- Recruiting hearing-impaired and/or deaf guides for the museum would be an exemplary step in promoting inclusion.

- People with who are deaf or hard of hearing visitors should be informed about ISL services even if they do not actually ask for them. Many of them tend to rely on their own family members for these services and it would be important to urge them to feel entitled to these services being provided to them rather than them having to provide for themselves.

- Staff should be prepared to help visitors people with who are deaf or hard of hearing communicate with the cab or auto driver while entering or leaving the museum.

Strategies to create meaningful engagement for visitors with hearing impairments

- Create multisensorial learning and viewing experiences wherever possible by using digital sources and tactile engagement.

- Provide facilities at music concerts for people with hearing impairments. This could include a live sign language interpretation of the songs (which might be challenging especially for instrumental music). A detailed written description of the type of music can be provided prior to the performance.

Sources of information about events

- MAP could consider reaching out to organisations working with people with people with who are deaf or hard of hearing, and these groups could spread information about MAP's events to their groups.

- The notifications should be both written and in sign language, even on MAP's social media page to draw the attention of the deaf and the hard of hearing communities.

Other recommenda-tions

- Ensure that there is adequate internet connectivity in the museum as some visitors might prefer using online sign language services or might wish to speak with someone through a video call using sign language.

- A system in place for a staff member (preferably the security guards) at the entrance of the museum to ensure that visitors who are deaf or hard of hearing do not have difficulties paying their cab fare. Similarly, they could help them book a cab at the time of leaving. If this is implemented, it also needs to be mentioned on the website.

- For fire safety, rotating beacons with flashing lights could be used. However, if there are many such signals in one place, the lights should be synchronised to prevent those with epilepsy from having seizures (Siemens n.d.).

Responses of Participants with Orthopaedic Disabilities, Cerebral Palsy, and Multiple Sclerosis

In the present study, people with orthopaedic disabilities were interviewed along with people of certain kinds of disabilities such as cerebral palsy and multiple sclerosis as the accessibility needs were very similar. Therefore, this chapter analyses the needs of all three categories of people with disabilities together and explores the distinctive needs of people with multiple sclerosis wherever relevant.

37 people were interviewed. The breakup is as follows:

- Sixteen people with orthopaedic disabilities
- Six people with multiple sclerosis
- Three people with cerebral palsy
- Three relatives of people with orthopaedic and multiple disabilities
- Nine professionals who work with people with these disabilities

The accessibility features analysed in this chapter are:

- Accessibility information required to be displayed on the website
- Expectations regarding physical infrastructure
- Expectations from the museum staff
- Preference for solo visits
- Preference for museums as places to socialise

1. Accessibility features for people with orthopaedic disabilities and multiple disabilities

1.1 Accessibility information required to be displayed on the website

Many of the participants were unsure about the kind of information they would like to have on the museum website that would better prepare them for their visit. This is likely because of the limited exposure to and interest in museums, and the fact that most places, especially museums in India, do not clearly display any accessibility-related information on their websites, as one of the participants mentioned.

Five participants (13.51%) asked for all the accessible features in the museum to be clearly displayed on the museum website.

Four participants (5.4%) asked for all the accessible features in the museum to be clearly displayed - both on the museum website and on Google Maps.

Two participants (5.4%) asked for the above information to be accompanied by pictures of the accessibility features.

One participant (2.7%) asked for information about the inaccessible features of the museum to be displayed on the museum website as well.

One participant (2.7%) asked for an image of the entrance of the museum to help give people a clear idea of what it looks like and whether they should visit. This is particularly to check if the museum has a ramp facility and a staircase with railings to enable people with mobility difficulties to enter.

> In addition to the website, the accessibility information should also be displayed on Google Maps as well.

1.2 Expectations regarding physical infrastructure

Feature	%
Ramp facility of reasonable gradient, with adequate railing	59.46%
Accessible bathrooms	29.73%
Seating arrangements throughout the museum including portable chairs	24.32%
Artworks at a reasonable height for wheelchair users	24.32%
Clear indicators of the location accessibility features in the museum	18.92%
Elevator access within the museum	13.51%
Seamless pathway for wheelchair	13.51%
Even flooring for the easy movement of people who use wheelchairs	10.81%
Limited crowding around the artworks/museum to allow easy access	10.81%
sound levels in the museum to be controlled + Quiet room	8.1%
Wheelchair to be provided in the museum	8.1%
Drinking water facilities should be available throughout the museum	5.4%
Lighting and the temperature are properly regulated [1]	5.4%
No obstructions at the entrance to use the railing or wheelchair	2.7%
Elevator should announce the floor number	2.7%
Stairs to have markings to help people with orthopaedic disabilities	2.7%
Provisions to allow the car to halt as close as possible	2.7%
Feedback register is easily accessible for people who use wheelchairs	2.7%
Option for feedback through voice	2.7%
Motorised wheelchair to be provided at the museum	2.7%
Buggy or cart to be provided	2.7%
Pair of crutches to be provided at the museum	2.7%
Cafeterias are accessible [2]	2.7%
Steel, glass, or porcelain cups, saucers, and plates [3]	2.7%
Proper seating arrangements with cushions in the VR [4]	2.7%

1. To ensure that the museum is neither too dark nor too bright and neither too cold nor too hot. This is especially important for some people with multiple sclerosis.

2. Suitable flooring for people who use wheelchairs and seating facilities that allow people with and without disabilities to comfortably dine together. The counters should be within the reach of people who use wheelchairs.

3. For the benefit of people who have difficulties with their grip or who might be easily startled and might risk crushing a paper glass

4. For people who feel dizzy and a person to support people who might feel uneasy.

1.3 Expectations from museum staff

- **32.43%**
  claimed that the museum staff should be empathetic, welcoming, and knowledgeable about different kinds of disabilities.

Eight participants (21.62%) claimed that the museum staff should be willing to direct people throughout the museum and give clear directions.

Four participants (10.81%) claimed that the museum staff should not define them only by their disability by offering help that is uncalled for or by making assumptions about what people with disabilities can or cannot do.

Three participants (8.1%) claimed that the museum staff should understand that every person with a disability is different and that a person could have multiple disabilities. Three participants (8.1%) suggested giving children with multiple disabilities a chance to engage with artworks on their own rather than giving them a lot of information. This would be a very enriching way to get the children to get involved with the museum and feel a sense of engagement.

Two participants (5.4%) claimed that the museum staff should know how to navigate a wheelchair, especially on uneven surfaces. Two participants (5.4%) recommended having guided tours for children with orthopaedic and multiple disabilities. Two participants (5.4%) cautioned that the museum staff should not touch children with disabilities even if it is to help them as this might trigger them. Keeping a safe distance from children with disabilities is important to protect their privacy and help them develop a sense of safety.

The rest of the participants claimed that they were unfamiliar with museum spaces and could, hence, not imagine what reasonable expectations they could have from the museum staff.

1.4 Preferences for solo visits

Unlike the participants with visual disability, the participants with orthopaedic disabilities reported being able to travel and commute independently in their daily lives and were more likely to visit the museum on their own. However, most participants responded that they had either never or rarely been to places that were accessible, and that gave them a chance to spend time exploring the space by themselves. Concerns for safety as well as the general inaccessibility of most spaces were the major

deterrents for people to visit museums or any other places on their own, especially if they were women. Hence, many of the participants found it difficult to even visualise what such an experience would look like and MAP could be an opportunity for them to experience that independence.

Seven participants (18.92%) reported that they would like solo visits to the museum but do not usually travel alone.

Three participants (8.1%) said that it was unlikely that they would visit the museum on their own as they did not feel confident about doing so.

Two participants (5.4%) claimed that they would highly prefer visiting the museum alone and were accustomed to independent travel.

One participant (2.7%) reported that solo visits are highly preferable but he could not imagine what they would look like.

> **Most participants responded that they had either never or rarely been to places that were accessible.**

1.5 Preferences for museums as places to socialise

- **32.43%**
  expressed a high preference for museums as places to socialise.

Two participants (5.4%) claimed that this was a good idea as it would help to spread awareness about people with disabilities and sensitise the public.

One participant (2.7%) claimed that this was not a good idea because museums are very niche places for people with a very specific set of interests, making

> **The museum staff should not define them only by their disability by offering help that is uncalled for or by making assumptions about what people with disabilities can or cannot do.**

Heena

"Many times, disabled people need a push to be part of leisure activities. For many disabled people, leisure is an alien word."

Munir

"I once went to a museum in Bangalore with my friends. Many parts of it were accessible and I could reach most parts of the museum with the help of my friends. But there were also parts of the museum that were not accessible for me and my friends and I decided that I would stay behind while they went ahead and saw these parts on their own. While I was sitting in a corner of the museum, I felt very upset. That experience had a huge impact on me."

Preeti

"My favourite museum is one that focuses on the history of mental health in the United Kingdom. It is a small museum that is just one big room that has been converted into a museum. It is a very well-designed museum. There are trigger warnings for forms of mental health treatments that are disturbing, which are very important for museums to have. There is also a designated space for seating. The museum has a glass wall that overlooks a garden and there is sound inspiration inside the museum."

"Many museums in India have stairs without a proper railing. This is especially true for stairs that have curvatures but do not have railings. The steps are often not wide enough to place a foot. Some museums only have one lift and they don't have air-conditioning in a number of places. That tends to tire a person out. Sometimes, museums don't clearly mark where the lift and the ramp are and there is no staff around to help you. The artworks in many museums are also placed at a height suitable for a person who is standing and this makes it very difficult for someone who is sitting or for a child. I think portable seats are really a game changer and having seats with backrests could really be very helpful."

Arya

> **I have only been to museums in the US. I have never been to any museum in India because of accessibility issues."**

"I'm an artist as well as an art teacher. I once had an exhibition of my artworks and I was unable to hang any of my paintings by myself because they had given the hanging options right on the top of the wall. I was lucky that my brother and my sister helped me hang up my paintings. They can have these arrangements to hang the paintings where you pull a rope and unfurl the painting and the rope should be somewhere in the middle of the wall. I have only been to museums in the US. I have never been to any museum in India because of accessibility issues."

Naresh

"I have a strong desire to go out and explore different places. But I usually cannot because of the difficulties with accessibility. Otherwise, I have a very strong desire to see different places. I also have a problem with language. I am most comfortable with Kannada and most information I encounter is in English. This makes it very difficult for me to understand what is being communicated."

"When I was in the US, I visited the San Francisco Art Gallery. Accessing that museum was very smooth. I could easily get out of my car into my wheelchair and I could easily move around. It was on the ground floor, the doors were open. You didn't need to ask anything or tell anyone anything. I just entered by myself, saw all the paintings inside, and came back. It was very smooth. All the artworks were arranged in such a way that they were almost at my eye level while I was sitting in my wheelchair. The light and other things were also very smooth."

Priyansh

> **"Children with disabilities are likely to receive a lot of exposure through museum visits and their creativity is likely to be honed. They would learn a lot beyond their school curriculum."**

"Children with disabilities are often not taken to museums because it is believed that museums will not interest them. But I feel that this mentality has to change. Children with disabilities are likely to receive a lot of exposure through museum visits and their creativity is likely to be honed. They would learn a lot beyond their school curriculum."

"We often notice that parents tend to not have faith in their children's abilities. Although we invite parents to

our school events and talk to them about their children's talents, they tend to not believe that their children have these capabilities. These attitudes are important to change."

Alima's and Manisha's children

Alima and Manisha are mothers to young sons with cerebral palsy. Alima's son also experiences epileptic seizures and cannot handle loud or sudden sounds. Both their sons love visiting parks, zoos, and other outdoor places. They also enjoyed an excursion out of Bangalore organised by their school. Both boys also enjoy playing video games and can download them on their own, too. Alima mentioned that her son tends to lose his temper easily and is scared by touch and loud sounds. Manisha said that her son tends to be comfortable around known people but is nervous around strangers. Neither child is very familiar with museums but perhaps their existing interests could be leveraged to create meaningful experiences for them.

Hanifa

"Museums are a treasure trove of knowledge. People ask me "Why are you taking students of Class 3 to the museum?". I say, "True, let's take the preschool children." They expect me to say, "Let's take the Class 7 or 8 children." But I believe that children have a lot to learn from museums and we should start as early as possible. There is a garden of Mahatma Gandhi with very realistic statues. They are very human in nature. The entire life history of Gandhi, his life history in the ashram that is displayed there. You might have to lift the kids and carry them. But go. They have to experience that. So I sent the children. They had a nice time. Everything was so natural. They learned a lot about Gandhi and when I asked them to tell me about who Gandhi was, they were just able to express it. This was because they actually got a chance to see where he was from and the entire set-up."

"The speech and hearing children are very good at art. It comes from their heart. So I want children to grab the opportunities to be a part of museums wherever there is a scope. Pottery, painting, music. These are all things that our children are very interested in. But the parents are very difficult to work with because they want their children to study engineering and subjects like that and do not see the value in art. That makes me very angry. We used to do terracotta, jewellery, and all that. We had someone come in and teach. But it is stuck. But the museum can help us."

"The problem is when arts-based activities are just one-time things. The children attend one event, get one prize and that is the end of it. There is no continuity, there is no chance for the child to carry their interests forward. The biggest challenge is the parents. I find it very difficult to work with them. A handful of them are very passionate about art but that remains a handful. If you tell parents that their child is going to be in a wheelchair, their question is if the child can pick up a phone and use a computer and work in a BPO. If you say, your child is brilliant at candle-making. Let us set up a business and he can then pay ten people, they say that this is not something that they are interested in. We are trying to introduce vocational skills like candle-making and bring back some of these traditional art forms. We want to spend a day flying kits, top spinning. We get staff to teach these traditional skills. We even have a photography team but there was a problem with getting a trainer. I even tried metal carving but it was not very successful. Children with cerebral palsy have a very strong interest in this carving. They can even make a career doing that."

"When we took the children for a visit to a museum, everyone came to the children to welcome them. They told them what they could expect from the museum and took them around. But there was a time when we took our children to a museum and the moment they saw our children in wheelchairs at the entrance, they told us that there was no room for our children in the museum. Everyone used to say, "You want to use the lift? Please wait because you are on a wheelchair." The teachers had to lift the children and carry them up the staircase and this was very difficult for them because many of the children are very big. People often tend to confine children to the ground floor of the building and don't allow them to explore the entire building because of the limited lift accessibility."

"We also took the children for a visit to an ice cream parlour. They had to travel for three hours to get there and we even had to change their diapers on the way. The staff at the ice cream parlour were very friendly and they carried all the children into the parlour. They ate as much ice cream as they wanted and had a very nice time. One of the children had tears in his eyes when he left, saying that everyone at the parlour was so nice to them. When we took the children to a popular food outlet, they gave the orthopaedically disabled children special spoons to help them eat burgers because they have difficulty using their arms. The children were very excited because they could experience eating burgers."

Recommendations

Website access
- The website should clearly indicate the accessibility measures adopted by the museum including the location of the staircases, the ramps, elevators, foldable chairs (if any), and accessible bathrooms. Ideally, there could be an image of each floor of the museum with the accessible and inaccessible features clearly marked.
- The display of artwork in terms of their height from the ground should be displayed on the website for the benefit of people who are wheelchair users.
- In addition to the website, the accessibility information should also be displayed on Google Maps as well.
- All displays of accessibility information online should be accompanied by photographs.
- Display a number that people with disabilities could call before they visit the museum to make enquiries and ask for preferred assistance.

Museum app
- The accessibility features should be verifiable on the museum app that people could download on their phones or that would be available through a portable device that could be obtained at the reception.
- Display emergency numbers related to sexual harassment.

Information at the entrance and within the museum
- Have a direct and clear entrance for wheelchair users from the parking of the museum to the main museum. Montsho (2022) identifies easy and accessible parking as one of the important ways to make the museum inclusive for people with orthopaedic disabilities, particularly wheelchair users.
- Montsho (2022) recommends not having a separate path for wheelchair users to enter the museum as this would clearly show discrimination and segregation. At times, wheelchair users might have to separate from their companions to be able to use a different entrance, which could lead to feelings of exclusion.
- The accessibility features such as the height of artworks from the ground and the distribution of seating arrangements need to be marked outside every display hall.
- The location of wheelchairs, elevators, staircases, and ramps should be indicated at the entrance as well as on every floor.
- Display emergency numbers related to sexual harassment.

Accessible pathways in the museum
- Ensure that the path to navigate the museum does not have any obstacles for the benefit of wheelchair users. This would imply that artworks should ideally not be spread across the floor to cause hindrances to wheelchair users. Montsho (2022) identifies clear pathways as a commonly cited accessibility need by wheelchair users.

Staircases and ramps
- Ensure that the staircases have railings.
- Having an elevator for people who find climbing stairs difficult is advisable.
- Ensure that the ramp starts at the floor level and is not too steep.

| **Seating arrangements** | • Have seating arrangements in the display halls and spread throughout the museum. Backrests and handles for a few are recommended. |
| | • Have a portable seat in at least some of the display halls. |

Wheelchair and Crutch accessibility	• Wheelchairs should be available at the museum. About 2-3 foldable, manual wheelchairs would be a good provision for anyone who might need them.
	• Preferably have one wheelchair on each floor of the museum. This is mainly for people with mobility impairments who might be able to walk but might suddenly feel the need for a wheelchair.
	• If possible, have a motorised wheelchair.
	• Have two pairs of crutches available at the museum.

| **Accessible displays** | • The artworks should be displayed at the eye level of a person who is seated on a chair while ensuring they are not difficult for a standing person to see either. Ensure that artists with disabilities who might display their work in the museum are given adequate support to independently set up their artworks. |

Other accessibility features	• Have speech-based feedback systems.
	• People with orthopaedic impairments are likely to visit the museum on their own. They should not ask them if they are accompanied by someone as this implies that people with disabilities are not capable of independent movement. In general, a good practice is not to ask people with any kind of disability whether they are accompanied by anyone.
	• Provide sufficient and stable air-conditioning throughout the museum.
	• Loud sounds and bright lights should be avoided or signs of where they are used should be displayed for those who wish to avoid them.
	• Crowd management is very important. Staff should ensure that there is no crowding around the artwork. This is especially important if the artworks are displayed at a reasonable height for the benefit of wheelchair users. Crowd management is also necessary for some people who might experience epilepsy or discomfort around crowds.
	• Providing visitors with disabilities a discount could encourage them to visit the museum. People could be asked to produce a medical certificate or a disability certificate to avail the discount.

Responses of Participants with Neurodiverse Experiences and Mental Illness

Neurodiversity is an umbrella term that is used to describe disabilities such as autism spectrum disorders (ASD), learning disabilities, intellectual disabilities, and attention deficit hyperactivity disorder (ADHD). Given the diversity of disabilities that are encompassed within the category of neurodiversity, the accessibility requirements of neurodiverse people are highly diverse and all these requirements can't be captured in a single chapter. Therefore, the requirements discussed here are most relevant to people with in   tellectual disabilities and autism although not all the accessibility features discussed here might be relevant to all individuals with these disabilities.

In the present study, a total of 31 participants were interviewed. The break up is as follows:

- Nine people with neurodiversity and mental illness
- Nine parents and caregivers of children with neurodiverse conditions
- Seven educators working with children with neurodiverse conditions
- Six accessibility consultants.

The disabilities included in the study are autism, dyslexia, ADHD, intellectual disabilities, anxiety, and depression.

This chapter presents an analysis of the main accessibility features for people with neurodiversity and those associated with people with neurodiversity. The accessibility features analysed in this chapter are
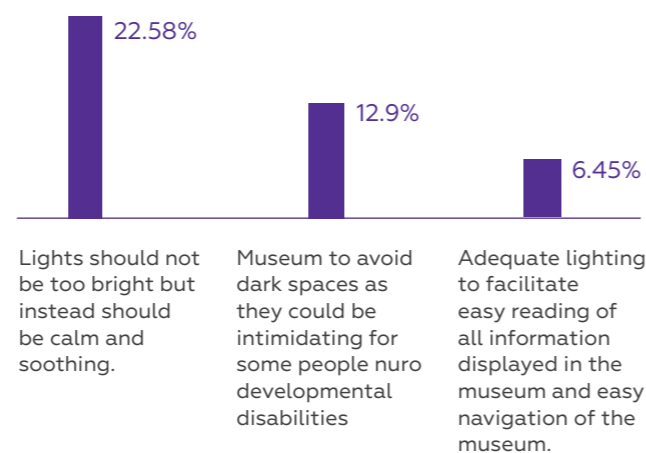
- Lighting
- Sound
- Sensitivity to crowded places
- Sensitivity to smells
- Seating preferences
- Spatial preferences
- Colour preferences
- Signage preferences
- Virtual reality engagement
- Expectations from museum staff
- Engagement and learning styles
- Preference for a sensory room

1. Accessibility requirements of people with neurodiverse conditions and mental illness

This section analyses the different categories of inclusion and accessibility identified by people with neurodiverse conditions and mental illnesses.

1.1 Lighting

The lighting choices in the museum have a significant impact on the quality of experiences of people with neurodiverse conditions and mental illness.

22.58%	12.9%	6.45%
Lights should not be too bright but instead should be calm and soothing.	Museum to avoid dark spaces as they could be intimidating for some people nuro developmental disabilities	Adequate lighting to facilitate easy reading of all information displayed in the museum and easy navigation of the museum.

1.2. Sound

Some people with neurodiverse conditions and mental illness might be sensitive not only to loud sounds but several different kinds of auditory stimuli such as background music playing in the galleries or sounds that start to play unexpectedly when you click an icon.

- **22.58%**
  claimed that the museum should avoid loud sounds and sudden sounds that start without warning or intimation.
- **6.45%**
  asked for noise-cancellation headphones to be provided at the museum.

2.3 Sensitivity to crowded places

- **96.77%**
  claimed that it was essential to regulate crowding in the museum.
- An important observation made by one of the participants, whose son has autism, was that people with autism can enjoy attending

live music performances but they might be discouraged by the crowd at the venue rather than the sound levels.

- One of the participants observed that her son preferred enjoying music performances in small groups but could also attend concerts if they were not too crowded.
- Another mother whose daughter has Down's syndrome, observed that her daughter likes music but cannot handle anything being played on loudspeakers.
- Another participant mentioned that crowd control was important for people with dyslexia because the obstructions that crowds pose could make it harder for people with learning disabilities to access written information and this becomes an additional challenge for them. The participants emphasised the need for crowd regulation, particularly on weekends.

- **9.68%**
  emphasised the importance of a separate slot for visitors with neurodiverse conditions to visit the museum. However, these participants were quick to point out that they felt it was important for visitors with neurodiverse conditions to have the opportunity to interact with other people as this was an important social skill for them to develop. It is just important to ensure that the number of strangers they interact with is limited and not overwhelming.

1.4 Sensitivity to smells

- **3.22%**
  mentioned that using room fresheners or any other kind of strong-smelling substances anywhere in the museum could be distressing for people with neurodiverse conditions and should be avoided. She also mentioned that when conducting workshops for people with neurodiverse conditions, it would be important to give them time to get used to the smell of paints and sketch pens.

1.5 Seating preferences

- **6.45%**
  asked for seating arrangements to be spread throughout the museum.

- One of the participants mentioned that one of the reasons why her daughter did not enjoy their museum visit was because the museum was very large and despite that seating was arranged too close together.

1.6 Spatial preferences

- **9.68%**
  asked the museum to ensure that there are no sharp objects without proper enclosures as this is unsafe for some people with neurodiverse conditions.
- **3.22%**
  emphasised the need to ensure that the floor is smooth and there aren't uneven surfaces. Another participant emphasised the need for sensory paths in the museum.
- **3.22%**
  pointed out that all glass doors and windows should have markings on them to ensure that people who are not paying attention do not accidentally ram into them. This is especially important for people with mental illness and neurodiverse conditions but is a generally helpful safety measure.

1.7 Colour preferences

- **3.22%**
  emphasised the need and the importance of having bright colours in the museum particularly to keep children interested.
- **12.9%**
  said that it was very important for the museum to use light colours and not very bright and flashy ones to ensure accessibility for some people with neurodiverse conditions.

1.8 Signage Preferences

- **9.68%**
  asked for an app-based navigation system to help people with neurodiverse conditions navigate the museum safely without getting lost or frustrated. Such a system would enable them to find out exactly where they would like to go and ensure that they get there.

- **3.22%**
  emphasised the need for all signage in the museum to be written in another language besides English.

- Yet another participant suggested using an Ariel font, which would help people with learning disabilities read the signage.

1.9 Virtual Reality

- The participants were generally excited about the virtual reality (VR) exhibits in the museum and felt that it should be open to people with all kinds of disabilities. However, they had not experienced VR themselves and could not give any specific suggestions about how VR could be made safe and accessible for people with neurodiverse conditions.

- **6.45%**
  mentioned that having a small focused group study of the experiences of neurodiverse visitors with the virtual reality exhibits once the museum is inaugurated could provide important insights into their experiences.

1.10 Expectations from the museum staff

- **100%**
  emphasised the need for the museum staff to be aware of different kinds of disabilities. They should be sensitive and patient, offer help when requested, and provide clear guidance at the reception. The participants claimed that the staff should be present throughout the museum and be identifiable and that they should speak clearly. They should be cognizant of the fact that not everyone will understand instantly what they are saying and that they might have to repeat themselves.

- **6.45%**
  recommended providing trigger warnings for exhibits that might be disturbing. Some examples of disturbing phenomena could be depictions of violence and bloodshed or people/animals expressing extreme pain or distress.

- **6.45%**
  mentioned that it was essential for the museum staff to not discriminate against visitors based on class or language.

- **3.22%**
  recommended having a training manual in the form of a checklist of points for the staff to

(100%) recommended providing multisensory learning opportunities including tactile artworks, animated videos, and hands-on activities.

remember rather than an entire manual that they are unlikely to read.

1.11 Engagement and learning styles

- **100%**
  recommended providing multisensory learning opportunities including tactile artworks, animated videos, and hands-on activities. They recommended not making anything too text-heavy and recommended having alternative activities based on learning styles and preferences.

- **2.9%**
  recommended preparing visitors with neurodiverse conditions with visual and auditory inputs about the museum prior to a visit.

- **6.45%**
  recommended maintaining the person's daily routine as much as possible. This would mean that if the person is used to eating at a certain time, resting at a certain time, or sitting down in a classroom setting for a certain amount of time, efforts should be made to maintain this schedule even during the museum visit. It would certainly not be possible to maintain this schedule perfectly and one of the main objectives of exposing people with neurodiverse conditions to new experiences is to make them more flexible and receptive to changes in their routines. But discussion with the person's teachers or caregivers about ways in which elements of their routines could be incorporated into the visit would help them enjoy the visit better and acclimatise to the new setting.

- **6.45%**
  recommended having colour-coded buttons that could be pressed to obtain more information about artworks.

- **3.22%**
  emphasised the need for clear visual instructions for all signage and activities.

1.12 Preference for a Sensory Room

- **16.13%**
  emphasised the need for a sensory room for people to calm down and take a break.

- **3.22%**
  mentioned that people who have epilepsy will need a place to sleep in case they have a seizure and there needs to be some space for this.

Experiences

Vaishakha

"My daughter's school once took them for a trip to a resort. They booked the entire resort only for this group of children and she had a very nice time with the people there and the food. She doesn't like socialising much but this is something that we have been encouraging her to do. Her school also took them on a two-day trip to Hyderabad. She said she saw a lot of castles and palaces there and real kings and queens. I think they took them to Ramoji Film City. She had a really nice time there, too. It was the first time that she was away from her family and she experienced that freedom and independence. It was important for us, too, to teach her about money."

"She is very interested in music and classical dance. The one time when she could sit through for a whole three hours was when one of my friend's daughters was having Arangetram. It's the first dance performance after her Bharatanatyam classes. So she sat through three hours of the dance programme. I do not know if she enjoyed the dance or just the fact that it was the person who was dancing who was a good friend of hers. I don't still don't understand why, but for the very first time, she sat through a three-hour program. That was something which was amazing for us."

Rohit

"It would be nice if the museum had interactive exhibits. For instance, I went to an art festival recently and they had a huge canvas on which the audience members were also invited to paint. This was a very nice experience. I enjoyed it a lot. Such activities are good because if I experience something like this and enjoy it, then I will also share it on Instagram and other people will come to know about it and they will also visit the museum."

"When I went to a literature festival, I felt like it was a heaven for introverts. As an introvert, I find it very difficult to socialise. But at the festival, there was

a common context so it was easier to talk to people. Creating meaningful connections is an important part of art spaces."

Leela

"Many museums feel like an information dump. They lack dynamism. I once visited an art exhibition where the theme was food. Each of the exhibitions was very different and was connected to some aspect of food. It intrigued me how different exhibitions could be. For a museum to be interesting for me, each exhibit has to be different. There was a proposal from a person about making a museum in remembrance of his grandmother's recipes. It was not a museum that was actually meant to be constructed, but the proposal itself was interesting. So, the final product itself need not be an exhibit, but could even be the process."

Shraddha

"I once had a student who was triggered by loud sounds. I took him to watch a movie in the theatre and told him that he could leave the hall every time he was triggered and come back whenever he felt ready. He left and re-entered the hall many times."

Sharanya

"My son enjoys going to museums. But he has a very specific interest in music so if there are some musical exhibits, he would enjoy spending time there. He is also very interested in photography. Otherwise, his attention span is very limited and he would not be interested in the museum. He also gets tired easily and needs to sit down. This was what happened when we once visited a very large museum. So, it would help if there were seating arrangements throughout the museum."

Anshika

"I have taken my daughter who has Down's syndrome to museums. But she doesn't usually enjoy them because she gets very tired. I still force her to see the whole thing but it is very difficult for her."

Recommendations

Lighting
- Avoid bright and flashy lights but ensure that there is enough lighting to enable clear readability and viewing experiences. The lighting requirements are also applicable to washrooms, restaurants, and all other spaces in the museum.
- In case of bright lights need to be used for a specific artwork or gallery, provide a clear marking at the entrance about the kind of lighting to be expected.
- Avoid dark spaces as much as possible and put up signage for dark spaces wherever necessary.

Sound, smell, and colour
- Do not have loud sounds anywhere in the museum. If a sound is to be heard by clicking a button or putting on a headset, write down what the listener can expect.
- Do not have even soft sounds playing in galleries as this could be triggering. If these sounds must be used, then put up a clear sign regarding what one could expect from the gallery.
- Avoid room fresheners or strong-smelling substances or put up a notice when some kind of a substance has been used in a specific place.
- Avoid bright and flashy colours and provide clear signs for where it is used.
- Madge (2019) recommends not having loud automatic hand dryers in the bathrooms, which might be disturbing for some people with neurodiverse conditions. If these devices are used, they could be switched off when curated visits of people with neurodiverse conditions take place or a sign could be put up near them alerting people to the sound that they would make.

Crowd management
- Have a separate slot for planned visits and give individuals with neurodiverse conditions the opportunity to book early visits. Madge (2019) recommends this as a helpful strategy to create a safe and inclusive space for visitors with neurodiverse conditions.
- Mention events that are likely to have a large number of attendees on the website.

Seating arrangements
- Have seating arrangements that are spread throughout the museum.

Signage preferences
- Written signage should be in clear sans-serif and legible font with proper lighting to ensure readability.
- Consider putting up trigger warnings. Alternatively, for planned visits, a prior discussion with families and teachers could help decide which exhibits might not be suitable, or oral trigger warnings could be provided prior to the visit.
- Glencross (2019) emphasises the need to use bold fonts for emphasis, avoid italics, have borders around the text for emphasis, use sans serif fonts, left align the text, use short and concise sentences, avoid glossy lamination that might glisten and compromise clear readability, the headings should be 20% larger than the regular text, use dark text on a light background.

Engagement with virtual reality (VR)
- Give all people with disabilities the opportunity to access VR.
- Have a small focused group study with people with neurodiverse conditions to check out the VR and provide feedback

Expectations from the museum staff
- Educate the staff about different kinds of disabilities, self-calming, and self-stimulating behaviours.
- Guide them to offer help without making prior assumptions about the needs of people with disabilities. Have a list of checkpoints that they can use to remind themselves about what they need to keep in kind rather than have to read an entire manual.

Engagement and Learning Styles
- Provide multisensorial and hands-on opportunities at the workshops and throughout the museums.
- Provide video and audio support for the artworks.
- Ensure that the guides speak loudly, and clearly and understand that some visitors might take longer to understand what they say than others.
- Plan in advance to try to stick to the person's daily routine. This would mean trying to ensure that the person eats according to their usual routine, is engaged in a classroom-like interaction at their usual time, etc. It is a good idea to discuss these concerns with the person's caregiver in case the person cannot communicate these needs themselves. Of course, it will not always be possible for the person's routine to be maintained and one of the main purposes of field visits is to encourage the person to become more flexible and adaptive. But it would be a good idea to try to follow their daily routines as much as possible.

Preference for a Sensory Room
- This is a very important provision. It could have mellow lights that probably change gradually, a bean bag, some fidget toys, different types of material in the interiors for the person to touch, a long bench with cushions to lie down, a blanket, and a drinking water facility.
- It should be big enough for two people to ensure that a caregiver or a staff member can also be in the room along with the person if necessary.

References

1.Deakin, T. (2022). How museums can remove barriers to access for blind and partially sighted people. Accessed from https://www.museumnext.com/article/how-museums-can-remove-barriers-to-access-for-blind-and-partially-sighted-people/ Last accessed on October 5th 2022.

2.Department of Cultural Affairs, Government of Assam (2022). Accessibility Statement. Accessed from https://museums.assam.gov.in/policy/accessibility-statement Last accessed on November 20th 2022.

3.Euan's Guide (2015). Euan's Guide: Disabled people give their top tips for accessibility in museums. Accessed from https://advisor.museumsandheritage.com/features/euans-guide-disabled-people-give-their-top-tips-for-accessibility-in-museums/. Last accessed on November 20th 2022.

4.Ginley, B. (2013). Museums: A Whole New World for Visually Disabled People. Disability Studies Quarterly, 33:3. Accessed from https://dsq-sds.org/article/view/3761/3276 Last accessed on October 5th 2022.

5.Glencross, N. (2019). A toolkit to help increase accessibility for visitors with Dyslexia. Accessed from https://collectionstrust.org.uk/wp-content/uploads/2019/05/A-toolkit-to-help-increase-accessibility-for-visitors-with-Dyslexia.pdf Last accessed on October 12th 2022.

6.Government of India. (2021). Harmonised Guidelines. New Delhi: Government of India.

7.Madge, C. (2019). Autism in Museums: a revolution in the making. Accessed from https://www.aam-us.org/2019/07/16/autism-in-museums-a-revolution-in-the-making/ Last accessed on October 12th 2022.

8.Montsho, G. (2022). Making Museums Accessible to those with Disabilities. Accessed from https://www.museumnext.com/article/making-museums-accessible-to-those-with-disabilities/ Last accessed on October 7th 2022.

9.Siemens (n.d.). Fire protection in historic buildings and museums: detection, alarming, evacuation, extinguishing. Switzerland: Siemens. Accessed from https://sid.siemens.com/api/khub/documents/ZeKYT6A959K3TvBoZ_vthA/content Last accessed on October 7th 2022.

10.Vas, Freitas and Coelho. (2020). Perspectives of Visually Disabled Visitors on Museums: Towards an Integrative and Multisensory Framework to Enhance the Museum Experience. DOI: https://doi.org/10.1145/3439231.3439272

Bibliography

1. Study on the accessibility of museums to visually Disabled people (evelity.com)

2 Maps | Accessibility Guidelines (carnegiemuseums.org)

3 .Images | Accessibility Guidelines (carnegiemuseums.org)

4. Third Party Embeds | Accessibility Guidelines (carnegiemuseums.org)

5. Buttons | Accessibility Guidelines (carnegiemuseums.org)

6. Multimedia | Accessibility Guidelines (carnegiemuseums.org)

Annexure 1 -
Organisations contacted for the study

1   AALFA

2   Anthill Creations

3   Ashwini Angadi Trust

4   Association for People with Disabilities

5   Beautiful Together

6   Brindavan Education Trust

7   EnAble India

8   Fame Academy

9   Headstart Academy

10   Mitra for Life

11   Mitra Jyoti

12   National Institute of Design

13   NCPEDP

14   Samartha Trust

15   Samarthanam Trust for the Disabled

16   Sense International

17   SGS Vagdevi Centre for the Rehabilitation of Communication Impaired

18   SignAble

19   Stepping Stones

20   Swarakshema

21   The Art Sanctuary

22   Yash Charitable Trust

Find out more

To browse our collections and learn more about previous programmes conducted by MAP, please visit our website map-india.org

---

Contact Us

If you'd like to support MAP's initiatives or programmes, please contact

hello@map-india.org

MAP
Museum of Art
& Photography

MAP
Sua House
26/1 Kasturba Cross Road
Bangalore 560 001, India

+91 80 4053 5217
hello@map-india.org

map-india.org
mapbangalore