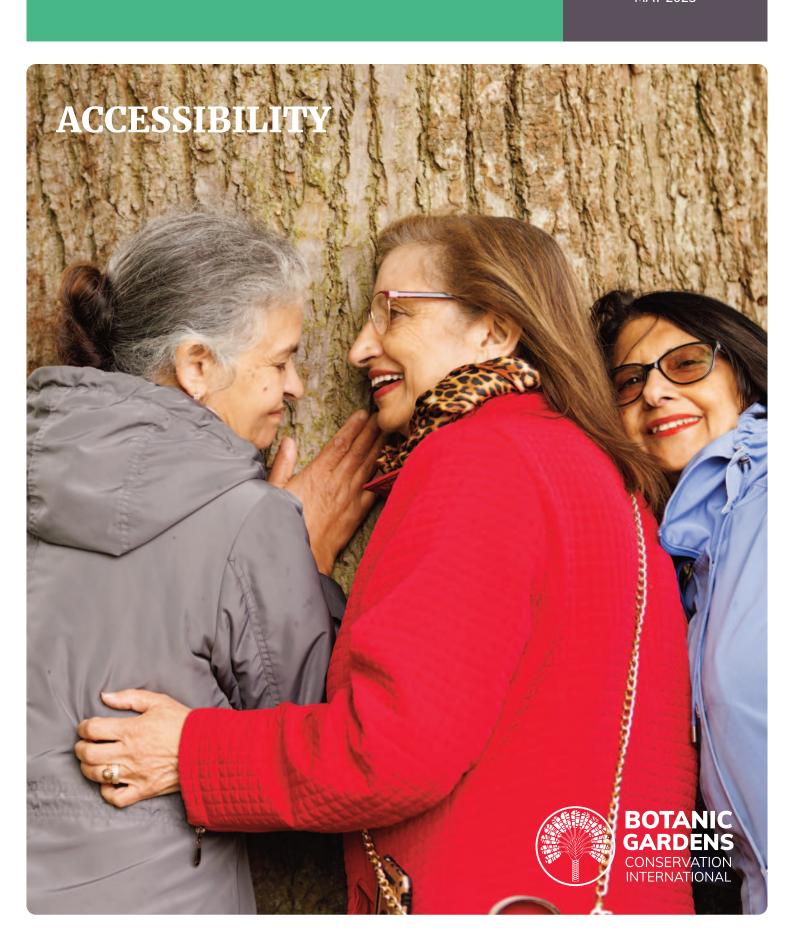
ROOTS

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Editors:



Helen Miller Head of Education and **Vocational Training**



Ane Zabaleta Education and Training Officer

Design: John Morgan www.seascapedesign.co.uk Cover image: Rob Harris

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Further details available from:

- Botanic Gardens Conservation International, Descanso House, 199 Kew Road, Richmond, Surrey TW9 3BW UK. Tel: +44 020 8175 5105, E-mail: info@bgci.org, www.bgci.org
- BGCI (US) Inc, The Huntington Library, Art Collections and Botanical Gardens, 1151 Oxford Rd, San Marino, CA 91108, USA. Tel: +1 626-405-2100, E-mail: usa@bgci.org Internet: www.bgci.org/usa
- BGCI (China), C/O South China Botanical Garden, CAS, 723 Xingke Rd. Guangzhou, 510650, Guangdong, China Tel: (86)20-85231992 Email: xiangying.wen@bgci.org www.bgci.org/china/
- BGCI (Southeast Asia), Greetha Arumugam BGCI Southeast Asia Botanic Gardens (SEABG) . Network Manager BGCI Southeast Asia Office Email: greetha.arumugam@bgci.org
- BGCI (Africa), Kirsty Shaw, BGCI Africa Office, IUCN Eastern and Southern Africa Regional Office (ESARO) P.O. Box 68200 - 00200, Nairobi, Kenya, Tel. +254 (0)725295632 Skype: bgci_kirsty, Email: kirsty.shaw@bgci.org, Internet: www.bgci.org

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FIRST WORD

ACCESSIBLE INTERPRETATION

Helen Miller Head of Education and Vocational Training



otanic gardens are a place for everyone. That is the message at the heart of this issue of Roots which focuses on accessibility. Accessibility is the practice of making information, activities, and/or environments sensible, meaningful, and usable for as many people as possible. As botanic gardens we know that there may be barriers or challenges to the use of our sites by some audiences, and if we can identify and adapt those then we can make the botanic garden a more inviting and meaningful place for those individuals or audiences who have previously been prevented from enjoying these important and tranquil spaces.

When we think of accessibility, the main audience that comes to mind is those that are disabled, particularly wheelchair users. And this is definitely an audience that can face particular challenges when visiting a botanic garden, from accessible toilets, entrances and pathways to the height of our interpretation and information. But accessibility is so much more than this, it is about creating a level playing field for all audiences and providing a socially inclusive and welcoming space for all. In this issue we explore the ways in which some of our botanic garden members are building accessibility and inclusion into their messages.

On page 4, you can read about the United States Botanical Garden's accessibility journey and some of the programmes they have put in place such as the USB sensory-friendly programme. Jardín Botánico de Alcalá (Spain) have been exploring programmes that help elderly community members to explore and feel socially connected, you can read more on page 8.

At the Royal Botanic Gardens, Kew (UK) you can read about their mission to extend their reach through their community centred accessibility programme (page 11). And on page 15 you can hear how Auckland Botanic Gardens (New Zealand) was inspired by a rugby world cup to look at their accessibility.

On page 18, Chicago Botanic Garden (USA) describes the creation of a new interpretive framework grounded in equity, diversity, inclusion, and accessibility to guide what stories they tell and how to tell them. Next is an article from the Botanical Garden of UNIVILLE (Brazil) describing the creation of a sensory garden which was made possible by a BGCI grant (page 21).

At Real Jardín Botánico, CSIC (Spain) they are launching a new programme to transform their institution and open the garden to the whole of society, regardless of their abilities or difficulties, in line with the Sustainable Development Goals (page 24). And finally on page 27 you can read about The IDEA Centre, a call to action for botanic gardens, developed as a partnership between Denver Botanic Gardens and the American Public Gardens Association.

There is lots to explore in this issue and lots of food for thought. I hope these articles will also inspire other botanic gardens to consider embarking on their own accessibility journey to ensure that our botanic gardens truly are a place for everyone.







EVERYONE'S WELCOME: THE UNITED STATES BOTANIC GARDEN ACCESSIBILITY JOURNEY

The U.S. Botanic Garden (USBG) has been active in accessibility work for a decade, with focused efforts on audience-specific programming, visitor services and accessible exhibits. The USBG expands public engagement into the community through a Strategy that aligns with the USBG-developed UnPACK, a checklist that accounts for quality, reflection, and evaluation.

he momentum around diversity, equity and inclusion initiatives has encouraged gardens to examine their commitment to and understanding of the disability community. A quarter of adults in the United States have some type of disability. Many cultural organizations welcome individuals with disabilities through a variety of visitor services as well as inclusive and audience-specific programming. The hallmark of a truly welcoming and inclusive organization is to anticipate what success looks like for each visitor.

The United States Botanic Garden (USBG) has an ongoing commitment to removing barriers to participation and continues to learn how to make the gardens inviting in unexpected, beautiful ways for all visitors. USBG executive director Susan Pell notes, "Our journey to improving access at the Garden began with a single employee advocating for us to better serve the needs of our visitors and has expanded to a dedication to be a welcoming space for all and remove barriers for in person and virtual visitors alike."

Above: Sensory-friendly program participants enjoying seasonal exhibits and engaging with USBG staff and volunteers

"Our journey to improving access at the Garden began with a single employee advocating for us to better serve the needs of our visitors and has expanded to a dedication to be a welcoming space for all and remove barriers for in person and virtual visitors alike."

Susan Pell, USBG Executive Director



Audience-specific programming

"Sensory, social, and learning disabilities tend to be invisible and are sometimes called 'hidden disabilities.' When people with hidden disabilities act differently in a social situation, they are at risk of not being welcomed in community or public places." In 2013, the USBG began offering sensory-friendly visits for individuals that identified with disabilities such as Autism spectrum disorder (ASD), "a category of neurodevelopmental disorders characterized by social and communication impairment and restricted or repetitive behaviours. ASD affects more than 5 million Americans, with an estimated prevalence of approximately 1.7% in children."

The USBG sensory-friendly program was developed by listening to the community throughout creation and rollout. Program and environmental adaptations create a welcoming environment for persons with sensory, social, and learning needs. To avoid large crowds, the USBG sensory-friendly visit opportunities take place outside of standard operating hours, allowing for a more comfortable and controlled experience for registered participants. Temporary modifications to the environment help to minimize potential sensory triggers for our guests, such as fans, misters, waterfalls, ambient noise (e.g. nature sounds) and sliding door features.

Robust pre-visit communications and tip sheets prepare guests for the uniqueness of visiting a living collection – such as noticeable temperature shifts necessary to maintain the living plant collection or fluctuations in natural light levels throughout the greenhouse spaces due to outdoor weather conditions, mechanical shades, or plant growth overhead.

Above: Students from St. Coletta showcase their completed garden bed on the east Terrace



Sensory-friendly program participants enjoying seasonal exhibits and engaging with USBG staff and volunteers

Program participant feedback showed we had created a space where everyone felt welcomed. One participant shared: "I wanted to share that as my son sat in your garden he said 'Mom, this is the safest I have felt in a long time.' So, thank you from the bottom of my heart for taking the time to put together this event for children like my son."

In addition to wheelchairs and assisted-listening devices available to borrow, sensory bags are now available for all visitors and include noise-reducing headphones, weighted lap blankets and vests, color-enhancing glasses for individuals with color vision deficiency, and a selection of fidgets to help ease additional sensory stimulation. The USBG has enjoyed watching our visitors grow with us over the years.

Additional audience-specific programming developed includes unique opportunities for individuals who are blind/low-vision, deaf/hard-of-hearing, and experiencing memory-loss.

Exhibition focus

Designing accessible exhibits benefits everyone and is a key feature of all the design work at the USBG. "We work hard to make sure the design is clear, consistent, and organized in predictable ways to accommodate the broadest range of learning styles and abilities," said Theresa Dahlman, Visual Information Specialist. "We also closely follow accessibility standards for built environments that make using and enjoying our exhibit space a great experience for every visitor."

In 2016, the USBG, in consultation with the Horticultural Therapy Department of the Chicago Botanic Garden, demonstrated how nature can improve human health and well-being with the exhibit Flourish: Inside and Out. From a walk in the woods to strolling through a park, from gardening at home to visiting a public garden, horticultural therapy, therapeutic horticulture, and accessible gardening connect people to nature and themselves.

"Horticultural therapy is an active process which occurs in the context of an established treatment plan where the process itself is considered the therapeutic activity rather than the product. Therapeutic horticulture is the process through which participants enhance their well-being through active or passive involvement in plant and plant-related activities."





Visitors are greeted to the USBG with welcoming signage highlighting the various on-site supports available

The momentum around diversity, equity and inclusion initiatives has encouraged gardens to examine their commitment to and understanding of the disability community.



A portion of the Terrace plantings for the 2016 exhibit Flourish: Inside and Out

Maura Nelson, USBG Accessibility Coordinator, facilitates an on-site USBG workshop for teachers from St. Coletta on how best to incorporate the living collection into their work with students The east terrace of the outdoor exhibit space highlighted horticultural therapy programs and therapeutic horticulture practices serving veterans, adults with disabilities, special education classrooms, and incarcerated individuals. Through these collaborative garden vignettes, the USBG was fortunate to strengthen relationships with local organizations serving individuals with disabilities.

St. Coletta of Greater Washington, a school near the USBG, serves students and adults with intellectual disabilities from 3 to 22 years. The USBG exhibit team invited the school's horticultural therapist and students to design and install a garden bed that mirrored their school gardening program, as well as provide content for the interpretive panel that would share the school's story and mission.

The students were invited to the opening of the exhibit along with their family and friends to celebrate their contributions to the nation's botanic garden.

Since the exhibit, the USBG has enjoyed continued visitation from St. Coletta classrooms for on-site field trip explorations. In 2018 the USBG education team hosted St. Coletta's teachers for a workshop on how to best use the USBG as a resource both on-site and back in the classroom. Additionally, USBG has been host to St. Coletta Family Days, inviting the students and their families to enjoy the USBG, providing hands-on engagement opportunities.

Increasing community engagement

The USBG finalized a three-year Community Engagement Strategy in 2022. Nina Graham, Community Engagement Specialist, summarizes, "With the goal of reaching a more diverse audience and making our programming more inviting and relevant to people of all backgrounds, cultures, and abilities, our focus revolves around cultivating and sustaining relationships with local organizations to co-create opportunities of community interest that connect to the mission of the USBG." These efforts are supported and sustained by continued dialogue and relationship building. As one member of a listening session commented, "I can't tell you how happy I am to know that you all have followed up with us one year later to continue to learn about the new community priorities and challenges we face. So, thank you. Your work has not gone unnoticed."

UnPACK for planning

The USBG aligns these efforts with the quality attributes of UnPACK (Unique to the Garden, Planned thoughtfully, All are included, Centered on audience, and Knowledge-based). Developed collaboratively in-house, this practical checklist is a tool for reflection and evaluation that created the foundation for a culture of reflective practice—a learning process through which we question and discuss our work, learn from experience, and realize change and improvement in all levels of engagement. In the spirit of accessibility, this approach to quality design and planning places significant emphasis on ensuring that all are included and set up for success.

Gardens have long been a respite and source of renewal for many audiences, and with continued commitment to expanding access through a wide variety of avenues, can continue forward as safe, welcoming spaces for all visitors.



Students from St. Coletta plant their display along the east Terrace

The USBG sensory-friendly program was developed by listening to the community throughout creation and rollout. Program and environmental adaptations create a welcoming environment for persons with sensory, social, and learning needs.



Sensory-friendly program participants enjoying seasonal exhibits and engaging with USBG staff and volunteers

Photos courtesy of USBG

AUTHOR

Maura L. Nelson Education Specialist & Accessibility Coordinator United States Botanic Garden 245 First Street, SW Washington, DC 20515 Maura.nelson@aoc.gov 202-226-1047 (direct) 202-579-4936 (mobile

¹ Center for Disease Control and Prevention, (2023). Disability impacts all of us. [online] Available at: https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html [Accessed 6 March 2023].

^{2023]. &}lt;sup>2</sup> Ideishi, R. I., Cohn, E., Orsmond, G., Wintrol, J., Whalen, M. L., Nickolaus, S., Swanson, J., & Siegel, B. (2013). Sensory friendly programming for people with social and cognitive disabilities: A guide for performing arts settings. Washington, DC: Kennedy Center for the Performing Arts.

³ American Psychiatric Association, (2013). Diagnostic and statistical manual of mental disorders (DSM-5), 5th ed. Washington, DC: American Psychiatric Association.

^{4.} American Horticultural Therapy Association, (2023). Definitions and positions. [online] Available at: https://www.ahta.org/ahta-definitions-and-positions [Accessed 6 March 2023].



This article describes some of the activities carried out by the Botanical Garden of Alcalá to help to combat ageism towards older people. This article also describes the advantages of these types of activities for both Alcalá Botanic Garden and the audience worked with.

he World Health Organization (WHO) defines ageism as those stereotypes, prejudice and discrimination that are directed towards others or oneself on the basis of age. The Global Report on Ageism (WHO, 2021) highlights, in respect of the elderly, that: "Ageism contributes to social isolation and loneliness, which are widespread among older people. And social isolation and ageism have serious impacts on health and longevity".

How can botanic gardens help to combat ageism towards older people? There are many different ways for a botanic garden to contribute, notably:

- Creating groups of older people with a common interest.
- Enabling older people to spend time in contact with nature.
- Helping them to interpret and understand the aspects of nature they are seeing.

Creating groups of older people with a common interest

Older people are becoming more and more isolated in cities, causing insecurity, loneliness and depression. The organization of groups with common interests can help to build links between individuals to avoid or minimise these problems.

Above: In the Arboretum (Blanca Olivé)



Visiting the cacti collection (Blanca Olivé)



Botanic gardens can establish relations with institutions that work with older people, such as hospitals, associations or old people's homes. And botanic gardens can act as links between people who would not otherwise know each other.

Activities with these groups not only build links between the individuals involved but also between those individuals and the staff of the botanic garden and other visitors. After a pleasant day in the botanic garden it is likely that the person will come again in the future, strengthening the bond created. In addition, these bonds can lead to other common activities being carried out, outside of the botanic garden.

Enabling older people to spend time in contact with nature

We know that the elderly are more likely to find it a challenge to get out of cities and into the beauty and peace of natural surroundings, and therefore may have to settle for visiting municipal parks and gardens. However, city parks and gardens have no staff to talk to. A botanic garden is much more than a park and has plenty of material and human resources that can benefit this target group, providing a special kind of contact with nature.

Helping them to interpret and understand the aspects of nature they are seeing

Finally, we all know that the more you know about something the more you enjoy it, and nature is no exception. The enjoyment of a plant increases if you know the reason behind its name, its place of origin or its medicinal properties. In botanic gardens, apart from the descriptive signs for each plant, the staff of the garden can tell you of legends, myths or anecdotes that you would never have known. What's more, if you are in a group, some of the participants may be able to add their own experience and knowledge about those plants - when you like a topic, you like to talk about it!

Visiting the cacti collection (Blanca Olivé)

"Lo que más les gustó y emocionó fue el paseo por el huerto, donde más que explicar yo, eran ellos los que me dieron una clase muy interesante sobre sus experiencias y sus curiosidades. Les transportaba a otra época y la emoción se les notaba en la cara."

"What they liked and moved them the most was the walk through the orchard, where more than me explaining, they were the ones who gave me a very interesting lesson about their experiences and curiosities. It transported them to another time and the emotion was evident on their faces."

Lucía Arcediano (Botanic garden educator)



In the Arboretum (Blanca Olivé)

"Signing up for these visits has been one of the best decisions I've made recently" **Senior citizen**

"I had never seen cacti so big and so beautiful" **Senior citizen**

The project

To address the above points and to provide benefits to both older people in the surrounding areas and the garden, the Botanic Garden of Alcalá has signed an Agreement with the Department for Senior Citizens of Alcalá City Council. The Agreement lasts for four years (2022-2025) and brings financial support for the Botanic Garden, to be used to organise activities for the elderly. Both Institutions publicise the activities but Alcalá City Council is in charge of organising the groups and bus transport to the Botanic Garden.

The Botanic Garden has organised two kinds of activities during 2022, one of them for small groups with reduced mobility, and the other for larger groups of older people without mobility issues. For the small groups a guided tour of the garden by buggy was provided. There are three buggies available. The first is driven by an educator who gives an explanatory talk via speakers, and the rest of the buggies follow, driven by one of the elderly visitors. There are always volunteer drivers! There are 11 senior citizens plus the educator in each group.

For the large groups, of up to 50 elderly visitors, a guided tour was offered with special attention to the cacti collection. At the end of the tour, the participants were each given a small cactus as a gift. These were walking tours.

There have been seven buggy tours, during May and June 2022, with 88 elderly participants. And two tours with large groups, in December 2022, with 75 elderly participants. The participants (Botanic Garden staff and older visitors) have highlighted how the use of buggies and the souvenir gift of a small cactus, added value to the tours.

We have been able to draw a number of conclusions from these activities. Firstly, allowing older people greater participation by driving the buggies increases self-confidence and the pleasure of the visit. Secondly, making a gift of a small cactus is affordable for the botanic garden and adds value to the activity. Thirdly, that the support of other Institutions that regularly organise activities for older people has proved a great success.

Finally, it is important to highlight that all participants agree that visiting the Botanic Garden on their own does not equal the experience of visiting in a group and with educators.

 1 World Health Organization, (2021). Global report on ageism. World Health Organization. https://apps.who.int/iris/handle/10665/340208. Licence: CC BY-NC-SA 3.0 IGO "Signing up for this visit has freed me for a while from all my problems" Senior citizen



A small cactus as a gift at the end of the visit (Blanca Olivé)

AUTHOR

Blanca Olivé
Blanca.olive@fgua.es
Jardín Botánico de Alcalá
Campus externo de la Universidad
de Alcalá
28805 Alcalá de Henares (Madrid).
España
www.botanicoalcala.es

Stop at the vegetable garden (Blanca Olivé)





EXTENDING OUR REACH THROUGH COMMUNITY CENTRED ACCESSIBILITY

Often, accessibility barriers lie beyond our Gardens' walls. Perceptions about botanic gardens, what they do, and who they support, can lead people from marginalised backgrounds to feel like these spaces are not for them. A community-focused approach to accessibility can change these perceptions and make our gardens more accessible.

"Extend our reach."

his simple phrase, embedded as a key tenet in Kew's Manifesto For Change, ensures that across our Gardens we have pledged ourselves to reaching new audiences who may not have engaged with Kew before. Having this enshrined as a priority across our institute is a big step forward as it means that everyone at every level of Kew is now working towards making the Gardens a more inclusive, equitable, and accessible place. Supported by the new Equality, Diversity, and Inclusion committee, across the Gardens, numerous projects are taking place to work towards this goal. The introduction of £1 tickets for people on Universal Credit or Pension Credit, a specific accessibility map and visual guide, and plans for a new multifaith prayer room have all been steps taken so far. Additionally, festivals, events, and exhibitions such as the Cameroonian Orchid Festival and our newest art displays inspired by plants and nature that feature in the Qur'ān, are being used to highlight fresh, and often underrepresented perspectives within the Gardens.

Above: A volunteer guiding a participant to explore alpine plants through touch as part of a Sensory Tour, Kew Gardens Community Open Week 2022 (Rob Harris)

[Kew] is a safe place for both carer and cared for to feel accepted and understood no matter what. A regular participant of the Dementia Friendly Health Walks



Many accessibility barriers that people face to enjoying our Gardens lie outside of our walls. I believe this is exemplified by an interaction I had early into my role as Discovery and Access Learning Coordinator.

A bus driver was dropping off a group of visually impaired visitors to Kew's gate. Welcoming the group, I asked the driver if he was going to join us for the Sensory Tour that the group was attending. He scrunched up his face and drew back as if offended. "Not my scene," he said dismissively, after glancing at the Gardens' entrance.

The volunteer-led tour was a big success but throughout it I couldn't help but wonder what the driver had meant by his reaction. I was lucky enough to spend a lot of time outdoors growing up and had studied plant sciences at university. I could understand why someone might not be as excited to be in a botanic garden as I was but a reaction as strong and as negative as that was beyond me. I scratched my head.

It wasn't until later that I began to understand. The high stone walls and filigree Victorian iron gates of the Royal Botanic Gardens, Kew were projecting a silent message. For this driver, perhaps that message was simply "this garden is not for you".

There are a number of reasons someone might have similar views. Often, preconceived perceptions may lead people to see our Gardens as grandiose or posh. Our science and research may seem uninteresting or irrelevant to them.

Outreach and direct engagement with groups who have historically been underrepresented in our visitor pool will form a key part of changing perceptions like this. Our Manifesto for Change and Outreach Strategy underpin and inform these approaches.

Part of a collaborative knitted mural that explored the diversity of trees and the ecological diversity that they support, Knitathon 2022 (Ines Stuart-Davidson)

Many accessibility barriers that people face to enjoying our Gardens lie outside of our walls.

We have pledged to reach new audiences who may not have engaged with Kew before.

We've always wanted to come but before the community scheme we couldn't have.

Leader from an Autism
Support Group



This is especially pertinent to the work of the Community and Access Learning Team which I am proudly a part of. Collaborating with many other teams such as our Schools Programme, Youth Team, and Family and Early Years Programme, our particular focus is on creating learning and wellbeing opportunities for adults who may face barriers to engaging with our gardens. All of our team's programmes work with participants from marginalised groups and with people who have been underrepresented at Kew ranging from disabled people to participants from refugee backgrounds and homeless people.

Kew's plants, buildings, and scientific research are integral to our work, but we often take a more person-centred approach. Across our team, we aim to put the goals, wants, interests, and skills of our participants front and centre; co-creating our activities with them wherever possible.

Broadly, our efforts are divided amongst three programmes which are supported by a team of over 50 volunteers: Community Horticulture, Community Learning, and Discovery and Access.

The Community Horticulture programme aims to teach people practical skills including food growing and woodwork. Participants are able to visit Kew on a weekly basis, giving them a chance to socialise while getting hands-on in our allotments. This space at the far corner of Kew is particularly welcoming, often bustling with a spirit of community. As well as this, the programme offers the Discover Horticulture course. Over three days, participants get a hands-on introduction to gardening whilst learning more about Kew's plants and collections. The programme also organises plant give aways to local community gardens in order to share Kew's plant wealth.

The Community Learning programme uses the arts to engage people with Kew's research and conservation work. Through poetry, knitting, and music, the team has been able to explore a multitude of scientific themes all with a big focus on participant wellbeing. This creative way of engaging people with science and the work of our Gardens has proven incredibly popular and the programme supports a wide diversity of people. Many people may not find scientific information on its own accessible or engaging but the opportunity to get creative is something that everyone can enjoy, and participants often leave with new insights and a sense of achievement from work they have produced.

Participants exploring trees through sound and smell on a Sensory Tour, Kew Gardens Community Open Week 2022 (Rob Harris)



Bunting from the main tent of Community Open Week, Kew Gardens Community Open Week 2022 (Rob Harris)

My arm of the team, the Discovery and Access programme, provides opportunities for people with complex health conditions to access and explore Kew. We offer a range of accessible tours including Dementia Friendly Health Walks, Sensory Tours for people who are visually impaired, British Sign Language (BSL) tours, and Wellbeing Walks for members of our Community Access Scheme. We also include Tai Chi in the Gardens and Mindfulness in Nature sessions that focus on mental health and wellbeing. We are also currently developing a programme of reminiscence activities for people with dementia from minority ethnic backgrounds. This project will use Kew's diverse range of plants, buildings, environments and artefacts, to explore memories and connect people with nature. All our events are supported by a brilliant team of volunteers including several Deaf volunteers who are able to lead the BSL tours in their first language.

Community Open Week, a festival of accessible events in May, allows people to get a taste of our work as well as that of much of the wider learning team. Over the week, we welcome thousands of people from all walks of life to get outdoors and be inspired.

All of these activities are open to members of our Community Access Scheme (CAS). CAS allows organisations that support people who may face barriers to visiting Kew to purchase a greatly discounted group membership. CAS membership provides groups with a pool of tickets which they can distribute to people that they support so they can visit Kew for free. The scheme supports a range of organisations, charities, and community groups from across Greater London and is open to new members throughout the year. We often receive feedback that without the scheme, or the activities we offer, many people wouldn't be able to access Kew.

Our community centric approach to accessibility has proven incredibly effective. Our programmes support thousands of people a year to visit and engage with Kew who might not be able to otherwise. By putting people and communities first and foremost, we are able to help address the myriad of accessibility barriers that they might face in a more tailored way. Ultimately, our programme is proof that there is no 'one size fits all' approach to accessibility.

I'd like to finish this brief exploration of our work with a thanks. To anyone who is currently working on improving accessibility across botanic gardens, I'd like to say thank you for all your hard work. As a team, we know all too well that improving accessibility can often seem like an uphill battle. Writing this article has helped me to realise and celebrate how much we have been able to achieve so far. I would strongly encourage everyone to do the same.

Together, we can each extend our own reaches and broadcast a new message. One that is not silent but loud and strong: botanic gardens are for everyone.



A participant knitting elements of a knitted mural, Knitathon 2022 (Ines Stuart-Davidson)

Our programmes support thousands of people a year to visit and engage with Kew who might not be able to otherwise

AUTHOR

Ben White Royal Botanic Gardens, Kew Kew Richmond Surrey TW9 3AE



BECOMING AN ACCESSIBLE BOTANIC GARDEN

How Auckland Botanic Gardens was inspired by a rugby world cup to look at their accessibility. By working with an accessibility organisation the Gardens began to think deeply and differently about what accessibility means and trying to incorporate that into everything they do.

uckland Botanic Gardens has been on an accessible journey since 2013. The inspiration came from activities around the Rugby World Cup planning of 2011, held that year in Aotearoa/New Zealand. The event organisers placed a strong emphasis on accessibility, and used a newly formed organisation called Be. Lab to undertake assessments of many of the venues to provide advice to those with access needs.

Curious about the work of Be. Lab, Auckland Botanic Gardens' visitor centre manager Micheline Newton started thinking about accessibility at Auckland Botanic Gardens. Reading the Be. Lab website she realised the Gardens had work to do in this area. She got in touch with the team to take a look at the Gardens accessibility culture and infrastructure.

"It was not just about getting an assessment but getting us to think about all access needs," says Micheline. Above: Education and partnerships officer
Paul Swift in the edible plant garden



Accessible drinking fountain



In their initial assessment the team at Be. Lab gave the gardens a decent rating for wheelchair users but not in other areas. This, says Micheline, reflected the prevailing sense among staff that accessibility was synonymous with wheelchair access.

Micheline organised an all-staff workshop with Be. Lab that opened eyes to wider ideas about what accessibility means. It was the beginning of a learning journey.

"We also held a workshop with key staff, Be. Lab, and about a dozen people with access needs. We wanted to know how they sought information and what expectations they had on venues to support their needs. We went on a walk with them and prepared ourselves to be open and responsive to criticism because we knew it would come."

The upshot was some immediate improvements that Be. Lab described as "easy-to-implement but big-impact".

Visitor centre services were seen as the place to start. Visitor guides were translated into multiple languages and activities were created for accessible audiences. This included running a 'Dinosaurs in the Gardens' session for kids with autism and learning difficulties, and guided walks for the blind during the biennial Sculpture in the Gardens exhibition.

Micheline says they even held a couple of gardening workshops for a garden club consisting of people who had visual impairments or were blind. "It was a great challenge for our staff to offer advice and support for growing microgreens and identifying weeds. The staff had to put themselves in their shoes."

The garden's car parking and signage were also improved for accessibility and free use of wheelchairs, scooters and electric wheelchairs were introduced to the visitor offering.

It also became clear from the workshop that digital offerings were an area where accessibility could be improved and promoted.

Initial improvements occurred, however, Micheline says in the following years and with budget challenges and staff changes the accessibility drive did start to lose direction.

Micheline says she realised Auckland Botanic Gardens needed to make the relationship with Be. Lab more of an ongoing partnership that permanently affects the way staff think about accessibility needs.

"An all-staff workshop with Be. Lab that opened eyes to wider ideas about what accessibility means. It was the beginning of a learning journey." Micheline Newton





Left and above: Visually impaired tour of the sculpture

"Being a truly accessible organisation is about learning, growing and collaborating with the access community and organisations like Be. Lab"

Lauren Wetini

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Another workshop was held in 2021 that bore fruit in a few new projects that suggests a permanent shift in thinking about accessibility. Following the workshop staff were challenged to think about their area of work and how they could make a positive change towards servicing accessible needs whether it was their approach towards accessibility or a specific project.

"We realised a cultural change towards accessibility would provide more positive changes, so ongoing staff development is really important. We introduced accessibility as a key part of project design and discussion at the beginning of a project rather than an add on at the end," says Micheline.

When the Edible Garden curator Angela Anstis needed to rebuild some raised garden beds she suggested making them at different heights for different users. Be. Lab were approached regarding their advice on developing garden beds for those with access needs. They provided ideas, examples and height suggestions resulting in one bed at wheelchair height, another for gardeners who prefer to stand and a third that could be used while sitting on the edge of the raised bed. The design dimensions for each garden bed were included on an accompanying sign so visitors could build their own versions at home.

The amenities and capital projects team were also thinking more about accessibility. New drinking fountains were designed for easy access by wheelchair. Guidelines for positioning of plants along paths to avoid trip hazards from overarching leaves such as harakeke was reiterated.

"Our team are more energised and actively seek out positive examples of accessible and inclusive experiences. They no longer see accessibility as an add-on, but part of their everyday. Accessibility is becoming business-as-usual."

Be. Lab's Accessibility Programme Lead Lauren Wetini says it's not about simply ticking boxes and suddenly becoming accessibility experts. "Being a truly accessible organisation is about learning, growing and collaborating with the access community and organisations like Be. Lab." The relationship between Be. Lab and Auckland Botanic Gardens is at the heart of making the gardens accessible focused and friendly, she says. "We love our partnership with the Auckland Botanic Gardens. It's a prime example of how we would like to work with businesses and organisations across Aotearoa/New Zealand on their accessibility journeys. We're excited to see what the future holds." And Auckland Botanic Gardens hope its experience can be useful to others too.

"As we are part of a bigger organisation, namely Auckland Council, we hope that we can become a leader in accessibility and help other parts of the council to adopt and build on what we have learned," says Micheline.

The work continues with improvements to the Auckland Botanic Gardens website and general digital space as well as better wayfinding and interpretation.

About Auckland Botanic Gardens

Auckland Botanic Gardens opened in 1982 and has grown into a spectacular south Pacific Garden. It has over 1 million visitors a year and is set within 64 hectares of grounds. The gardens have a focus on educating people about plants for their own gardens, on wellbeing, as well the traditional botanic garden roles of research and conservation.

"We realised a cultural change towards accessibility would provide more positive changes" Micheline Newton



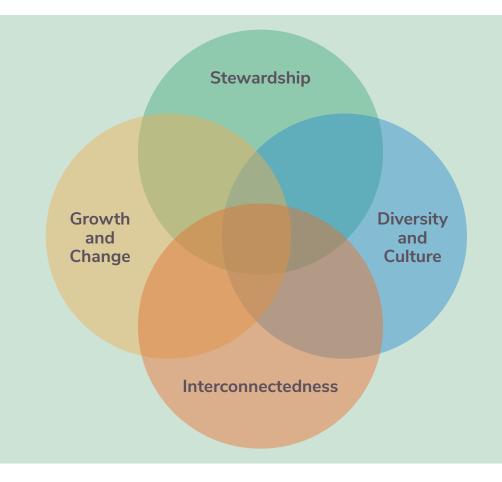


Wide accessible main path

"Our team are more energised and actively seek out positive examples of accessible and inclusive experiences"

AUTHOR

Greg Meylan
Auckland Botanic Gardens
gregmeylan@aucklandcouncil.govt.nz



A GARDEN MADE FOR YOU

Left: Interpretive themes ensure human connections

Background

rom its opening in 1972, the Chicago Botanic Garden aspired to be a resource for connecting all people with nature (Maloney, 2015). In practice, attracting an audience that reflects the ethnic and cultural diversity of the Chicago region has proved challenging. In this challenge, the Chicago Botanic Garden is not alone. Botanic gardens historically have been places for the wealthy, with collections commonly created by exploitation and extraction of plant materials with no compensation to local communities. This history plays out in the assumptions that define our narratives about horticulture, nature, science, and our organizations. Coupled with the desire and need to attract audiences traditionally marginalized by museums, including a diversity of voices in the stories we tell is critical. If our narratives are to authentically include non-dominant voices, we need a new approach to generating content and experiences and dialoging with our (potential) audiences.

In 2021, with support from the U.S. Institute of Museum and Library Services, the Chicago Botanic Garden undertook the creation of a new interpretive framework grounded in equity, diversity, inclusion, and accessibility to guide what stories we choose to tell and how we tell them. Our goal is to become A Garden Made for You, a garden that is welcoming, meaningful, relevant, and joyful for you...and you...and you – whoever you are, however you arrive, whatever your needs, interests, or identities.

What's an interpretive framework and why have one?

Interpretation at its core is storytelling. The stories we tell have the power to enrich the visitor experience, communicate our work, create dialogue, and connect with visitors culturally, emotionally, intellectually, and socially. They also, if done without consideration, have the potential to alienate, offend, disparage—to cause harm.

Our goal is to become A Garden Made for You, a garden that is welcoming, meaningful, relevant, and joyful for you...and you...and you – whoever you are, however you arrive, whatever your needs, interests, or identities.

A Garden Made for You aims to... embody a commitment to telling complete stories that represent the multiple cultures and the diversity of the lived experiences of our audiences.

Understanding our desired audiences was crucial.

An interpretive framework is a roadmap for storytelling and visitor engagement that highlights the work of the organization in ways that are engaging, relevant, accessible, and complete. It is not a master plan, but rather a set of guidelines and practices that lay the groundwork for the what, where, and how included in a master plan. A Garden Made for You aims to provide a holistic approach to storytelling, consistency in how we engage audiences with our mission and work, and a commitment to telling complete stories that represent the multiple cultures and the diversity of the lived experiences of our audiences.

Creating an interpretive framework

Over the past two years, the Chicago Botanic Garden has dedicated time and resources to evaluating its assets, processes, and policies to enhance the equitability, diversity, inclusivity, and accessibility (EDIA) of its internal and external culture. Creating A Garden Made for You is part of that larger vision. This vision requires staff buy-in and significant changes in work processes. It also requires involving community—through individuals and organizations—so that we design of/by, and not just for. Our newly formed Community Advisory Group is the first step towards intentional community inclusion.

A Garden Made for You is intended to be a toolkit used Garden-wide by departments as diverse as public programs, development, communications, science, and visitor operations. Therefore, the planning team of 25 represented different departments, expertise, and levels of seniority. Consultants from Northwestern University with expertise in equity-based organizational change and informal science learning provided training on basic EDIA concepts and their incarnations in the museum world: colonialism, decolonization, centering marginalized voices, and acknowledging and respecting lived experiences.

We chose to create our framework draft internally—without a formed Community Advisory Group—so that we could promote staff buy-in and so that we would have something for our community partners to respond to with feedback.

Led by the Interpretation and EDIA teams, phase two included benchmarking frameworks from other museums to understand what the Chicago Botanic Garden did, and did not, want in our own. Four components were identified and used to form working groups: Key Themes and Messages, Storytelling, Audience, and Implementation. The Key Themes and Messages team used organizational documents (mission, strategic plan) to identify themes that illustrate basic human considerations: care/stewardship, interconnectedness, diversity/culture, and growth/change. They also identified key messages connected to our work intended to evolve over time. The Storytelling team developed principles to ensure that the stories we tell are accessible, relatable, complete, and accurate and have a consistent tone and voice across our communications. They include centering equity in voice and story choice, using the of/by/for model, humancentered entry-points, and telling complete stories, even when they are uncomfortable.

Understanding our desired audiences was crucial. To supplement existing research on our visitors and members, we commissioned a companion study focusing on those who were not visiting. Our research audience included those who had psychographic profiles similar to our existing audience – affinity for nature, participate in nature-based activities – but who were from groups underrepresented in our audience: Black, Latinx, lower income, Chicago residents (U.S. Census, 2021). Finally, the Implementation team was tasked with developing support tools for staff who would use A Garden Made for You, and metrics for success to evaluate our progress. After soliciting comments from the entire team on each component, the Interpretation team created a draft that was shared back with the planning team for feedback.

All life on Earth depends on plants

Themes
Interconnectednes; Stewardship

MESSAGE 2

MESSAGE

A sustainable planet depends on plant and human diversity

Themes
Interconnectedness; Stewardship;
Diversity and Culture

MESSAGE 3

Plants and humans are connected

Themes
Interconnectedness; Stewardship;
Diversity and Culture;
Growth and Change

MESSAGE 4

Growth and change are constant in nature

Themes Interconnectedness; Growth and Change

MESSAGE!

Who we are informs how we connect with and perceive nature

ThemesDiversity and Culture; Stewardship

Key messages grounded in the work

Use universal. Highlight the Garden's Design for equity science, horticulture, human-centred using the of/by/for and education entry points model Use inclusive Adhere to the and accessible strictest standards Tell complete stories methodologies of accuracy and practices Center equity Illustrate the breadth Use a personal in voice and of Garden people, tone and story choice places, and activities engagement style

You can't do it alone

With a draft approved by executive leadership and the President and CEO, we began work with our Community Advisory Group in September of 2022. The group is comprised of ten individuals from organizations that represent communities underrepresented in the Chicago Botanic Garden's current visitor base: Black, Latinx, Native American, and people with disabilities. Our IMLS grant allows us to compensate those representatives for their time and expertise. In our initial meetings, they provided feedback on A Garden Made for You that has allowed us to improve our approach. Going forward, funding from IMLS is supporting the development of three visitor experiences co-developed with community partners. This offers a "test and learn" cycle where the interpretive framework will inform the work, and with the guidance of our community partners, the work process(es) and product(s), what works and what doesn't, will be used to improve A Garden Made for You. They have many questions about physical and programmatic accessibility, which has spurred a separate initiative to carry out an accessibility audit and address those issues directly in 2024.

What's next?

We are using the tools in A Garden Made for You in Interpretation and Public Programs to ensure that as we develop programs, exhibitions, and events the decisions we make and the stories we tell are grounded in equity, inclusion, and accessibility. Short term, this has meant committing to moving towards bi-lingual English-Spanish signage, updating signage to tell complete stories, and including community voices in the development of interpretation themes and stories. 2023 will include training for staff and volunteers responsible for creating and delivering content. The goal is to provide a concrete understanding of how A Garden Made for You plays out in staffs' work and tools that support its successful application.

We have a long way to go, but we are seeing positive change in how we collaborate with partner communities and how those partnerships are instructing the Chicago Botanic Garden in the ways we can become a more welcoming and accessible place for all.

Storytelling guidelines help ensure equity stays centered

Interpretation at its core is storytelling. The stories we tell have the power to enrich the visitor experience.

REFERENCES

Maloney, C. J. (2015). Chicago and Its Botanic Garden: The Chicago Horticultural Society at 125. Evanston, Illinois: Northwestern University Press: Chicago Botanic Garden

U.S. Census Bureau, (2021). American Community Survey 1-year estimates. Retrieved from Census Reporter Profile page for Chicago-Naperville-Elgin, IL-IN-WI Metro Area http://censusreporter.org/profiles/31000US16980-chicago-naperville-elgin-il-in-wi-metro-area/

AUTHORS

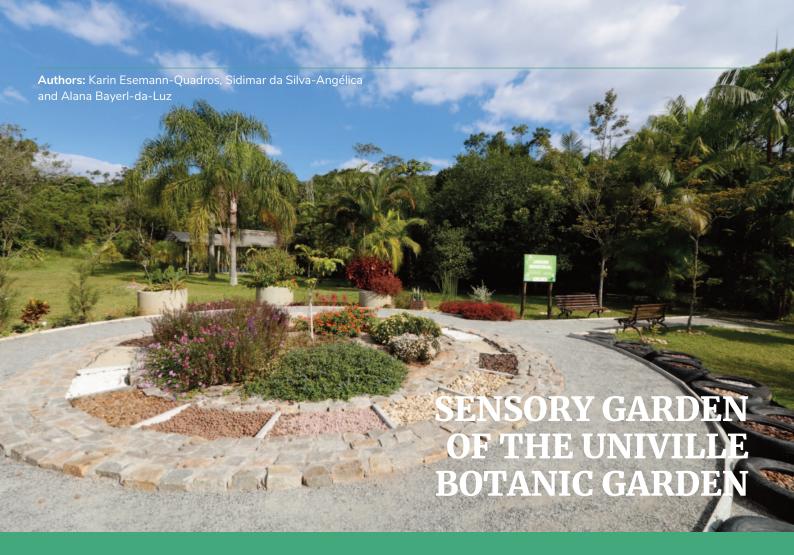
Jennifer Schwarz Ph.D. Vice President, Learning and Public Programs jschwarz@chicagobotanic.org +1-847-835-6832

Beatriz Canas Director of EDIA bcanas@chicagobotanic.org

Elory Rozner Director of Interpretation erozner@chicagobotanic.org

Kristie Webber Manager of Interpretation kwebber@chicagobotanic.org

Chicago Botanic Garden



The Sensory Garden was built in the Botanical Garden of UNIVILLE, in 2022, being another important attraction for visitors, a place to admire the beauty of plants, to transmit knowledge about them and practice environmental education. It was made possible through the support of BGCl's Global Botanic Garden Fund.

he UNIVILLE Botanic Garden, created in 2007, is linked to the University of the Region of Joinville, Santa Catarina State, Brazil. In addition to maintaining various botanical collections and promoting scientific research, environmental education actions are developed, in partnership with the Trilhas programme, serving University students and the external public, including children, the elderly and people with disabilities.

To boost environmental education activities, the Sensory Garden was designed, in an area of approximately 400 square metres, with the following objectives:

- Set up flowerbeds, suspended and non-suspended, of different formats for planting species of aromatic plants, with different textures, colours and shapes;
- Create walkways between the beds with various types of substrate, such as grass, sand, gravel, leaves, stones, tree bark, etc;
- Alternate the planting of different species in the beds throughout the year, according to their specificities in relation to the climate;
- Install information boards of different sizes, with text also in Braille, to guide visitors:
- Train a team of guides to develop environmental education activities in the Sensory Garden and register the reactions of the public;
- Disseminate results in publicly accessible journals and at scientific events.



Above: Men working on the construction of the Sensory Garden (Karin Esemann-Quadros, Sidimar da Silva-Angélica, Alana Bayerl-da-Luz) Top: General views of the finished Sensory Garden (Leandro Moreira)

The Sensory Garden is an important place to develop environmental education in the UNIVILLE Botanic Garden.



All objectives are related to the following strategic targets for biodiversity conservation 2011-2020 (The Strategic Plan for Biodiversity 2011-2020):

- Target 3 Information, research and associated results, and methods needed to implement the developed and shared Strategy: disclosure of information about the plants of the Sensory Garden, the results of research carried out in the Botanic Garden, made available to visitors and made public through publication in journals and/or scientific events.
- Target 14 The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programs: with the creation of the Sensory Garden, several environmental education activities can be carried out at the Botanic Garden, giving visitors the opportunity to learn about different species of plants for food, medicine, ornamental use, etc., raising awareness about their importance, their cultivation, proper uses, care and need for preservation.
- Target 15 The number of trained personnel working with appropriate and sufficient facilities, in line with national needs, to achieve the targets of this Strategy: training will be carried out with the Botanic Garden team, expanding the level of knowledge to carry out environmental education activities linked to the Sensory Garden, to adequately serve visitors.
- Target 16 Institutions, networks and partnerships for plant conservation established
 or strengthened at national, regional and international levels to achieve the targets
 of this Strategy: network actions will be implemented with other Botanic Gardens
 that maintain Sensory Gardens, aiming to develop activities in partnership, increasing
 the chances of success in research and species conservation actions, encouraging
 the exchange of experiences and genetic material.

Once the design of the Sensory Garden was confirmed, a proposal was submitted to BGCl's Global Botanic Garden Fund (in 2021). The project was approved and the amount of US\$2,500.00 was received and invested in the construction of the Garden during 2022.

The Sensory Garden was built from a mandala that already existed in the Botanic Garden. The circumference was expanded, with the introduction of a walkway, accessible for wheelchair users. Outside the walkway, a flowerbed was built, with different flowering and colourful leaved species. Six concrete tubes were inserted along the outside bed, in which species with different textures and aromas were planted, including medicinal and food plants (spices). These tubes are higher, allowing easier access for visitors.

Entrance to the UNIVILLE Botanic Garden (Karin Esemann-Quadros, Sidimar da Silva-Angélica, Alana Bayerl-da-Luz)

The objectives of the Sensory Garden are related to the Strategic Plan for Biodiversity 2011–2020.

A tactile floor with substrates such as grass, sand, gravel, stones, tree bark, permeates the flowerbeds.



Blindfolded visitors at the Sensory Garden of the UNIVILLE Botanic Garden in December 2022 (Karin Esemann-Quadros, Sidimar da Silva-Angélica, Alana Bayerlda-Luz)

Inside the walkway, a tactile floor was installed, with 16 sectors containing different substrates, such as sand (various granulometries), gravel (of different sizes and colours), stones, expanded clay and tree bark. The same substrates were also used to fill 14 tyres, which give continuity to the external flowerbed.

The circular flowerbed inside the tactile floor showcases species with colourful flowers in a rainbow sequence. In the centre of the Sensory Garden, a round flowerbed displays colourful flowers and a young Pau-Brasil (Paubrasilia echinata – Fabaceae), symbol tree of Brazil (IBF, 2023).

People can visit the Garden and have sensory experiences (visual, touch, smell, taste), in addition to learning about different species of plants with their specific characteristics. They can feel the different textures, aromas and flavours. The Sensory Garden offers multiple possibilities for environmental education, enhanced by the other attractions of the Botanic Garden.

Groups interested in visiting the Sensory Garden should contact the University's Visit Program to schedule a visit. Due to the ease of access, the Garden can be visited by people with motor difficulties and also with visual impairments, as the Botanic Garden team is available to assist those in need.

People who have already visited the Garden have reported their enchantment with the sensory experience. The children had fun with the tactile floor, especially the tyres. They also enjoyed experiencing the taste and smell of the leaves of certain species, as well as feeling the texture of cacti, equisetum and other species with trichomes, thorns, etc.

As a multidisciplinary laboratory for teaching, research and extension activities, the Botanic Garden at UNIVILLE fulfils its function of housing collections of living plants to preserve biodiversity in situ and ex situ, of being a space for carrying out scientific research by teachers and students of the University and to serve the community with activities of environmental education, leisure and contemplation. Despite its 15 years of existence, it is still a young Botanic Garden, with multiple possibilities for growth and improvement in its structure to become a reference in Joinville and Santa Catarina (Esemann-Quadros and Hering-Rinnert, 2022).





Botanic Garden team working on the Sensory Garden (Karin Esemann-Quadros, Sidimar da Silva-Angélica, Alana Bayerlda-Luz)

REFERENCES

Esemann-Quadros, K. and Hering-Rinnert, C., (2022). O Jardim Botânico da Univille: uma história de 15 anos! Acta Biológica Catarinense. 9(4), 4–25. Available at doi: 10.21726/abc.v9i4.1915

IBF. Instituto Brasileiro de Florestas (2023). Árvore Pau-Brasil: história e curiosidades que você não conhece! [Access at 2023-05-05]. Available at em: https://www.ibflorestas.org.br/conteudo/arvore-pau-brasil

The Strategic Plan for Biodiversity 2011-2020. [Access at 2023-05-05]. Available at https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf

AUTHOR

Karin Esemann-Quadros e-mail: karinesemann@gmail.com or karin.esemann@univille.br +55 47 99103-9282

Sidimar da Silva-Angélica Alana Bayerl-da-Luz

UNIVILLE - University of Joinville Region, Joinville. Santa Catarina State, Brazil

Blindfolded visitors feeling the tactile floor at the Sensory Garden of the UNIVILLE Botanic Garden in December 2022 (Karin Esemann-Quadros, Sidimar da Silva-Angélica, Alana Bayerl-da-Luz)



The education team of the Royal Botanical Garden-CSIC (RJB-CSIC) in Madrid (Spain), in collaboration with the Spanish Foundation for Science and Technology (FECYT) - Ministry of Science and Innovation, is launching the Accessible Garden project with the aim of promoting diversity and inclusion in the field of science communication through actions that aim to open the RJB-CSIC to the whole of society.

he RJB-CSIC has extensive experience in botanic education and science communication. Over many years of work, it has developed a multitude of programmes, projects and actions aimed at bringing the world of plants closer to the public. However, in the educational team, we observed that there was limited participation of vulnerable groups or those at risk of social exclusion in the different proposals. For this reason, it was decided to propose the Accessible Garden project. It aims to transform the institution in order to open the RJB-CSIC to the whole of society, regardless of their abilities or difficulties, in line with several of the Sustainable Development Goals set out by the United Nations, which refer to the right to education, knowledge and access to and enjoyment of green spaces for all people, regardless of their condition.

Above: Families with children with autism working in a workshop (Irene Fernández de Tejada de Garay)

This project aims to transform the institution in order to open the RJB-CSIC to the whole of society, regardless of their abilities or difficulties. The project is structured in several actions that address inclusion and accessibility from different points of view. On the one hand, at the level of spatial orientation and understanding of the environment, there are actions that aim to bring botanical science closer to any type of person regardless of their cognitive level. On the other hand, with interventions at a socio-cultural level, there are actions that allow highly vulnerable groups at risk of social exclusion to participate in our educational programmes.

These two approaches aim to increase the scientific culture of society as a whole and to bring this unique space closer to everyone. These actions have diversity at their core, seeking inclusion in all actions, and providing a space that is useful and enjoyable for all.

In this sense, the following specific objectives are proposed:

- 1. To facilitate the participation of audiences with cognitive developmental deficits in our regular science outreach programme through the adaptation of materials and content, as well as their presentation.
- 2. To collaborate with associations, entities and families for the development of adapted and innovative programmes for the attention of diverse audiences.
- 3. To attend to vulnerable groups or those at risk of social exclusion through free activities that allow them to participate in our programmes.
- 4. To seek alternative ways of communicating botanical science such as artistic expression.

As an added value, throughout the development of the project, we count on the collaboration of different associations, collectives and entities that work with people with intellectual disabilities, people with Autism Spectrum Disorder or vulnerable groups at risk of social exclusion, involving them in the processes of design, co-creation and validation of the different actions.

The project proposes six lines of action:

ACTION 1: Creation of a **sensory and easy-to-read itinerary** in which the most representative spaces of the Garden can be visited. With the development of an accessible map and panels that invite interaction with the environment, validated by people with intellectual disabilities.





Example of a panel written in easy-toread language of the itinerary "The Garden through the senses" (Irene Fernández de Tejada de Garay)



Exploring the garden in an activity aimed at vulnerable groups (Alejandro Flores Casla)



Collaborative mural made by people with and without disabilities in an inclusive workshop and painted with plants (Mireia Samay Díaz Amate)



ACTION 2: Implementation of specific measures for the inclusion of people with Autism Spectrum Disorder (ASD), especially children, in our outreach programmes. To ensure their inclusion in our regular activities, we have worked from three perspectives:

- 1) With families: through the Empower Parents RJB programme, a cultural mediation project in collaboration with the Empower Parents Association and the ICO Foundation, which works with families with children with ASD in the creation, design and validation of activities, as well as in family empowerment and the habituation of the children themselves to the space, over 9 months.
- 2) With educational centres: through the development of adapted materials that facilitate the work of anticipating the activities to be carried out in the garden, allowing the participation of children with ASD along with the rest of their classmates.
- 3) With the RJB-CSIC itself: through different trainings for the staff, as well as the elaboration of internal support documents to facilitate the reception of this group.

ACTION 3: Production of a **cognitively accessible guide** to the Royal Botanic Garden, written in easy-to-read language, with an accessible map and all the necessary information so that anyone, regardless of their cognitive level, can visit the Garden. It can be downloaded free of charge from our website or requested on paper at the ticket office.

ACTION 4: We have worked on **web accessibility** with the creation of a direct access, accessible to people with intellectual disabilities, which leads to a space on the RJB-CSIC website where all of the practical information necessary to visit the garden can be found written in an easy reading format. Here there is also a repository of resources on accessibility available for teachers, families and the general public. It also provides information on the specific inclusive programmes available and how to participate in them.

ACTION 5: Launch of the free inclusive science programme "A Garden for All", which is carried out in collaboration with the Society of Friends of the RJB and the FECYT. Its main objective is to promote access to scientific culture, facilitating attendance and participation in guided tours and workshops on botany for disadvantaged groups of people or those at risk of social exclusion who would have difficulty in affording these activities otherwise. These activities are not only for educational centres but also aimed at other institutions, associations and foundations what work with disadvantaged groups, such as immigrants, women victims of gender violence, prisoners, homeless people or people with disabilities, among others.

ACTION 6: Development of a **scientific-artistic activity** in which the aim is to combine science and art in a single experience, working on different aspects of botany and sustainable development through artistic expression. The workshop **"Expressing botany"** is designed for different age groups and is aimed at the general public, but it is especially adapted for people with intellectual disabilities, so that anyone can participate in it, regardless of their ability and cognitive level, offering real inclusion.

Sensory itinerary installed in the Royal Botanical Garden (CSIC) in Madrid (Irene Fernández de Tejada de Garay)



People with intellectual disabilities painting with plants (Mireia Samay Díaz Amate)



Materials used in the workshop "Expressing botany" (Mireia Samay Díaz Amate)

AUTHOR

Irene Fernández de Tejada de Garay Real Jardín Botánico, CSIC Plaza de Murillo, 2 28014, Madrid (Spain) TLF. +34 91 420 30 17 EXT. 435799 iftejada@rjb.csic.es www.rjb.csic.es

A project of



In collaboration with



IDEA CENTER FOR PUBLIC GARDENS, AN INITIATIVE OF DENVER BOTANIC GARDENS AND THE AMERICAN PUBLIC GARDENS ASSOCIATION

The IDEA Center for Public Gardens is a call to action. Be curious. Be uncomfortable. Be courageous. Be the extraordinary mosaic of people we are and celebrate human diversity. There is a lot going on in the world that makes IDEA efforts feel overwhelming. But does it have to be?

ublic gardens can serve communities in more meaningful and impactful ways than ever before, for the benefit of all. We can contribute more authentically and do better as we develop greater awareness of systemic inequities, without abandoning or shaming our historical identity and legacies. We can do our part to create a more just society and uplift communities around us. "For the benefit of all" is an opportunity to reflect on the relevance of what we do in our communities and how we approach it. Whose voices are reflected in our missions? Who has access to and benefits from what we have to offer? Who does success matter to the most? These are important questions to dig into as organizations pursue IDEA (Inclusion Diversity Equity Accessibility) initiatives – understanding the "why" to avoid harmful acts of tokenization and/or extracting from underrepresented groups (versus mutually beneficial relationships), despite our good intentions.

The relevance and sustainability of public gardens is dependent on our ability to learn about barriers to inclusivity and create a sense of belonging for those we seek to benefit and learn from them. The IDEA Center for Public Gardens is here to help.

The Center was launched in January 2022 as a partnership between Denver Botanic Gardens and the American Public Gardens Association to empower public gardens to prioritize and champion diversity and inclusion initiatives within our industries and beyond. The Center is incubated at Denver Botanic Gardens, which is providing operational funding. Services are supported by an IMLS grant through 2024 (IMLS #MG-249862-OMS-21). The Association provides the essential link between public gardens and the Center, building upon the Association's already significant resource materials and training opportunities. The initiative was created to inspire IDEA initiatives among public gardens and offer intensive peer-to-peer cohorts to develop next practices as all cultural institutions strive to be more inclusive and relevant.

The goals of the Center in its first year included a needs assessment and the launching of an annual cohort program. The needs assessment sought to understand where organizations are in their journey, what they are prioritizing, and get better clarity of barriers and challenges to the embodiment of IDEA principles. Additionally, facilitators asked what would make the journey joyful and uplifting. The Needs Assessment Summary Report is available on the Center's website. The inaugural cohort program was launched as a pilot in May 2022 and aimed to design a program to help garden leadership prioritize IDEA work, build greater fluency and competency in IDEA principles, and create a community of shared experiences and stories that help to support growth and change. Program participants included board members, executive garden leadership, and staff from over twenty public gardens, arboreta and parks across the United States and Canada:



Pilot cohort program participants

We can do our part to create a more just society and uplift communities around us.

The Center was launched to empower public gardens to prioritize and champion diversity and inclusion initiatives within our industries and beyond.



IDEA Center website

- ABQ BioPark (Albuquerque, New Mexico)
- Bloedel Reserve (Bainbridge Island, WA)
- Charleston Parks Conservancy (Charleston, South Carolina)
- Fort Worth Botanic Garden and Botanical Research Institute of Texas (Fort Worth, Texas)
- Franklin Park Conservatory and Botanical Gardens (Columbus, Ohio)
- The Gardens on Spring Creek (Fort Collins, Colorado)
- Greater Des Moines Botanical Garden (Des Moines, Iowa)
- Matthaei Botanic Garden and Nichols Arboretum (Ann Arbor, Michigan)
- Minnesota Landscape Arboretum (Chaska, Minnesota)
- Mt. Cuba Center (Hockessin, Delaware)
- Naples Botanical Garden (Naples, Florida)
- Native Plant Trust (Framingham, Massachusetts)
- New England Botanic Garden at Tower Hill (Boylston, Massachusetts)
- Pittsburgh Botanic Garden (Pittsburgh, Pennsylvania)
- San Antonio Botanic Garden (San Antonio, Texas)
- San Diego Botanic Garden (San Diego, California)
- Smithsonian Gardens (Washington DC)
- Toronto Botanical Garden (Toronto, Canada)
- Vancouver Botanical Gardens Association (Vancouver, British Columbia, Canada)
- Zilker Botanical Garden Conservancy (Austin, Texas)

The Center recognizes the leadership and diversity of the organizations who participated in the year-long pilot and embarked on a journey of learning, discovery, and growth together to develop this unique program. In May 2023, the Center kicked off our second-year program, which includes Royal Botanic Garden Edinburgh – our first organization participating from the UK: (one take-away from the pilot was the desire for a smaller cohort for greater comfort and in-depth conversations!)

- Descanso Gardens (La Canada Flintridge, CA)
- Elizabeth F Gamble Garden (Palo Alto, CA)
- Friends of Lasdon Park and Arboretum (Katonah, NY)
- Ithaca Children's Garden (Ithaca, NY)
- Jenkins Arboretum & Gardens (Devon, PA)
- Madison Square Park Conservancy (NY, NY)
- Phipps Conservatory and Botanical Gardens (Pittsburgh, PA)
- Ruth Bancroft Garden and Nursery (Walnut Creek, CA)
- Santa Barbara Botanic Gardens (Santa Barbara, CA)
- Wellesley College Botanic Gardens (Wellesley, MA)

The cohort program involves meeting monthly for topically driven discussions, facilitated by experts and instructors familiar with the dynamic nature of public gardens, and implementing an IDEA related project during the program. As organizations graduate from the program, needs are being identified to continue supporting their journey, such as, continuing education workshops, panel discussions for boards and executive leaders, and broader institutional education opportunities for staff and volunteers. Additional goals of the Center include the development of alliances and partnerships to create collaborative unity, and opportunities to create connections to share stories and strengthen our community of gardens. In short, our journey is just beginning and there is much more to come.

Brian Vogt, Denver Botanic Gardens CEO, says "We began our IDEA journey over a decade ago with clear intention: to create gardens and experiences for all people." He adds, "The deeper our work, the more joyful it became. We know this isn't a project with an end date. It's something profound that changes a culture, outcomes, approaches and worldview."



Pilot cohort program participants

The cohort program involves meeting monthly for topically driven discussions, facilitated by experts and instructors familiar with the dynamic nature of public gardens, and implementing an IDEA related project during the program.

What would make the journey joyful and uplifting?

Approaching this work with an open heart; if more people could do that, it would be nore joyful." – Listening Session Participant

The way in which IDEA is positioned within their organizations (e.g. a mission-focused commitment or ethical imperative, rather than reactive or performative) affects how people approach and engage with the work.

Part of the IDEA approach, image from the website

The deeper our work, the more joyful it became. **Brian Vogt**

AUTHOR

Mae Lin Plummer IDEA Center for Public Gardens An initiative of Denver Botanic Gardens and the American Public Gardens Association

maelin.plummer@botanicgardens.org www.ideacenterforpublicgardens.org

RESOURCES

1. American Public Gardens Association - Creating a More Diverse, Equitable, and Inclusive Garden

This workshop was developed so that any garden can adapt the activities based on their particular needs and resources, resulting in manageable action steps towards becoming more diverse and inclusive.

https://www.publicgardens.org/resources/creating-more-diverse-equitable-and-inclusive-garden

2. UNICEF - Toolkit on accessibility

"Tools to apply universal design across premises and programs and promote access" was developed to support UNICEF programmes and operations to become more accessible for all.

https://accessibilitytoolkit.unicef.org/toolkit-accessibility

3. Museums Libraries Archives - Access for all toolkit

The toolkit aims to help museums, libraries and archives make access for everyone an essential part of their culture and practice. It is a self-assessment tool promoting access for all; and enables the sector to audit good practice and identify areas for improvement. It underpins the Inspiring Learning for All framework.

https://collectionstrust.org.uk/resource/access-for-all-toolkit/

4. Sustain - Growing connections

This guide outlines the principles to age-friendly and inclusive volunteering, shares best practice and provides a tool to self-review community food projects' inclusivity.

https://www.sustainweb.org/reports/growingconnections/

5. Sensory Trust - Sensory gardens design guide

Sensory gardens are an opportunity to put a focus on sensory experience. This guidance outlines key steps involved in designing a sensory garden.

https://www.sensorytrust.org.uk/resources/guidance/sensory-gardens-design-guide











CONTRIBUTE TO THE NEXT ISSUE OF ROOTS

The next issue of Roots will focus on nature and the role that gardens play in connecting visitors with plants, biodiversity and nature. Now more than ever our planet and our wildlife are in crisis. Global challenges such as climate change, biodiversity loss and habitat degradation are having a huge impact on nature. There is a lot of information out there about what is happening and what we all need to do to play our part. But this can often be overwhelming and scary. At the heart of these messages however is the fundamental connection that we as humans share with nature. If



we can feel more connected with and love nature, then making the right choices to care for our planet is a natural next step. Botanic gardens are essential to that message and have a role to play in connecting visitors with nature. But how do we do it? What is the best way of going about it, are there strategies, tools and messaging that we can use as a community to strengthen our progress?

We are currently looking for a variety of articles on this important topic. To contribute, please send a 100 word abstract to **helen.miller@bgci.org** by 15th July 2023

BGCI'S ONLINE TRAINING PLATFORM

BGCI's online training platform provides online training courses for BGCI members and other interested individuals. The platform, allows the creation of a range of interactive content with resources designed to complement BGCI's existing face-to-face training courses, projects and publications. Current courses include an Introduction to Interpretation and an Introduction to Evaluation, as well as a suite of foundation courses for botanic garden management called Botanic Garden Basics.

Visit: www.training.bgci.org

Modules include:
Defining a botanic garden
Masterplanning
Policy (linking to)
Introduction to interpretation
Introduction to evaluation
Scaling up biodiverse forests
Applying for a
Global Botanic Garden Fund Grant
Introduction to seed conservation



BGCI WEBINARS

BGCI is pleased to host the BGCI Webinar Series. This Series shares knowledge, ideas, and updates with BGCI and its Members, Partners, Donors, and Supporters around the world.

The webinars cover a range of subjects aligning with our strategy and BGCI projects, this includes events on red listing, forest restoration, policy and education. All webinars are recorded.

Please visit: https://www.bgci.org/our-work/sharing-knowledge-and-resources/bgci-webinars/ for more information and to view past webinars



Descanso House, 199 Kew Road, Richmond, Surrey, TW9 3BW, U.K. Tel: +44 (0)20 8332 5953 E-mail: info@bgci.org Internet: www.bgci.org https://twitter.com/bgci

ROOTS

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GLOBAL BOTANIC GARDEN FUND 2023 NOW OPEN!

We are pleased to announce that BGCI's Global Botanic Garden Fund (GBGF) is now open for applications. The grants aim to drive plant conservation, sustainability efforts, and global partnerships with a focus on smaller botanic gardens and arboreta in developing countries and biodiversity hotspots.

The BGCI member fund aims to disburse 15-20 grants per year with each grant awarding up to USD 2,500. The BGCI Member Grants can help an institution to improve or support one or more of the vital areas across the botanic garden as defined by BGCI's Botanic Garden Accreditation.

Call for applications is open until 30 June.

For more information visit: https://www.bgci.org/our-work/sharing-knowledge-and-resources/global-botanic-garden-fund/

