Sensing Nature

Designing urban green space with sight impairment in mind

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Introduction

At the heart of sustainable, socially cohesive communities lies a commitment to equality and inclusion, and a respect for the varied ways in which people come to live and move through the world.

With growing awareness of the health and wellbeing benefits of time spent in nature, it is important that this commitment extends to the inclusive design and management of our everyday nature settings, from street trees to urban parks, gardens, woodlands and trails.

This short guide shares ten top tips for designing with sight impairment in mind, promoting access with dignity and ensuring everyone feels welcome and supported.

Too often we are preoccupied with the visual aesthetic of a place, and fail to notice more subtle, yet valuable opportunities to appeal to the wider senses.

By designing with sight impairment in mind, we can nurture more immersive, multisensory nature experiences, and better cater for the needs and priorities of people who engage with the world in more than visual ways.

Such efforts are increasingly important given our ageing populations, and the growing prevalence of underlying causes of sight loss, including obesity and diabetes. In the UK alone, the numbers of people with sight impairment are predicted to double to nearly four million by 2050.

This guide is informed by the findings of a two-year research project, “Sensing Nature”, which has examined how people with varying forms and severities of sight impairment describe and experience a sense of wellbeing (or otherwise) in diverse types of nature during their lives.

Funded by the Economic and Social Research Council, the overall aim of Sensing Nature has been to improve the way we understand, enable and promote more positive, inclusive multisensory nature experiences amongst adults with sight impairments, regardless of their life stage. This guide reflects on such opportunities in the context of more managed nature settings, such as urban parks, gardens, woodlands and trails.

Foreword

I am delighted to see this guide. It provides a rich collection of insights from the research and the personal perspectives shared by people living with sight impairment, taking the reader on a journey from principle to practical application. All credit to Sarah Bell for making such a valuable contribution to the literature, especially in highlighting and teasing out a subject area that is so often overlooked, even within the world of inclusive design.

Inclusive design makes places usable by everyone, regardless of age, ability and circumstance. It has become a worldwide movement as more people around the world see the benefits of the approach. At its heart is the simple principle that designing for the widest range of people creates better designs and benefits everyone. Great places, no costly retrofits and happy users.

Yet inclusive design has failed to fully embrace the challenges and opportunities that come from exploring the world from the perspective of visual impairment. For people living with visual impairments the impacts of poorly designed spaces are acutely felt and as the feedback in this guide reveal, people can feel a disillusioned sense of detachment and exclusion. This guide shows that we need to widen the focus from technical accessibility to thinking about quality of experience – the ingredients that make a place feel welcoming, comfortable and engaging. It demonstrates that harnessing the full range of sensory experiences is not just beneficial for visually impaired people, but for everyone.

This guide is essential reading for anyone interested in how we can make great places that work for the widest range of people. Understanding more about how we sense, interpret and relate to spaces will help designers and managers to improve environments for everyone.

This subject is at the heart of our work at the Sensory Trust and thanks to Sarah for highlighting this and giving us the opportunity to be involved in this important research. We look forward to more positive collaborations with the European Centre for Environment and Human Health and working together to improve understanding and practice for everyone.

Jane Stoneham - Director, Sensory Trust

Sensing Nature

The Sensing Nature project has been exploring how people with varying forms and severities of sight impairment describe and experience a sense of wellbeing (or otherwise) in diverse types of nature during their lives.

Our findings have important implications for how we understand, enable and promote more positive, inclusive multisensory nature experiences. In this guide, we focus on the role of inclusive design in supporting such experiences.

As noted by one of our participants,

> **"The built environment, bearing in mind it was built by human beings for human beings, is increasingly excluding blind and visually impaired people."**

Through producing this guide, we are keen to address this, ensuring this exclusion does not occur in the very environments that people often value for promoting a sense of connection, belonging and meaning; community 'green' and 'blue' spaces.

Conducted from February to December 2017, the Sensing Nature fieldwork comprised two overlapping research phases. Phase I involved volunteering with a range of activity groups around the country to build an initial awareness of people's diverse sensory worlds.

Rooted in these discussions, Phase 2 incorporated a series of in-depth interviews with 31 people in both rural and urban areas around the country, including:

- 15 men, 16 women;
- People aged from mid-20s to mid-80s;
- People living with a range of eye conditions – both congenital and acquired – and varying degrees of residual vision.

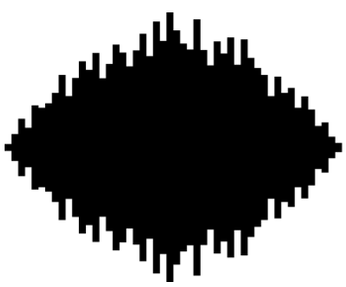
Of the 31 people who took part in Phase 2, everyone participated in an initial nature-themed interview. This examined what nature is to them, how they experience different types of nature during their everyday lives, how this has changed over time, and how they feel about existing efforts to facilitate inclusive multisensory nature encounters, based on their experiences both within the UK and beyond.

Twenty-five of the 31 participants took part in a second ‘go-along’ interview within a setting they valued for promoting access to nature. These ‘in situ’ interviews offered subtle insights into the strategies used to negotiate varied forms of nature. Settings included participant gardens, local residential road/path networks, urban parks, woodland, coastal and countryside areas.

Drawing on the understanding gained through these two phases, this short guide shares ten top tips for designing with sight impairment in mind.

Part 1 challenges a number of common misperceptions about sight impairment, nature and ‘access for all’. Part 2 outlines opportunities for promoting and sustaining meaningful nature access with dignity, ensuring everyone feels welcome, supported and engaged.

If you would like to learn more about the Sensing Nature project, do visit www.sensing-nature.com or contact the Lead Researcher, Dr Sarah Bell: Sarah.Bell@exeter.ac.uk.



SENSING
NATURE

Part 1 Challenging assumptions about sight impairment and nature

Plural worlds

Life with sight impairment is far from homogenous. How people experience the world can vary with different eye conditions, circumstances of onset and all the other things going on in their lives. What people see is unique to them and may shift over time.

Sight impairments can affect people's visual acuity (i.e. their ability to see fine detail) and/or their visual field (i.e. how much of an environment the eyes can take in without moving).

People may be 'severely sight impaired' with very little (if any) functional sight, or 'sight impaired' with some useful vision that can vary in different environmental conditions.

Some people may use mobility support in the form of long canes, sticks or guide dogs, some may prefer walking with friends or family, and others may be happy moving around without, at least in areas that are familiar to them when conditions allow.

The best way to understand how a particular site could be adapted is to organise 'in situ' accompanied walks with people with varying forms of sight impairment under different seasonal conditions. Ideally these walks should start from the nearest source of public transport to understand how people will get to and from – as well as around – the site.

By experiencing the setting together, designers and managers will better understand what different people are tuning into and why, and where alternative forms of interpretation and infrastructure are needed to support navigation, orientation and enjoyment of the site.

> "I appreciate that what I would like could well be different from the next blind person. And I'm very conscious that what visually impaired people like, and what people in wheelchairs like, sometimes are completely opposite. I remember years ago representing a visual impairment group and going to a forum of all disabilities and they were trying to get funds together to build a centre. And this man in a wheelchair said, 'Well of course, we want wide open spaces' and I said, "Uh excuse me, we want corridors! Wide open spaces that we've got to cross? No thank you!'"

Nature's views

Notions of the 'picturesque' have long captured the imagination of designers, writers and others in how we promote and experience nature. Nature walks are often routed along the most 'scenic' spots and benches placed at particularly appealing 'view' points.

The importance of the picturesque is not lost amongst people with sight impairment. For people with some degree of residual vision, a spectacular view in nature can be easier to engage with than the visual intricacies of a flower or insect. An appropriate description of a view can help with orientation in situ, and the use of poetry or other forms of writing can help to translate the emotions evoked by the view.

Elevated viewpoints are often accompanied by important non-visual sensations, particularly the sense of pleasure or perspective encountered through alternative qualities of air, sound and microclimate.

> "Partly it's freshness of air and the way that you tend to get bigger vistas than when it's flat... if I'm standing at the top of a hill, then it gives me, usually, more of an impression of the surrounding countryside than if I'm at the bottom – I mean that is a bit of a generalisation, but you know, broadly speaking, when you're up you've got a bigger perspective and that's true for both vision and sound."

Views, then, can still be important with sight impairment, for offering that sense of perspective, orientation, peace and 'time out', and therefore should still be made accessible – via appropriate path networks and interpretation – even if not the sole motivation for getting out into nature.

Beyond the sensory garden

A common solution to promoting inclusive access to nature is to designate specific areas of a nature setting as a 'sensory garden'. Early sensory gardens tended to be comprised of scented plants, Braille labels and raised planters. These gardens were often – somewhat problematically – referred to as 'gardens for the blind', and tended to reinforce experiences of segregation rather than encouraging more integrated opportunities to explore and engage with nature.

The legacy of these gardens was apparent amongst our participants:

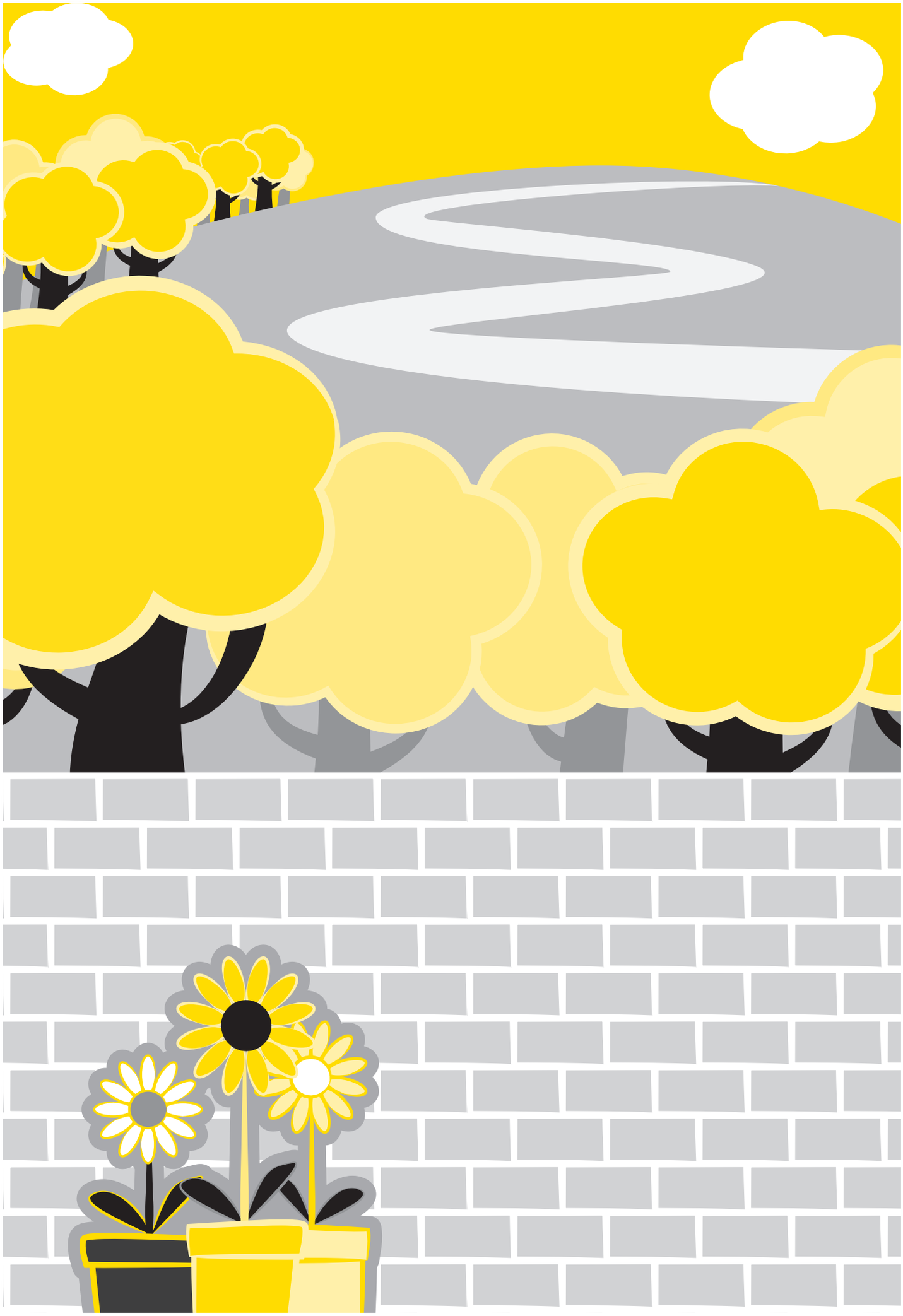
> "I've a slight pet hate for sensory gardens... because I think, by their nature, gardens are multi-sensory. So I don't really see a need to try and, in a way, artificially create that because that is really what environments and landscapes and gardens are. Whether it's designed and created in a more structured way or more free form, you should find all of that... There's a lot that you can be aware of, whether that is visually or by the sounds, or by the microclimate, or just the freshness of the air, or the soft cushion of pine needles that might be under your feet. It's the combination of all of those things that you're taking in."

These sentiments highlight the importance of promoting sensory design and sensory journeys more broadly, unlocking access to the full range of sensory pleasures available within urban parks, gardens, woodlands and the countryside.

As noted by several participants, the sense that is often overlooked when designing sensory gardens is the kinaesthetic sense; the opportunity to move, and to move freely and safely through a range of nature's habitats.

> "It's being able to move that I think is most enriching, and being able to move safely... One of the things that I like about the park near here is, it's got a number of different types of environments. And I think that's what needs to be considered. So you've got somewhere that is cool and dark and damp. But you've also got somewhere that is high and light and airy, and somewhere where you can hear water, but also somewhere where you've got really lofty trees. So it's variety really."

It is therefore important to think creatively about how best to unlock access to nature across a whole site, allowing people to tap into the same variety of habitats as visitors who are fully sighted. The Sensory Trust has produced a range of online resources to support more enriching sensory garden designs and trails for those with limited space to work within, but also to develop an overall theme of multi-sensory interest and immersion throughout a setting.



Designing for independent and shared experiences

People with sight impairment will not always be visiting a nature setting with others. When they do, they will still benefit from being able to 'read' and build familiarity to move through a site independently over time.

> "I think nature has become more important to me in some ways, now that I find it harder to get to it... because it's unnecessary that it's harder to get to, so it feels like an unnecessary separation. And an unfair separation... It's like, it should be more important to get us out into the wilderness, because we know that it's beneficial for health and happiness. So it should be more important that we get there, and yet you know that it's not. And that is really frustrating, because I know that I will feel better when I get outside. But it's just difficult to get outside, sometimes."

By ensuring that people with sight impairment can visit, navigate and connect to the sensory pleasures of a nature setting alone – through the installation of appropriate tactile, auditory, and clear-contrast visual information – the experiences of shared visits will also be enhanced.

> "I suppose it's looking at the idea of, either going around these places with someone that's guiding you – that would be one set of resources, to help you get the best out of that experience. And then, the other one is going around them on your own, and what resources are needed there, either from the environment itself, or that you bring, yourself, to the environment. Because it's very easy to explore with someone, or easier, but then again, you don't necessarily know what you're missing and you don't want the person you're with spending all day explaining things to you... So if there's something that would assist the person that you're with, so that they don't have to describe so much, then that's going to help, isn't it?"

Such efforts ensure that people can experience what one participant described as the 'thrill' of navigating independently whilst also participating fully in shared activities and decision-making when visiting with friends or family.

Part 2 Accessing and experiencing urban nature

Preparing for a visit

Nature is all around us in various forms, for example everyday weather, bird song and street vegetation. Yet nature is often more concentrated in areas designated as so-called 'green' or 'blue' spaces, be they parks, gardens, trails, woodlands or nature reserves.

To visit such areas for the first time with sight impairment does require a degree of confidence. Nature path networks are rarely included within talking map applications, few tactile maps exist, and such settings are inherently changeable, both in the course of the day with changes in weather and daylight, and with seasonal cycles.

> "The trouble with nature is, because it is nature, it's moving about and changing all the time."

Overcoming visit anxieties depends in part on the opportunity to get to know a site prior to visiting, for example, with the help of appropriate online familiarisation materials. These materials need to explain:

- The scale and layout of the site
- The presence of any landmarks that might help with orientation and navigation (and how these may change with the seasons).
- The quality of path networks (including information about distances, gradients, surface materials, presence of steps, ramps or other obstacles).
- The multisensory experiences that people might enjoy whilst visiting e.g. the songs and calls of particular bird species, flowing water, tree bark textures, scented plants, varying topography and microclimates.

Familiarisation materials also need to consider how someone might reach the site i.e. which entrances are closest to different sources of public transport (if such transport is available), how these link with surrounding path and pavement networks, and clues to use to find an entrance upon arrival (e.g. tactile surface indicators, corduroy strips, distinctive landmarks).

Having to walk along busy roads and/or to cross large open areas without audio or tactile markings upon arrival can be intimidating, often undermining people's confidence in the navigability of the rest of the site.

> “Public transport and pavement networks are a huge issue everywhere, and it does, I think, seriously affect people’s ability to access natural places. And it’s almost that you forget - you may have a local guide to places of interest, or nature reserves and things like that - and quite often there’s ninety percent of them, you’ll just write them off. You won’t even think about going to them because of the access. And that’s a real shame.”

Orientation on arrival

Once people have negotiated their way from home into a nature setting, they need to feel welcome and supported.

In part, this relies on a smooth transition from each entrance onto a site’s path networks, ensuring all entrances are well lit and free from clutter that may otherwise cause confusion e.g. A-boards, poorly placed bollards, lampposts, bicycle racks etc.

> “If we look back towards the main entrance... there’s quite a lot there that could be done to make that more accessible... It’s a complex environment. It doesn’t have many natural orientation aids, it doesn’t have any deliberate orientation aids, has poor lighting and obstacles... It’s the main entry point to the park, or the main exit point, and it’s really quite awkward.”

It also relies on the provision of appropriate orientation information. Incorporating distinct – but non-obstructive – landmarks at each entrance and clear audio-tactile delineation of different path networks from each entrance point can be helpful. If referenced within pre-visit familiarisation materials, these markers can enable visitors to recognise where they are in relation to the wider site.

> “The trouble is, when you’re somewhere that’s vast or open, you can’t actually appreciate it as a whole, and where everything is in relation to each other. So, when you have a model of something, it gives you an appreciation of what it actually looks like... a sense of scale and dimension.”

Tactile maps including uncluttered visual information with large print and clear colour contrasts at each entrance can also offer orientation assistance upon arrival.


WELCOME

Freedom to move

Many Sensing Nature participants highlighted the importance of being able to move – both freely and safely – through different types of nature, from local parks to more expansive areas of coast and countryside.

> "For me, the wonderful thing about nature is when I can step to a place where I can be free in my body and be quiet, but just with different noise, with natural - well I say 'natural' noise, but you know - birdsong, trees, being able to hear a river or the sound of a river nearby, different smells. It kind of makes me straighten up and feel less vulnerable, funnily enough... whereas, the concrete and scaffolding and crowds and cars, lorries going past, people revving, all that tension, people, you know, emotional tension as well, people yelling at their kids, or calling out after each other or car doors slamming... it's very wearing... so just to have a time when you can just be physical, walking, but really free in the body, to not have that constant anxiety about what's going to happen next."

Nature settings with clear and manageable boundaries – such as parklands and gardens – offer a valuable opportunity to promote such freedom of movement through sensitive user-informed design and management. The presence of legible path networks is particularly important across wide, open spaces that otherwise provide few landmarks for orientation or way finding.

> "Launching out into invisible space, which is what it feels like, it takes more courage than I've got ... you launch yourself out into that space but you don't know quite where you're going to fetch up... which is why the park is so good because it is confined. It's space, but it's within safe confines."

All paths should be clear of obstructions, ensuring any 'furniture' is offset from the path e.g. bins, benches, bollards, planters, A-boards, lampposts.

Path surface materials should contrast with that of the surroundings to provide clear tactile information underfoot. This could be enhanced through the inclusion of appropriate path edging. At a basic level, this could consist of raised edging stones, taking care not to create new trip hazards. An alternative would be to use a smooth, continuous edging material (without cracks or gaps) that can be followed with a long cane tip.

> “Changes in what you’re walking on make a big difference, whether that’s naturally occurring or manmade. So, for instance, on parts of the South Downs Way where it’s – I don’t technically know what it is – but almost like compressed stone or gravel. That’s really great because, to be honest, I can switch off at a certain level, as long as my feet are on that surface. Either side is grass … and if you know your route, you know what you’re expecting to transition to, that helps you moderate what your footing is. So I think, what’s under your feet always is telling you something.”

It can be useful to grade the accessibility of different routes, sharing details that will allow people to decide for themselves whether or not a particular route will be suitable. Essential details include the quality of path surfaces (e.g. concrete, compacted or bound gravel, or mud), path widths, availability of resting places, presence of stairs or ramps, and shifts in gradient.

It is important to recognise that many people with sight impairment appreciate varied topography – providing access to different microclimates, soundscapes and navigation clues – but that steeper gradients should be signposted for people with additional mobility needs.

> “I’m getting older now so going uphill is getting more of a problem. On the other hand, I get bored if the walks aren’t at all challenging, and they’re all just flat. We went round a park the other day, and it was all laid paths. But it wasn’t a challenging walk. So I do like some hills, or a couple of bridges… I still like a few challenges in my life.”

Where path networks include steps, ramps, gates, bridges, sudden declines or inclines, or other obstructions, it is useful to incorporate anticipatory tactile hazard warnings. Depth perception is often compromised with sight impairment and so people will need warning that such changes are coming. It also helps to ensure steps are of even depth, with step noses delineated using clear colour contrasts. All steps should be accompanied by appropriate drainage systems so that water does not build up as this can often be hard to detect until too late.

Where possible, additional tactile path markings – and/or resting points – can be helpful where other sensory navigation clues are often masked, for example, by strong winds, nearby traffic noise, dappled or low lighting and glare.

Handrails can provide an additional point of tactile stability along ramps, stairs, sudden changes in gradient, or bridges etc. The handrail should follow the pitch line of the feature in question, and extend beyond the start and finish. The colour of the handrail should contrast clearly with the surrounding environment (without being highly reflective), and all rails should be non-abrasive, smooth to touch, easy to grip, and not retain heat or cold. Vertical handrail fixings should not protrude above the surface of the handrail.

> “My bugbear is they attach a post and then obviously the support post to hold the rails go above the handrail bit. So you’re running your hands and bang! Ow! You’ve got to go over it... Or handrails made of wood that’s not been maintained. Therefore you get splinters in your fingers.”

Electric or barbed wire fences can also be missed with sight impairment. Where use of such fencing cannot be eliminated, clearly contrasting fence posts are needed to ensure they can be detected, alongside appropriate tactile and/or auditory warning signals of their presence.

Exploring with all the senses

Any effort to promote more inclusive nature encounters needs to go beyond promoting basic access to enhancing quality of experience.

> “It’s just a field surrounded by trees, criss-crossed by paths. There’s nothing there, there’s no topography in the landscape, there’s no hills and valleys, there’s no interest. Whereas, in this park, you’ve got a deer area, you’ve got a flower garden, you’ve got some areas which are mowed, some areas which are left quite scrubby. So it’s a bit more diverse. Some of it’s quite heavily planted with trees, and some of it’s quite open.”

> “I feel happier there. It’s a bit less parky, less manicured. It has the river running through and quite different terrain in the park, and there’s trees and just different things to walk through. There’s no lawns, as such, it’s just quite wild.”

Participants often discussed the loss of spontaneity or confidence to explore independently with sight impairment. Sensitively designed nature settings could counter this to some extent, offering opportunities to really explore and tune into a range of rich and varied habitats within relatively safe boundaries.

> “There are probably thousands of places I won’t go on my own and that’s really annoying, and sad really because it taps into my lack of freedom... So lack of the experience of exploration, really. But a good example is the Camel trail, because that was exploring. So I didn’t know what was coming next, how long it was, or what the twists and turns were, or anything. But it was a designated area, an established area, so you could explore it because there were constraints on it.... Whereas somewhere like Dartmoor or a large field, you know, you can get totally lost... it is just too broad and too wide.”

It is therefore important that efforts to promote inclusive access create as many opportunities as possible to explore and engage with a site across the senses through the year, supporting both spectacular and subtle sensory encounters.

When sites allow, care is needed to nurture a variety of habitats, encouraging different forms of wildlife in, perhaps integrating water features and sensory-rich planting. By planting at scale, people can soak up the pleasure of unfolding scents, sounds and larger visual impressions (e.g. swathes of daffodils, bluebells etc.) as they swing freely along the path networks.

> “ One plant doesn’t actually give the smell, whereas the whole row of them, you really get the smell coming up to you. Because, I must admit, I just want to walk around and smell it, rather than have to bend down and stick my nose into something.”

> “ We plant things that have red berries, orange and yellow. And the birds sit on the red and eat them. But the others, they’re waiting for them to change, and they don’t. So as the winter goes on and they have a greater need for food, then they’ll eat those. If you only have red ones, they all disappear early on, and you haven’t got the ones later... And, you see, you can hear the amount of birds that are around and about now.”

Equally, by creating sensory ‘nooks’ within more cocooned areas of nature, people can pause and rest, tuning into more subtle changes in microclimate and listening out for the different comings and goings of wildlife or other visitors on site.

> “ So this bit, I think, is smashing because it’s like a little grove, isn’t it? It’s quite quiet. You’ve still got the sea over there, and you can just hear the waterfall. I think, sound is, for many blind or partially sighted, sound is important, isn’t it? So this is a very tranquil area.”

> “ I just love woods... the trees are my friends. And they are beautiful, and they’re old. I mean some of these trees must be so old. It’s a real ancient woodland.... I like the peace of it too, it’s quiet and it’s sheltered... And then, of course, the bluebells, they only grow in the woods... And where the sunlight comes down through the trees, there are clumps of them, and it’s gorgeous. And the smell.”

By collaborating with people with sight impairment while designing or redesigning a site, they can have a direct role in identifying potential areas of sensory interest, be it sites of invigoration, creativity and pleasure, or nooks of peace and comfort. This may be considered during accompanied walks or through more focused activities such as adapted sound mapping, smell walks or tactile nature palettes.

Only once such sensory opportunities are identified can site managers explore how best to ensure the physical fabric of a site and its interpretation (both in situ and online) support people to access these independently.

Interpreting the environment in situ

Appropriate interpretation on site is essential, both to support wayfinding and orientation, and to learn about features of interest in the area.

Lack of appropriate and accessible wayfinding posts can be a significant barrier to visiting a setting amongst people with sight impairment.

> "I know a forest near here has got way-marked walks that you can do, of varying lengths... But the way-markers – like yellow arrows, green arrows, blue and all that sort of thing – sometimes they're not very clear. They're indistinct, they're far off the path. There aren't enough of them when paths come together. So if somebody took me there and said, 'Okey, dokey, off you go' – there is no way, because it would spoil it. I'd be so afraid of getting lost... So for me, that's the sort of thing that I would find helpful and reassuring, apart from another person."

Signage might be visual, tactile and/or audible. Visual signage can be helpful for people with some residual vision, provided it is uncluttered and incorporates large print and clear colour contrasts (both on the sign and in relation to the surroundings, recognising this might change as vegetation changes through the year). Signage materials should be chosen carefully to avoid glare in bright light.

Tactile signage can include tactile maps or embossed tactile symbol systems on wayfinding posts. These need to be accessible to touch, ensuring any surrounding vegetation is regularly cleared to reduce the risk of encountering stinging nettles, brambles or thorns while trying to glean the information. Specific audio-tactile maps are currently under development by a group called TacMap for use in parks and gardens.

Various approaches to audible signage have been developed, including systems that use infrared, radio frequency identification tags, and more recently Bluetooth beacon devices. These systems will likely need an electricity supply, unless they can be solar or user powered. Where possible, the use of audible signs could be useful to warn of and describe more complicated path features, such as the presence of irregular gates or hazards.

Signs should be detectable with a long cane without posing a collision hazard e.g. ensuring signs are as wide and solid at the base as they are at the top, or fixing signs to a solid fence or wall.

All signage should be user-tested prior to installation, with further advice sought regarding their location through the site. Signs designed to support wayfinding will be needed at any point along the path network where directional decisions are required i.e. at path intersections. It can also be useful to include 'overspill' posts to highlight where people may have missed a turning or joined a different route along the path network.

Accessible interpretation can also help people to engage with points of interest along the route. This may involve, for example, helping people to interpret particular viewpoints. Tactile or audible signage could be installed to explain a view from left to right, noting landmarks of interest (e.g. natural, historic, aesthetic) and indicating the distance between different features. When describing these features, vague spatial references should be avoided (e.g. 'over there'). More precise explanation can be given using the hands of a clock face, explaining for example, what lies at 2 o'clock, 4 o'clock, 7 o'clock etc.

Importantly, accessible interpretation can also support learning in nature. Appropriate signage can be used to explain the plant species that are typically found in different areas at different times of year and why, what they feel and smell like, and the wildlife they attract and why.

Combining such factual information with descriptions of the social dynamics, stories and histories of different species and/or local 'characters' can bring added interest. For many people, it is just as important to develop such knowledge and understanding about a site, as it is to explore and experience its different qualities directly.

> "Knowing what there is on route is helpful, or that there are particular things that might be of interest that you can be alert to. So it could be that you're going past a pond or some rock features or something that you could go and explore... Part of being able to interact with nature is knowing that information. So yeah there are plants there and there are things that you can touch and smell and see, and there are colours and textures and all of that, but if places are giving you information about what these things are, that's part of your ability to interact and make sense of nature, developing your knowledge and understanding."

Sustaining the connection

It is important to sustain all efforts made to enable inclusive experiences on site, both through the social dynamics and physical fabric of the site. In larger settings, careful events programming can help to reinforce such efforts. This may include, for example, dawn chorus and bird song identification walks, foraging sessions using scent and touch to locate different plants, bat walks, walking groups and parkrun sessions with guide runners to support people with sight impairment.

Site maintenance is also essential and needs to be considered from an early stage. Regular maintenance is needed to ensure that vegetation growth does not make signs inaccessible or paths impassable, and to address any changes in path surfaces caused by, for example, weathering or drainage issues and the appearance of potholes and other trip hazards.

> “We get a bit too much of nature at this time of year, where I live. The paths become impassable because you’ve got trees, hedges and bushes, just all completely overgrowing... It’s all conveniently at head height. And as the summer progresses, it gets lower and lower and, you know, probably in a month’s time [September], it’ll be more or less a complete barrier.”

Creating an official channel for people to report maintenance issues, including signs of damage or vandalism, can be useful to ensure that issues are detected and addressed early. This damage may be obvious, for example when inflicted on site furniture, lighting or signage, or less so, for example when inflicted on the vegetation. As noted by a participant involved in the protection and management of his local urban nature reserve, for example:

> “Because many of the plants are aromatic, people come in and try and steal them. So I’ve ordered some heavy duty wire mesh, and that will cover the area, and we’ll peg it down so you can’t dig it out, you won’t be able to easily pull it out... So, we’re having to spend a fortune on protecting things because plants are stolen, unfortunately.”

More information

We hope that these ten top tips will encourage greater consideration of sight impairment when designing and managing our much valued community green and blue spaces, promoting access with dignity and ensuring everyone feels welcome and supported.

Additional information can be found via a range of other resources that have been written to support inclusive access across a range of different needs and priorities in both urban and more rural countryside settings:

- **Enhancing the woodland user experience** – Introduction and toolsheets: A toolbox, produced by OPENSpace for the Forestry Commission Scotland, for assessing community woodlands, providing a comprehensive, flexible and inclusive approach to the assessment of woodland user experiences.
- **Enhancing the woodland user experience** – Supporting documents: Worksheets and guidance notes on how to use above toolsheets.
- **By all reasonable means: Least restrictive access to the outdoors**: A guide produced by the Sensory Trust in collaboration with, and on behalf of, Natural Resources Wales.
- **Access for all design guide**: A guide produced by the Environment Agency to set out a variety of standard approaches and inclusive design advice covering the types of features constructed by the Environment Agency.
- **Sensory Garden Design Advice**: An online guide produced by the Sensory Trust for those interested in developing sensory gardens and sensory trails.
- **Tips on garden design for people with sight impairment**: A series of online tips written by Thrive, which may be transferable to larger nature settings in terms of setting layout and sensory planting choices.
- **Inclusion by design: Equality, diversity and the built environment**: A document setting out the position of the Design Council CABE on equality, diversity and the built environment.
- **Sight Line: Designing better streets for people with low vision**: A guide produced by the Helen Hamlyn Centre to share a set of design proposals that aim to make urban streets more user-centred for all in the community.
- A range of creative activities produced by the Sensory Trust to engage the senses and connect with nature, including sound walks, nature palettes and texture journeys. These could be adapted during accompanied walks to identify areas of sensory interest on site amongst visitors with sight impairment.

SENSING NATURE

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