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# Using a socially-engaged arts approach to exploring how diverse socio-cultural groups accessed, valued, engaged with and benefited from an urban treescape during the COVID-19 Pandemic

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## ABSTRACT

This paper presents a socially-engaged arts approach to exploring the variety and specificity of cultural benefits urban park-users associated with its treescape during the COVID-19 pandemic. Drawing on the cultural ecosystem services framework, cultural benefits are understood in terms of positive impacts to 'experiences' (our relational interactions with the environment), 'capabilities' (our knowledge and abilities in relation to environmental interaction) and 'identities' (our perceptions of our relationship with the environment). The research captured evidence of a broad range of people's interactions with the human and non-human world, whilst opening up an inclusive space for respondents to reflect on and share feelings about the significance of these experiences. The methods employed attracted a range of 'quieter voices' to participate, particularly more vulnerable park-users. They also attended to the multiple levels at which people connected with treescapes during this time, from less conscious material engagements to more emotionally and culturally driven transactions. This case study research highlights the important role of the park's treescape in supporting people to feel better during the COVID-19 crisis and their cultural associations and ties to it. However, it also explores feelings of concern for and perceived lack of influence over this valued resource as potentially disbenefiting wellbeing. It identifies experiences of environmental anxiety, emerging from a lack of certainty over and agency within urban green spaces and treescapes and the benefits they can provide. It concludes that management of treescapes and greenspaces should be sensitive to impacts on environmental emotion.

## 1. Introduction

There is much evidence to suggest that the ways in which time spent in greenspace and their treescapes influence human health and happiness are varied, ranging through the physical, physiological, psychological, emotional and social dimensions of wellbeing. This variation inspires a similar diversity in the way in which we can understand and measure the benefits of greenspace. So, for example, studies can assess objective gauges of health in relation to levels of greenspace exposure, such as cortisol levels (Roe et al., 2013) or blood pressure (Lanki et al., 2017) in individuals, or incidence of hypertension, heart disease and diabetes at a population level (Astell-Burt & Feng, 2020). They can also record subjective indicators of wellbeing and their relationship to urban green space proximity, such as self-reported symptoms of depression (Reklaitiene et al., 2014, Afrad & Kawazoe, 2020, Zhou et al., 2022) or other aspects of emotional health and positive functioning like feelings of life satisfaction, worth and happiness (Houlden et al., 2019). However, understanding of the links between the outdoors, green space and human health and wellbeing is debated and evolving. Where associations appear the relationship and direction of travel between the variables is not always clear. It has been suggested that anxieties about establishing firm links between green space exposure and positive health have influenced the types of methodologies and evidence that are examined (Birch et al., 2020). Experimental studies may follow a 'medical model', aiming to identify the dose of nature that can improve a health complaint, rather than focus on the potential diversity of greenspace experiences within a population (Birch et al., 2020).

Subjective assessments of how urban greenspace influences human

health and wellbeing can also be understood in terms of the cultural benefits of natural environments (or cultural ecosystems services - CES). The ecosystem services concept and its intersection with notions of wellbeing has been critiqued for a lack of recognition of the breadth and depth of ways in which the material and non-material world can impact our health and wellbeing (Fish, 2011, Bryce et al., 2014). However, framing the experiences of wellbeing we gain through interaction with greenspace in terms of cultural value can also highlight how valuation of green environments is materially and culturally informed and specific (Hartig et al., 2014, Shanahan et al., 2015, Morrison 2015). The eco-systems services framework suggests that the natural environment provides CES through material environments (woods, parks, etc.) and the activities we pursue in these places that bring us into relation with it (walking, playing, meeting, picnicking etc.) (Fish et al., 2016, O' Brien et al., 2017a). Places and practices then provide us with benefits to our wellbeing or CES (O'Brien et al., 2017: 238). As conceptualised by Fish et al. 2016, these cultural benefits can be understood in terms of positive impacts to our '*experiences*' (our relational interactions with the environment, including feelings such as appreciation, inspiration, expansiveness, connectedness to nature and people), '*capabilities*' (our knowledge and abilities in relation to environmental interaction, including physical health, expertise and skills) and '*identities*' (our perceptions of our relationship with the environment, including memories, sense of belonging, environmental attitudes, spiritual connections) (Table 1). We use the concept of CES benefits in this paper to conceive of the ways in which human identities, experiences and capabilities are positively or negatively influenced by urban treescape and interactions with/in it.

Table 1. Fish et al.'s framework for cultural ecosystem benefits, adapted from Fish et al., 2016.

Importantly the variables of place, activity and cultural benefits are conceived of as interlinked, each with the capacity to enable, shape and limit each other (Bryce, et al., 2016, O'Brien, et al., 2017). This perspective suggests CES benefits are located in the relationality of environment and humans: how place and human practices meet and inform one another (Brien, et al., 2017). As O'Brien et al. (2017: 237) argue, CES benefits are 'co-produced' through the interaction of people and nature. It is also important to note that experiences of cultural value also overlap and can be '*mutually reinforcing and sometimes inextricably interwoven*' and that for instance '*it can be hard to determine when an aesthetic experience ends and a spiritual one begins (or vice versa)*' (Church et al., 2014: 20). It is also essential to recognise that our enjoyment of CES benefits can be confounded by experiences that go against our expectation of greenspace experience and what it should consist of and that this can result in disbenefits to wellbeing (O'Brien et al., 2012).

The case study research presented in this paper explores the cultural values held and benefits experienced by diverse socio-economic and cultural groups in an urban treescape during the COVID-19 pandemic. It further highlights how human perceptions of risk to that treescape are a factor within the network of relationships. The pandemic, its associated restrictions on movement, meeting and gathering and the green space use patterns that emerged within it provided a unique opportunity to

spotlight and evidence human treescape interactions within a case study urban park in Manchester, UK.

A novel socially-engaged arts approach was adopted to begin to reveal some of the values diverse groups attach to a well-used treescape. This approach allowed the researchers to engage outdoors in the park with a range of people from different socio-economic and ethnic backgrounds. It also supported exploration of valued environmental interactions that are often intangible and difficult to articulate, measure or evaluate, in contrast to other ecosystem services such as provisioning or regulating (Bryce et al., 2016, O'Brien et al., 2017).

The following section provides an overview of literature on access to greenspace, greenspace deprivation and impacts of the pandemic on greenspace use, contextualising the case studies' objective of identifying the diversity and specificity of an urban treescapes CES and associated benefits/disbenefits. This is followed by an outline of the method and how this was applied. Our findings are presented as a series of vignettes, or stories, focusing on some of the individuals who engaged with us in the park. We discuss these stories' implications for understanding the CES benefits of treescapes and finally reflect on the significance of these in the context of emerging threats to them.

### 1.1. Greenspace use, inequalities in access to treescapes

Greenspaces, such as parks, are particularly important in urban areas where access to nature and green areas and the benefits they provide may be limited. However, people do not always have equal access to and capacity to visit greenspace and access to its benefits is moderated by a wide range of economic, demographic and socio-cultural variables, as well as by the character and condition of the greenspace itself (e.g. design, facilities, other users) (Birch, 2020, Lachowycz et al., 2013). In simple terms, greenspace deprivation is often measured in terms of how distant people are from their nearest greenspace and its quality – so the further away and the lower the quality of the greenspace, the higher the level of greenspace deprivation (Friends of the Earth 2020). During the pandemic period, assessments of greenspace quality in England appear to have varied by region (Natural England, 2022). Overall, approximately 40 % of respondents to the People and Nature survey (PANS) believed greenspace quality in their area had improved in the last five years (42 % in the northwest where this research took place), with 20 % perceiving a decline (21 % in the northwest) (Natural England, 2022).

However, there are often other factors that influence why people do or do not visit greenspaces. Evidence suggests that two of the biggest factors influencing access to greenspace are socio-economic status and ethnicity (CABE space, 2010, Fields in Trust, 2018, Friends of the Earth, 2020, Roe et al., 2016, Wolch et al., 2014). Minoritised ethnic groups and communities challenged by socio-economic deprivation are much less likely to have nearby greenspace, and accessible greenspace is more likely to be of poorer quality (Wolch et al., 2014). These groups are also less likely to travel to visit rural greenspaces due to less available time and money and members of minoritised ethnic communities may be less confident users of greenspaces, feeling 'out of place' (Edwards & Weldon, 2006). Other variables influencing access can include individual factors (eg. gender, age, pet ownership, access to a vehicle and lifestyle habits) environmental factors (eg. quality, infrastructure) and local socio-cultural patterns (e.g. antisocial events, civic activity) (Lachowycz & Jones, 2013). All of these circumstances and the interconnections between them can underpin whether people can comfortably reach and spend time in greenspace and their motivations and inclination to do so. Within the greenspace, the activities undertaken and how they connect people with the greenspace and its other occupiers (both people and other species) play a further role in mediating access to the beneficial outcomes of time spent there (Goodenough & Waite, 2020, Lachowycz & Jones, 2013, Richardson et al., 2021).

The COVID-19 pandemic, when this research took place, drew attention to the importance of greenspace internationally. COVID-19 regulations and responses impacted access to and use of greenspace in

**Table 1**
Fish et al.'s framework for cultural ecosystem benefits, adapted from Fish et al., 2016.

| Cultural Ecosystem Benefits | | |
| --- | --- | --- |
| Experiences relational interactions with the environment | **Capabilities** knowledge and abilities in relation to environmental interactions | **Identities** perceptions of our relationship with the environment |
| Including: appreciation, inspiration, expansiveness, connectedness to nature and people | Including: physical health, expertise and skills | Including: memories, sense of belonging, environmental attitudes, spiritual connections |

diverse ways for different communities in different regions (Ugolini et al., 2021, Venter et al., 2020, Weinbrenner et al., 2021, Yang et al., 2021). However, many valued having views of and access to green places and nature for their positive impacts on well-being during periods of restricted gathering and movement (Pouso et al., 2021), with a global analysis of urban park use finding visits increased during the pandemic for example (Geng et al., 2021). In the England-wide People and Nature Survey, significant numbers of residents increased time spent outside during the pandemic, as well as spending more time noticing nature (Natural England, 2022). 40 % of adults surveyed reported that visiting greenspace and wildlife became more important to their wellbeing during the period 2020–22 (Natural England, 2022). However, during the same period existing issues of greenspace deprivation and inequitable access to greenspace benefits (described above) were also highlighted (Douglas et al., 2020, Geary et al., 2021, Mell & Whitten, 2021). For example, 19 % surveyed for the All-Party Parliamentary Group on the Green New Deal (2020) felt there was not accessible greenspace within easy reach of home during the pandemic, with 33 % of black, Asian and minority ethnic people suggesting they did not have accessible greenspace within a 10-minute walk compared to 18 % of White people.

All of these variables impacting access to and activity within greenspace, including during a pandemic, suggest that it is important to recognise that greenspace and treescape engagement is likely to be diversely experienced and valued amongst and within a community. The following section describes the case study site and the socially-engaged arts method that was adopted.

## 2. Case study site and research design

### 2.1. Case study site

The case study research took place in Whitworth Park in Manchester, a significant greenspace considering its proximity to the city centre. The park and onsite Whitworth Gallery were established in the late 19th century through an industrialist's philanthropic legacy and sit within inner-city suburb streets that include a hospital, shops, takeaways, restaurants, two universities and residential housing. The ethnically diverse communities the park serves were amongst those experiencing some of the highest levels of health inequality in England. During the first 13 months of the COVID-19 pandemic (to March 2021) the region experienced a 25 % higher death rate than the English average, revealing ongoing health inequality in Manchester, with more people in socio-economically deprived areas dying than in wealthier areas, with this gap wider than in other areas of England (Marmot, 2021). Such health inequalities may also have been deepened by the impacts of the pandemic, with strained public finances meaning less to spend on addressing them (Marmot, 2021).

Manchester's experience of lockdown and social distancing governance corresponded with regulation across England but was also regionally specific and responsive to local patterns of COVID infection. For example, in August 2020, when some other areas were permitted to ease lockdown regulation, local lockdown measures associated with rising COVID numbers delayed these changes in Greater Manchester (Hainey, 2021). In 2021 when this research took place, the national lockdown that was announced in January put the whole country into 'tier four' (the most restrictive) regulation which Greater Manchester had already entered into during December 2020 (Marmot, 2021). In March 2021 regulation easing began, including allowing people to meet socially distanced with others outdoors, in a public space (Marmot, 2021). Prior to the Artist-researchers (A-Rs) visiting Whitworth Park to design and test data collection (during the hot temperatures of 19th-23rd July 2021 and Eid al-Adha), Manchester was designated part of an Enhanced Response Area (8th June 2021), with a locally specific strategy for tackling coronavirus (Manchester COVID 19, 2021). This step recognised rising numbers of COVID-19 cases, particularly amongst

young people and South Asian communities and included the allocation of additional resources towards messaging around responsible behaviours when meeting socially outdoors. The A-Rs returned to the Park to gather data between 16th August – 26th August 2021, another period of relatively good weather. In England more widely coronavirus numbers were considered to be relatively high during both July and August (ONS, 2021).

The park is also visited regularly from outside of the local community by users and staff of the on-site gallery, nearby hospital and university sites. At any one time, there are visitors from a diverse range of demographic and cultural backgrounds (Jones et al., 2015).

Around 18 acres of greenspace, the park's most striking feature are arguably the many large, mature ash (*Fraxinus excelsior*) trees that line its paths and boundaries. Other trees onsite include London plane (*Platanus x hispanica*), cherry (*Prunus avium*) and willow (*Salix alba*) and specimens such as giant sequoia (*Sequoiadendron giganteum*) and Scots pine (*Pinus sylvestris*). Flat accessible paths radiate out from a central flowerbed feature towards multiple entrances, with grassy spaces stretching between and underneath the trees. A former boating pond provides the largest open space in the park and contemporary sculptures within it park draw attention to its relationship with the gallery. There is also a children's play area, adult exercise equipment, picnic tables, benches and other infrastructure to encourage people to spend time in the park.

Management of the treescape and the landscape it defines is undertaken by a range of parties: the local authority, who keep the grass mown, empty bins and undertake tree care; the volunteer 'Friends of the Park' group, who carry out a range of landscape maintenance tasks such as weeding and tidying litter; and the Gallery who maintain and develop the immediately adjacent green space, as well as managing the many sculptures and undertaking groundwork for new acquisitions. Such shared governance structures are not unusual for urban park management in the UK, reflecting long-term reductions in government funding for direct management by local authorities and an increased emphasis on the involvement of interested and affected groups. Local authorities increasingly work in partnership with 'Friends' groups for example, opening up access to funding streams dependent on local and user group engagement and frequently resulting in forms of volunteer management (Speller & Ravenscroft, 2005, Nam & Dempsey, 2018).

### 2.2. Research design

If it is recognised that socio-economic, cultural and demographic difference is highly influential in shaping both access to and experience of the cultural benefits of greenspace and treescape, the methods used to research this variation must attend to this diversity (Cheng et al. 2021, Riechers et al., 2017). The socially-engaged arts approach employed on the ground was designed to be both inclusive and specific, open towards and iteratively responsive to place and how people prefer to spend time there. This inclusive methodology was crucial in sketching the interactions of a diverse population within an urban treescape and sensitively inviting them to reflect on these experiences during a period of lockdowns and restrictions on social interaction.

Developed through building on a team member's existing socially-engaged arts practice (Kerry Morrison) and storytelling methods (Jasmine Black), a site-specific approach was developed to invite park-users' perspectives. Different creative mechanisms aimed at drawing a diverse range of people into a chat - activity as catalyst to conversation - were designed during the initial five days in July experimenting onsite (with props, costumes, activity and movement, for example).

The artist-researchers (A-Rs), as described above, then spent ten consecutive days in August in the park using these techniques to generate temporary invitations to dialogue and stimulus to respondent reflection. These socially-engaged arts techniques included:
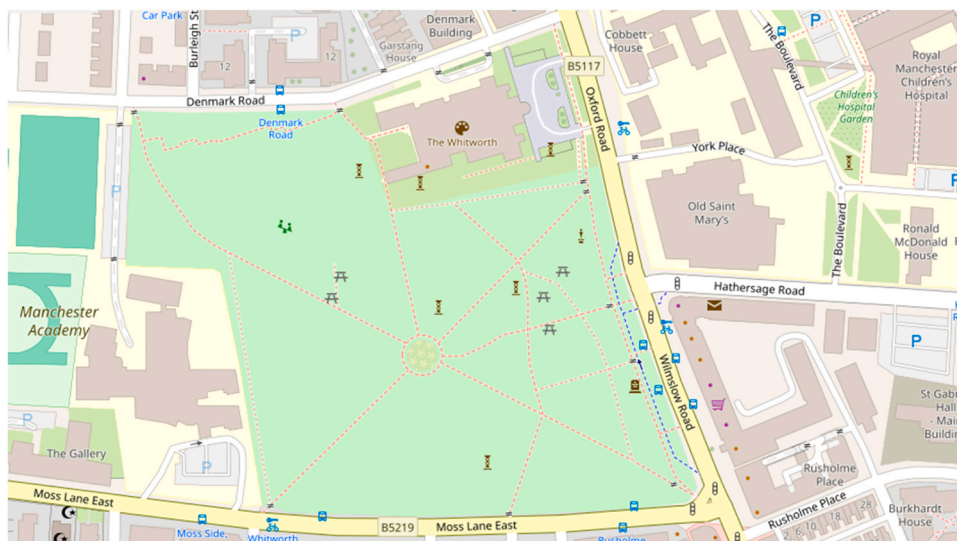
**Fig. 1.** Map of Whitworth Park Layout. Reproduced from OpenStreetMap. OpenStreetMap® is *open data*, licensed under the Open Data Commons Open Database License (ODbL) by the OpenStreetMap Foundation (OSMF).



**Fig. 2.** Testing Methods in the 2021 July Heatwave.

- *Performative*: The A-Rs wore matching outfits, setting them apart from everyday park-users and creating a sense of spectacle. An 'art cart', filled with art materials and other resources provided a focal point for engagement. The A-R's sited themselves in different areas of the park during the ten days, chosen for their intersection with human activity and treescapes (Fig. 3).
- *Ash tree arting:* Using trees as easels ('treasels'), the A-Rs took bark rubbings of the ash trunks using compressed charcoal and made large tree drawings on the ground. This aimed at amplifying the potential for trees to become a part of conversations. Some people joined in but most commonly people preferred to talk (seven out of fifty creating rubbings or their own art, including creative writing and poetry). Observational drawings and notes were also made (Fig. 6).
- *Conversational flows and story*: The A-Rs didn't approach park visitors and ask questions. Instead, park-users approached them and led conversation. This proactive act indicated that the participant had both interest in the engagement and capacity to take it in the direction important to them.
- *Institutional legitimacy:* Posters were hung on trees surrounding the cart asking questions such as "What do trees mean to you?", "How do trees make you feel?". Including project, university and funding body

logos, this invited curiosity and an opening for conversation but also demonstrated "official" backing, potentially providing a sense of security to some park-users.

Conversations took place with people from a broad range of backgrounds, some brief, but many lengthy. Plentiful time was given for listening and responding to participants' questions, anecdotes and stories, and some respondents returned later that day or week to continue the exchange. Conversation was unrecorded to maintain relative informality and the agency of the respondent in leading it. Instead, exchanges and observations were later recalled and reflected upon by the A-Rs, who sense-checked their understanding with each other. Relevant narratives and quotes were written down alongside researcher reflections. Observational drawings and notes were also made as described (Fig. 5.) and the wider experience of engagement was captured through blogs, narrative writing and photographs when appropriate (with the necessary written consent).

The limitations of this approach include a lack of quantifiable and demographic evidence and highlights some of the differences in approach and practice between disciplines (Black et al., 2023). As one A-R reflected:
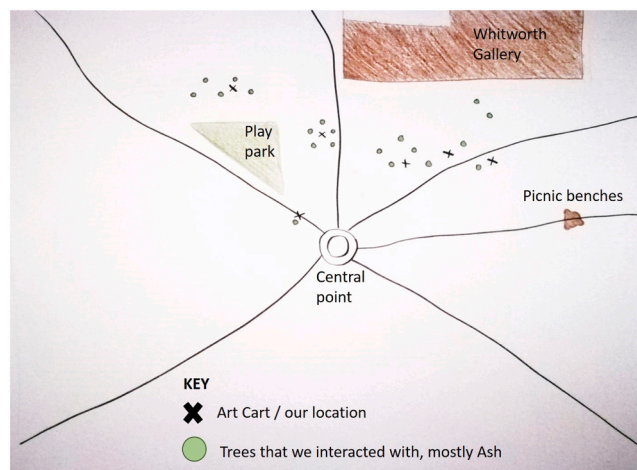


**Fig. 3.** Art Cart Locations.

*'I'm not a social scientist, so I'm not collecting that information in that way to write a paper. So if I have a conversation with somebody who's vulnerable…Then I can learn things from that conversation that can inform our next arts practice…it's a different way of processing that information…for a different audience, for a different field of practice '* (A-R reflections).

We would argue, however, that the informality and intimacy of the approach appears to have produced data containing a high proportion of affective (emotional, empathetic) comment and commentary, corresponding well with the aim of understanding CES, attachment and benefit. The A-Rs felt that these qualities of the methodology also enabled them to reach a broad range of users, including groups who might be understood as 'harder to reach', gathering findings on the breadth of cultural values associated with treescape.

The data gathered was later shared with teams' social scientists and collective interpretations of cultural values at risk developed through an iterative process of reflection and analysis during online team meetings and via email.

We have shared this evidence as a series of vignettes in the following section, comprising sets of descriptions, artefacts and stories of where and how treescape and people interact and how humans understand themselves to be affected by these connections and exchanges. These both describe the evidence and some of the forms (A-R and park-user created poems, creative writings, pictures, etc.) in which it was captured.

### 3. Story vignettes – on cultural values we discovered

*3.1. Social Connection*

> *'It's Eid*
>
> *The park is alive with people celebrating*
>
> *Salwar chemise*
>
> *Bright colours*
>
> *Picnics on blankets on the ground*
>
> *Families, together*
>
> *Eating and chuntering*
>
> *Children playing around them…*



**Fig. 4.** A-R's and Art Cart.



**Fig. 5.** Ash Tree Arting.

> *A group of black women gather around a picnic table laden with food and snacks*
>
> *Reggae music plays, they sing along and sway in time to the tunes'* (A-R reflections).

The park's spaces supported social engagement during the period of research. Resting places including benches, sunny places on the grass and shady spots under trees, allowed forms of gathering and social exchange, as did the crisscrossing pathways, where people could walk, push prams, and chat together. Couples and friends met in the fresher air within the treescape, away from roads and crowded streetscape, during a period where the boundaries of social connection were strictly regulated. Whilst team games such as cricket and larger intergenerational social gatherings, where some might sit and others play alongside, appeared to commonly unfold in the largest open grassy space the treescape defined the majority of the park's other social spaces. As one park-user observed: *'If we lose these trees what will this park be but a barren dry place with no shade and no shelter?'*

Food and drink were brought to the park, eating and drinking a frequent accompaniment to social interaction. Music was present, as an accompaniment to some forms of social exchange or physical activity, such as the cyclist who crossed the park every day of the research with speakers strapped to his bike, waved and cheered on by other park-users.

Some suggested the profile and number of park-users had expanded during the pandemic and that in the current moment and context, it represented an accessible, inclusive space: *'a godsend these past months'*.

> *'Now the Asian communities are using the parks, now might be time to create a new volunteer opportunity to grow things and make sure our parks have a future' and 'the park's a place for everyone…'*

The park also facilitated looser social associations, chance encounters and time out. The layout of the trees may be a factor in demarcating a variety of places that park-users join or avoid depending on their preferences or uses. Street drinkers used particular gathering spots, park benches shaded by tree canopies in the afternoon and a picnic area surrounded by mature ash when the air was cooler.

> *'Two men…drinking beer…The men confab and laugh whilst their dog, laid on its back, tummy to the canopy and sky, kicks her legs excitedly in the air – for ages'* (A-R reflections).

One large evergreen hides the picnic spot used by street drinkers from the centre of the park and the benches are shielded from view by a row of trees. The treescape defines and delineates these settings from the other spaces, their soft boundedness allowing people to choose to join collective activity or remove themselves from it. This group of park-users told the A-Rs that it was possible to feel peaceful in this

landscape, joking that whilst loving nature they were not tree huggers, though one did just that. The divided spaces created by the treescape also appeared to contribute to ensuring that the activities of street drinkers did not conflict with the other cultural practices (playing/intergenerational activity, for example) being undertaken elsewhere during the research period.

### 3.2. Connection with Nature and Trees

People connected with the non-human world at an unconscious level through moving, sitting, resting, playing on/with flora like grass and trees: *'It's funny, you don't really notice them (trees)… Thank goodness someone is noticing and knows them'*.

However, people also referred repeatedly to more mindful forms of observation and engagement with treescapes and the natural world, and sometimes to the relational, emotional content of these types of activity. One park-user chose to sit in a cafe opposite the park to be able to look across at the cherry blossom, whilst another liked to watch the wind moving the trees: *'It's like they're dancing – I feel like I'm dancing too… Nature is so beautiful, sometimes I cry'*. The ash trees provided an environment for noticing and watching the species that live amongst them. Through bringing people into relation with nature, treescape habitat offered opportunities to connect to other species and feelings: *'I love trees. Feeling [nature] is so important – it makes you realise everything's connected… I want more people to realise this.'*

### 3.3. Inspiration

*'mightily, she holds on ever so tightly*

*But now comes the time, her petals fall like snowflakes'* (Part of poem by park-user).

The A-Rs received poems, drawings and passages shared from books, gifted from park-users following conversation, or during shared art making. These participants seemed to find the arts-based research approach an invitation to contribute to the record with similarly artistic methods. These gifts, by their nature, also evidence respondents' experience of treescape as a resource of potential inspiration.

One, a professional poet, sat down with the A-Rs and recorded observations of their activity, whilst discussing her work and awareness of urban greenspace's significance within it. Finding her poetry increasingly focused on the natural world and climate crisis, she visited (Manchester) parks to access inspiration and creative flow. She



**Fig. 6.** Observational Drawing, Kerry Morrison.

recounted that once, closing her eyes to *'let nature absorb into her'* she felt something on her knee and opened her eyes to see a squirrel looking back: *'two shiny black eyes'*.

### 3.4. Local Environmental Knowledge

*'She said "I love trees", but thinks that Manchester's greenspaces are declining and more skyscrapers blocking the sky are being built…She mentioned how unhealthy the pigeons in [other public space] (all concrete) are compared to those [here]. She remarked how she loves the diversity of British trees – some big, old, smaller ones, different greens and shapes…'* (A-R reflections).

People shared intimate understandings of the non-human users of the park, the trees and the habitat they provide. Different aspects of the park's urban ecosystem, its large ash trees, London plane and cherry, and the habits of the animals inhabiting them, parakeets, crows, pigeons and squirrels, were noticed and valued by park-users. The A-Rs observed that these ways of knowing the park were frequently specific and relational, based on human observation and interaction with the non-human world in everyday moments: *'…trees mean habitat for our friends – the squirrels, the public's pets…They'll eat one cherry, and then want a nut'*. Whilst relatively few formal or 'scientific' understandings of the park's environment were shared with them, these everyday interpretations were rich, detailed and reflected the eclectic ecology of the park.

For some, the pandemic had increased opportunities for growing familiarity with the park's semi-natural environment. The closure of the formal play and recreation equipment to encourage social distancing, for example, led to new explorations and playful activities in the park. One father and his small son found their attention shifting to the non-human world.

*'we noticed the ants and the ladybirds and watched ants crawl up trees… wondered why they crawl up in one line at the side of the tree. My son started looking at all kinds of things, playing with the leaves…looking really close…*

### 3.5. Memory and Biography

*'[they] were laughing, jumping up to catch onto the low branch of an old willow tree…it was their first time in the park…they thought it was big compared to those back home… in Taiwan, at school they'd had to look at greenspace for 20 minutes a day to help their eye and general health'* [Thai and Taiwanese students] (A-R reflections).

The A-Rs talked to park-users, frequently students but also first-generation migrants, asylum seekers, and refugees, who were spending time in the UK having relocated from another country. These relocated park-users included both regular and one-off visitors. A commonality in perceptions and experiences shared by relocated park-users is their contextualisation within memories and stories of other times, in other places. Respondents shared significant life experiences associated with other treescapes (sadness when relatives cut down a tree treasured from childhood, for instance), photographs and memories of natural settings in other countries and stories of how trees are appreciated elsewhere. These recollections encompassed a mixture of culturally specific valuations and traditions of treescapes and broader benefits of nature that perhaps transcend context. Visitors from Pakistan, for example, discussed that they accessed the park to help manage sleeping problems and depression, whilst sharing what they missed home where views of trees were mixed with mountains: *'the mountains and trees give you energy'*. A Himalayan student referred to both broad universal supporting and regulating services (carbon cycling, removing pollution) and specific cultural connotations of trees: *'Buddha sat under the bodhi tree, the tree of awakening'*.

For these visitors, the park was a potential link back to their biography of nature relationships, its cultural references and visceral

memories, whilst offering opportunities to translate the services of treescapes, such as their health and wellbeing benefits, across different cultural contexts.

### 3.6. Emotional and Physical Health

People found the park's treed landscape supportive of mood and positive functioning, one respondent telling the artist-researchers that during lockdown the park was a 'life saver' and that *'Trees untangle your mind'*. The mechanisms through which greenspace and treescapes positively influence emotional health are not commonly defined or described by participants but appear to be facilitated through interaction with both human and non-human world. A number of users explicitly cited the role of park visits and access to greenspace as strategic within the management of their wellbeing. The way in which park-users could experience social inclusion in the park, whilst not necessarily socialising, was also cited by one respondent as contributing to their wellbeing. For a schizophrenia sufferer, unable to work for more than 10 years, the park was somewhere where he felt less alone amongst other human and non-human users, and others also described a multi-species inclusive setting: *'the calm, the nature, the squirrels, the parakeets. The new communities who come at the weekends – the park's a place for everyone'* (A-R reflections).

The park was a site of physical recreation, activity and exertion. People used the fixed equipment and to walking commute in the morning and late afternoon. Visitors also accessed respite in the park from potential sources of stress associated with the urban environment, with it being quieter, cooler and less polluted than immediately surrounding areas.

The park was used recreationally by staff and patients from the adjacent Royal Infirmary. Carers and relatives brought patients to watch people and nature and to have snacks and treats from local shops. One staff member at the hospital referred to the park as an *'invaluable resource'*, *'with multiple health benefits for the patients'* (A-R reflections). Accompanying a young patient in a wheelchair, they shared that they visited regardless of season, even liking the 'crunch of the wheels in the snow' (A-R reflections). This young patient asked to do some tree rubbing, returning the following today so that she and her carer could produce rubbings with the artist-researchers, now framed and hung in the children's ward.

### 3.7. 'Friends of the Park'

*'The council were unable to maintain this labour-intensive style of planting as budgets grew tighter after World War 2…the island became a muddy path until funds became available…to build a raised bed, for which the Friends designed a new display… (Photo of Centre Circle Sign)'.*

In the middle of the park, a fenced circular flower bed where all the paths converge displays a sign describing changes in how the park is managed and how the 'Friends of the Park' came to have custody of it. The Friends group are adults in their 70 s and 80 s who volunteer together to modify and care for its spaces, carrying out practical management tasks. The researchers observed the Friends working together to maintain this space and spoke at length with them here.

Many parks have similar Friends Groups engaged within their management through this voluntary but formalised role, as described previously. One Friend of a nearby park described his goals of increasing inclusivity through volunteering, arguing that visible maintenance by his Friends Group had led to increased user confidence in and use of the space, in turn driving down risk and contributing towards it becoming safer. But being a Friend of a park also felt like part of a responsibility as a participant within a wider ecosystem *'We are mammals and part of biodiversity'* (A-R reflections). However, the Friends of the Park also expressed fears that they were advancing in average age (70 +) and

unclear who might take on their activities and role in ensuring the park remains a maintained and therefore safe and inclusive environment. These conversations with Friends and their perspective on age were also significant because the A-R's observed that during the period of the research older park users (70 +) were relatively infrequent visitors. They reflected that this was likely to be associated with the regulation (such as 'shielding') and risks of COVID-19 experienced by this group (A-R reflections).

### 3.8. friends of the park

*'[She] shared that she feels there is very little concern for greenspaces in new architecture and buildings springing up everywhere'* (A-R reflections).

A range of people without a formal investment in the park's management similarly expressed concerns for its future. Articulated slightly differently to those of the 'Friends' they may however be similarly associated with fear its value to users is unprotected. The park and other greenspaces were particularly perceived to be at risk from a range of development pressures, with concern that parks might become 'tower blocks', 'houses' and 'gyms' and local people would not be able to afford them. *'I love Manchester, but it's moving forward without consideration for nature'.*

*'She said that new architecture doesn't take into account communities or nature, they're just buildings for rich people and money-making'* (A-R reflections).

In several instances, the A-Rs were perceived to be and thanked for acting on behalf of trees and people's needs of them and respondents referred to the potential of collaboration to stop greenspaces being threatened in the future. A general lack of capacity to influence change with local greenspace and treescapes however emerged in people's comments about the locus of control.

*'Thinks back-handed deals [to allow development] happen no matter who's in power'* (A-R reflections).

*'Shared that no one really notices if the plants and trees are unwell… Council took away bushes from her back alley without asking…another nearby area was planted with fruit trees. No one was consulted. Within weeks the trees had been smashed'* (A-R reflections).

## 4. Discussion

The vignettes presented in the previous section provide interesting indications of the cultural values held by a range of park-users, including more vulnerable or marginalised groups.

We structure the discussion of the evidence in terms of domains of cultural value to demonstrate the impacts on experiences, capabilities and identities valued by respondents and understood as categories of cultural ecosystem value within the literature (Bryce et al., 2016: 260, O'Brien et al., 2017). However, as described above, in practice these domains are interlinked, with the relationality of the material environment and cultural practices generating cultural benefits across categories which in turn shape the material environment and cultural activity.

### 4.1. Experiences

During the research, the park supported a shifting community of users to engage in social interaction or simply be included within a multi-species social setting. With the large open space important for larger gatherings and active team sports, the park's treescapes supported other forms of social gathering, by creating shady or sheltered spots and soft boundaries between divergent forms of activity. This capacity of treescapes to facilitate social inclusion through defining spaces that lend

themselves towards different activities and allow different cultural practices to co-exist has previously been observed in research focused on woodland space (O'Brien et al., 2012). The size of the park and its varied treed spaces enabled both experiences of relative peace alongside active, noisy, playful social settings. This need, for public space to provide sites of comparative quietude and isolation, particularly for vulnerable individuals, has been similarly identified within case-study research of some of Manchester's most marginalised young men (Roy et al., 2015).

Experiences of peace and reflective emotions were sometimes facilitated by connecting not with other humans, but with nature. Stepping outside of human company sometimes meant stepping more intensely into the company of nature, with respondents sharing experiences, both incidental and purposefully pursued, connecting them to the natural world. Trees underpinned these activities, as habitat for species that park-users noticed, watched and interacted with and resources of connection in themselves. Some patterns of social engagement with human and non-human aspects of the park seemed well established, but respondents indicated that variations within them could be sparked through minor changes such as the closing of the play equipment (and the compensating discovery of ants by one family).

During the period of the research, the park and its treescape were therefore experienced by many of our respondents as spaces of inclusion and connection with both the human and non-human world. Because our research took place during the pandemic, and we lack baseline observations prior to this, it is difficult to be sure that the profile of park-users had changed or increased during this period, other than respondents' assertions that the park had become a place for everyone and that use by minoritised groups had increased. However, this assertion aligns with evidence from global and regional research during this period (Geng et al. 2021, Natural England, 2022). Concurrent findings that particular populations in England experienced greenspace deprivation during this time (APPG, 2020) could underpin a need for local people to use Whitworth Park for exercise and different forms of social/natural connection. Importantly participants identified that recent better management of the space had enabled increased uptake of these social and connective benefits within the short-term context of the pandemic (perhaps reflecting PANS findings that approximately 42 % of respondents in northwest England report better managed greenspace in their local area in the last five years (Natural England, 2022). These findings suggest a need for further longitudinal research to establish how these trends have unfolded post-pandemic. Both whether this expanded uptake of CES benefits has continued and how investment and shared management models for greenspace (and community capacity to engage with management, Mathers et al., 2015), have intersected with use.

### 4.2. Capabilities

Park-users shared detailed and specific understandings of the natural environment of the park, not drawn from formal sources but from observation and interaction with the treescape and its non-human users. This comprehension emerges in respondents' references to seasonal cycles and the habits of other species. The idiosyncratic hybrid-urban ecologies of the park, native and non-native species and their interactions, were interpreted and enjoyed by visitors. The treescape environment and its support of non-human residents were core to development of local environmental knowledge amongst human visitors. For some, their local environmental knowledge appeared to be associated with emotive experiences of connection with nature and place.

Many types of engagement with the park and its treescape had the potential to provide exercise and benefit wellbeing as a by-product, but users also regularly chose it as a setting in which to consciously manage mental and physical health. During the period of research, the park's treescape appeared to be providing a space of respite from situations specifically associated with the pandemic, but respondents (including

the cherry blossom watcher and hospital carer) identified its long-standing role in supporting refreshment and recovery. Again, such findings align with the growing evidence base linking greenspace, treescapes, health and wellbeing (Birch et al., 2020, Houlden et al., 2019, Natural England, 2022, O'Brien et al., 2012, 2018).

Visiting students also touched on the universal qualities of a treescape, whereby its natural features can be used to manage emotional and psychological wellbeing outside of cultural specifics. Previous research has identified the capacity of emotional responses to landscape to transfer across contexts. This may be through attachments to abstract types or concepts of environment (Ryan, 2005, DiEnno & Thompson, 2013). Treescape habitat for these respondents sometimes provided a bridge from the present to past memorable and transformative experiences in nature (a pattern of reflection noted in O'Brien et al.s, 2012 research focused on benefits of treescape recreation) and a reminder both of the cultural specificities and global aspects of human relationship to the natural world.

### 4.3. Identities

Multiple park-users described themselves as invested in its treescapes ongoing provision of ecosystem services, including CES benefits, to some degree or another. The actions of official 'Friends of the Park', for instance, appear to represent a *responsibility of care* (Bryce et al., 2014) for the park environment. Whilst this relationship and its sense of reciprocity with the natural world can benefit the wellbeing of those experiencing it, the Friends of the Park also experienced simultaneous concerns that without their commitment the park's environment would deteriorate and its CES benefit provision be threatened.

Similarly, many users or informal 'friends of' the park, benefiting from its cultural services, experienced themselves as having a responsibility of care towards it and Manchester's greenspaces in general. However, with no clear pathway to manifesting this care or effecting change, this relationship has the potential to create disbenefits to wellbeing, arguably fuelling anxiety and a sense of threat.

The apprehensions and worries experienced by both official and unofficial friends of the park might be understood as forms of ecological emotion or perhaps 'eco-anxiety': fear and uncertainty over the future of ecological systems (Pihkala, 2020). Whilst the rise in recognition of such anxieties is associated with the expression and impacts of globalised concern around climate and biodiversity breakdown (Pihkala, 2020), respondents' sense of threat to greenspace in Manchester is a similarly ecologically-rooted disquiet. Ecological emotion has previously been identified as a motivator of environmental volunteering, including feelings of responsibility of care and threat to the environment such as those expressed in Whitworth Park (DiEnno & Thompson,2013). Within this context such concern for the environment may be transferred between places, inspiring action on behalf of other species wherever the volunteer finds themselves. In terms of the literature on greenspace access and deprivation, the links between less positive experiences of place and related experiences of environment-specific emotion can perhaps be found within a range of examples. For instance, evidence suggesting historic pro or anti-social events can inhibit or encourage future visitors (Lachowycz et al., 2013, p64. O'Brien et al., 2012) or enjoyment of CES benefits can be confounded by encounters that go against our expectation of greenspace activity and what it should consist of (O'Brien et al., 2012) and that visitors to treescapes/greenspace can feel 'out of place' there (Edwards & Weldon, 2006). Similar to these, it is arguable that our case study demonstrates environmental emotion not solely tied to the immediate natural environment at the park and current experience of it, but also linked to historic experiences of landscape access and quality and anticipation of future scenarios. Some positive treescape experiences bridged past activity and locations with a new context and similarly, perceptions of risk and threat to the CES benefits of Whitworth's current treescape connected historic and anticipated events with it. However, these linkages were associated with negative

feelings. Anxious eco-emotions were expressed by a variety of park-users, but groups experiencing greenspace deprivation (low quality/quantity) might be more likely to have historic negative experiences of threat to the CES benefits of those landscapes.

## 5. Conclusion

This case study used a socially-engaged arts approach, adapted to the specificity of one treescape and its visitors, to capture the affective dimension of a diverse community's cultural valuation of it. The informality and intimacy of its approach supported the research to reach a broad range of groups, including those experiencing marginalisation and contributed to building a holistic picture of treescape CES benefits. These qualities also appear to have encouraged the high proportion of emotional and emotive content in the data helping our aim of better understanding the significance of the treescape to park-users.

Our study suggests that park-users visited the park's treescape in anticipation of opportunities to positively manage health and wellbeing, with different degrees of conscious awareness of this expectation. People living and working in the park appeared to feel secure in using the park to access positive impacts to their identities, experiences and capabilities during the pandemic, with respondents suggesting use had both increased and diversified during this period.

The evidence suggests trees and the spaces they help shape play a significant role in providing inclusive CES and wellbeing. However, it also reveals that park-users experienced disbenefits for wellbeing when perceiving its environment and CES benefits to be at risk (for example from development in the wake of socio-economic change or lack of volunteer workforce). These anxious perceptions were not necessarily tied to the immediate context but rather were spatially and temporally mobile combinations of previous experience and future fears.

These existing levels of what could be viewed as a form of eco-anxiety in many park-users suggest that it will be important to carefully and sensitively engage them in the future management of the park's treescape. Given the shared management structure at Whitworth Park, uncertainties amongst the Friends of the Park as to who will succeed them and a strained public purse, however, it is perhaps unclear who might resource and take responsibility for this. It is also unlikely that these anxious environmental emotions are unique to Whitworth Park users and more research is needed to determine whether they affect those visiting and using other urban treescapes and greenspaces and their influence on access to CES benefits in those locations. In particular, any associations with greenspace deprivation, historic or present, need to be more clearly established. This evidence could better inform approaches to tree and greenspace management and careful handling of their immediate and legacy effects on eco-emotion and wellbeing.

## Declaration of Competing Interest

The authors have no competing interests to declare.

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