Design for social imagination

Sun, Qian*a; Loveday, Marya

- ^a Royal College of Art, London, UK
- * qian.sun@rca.ac.uk doi.org/10.21606/iasdr.2023.392

This paper reports findings from a research project, 'Connecting Roots', funded by the Arts and Humanities Research Council UK. Based on the learning from delivering six co-creation workshops to local communities, this paper discusses how design can be applied to support communities to collaboratively imagine future possibilities of health and wellbeing. It sits within the context of scaling up nature and nature-based activities (e.g., park runs, community gardens) as a non-clinical approach for better health and wellbeing. These workshops aimed to address the challenge of inequality of access focusing on Walsall, a metropolitan borough in the UK which exhibits some extremes of deprivation, a lower-than-average life expectancy, and ethnic and cultural diversity. Findings from the workshops suggest that social imagination is central to addressing inequality challenges, where people are empowered and supported to imagine what is possible for their own health and wellbeing and communities, and that they need to be recognised as the experts in their own lived experiences. The design-led creative approach adopted in running these workshops has become a catalyst of new possibilities within social reality, through engaging people at a deeper emotional level and forging a collaborative culture and mindset, which has allowed people to express themselves openly and creatively, and to negotiate and develop shared community values collaboratively. The positioning of design in the context of community imagination and transdisciplinary research is emerging at present and it is suggested future research focuses on evaluating the longer-term impact of this kind of designled approach for a better understanding of its potential.

Keywords: social imagination; inequality; nature; health and wellbeing

1 Introduction

Connecting Roots: Co-creating a Green Social Prescribing Network in Walsall for Health and Wellbeing is a research project funded through AHRC (Arts and Humanities Research Council UK)'s 'Mobilising community assets to tackle health inequalities' programme aimed at levelling up health and wellbeing in the UK. The Connecting Roots project collaborates with Voluntary, Community and Social Enterprise (VCSE) in Walsall, including One Walsall, Active Black Country, Caldmore Community Garden and The MindKind Projects CIC. This project acknowledges the importance of a genuinely bottom-up and placebased approach that considers the totality of local assets, including the realities of the physical locality





and local lived experience. This project has engaged people in an open dialogue that enables more diverse insights on the needs of different stakeholders to be shared and opens new avenues for developing visions, bottom-up policies and collaboration amongst these local VCSEs.

This paper focuses on the workshops delivered in the project as a case study to discuss how design can be applied to support communities to collaboratively imagine future possibilities of health and wellbeing.

The challenge of inequality in access to nature and nature-based activities is at the centre of these workshops. Experience with the natural world benefits physical and mental health (Kolokotsa et al, 2020), and has been one of the key factors enabling people to cope with the stress of the COVID-19 pandemic (He et al, 2022). A volume of evidence shows that access to and use of green space supports mental health benefits, including restoration from stress (McManus et al, 2016), reduced psychological distress (Swami et al, 2016) and decreased depression and anxiety (Baker, 2021). It is associated with a sense of gratitude and self-worth (Kolokotsa et al, 2020) and can help people recover from stress and mental illness (Zhang et al, 2014). This kind of experience with nature also helps to build a sense of place and community and foster feelings of belonging (Leavell et al, 2019). In addition, access to green spaces help facilitate social interactions, giving rise to neighbourhood ties, thus providing extra benefits for mental health (Peschardt & Stigsdotter, 2013). GPs, nurses and other healthcare professionals now increasingly recognise and prescribe nature-based activities, such as community gardening and walking groups, as non-clinical interventions for health and wellbeing to those who could benefit from them (Hegetschweiler et al, 2017). This is called green social prescribing (GSP). There is growing NHS support to use it more (Department of Health, 2006), particularly as those with poor access to healthcare often also often also access nature less (European Environment Agency, 2022).

However, access to the health benefits of green spaces, especially in cities (Zhang, Tan & Diehl, 2017) is not uniformly experienced across communities (Wolch et al, 2014): there is wide discrepancy in how, why, and in what ways (and indeed whether) different people and communities access nature for wellbeing (Anderson et al, 2021). Moreover, the data on the interaction between nature, community cohesion, and a sense of wellbeing has not been equally spread across all ethnic groups and the population as a whole, leaving a gap in our understanding of what the communities want and need from green spaces for wellbeing (Kremer et al, 2016). Inequality of access (Barkham, 2020) to nature and to nature-based wellbeing services is a considerable constraint for scaling up this approach.

This is especially the case for Walsall which the project concerns. Walsall is a metropolitan borough in the UK, consisting of a mix of urban, suburban and semi-rural communities, and one of the most deprived 10% of districts in the country. Ethnic minority groups now account for 32.6% (1 in 3) of Walsall's population, highly concentrated in certain parts of the borough. Overall health is poorer in Walsall when compared to averages in England and Wales, with lower years of 'good health' even in comparison to the West Midlands as a whole (Walsall Borough Council, 2023). Walsall is a place which exhibits some extremes of deprivation, a lower-than-average life expectancy, and an ethnic and cultural diversity. These characteristics affect the awareness, perception, engagement, and uptake of GSP. Despite the greenness of Walsall, there is an inequality in access to green spaces and green social prescribing, mirroring the health inequalities present in the area.

2 The challenge

Engagement with marginalised communities in nature and GSP has proved to be challenging. Social disadvantage, chronic ill health and health crises all limit easy access, while those in the most socially economically deprived areas receive the lowest quality of healthcare (Fixsen & Barrett, 2022). Many nature-based activities, e.g., community gardens, are racially segregated and the majority also appear to be middle-class (Jettner, 2017). Emerging evidence suggests ethnic and cultural minorities have disparities of access to green social prescribing, based on GP's referral data that shows inconsistent recording of wider determinants of health and variations in referral patterns on a practice-to-practice basis. The idea of utilising local assets as an alternative for health and wellbeing could potentially exacerbate inequalities in health further through unequal provision, (lack of) availability of resources (e.g., sites), and processes of uptake and adherence (Garside et al, 2020).

Such health inequities need to be borne in mind in both the planning of schemes and claims around the potential of future nature-based interventions to reduce health inequalities (Fixsen & Barrett, 2022). Local provisions need to consider a variety of needs in order to ensure all members of the community benefit. The Voluntary, Community and Social Enterprise (VCSE) sector is integral to the implementation and delivery of nature-based activities for GSP to local communities. However, despite keen motivation and desire for innovation from the VCSE sector, there is both a knowledge and capacity gap in how this can be achieved. Apart from the need to develop green space based on local needs, changing attitudes and further behaviours is also key. It is suggested that efforts to increase acceptance of the benefits of connecting with nature should focus on providing and promoting awareness of benefits, combined with effective communication and collaboration. Robinson et al (2020) suggest that the important foci for future research should be to establish transdisciplinary collaborative pathways, and collaborative approaches are strongly suggested in literature (e.g., Gorenberg et al, 2023) as an effective way to tailor the interventions to the different needs and aspirations of people, and to identify meaningful outcomes and feasible and robust methods for encouraging updating. However, few research projects have investigated these collaborative approaches and how these approaches work in practice.

To explore how a collaborative pathway can be developed, this project took a design-led action-based approach to explore opportunities for social action with the aim of empowering communities and individuals, especially marginalised ones, to imagine future possibilities linking nature, communities, and health and wellbeing.

To achieve the aim, the project delivered a total of 6 workshops in Walsall, and engaged over 50 individuals from local communities, including volunteers, pensioners, council members, college students, and community group leaders. This paper reports on the rationale of designing the engagement workshops, the process of delivery, and the outputs and learnings from running these workshops.

2.1 Wicked problems and social imagination

Like inequality, most of the societal challenges we face today are wicked problems that are complex and intertwined. As Rittel & Webber (1974) have pointed out, wicked problems do not have a single or definitive formulation, and there is no way to test the solution before implementation. In dealing with wicked problems, the way a discrepancy is perceived and could be explained can occur in numerous ways, but the explanation chosen determines the kind of resolution sought or provided – that is, the understanding of the problem's "whole" problem or solution can never be fully comprehended. Effective action toward more systemic social change requires a more nuanced understanding of social

realities that highlights the complexity of communities and their desires. It is not just about having more research, data, description or information of these challenges; it is more about the ability to reimagine the problems from multiple perspectives.

It is equally important to understand what is 'real' as well as what is 'possible' through social imagination - the ability of individuals and communities to imagine and envision alternative ways of living, working, and organising society (Moore and Milkoreit, 2020). These characteristics suggest the need to move beyond reaction towards proactive interventions. With a renewed social imagination, individuals can better understand their own lives and experiences, as well as the experiences of others and the broader social world in which they live. Social imagination can empower communities to envision a future and to critically examine the social and cultural structures that underpin our current way of life. Mulgan (2019) considers that the rekindling of social imagination is one aspect of taking back control, and DelSesto (2022) considers that this imagination can enrich our lives, making the work and projects that we undertake more meaningful to communities and wider society. Inequality of access to nature, nature-based activities and GSP is a particular area in which social imagination is fundamental.

2.2 Design for social change

The relevance of design in social imagination centres around three key characteristics of design: it is collaborative, systemic, and human centred.

First, the transdisciplinary nature of design can foster a collaborative culture and mindset.

Design is traditionally associated with making visual artefacts and industrial production, but has shifted from the legacy in producing tangible objects towards tackling social, environmental, cultural, and business challenges, by designing material and social artefacts that have a chance to make sense to their users, aid larger communities, and support a society to transform (Krippendorff, 2005). Many designers have pushed the boundaries of design into new territories e.g., service, system, strategy, policy, business model, and sustainability). These have become the frontiers of design that have expanded the meaning and practice of design to be an integral part of transdisciplinary innovation (Sun et al, 2022). These frontiers of design practice, e.g., service design, often find themselves called into projects to tackle major challenges, such as healthcare and wellbeing, sustainability, and digital transformation. These challenges are complex and interdependent, requiring collaborative innovation between different disciplines, between experts and users, and between researchers and practitioners.

Design uses systems thinking to engage with complex systemic problems. Systems theory views the world as a multifaceted system made up of interacting parts (systems). No system exists in isolation but is rather part of a network of systems. The level of complexity and emergent nature of systems now means that alteration anywhere in the system will have effects which cannot be predicted. Complex systems can be affected by emergent properties of their own (Gaziulusoy & Brezet, 2015). Moreover, "(t)oday we must conceive of all systems as social systems, or at least socially implicated systems of systems" (Jones, 2014: 92). As designers work at higher orders of complexity they work with contingent, emergent, and complex properties of systems. Buchanan (2019) traces the long history of interest in systems in design as a whole and argues for a view of systems as evolving and unpredictable social phenomena.

With this view in mind, design is believed to hold great potential to foster a collaborative culture and practice (Dorst, 2018). As the design process provides designers with a thoughtful way to re-interpret and rethink existing problem situations, and to identify practices from various fields and disciplines that could be built on (Dorst, 2018), designers can access the broadest possible collection of principles,

methods, and actions, while considering how these principles, methods, and actions may assist the designers. This type of deeply considered innovation-between-fields leads to the adoption of principles and practices that are completely new to the problem situation. For those frontier design practices, e.g., service design, collaboration is fundamental and pervasive, "including collaboration with the users, experts from different disciplines, clients (in the case of consultancies) and different departments in an organisation (in the case of in-house) and laypersons" (Sun et al, 2022: 4).

Further, design has a strong orientation towards an individual's experience within the system which is aligned with place-based thinking.

Efforts and activities aimed at developing social cohesion often focus on how well marginalised communities integrate and engage with the dominant culture. Community participation efforts in planning, health etc are often predicated on this model of homogeneity which ignores differences in accessibility, cultural traditions, and plural and contested experiences of place (Amin, 2002). Efforts to engage communities in identifying local priorities, such as community assemblies for example, presuppose a level of perceived agency or 'belonging' in ethnic communities which may not be present and which ignores intersectionality and 'micropublics of negotiation' (Amin, 2002). This is a top-down approach at odds with the place-based, community-embedded VCSE agenda. In addition, there is often an assumption that the 'the tools of cultural expression have been democratised and the means of production and distribution dispersed' (Lammy, 2011) - but this is an oversimplification of the barriers faced by some marginalised groups, who for a variety of reasons may not have access to these tools, or may not find them valuable or beneficial to their members.

This human-centred orientation of design practice can support the development or enhancement of a sense of belonging, identity, and trust (Sullivan, 2011) by building social capital and social networks (Pool, 2018) in which members have nested identities but shared values (Facer and Enright, 2016). The "designerly way of knowing" legitimises both the marginalised group and its place in the wider culture, by allowing participants to self-author and to collectively imagine a 'de-colonial world' (Daiute, 2016).

In summary, rather than as a solution that is prescribed from outside of social reality, a design-led approach is a catalyst of new possibilities within social reality. In this, design supports the articulation of both constraints and possibilities of a particular situation with attention to people's emerging lived experiences, needs and desires. This is aligned with place-based thinking in health policy which suggests that health inequality is a place-based issue (Dankwa-Mullan & Pérez-Stable, 2016). Placebased approaches (Queensland Government, 2022) are collaborative, long-term approaches to build thriving communities delivered in a defined geographic location. This approach is ideally characterised by partnering and shared design, shared stewardship, and shared accountability for outcomes and impacts.

3 The approach

In terms of place, the 2019 Index of Multiple Deprivation places Walsall within the most deprived 10% of districts in the country. There are extremes of deprivation, with pockets of deprivation existing even in the more affluent parts of the borough. Walsall falls significantly below the England average in areas including long term unemployment, infant mortality, and rates of illness such as diabetes and TB. Walsall is an ethnically and culturally diverse town with around a third of the population coming from ethnic minorities. People of Indian, Pakistani and Bangladeshi background form the largest minority ethnic groups, who now account for 1 in 3 of Walsall's population.

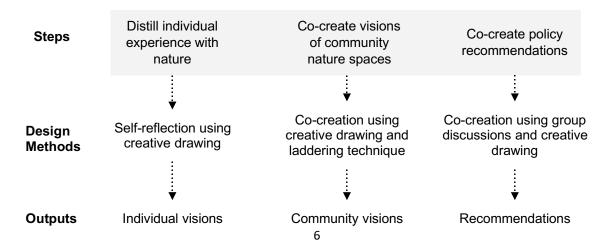
After mapping the system of social prescribing in Walsall, which revealed a fairly extensive but fragmented landscape of SP, the project turned to identifying how SP might be scaled. One aspect of scaling was to explore ways of connecting citizens to nature-based activities, in communities, for health and wellbeing - the three elements of Green Social Prescribing. It is known that being out in nature, and being a part of a community, can play a role in health and wellbeing; but it is also known that some citizens face barriers to be able to do so. In the workshops, we wanted to find out how participants would engage with nature and community if none of the current barriers existed.

In an earlier workshop, working with social prescribing link workers and managers, we used the design technique 'cone of plausibility' to explore probable and preferable future scenarios for GSP; exploring the current scenario of how GSP worked now, and imagining different futures for GSP in Walsall. While this activity worked well with participants with a knowledge of GSP, the team felt that a different approach was needed for community participants, who might or might not have had experience of or with social prescribing. Particularly with citizens in marginalised areas or areas experiencing high levels of health inequality, we felt that presenting participants with a list of options from which to choose, or asking them what they wanted from their services, might mirror more their experiences with the current systems rather than providing information about their true desires. This approach needed to open out beyond what was already happening or indeed what seemed possible from the current trajectory. Because of this, a playful, creative, affect-led approach was required, which created a space for citizens to imagine an integration of nature, community, and wellbeing without being constrained by expectations based on prior experience.

The workshops engaged a broad demographic, including minority ethnic groups of Bangladeshi, Pakistani, and Eastern Europeans, lower socioeconomic bands, pensioners, and college students. The participants were recruited through the community groups that partnered with the research team, which were embedded in local communities and worked within these diverse demographics. The workshops were conducted in an environment that the participants were familiar and comfortable with, such as their known and nearby community centres. Each participant gave consent before taking part in the workshop following the ethical guidelines of the research funder. The workshops were facilitated by the design researchers from the project team.

Each workshop was split into three parts exploring nature, community and wellbeing in-depth separately. The planning of the workshops combined the thinking from both the 'designerly way of knowing' (Cross, 2001) and the specific social research method 'laddering' (Sun, 2007), which asks a series of 'why' questions to encourage self-analysis of behaviour and motivations towards the hardtoreach personal values.

Figure 1.: Steps, Methods and Outputs of the Workshops



The workshops asked questions and provided activities to find out how participants might envision how nature, community and wellbeing could interact with one another in their ideal future. The workshop structure was split into four parts: in the first three parts, participants explored the themes of nature, community and wellbeing in detail, then in the final part, they reflected on the interactions between them.

The workshops began with a nature word association, where participants were asked to think about what came to mind when they thought of nature. Distilling experiences immediately created a sense of commonality and shared understanding, along with curiosity about each other's responses. Next, participants were led by the facilitator in an imagined nature walk. Instructed to think of a place in nature - somewhere they had been before, or somewhere made up, close or far away. Participants drew this space in the workbooks provided, and while drawing there was much discussion about nature spaces, where they were (if real spaces) and what was in them to draw the participant to that place. The role of sensory engagement in this part of the exercise was to induce affective, rather than rational, responses, which was intended to increase emotional engagement and allow for clarity of participants' deeper desires around or for nature.

In Step 2, bringing ideas of nature and community together, participants created a shared community nature space on their large coloured card, around which each group was placed. Each participant contributed two things from their personal envisioned space to contribute to the shared community public space, drawing the space collectively. This allowed for groups to negotiate between what was important for individuals and what might be more important in shared spaces. The discussions engendered by this activity allowed participants to imagine freely what a shared community space needed to provide for them to feel welcome and safe, and to engender a sense of wellbeing, which was the next element explored in the workshop.

Here the facilitator invited participants to think about wellbeing as feeling safe, comfortable and happy, and to think about what activities can contribute to feeling this way. The workbooks contained a diagram of two concentric circles, with the inner circle representing the participant and the outer circle all the things that made them feel comfortable, happy and healthy. The facilitator encouraged participants to include solo and shared activities and to consider widely what promoted their sense of wellbeing. Then, in pairs, participants chose one thing from the bigger circle and asked each other why this element or activity impacts their wellbeing (a version of the well-known '5 whys' or laddering design exercise). From opening out a sense of possibility in the affective engagement with nature, this part of the workshop encouraged participants to identify their primary motivations for engaging. Some of the answers seemed to surprise the participants (adding to the sense that the activities were activating a deeper knowledge), and many provided moving insights for them and for the facilitating team. The role of community partners was highlighted: the workshops were held in their spaces, with participants drawn from citizens who attended there. Despite some sensitivity over this community element, participants were commonly able to identify the positive sense of community provided for them at these spaces. They wrote about their feelings on sticky notes and placed them on the shared large paper, and were asked to consider whether this exercise had made them think of anything else that was needed in the shared community nature space.

Once participants had collectively made a vision of how their imagined ideal community looked, felt, and functioned, in Step 3, they were asked to bring their thoughts back to Walsall, and think of its communities and nature spaces and how they are currently used. The participants were asked to identify the steps that would be necessary to make their vision come alive. They then wrote a 'postcard'

to the people who are in charge of making this happen, giving their recommendations of change or improvement.

The use of a creative, playful, affect-led approach was a way to draw out imaginative responses from participants. The role of sensory engagement in workshops, for example, was to induce affective responses, rather than rational ones, which was intended to increase emotional engagement and allow for clarity of participants' deeper desires around or for nature. Both playful and affective elements rapidly induced a sense of trust between facilitators and participants, and also created a levelling out between participants, and between participants and researchers. This created an environment of collaboration where at the end of the day people felt not only they had given the team something but they had gained something as well.

Some example images are included to show the process and art works from one workshop in February 2023.

The process and methods used in the workshops gave the participants an opportunity to step back from their reality and gave them space to imagine, reflect and create. For some, this was their first time imagining and reflecting, and for others it was a period of reflection they did not know they needed. It gave them new perspectives, new ways of thinking about their personal wellbeing and communities. The feedback from participants was highly positive and they considered the workshops to be 'thought provoking super sessions'; 'fun and thought-provoking', 'informative' and 'a great awesome coming together'.

The data collected from the workshops - photos, text (written on sticky notes for example), and transcripts of the conversations which occurred, were collected and collated for each of the workshops. Data sorting and analysis of the workshops series took place in a whole team activity to minimise bias and sense check. The team analysed the data in a number of passes which led to a robust articulation of what the participants valued, wanted more of, and wanted to see created in the future. These insights were presented in outputs such as an exhibition, a short film, and reports.



Figure 2. A participant is reflecting on their last experience in engaging with nature through drawing and discussing with the team what nature means to them



Figure 3: Participants are working collaboratively to envision their ideal nature space and sharing their thoughts about why these are important to them



Figure 4: The participants considering the ideal nature space in the context of community and discussing what is needed to enable this future vision to happen

4 Learnings

These workshops were part of the project engagement activities for impact as well as a way to collect data. The design-led approach proved to be effective for both missions. These workshops revealed lived experience of health inequalities, both root causes and the challenges. The emergent properties of the workshop saw it move beyond a data collection activity to something more 'for' than 'from' the participants. There were a number of learnings from this aspect of the workshops which became more apparent during each iteration, and which had to do with the creative and affective elements of the workshop design:

4.1 Deep engagement to reveal social reality and lived experience

The participants were recruited on a voluntary basis through the local partner organisations who work closely with their communities. These communities include ethnic minorities of Indian, Pakistani, and Bangladeshi, South Asian, and white British groups from low socioeconomic backgrounds. In most cases, their level of engagement in, for example, identifying local priorities and setting agendas, does not match their population size. Their voices are simply not heard.

In the workshops, they had the opportunity to talk about themselves, their dreams, desires and struggles. It was such a realisation to them, as well as to the research team, that they are the experts in their lived experience, just like one commented that 'I didn't know I knew that!' and 'I didn't realise that I was actually enjoying nature so much and I think I will do more'.

In the workshops, they were also paired up to interview each using a number of 'why' questions which tended to uncover heartfelt responses. One participant shared that one of their primary experiences of 'community' was evoked while playing cards with their immediate family. It was difficult for this participant to uncover why this sense of community was felt so strongly in this situation, but through the 'three whys' they eventually encountered the knowledge within themselves that 'everyone who is important is in that room'. This almost seemed a surprise to this participant, who manages a busy VCSE organisation and therefore spends their days caring for community - but it perhaps provided a counternarrative and reminder of another sense of community at the heart of their lived experience and motivations. The group was moved, not only by the sharing of this insight, but by the deep and courageous personal interrogation which led to it. In another workshop, a participant with learning differences shared that their sense of community was triggered by their partner, who made them feel safe (in a world which could often feel hostile). Again this evocation of innermost desires, motivations and experiences is a powerful way for the group to understand each other and build a sense of shared community. The combination of 'setting the scene' by asking participants for their emotional responses and memories, followed by the laddering activity (three whys) led to very open responses. The laddering technique is often used to access otherwise hard-to-reach motivations and desires, but it was pairing it with the previous activity which primed participants with a depth of affective engagement.

It was such a humbling experience to listen to their stories. In one workshop, one participant read out her own poem "I'M A VOLUNTEER" where she expressed her struggles for not being taken seriously as a volunteer, as well as her passion and love towards the work she volunteers to do. Their commitment, passion, rich local knowledge and a sense of 'pride' told great stories about the place, conveying not only information, but meaning and knowledge. And the meaning and knowledge constitutes an important part of the local assets, which however are not widely recognised and utilised.

These make the workshops different from those consultations which take place in the usual engagement practice. In these workshops, people had the opportunity to look inwards and reflect and

to be inspired, representing a genuine place-based approach, and demonstrating the power of engaging people at a deeper emotional level.

4.2 Fostering a collaborative culture and mindset

For example, following deep reflection on their individual experience, participants had the opportunity to design themselves how they ideally want to be in nature with their communities for their wellbeing. People brought their own unique insights and experiences to the discussion, through which they became aware of and empathised with other people's needs. At the same time, this became a process of negotiation between different needs. For example, in one of the workshops, a participant who used crutches to walk voiced to her group that she wanted a path in the space that was accessible to wheelchair users. The group had not thought of the importance of this. As a result, their shared nature space was designed to be accessible to wheelchair users. In reflection of the activities, the participants felt it had gone beyond designing the shared spaces into forging community values shared by people with different needs and wants. This also clearly evidences the possibility of fostering a culture or mindset of collaboration through a design-led approach, in the way that Dorst

(2018) suggested that design could be fundamental in bringing different practices for transdisciplinary innovation.

The co-creation produced ideas of what the community spaces could be like, in the format of art works, e.g. drawings and collages. However, it is clear that the process of engaging in the workshops was considered valuable by the participants. Some commented that "it was good to have time to reflect on my life now and how I might switch the balance of things", "(I've) been creative and been heard", and "I am inspired and feel the spirit of the community". The workshops generated many intangible outcomes including a better understanding of self and others, an increased sense of belonging, and more importantly the renewed ability and confidence to imagine and to dream.

4.3 A catalyst for new possibilities within social reality

This engagement of people at a deeper level by providing an opportunity for the examination and exploration of deep desires and unspoken needs is both an effective and an affective approach to personal and group imagination activities. The process of invoking memories and experiences to induce an affective response to nature was followed by a collaborative envisioning activity, a shared act of imagination, in which emotive experiences provided an imaginative portal to a creative experience that Daiute (2016) calls 'relational imagining'. This is a powerful engagement with both ideas and others, which engages parts of the person which can often be left unexamined in the world of the everyday. Engaging social imagination with the workshop participants allowed for their placebased experience to enter the 'liminal space', a place "between destinies ..." (Heilbrun 1999: 101). This liminal space is the in-between space "between what was and what might be, where one engages with future possibilities" (Kennedy, 2001) and is a potent invocation of imaginative space, that allows for possibilities that may not seem possible from a more logical examination of the current position or landscape. It is a particularly freeing approach as exemplified, for example, in the part of the workshop involving participants working together to create a shared plan or image of a community outdoor space. Aside from the often-articulated desire for less rubbish and more toilets, participants expressed desires for a more spacious experience of urban nature, hopes for creative activities/opportunities for all members and groups within Walsall, and ideas for community-led housing from people who had previously been on the cusp of homelessness, illustrating the increased freedom with which participants engaged with creative ideas for shared community spaces. Participants expressed surprise at the ideas they saw arising in the sessions - and delight as well.

Grounding the imaginative response in a usable infrastructure such as a community space was also important. Participants were able to envision sophisticated concepts such as [equality of access etc] because of these 'infrastructures of imagination'. As Hopkins (2022: n.p.) noted, "a good 'What If' question opens up a range of possibilities in a positive and hopeful spirit." Both the opening up of possibilities and the nurturing of hope are important here. The participants were asked to think of a name for their imagined community space, and this act of naming - 'This Is Walsall', 'Safe Space' - was suggestive of the qualities of the desired community spaces, and expressed a hopeful engagement with the idea of community and wellbeing. Some participants in the workshops in previous interviews had shown an acute awareness of the challenges facing them in negotiating shared public green spaces; within the workshops this gave way to far more engagement with possibilities and opportunities. The great educator Maxine Greene wrote of "the importance of opening spaces in the imagination where persons can reach beyond where they are" (1986: 430). During the workshops, the restored social imagination, through a process of reflection on what is possible, increased individuals' confidence and willingness to take part in and even to innovate nature-based activities, and to see both nature and the wider community as places of opportunity and potential.

4.4 Between the line of 'for' and 'with'

When the participants were provided with space, opportunity and the design tools, they naturally took part in the co-design process without additional training or briefing. The co-designing practice developed spontaneously by these participants resonated with the co-design process used by professional designers, where they spend time listening to each other to gather different perspectives and needs, and negotiate and build on each other's ideas along the way. The open and collaborative mindset they adopted in the process clearly supported what Manzini (2015) asserts: that when given the right opportunity and tools, everyone can design for themselves. Empowering communities to do so, therefore, is the way forward in designing GSP services that meet the real needs of the community while being mindful of nature.

On the other hand, this observation about the workshop foregrounds the importance of creating a safe space where participants feel comfortable to reflect, share and create. This is a skill increasingly attached to the design facilitation process. Because facilitation practice, if skilful enough, is often selferasing or invisible, it can sometimes be downplayed or treated as an afterthought, but our findings suggest that it is of paramount importance in this process.

5 Conclusions

This paper concludes that social imagination is central to addressing inequality challenges. Design becomes a catalyst for renewed social imagination where people are empowered and supported to imagine what is possible for their own health and wellbeing and for their communities. It reveals that people are the experts in their lived experience. When they are engaged at a deeper emotional level, the lived experience surfaces, conveying rich local knowledge, passion and commitment, and becomes a powerful asset to the local communities. The design-led approach enables the implementation of place-based thinking to engage people in a meaningful way. The engagement generates intangible outcomes including a better understanding of self and others, an increased sense of belonging, and more importantly the renewed ability and confidence to imagine and to dream. The experience was highly valued by the participants: further, the collaborative mindsets developed through the workshops allowed the activities to go beyond designing shared spaces to forging community values, leading to a greater sense of belonging. This case shows the potential of the design-led approach in fostering a culture or mindset of collaboration.

The positioning of design in the context of community imagination and transdisciplinary research is emerging at present. This study has clearly demonstrated its potential and the possibilities. However, for disciplines and practices outside of the immediate design circle, this way of using design is not widely recognised. The transdisciplinarity of design is also contested within the design community. A trajectory to scaling up this kind of design-led approach for both social imagination and transdisciplinary research is lacking. This could be built on a more systemic evaluation of the longerterm impact of these pocketed and emergent design practices to evidence their potential. It is therefore suggested that future research focuses on the exploration and evaluation of the impact in various societal and environmental challenges we face.

References

- Amin, A. (2002) Ethnicity and the multicultural city: living with diversity. *Environment and Planning A*, 34: 959-980 DOI:10.1068/a3537 https://journals.sagepub.com/doi/pdf/10.1068/a3537
- Anderson V, Gough WA, & Agic B. (2021) Nature-Based Equity: An Assessment of the Public Health Impacts of Green Infrastructure in Ontario Canada. *Int J Environ Res Public Health*. 18(11):5763. doi: 10.3390/ijerph18115763.
- Baker, C. (2021) Mental Health Statistics (England), House of Commons Library. Available online: https://researchbriefings.files.parliament.uk/documents/SN06988/SN06988.pdf [Accessed 7 April 2023]
- Barkham, P. (2020) Poorer people and ethnic minorities live further from UK green spaces study. The Guardian, UK, Wed 16 Sep 2020. https://www.theguardian.com/inequality/2020/sep/16/poorer-ukhouseholds-have-less-access-to-green-spaces-study
- Buchanan, R. (2019). Systems Thinking and Design Thinking: The Search for Principles in the World We Are Making. *She Ji: The Journal of Design, Economics, and Innovation*, 5, 85-104. https://doi.org/10.1016/j.sheji.2019.04.001
- Cross, N. (2001). Designerly Ways of Knowing: Design Discipline Versus Design Science. *Design Issues*, *17*, 49-55. https://doi.org/10.1162/074793601750357196
- Daiute, C. (2016) Imagining in Community Engagement, in: Litton, T. & Glaveanu, V. (eds) *Handbook of Imagination and Culture*. Oxford: Oxford University Press p42
- Dankwa-Mullan, I., & Pérez-Stable, E. J. (2016). Addressing health disparities is a place-based issue. *American Public Health Association*. Vol.106: 637-639
- Department of Health (2006) Our health, our care, our say: a new direction for community services. White Paper Crown Copyright
- DelSesto, M. (2022). Design and the Social Imagination . London,: Bloomsbury Visual Arts.
- Dorst, K. (2018) Mixing Practices to Create Transdisciplinary Innovation: A Design-Based Approach, *Technology Innovation Management Review* 8, no. 8 (2018), 60-65, https://timreview.ca/article/1179.
- European Environment Agency (2022) Who benefits from nature in cities? Social inequalities in access to urban green and blue space across Europe. https://www.eea.europa.eu/publications/who-benefits-fromnature-in
- Facer, K., & Enright, B. (2016). Creating Living Knowledge: The Connected Communities Programme, community-university partnerships and the participatory turn in the production of knowledge. *Arts and Humanities Research Council*. https://connectedcommunities.org/index.php/creating-living-knowledgereport/
- Fixsen, A., & Barrett, S. (2022). Challenges and Approaches to Green Social Prescribing During and in the Aftermath of COVID-19: A Qualitative Study. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.861107
- Garside, R., Orr, N., Short, R., Lovell, B., Husk, K., McEachan, R., Rashid, R., Dickie, I., Preston, S., & Ainsworth, H. (2020). Therapeutic Nature: Nature-based social prescribing for diagnosed mental health conditions in the UK. *Final Report for Defra*. http://randd.defra.gov.uk
- Gaziulusoy, A.I., Brezet, H. (2015) Design for system innovations and transitions: a conceptual framework integrating insights from sustainability science and theories of system innovations and transitions. Journal of Cleaner Production http://dx.doi.org/10.1016/j.jclepro.2015.06.066
- Gorenberg, J., Tierney, S., Wong, G., Turk, A., Libert, S., Potter, C., Eccles, K., Forster, S., Husk, K., Chatterjee, H.J., Webster, E., McDougall, B., Warburton, H., Shaw, L., & Mahtani, K.R. (2023) Understanding and Improving Older People's Well-Being through Social Prescribing Involving the Cultural Sector: Interviews

- from a Realist Evaluation. *Journal of Applied Gerontology: the Official Journal of the Southern Gerontological Society.* 2023 Feb:7334648231154043. DOI: 10.1177/07334648231154043
- Greene, M. (1986) In Search of a Critical Pedagogy. *Harvard Educational Review* (1986) 56 (4): 427–442 https://doi.org/10.17763/haer.56.4.010756lh36u16213
- He, Y., Jorgensen, A., Sun, Q., Corcoran, A., & Alfaro-Simmonds, M. J. (2022). Negotiating Complexity:

 Challenges to Implementing Community-Led Nature-Based Solutions in England Pre- and Post-COVID19.

 International Journal of Environmental Research and Public Health, 19(22), 14906.

 https://doi.org/10.3390/ijerph192214906
- K. Tessa Hegetschweiler, K. T., de Vries, S., Arnberger, A., Bell, S., Brennan, M., Siter, N., Stahl Olafsson, A. Voigt, A., & Hunziker, M. (2017) Linking demand and supply factors in identifying cultural ecosystem services of urban green infrastructures: A review of European studies, *Urban Forestry & Urban Greening*,
- Volume 21, Pages 48-59, ISSN 1618-8667, https://doi.org/10.1016/j.ufug.2016.11.002 Heilbrun, C. (1999) Women's Lives: The View from the Threshold. U Toronto Press
- Hopkins, R. (2022) From What Is to What If: Unleashing the Power of Imagination to Create the Future We Want. London: Chelsea Green
- Walsall Borough Council (2023) Walsall Insight: Diversity.

 https://www.walsallintelligence.org.uk/home/demographics/diversity/
- Jettner, J.F. (2017). Community gardens: Exploring race, racial diversity and social capital in urban food deserts.
- Jones, P.H. (2014) Systemic Design Principles for Complex Social Systems, in Metcalf, G.S. (ed) *Social Systems and Design*. Japan: Springer
- Kennedy, M. 2001. Race matters in the life/work of four, white female teachers. Unpublished doctoral dissertation. Edmonton: University of Alberta
- Kolokotsa, D., Lilli, A., Lilli, M. & Nikolaidis, N. (2020). On the impact of nature-based solutions on citizens' health & well being. Energy and Buildings. 229. 110527
- Kremer, P., Hamstead, Z. A., & McPhearson,T. (2016) The value of urban ecosystem services in New York City: A spatially explicit multicriteria analysis of landscape scale valuation scenarios, Environmental Science & Policy, Volume 62, Pages 57-68, ISSN 1462-9011, https://doi.org/10.1016/j.envsci.2016.04.012
- Krippendorff, K. (2005) The Semantic Turn: A New Foundation for Design. Boca Raton, FL: CRC Press.
- Lammy, D. (2011) A richer understanding of heritage, Journal of Policy Research in Tourism, Leisure and Events, 3:2, 201-203, DOI: 10.1080/19407963.2011.555460
- Leavell, M.A., Leiferman, J.A., Gascon, M. et al. (2019) Nature-Based Social Prescribing in Urban Settings to Improve Social Connectedness and Mental Well-being: a Review. *Curr Envir Health* Rpt 6, 297–308
- Manzini, E. (2015). *Design, When Everybody Designs. An Introduction to Design for Social Innovation*. London, England: The MIT Press Cambridge
- McManus, S.; Bebbington, P.E.; Jenkins, R.; Brugha, T. (Eds.) (2016) Mental Health and Wellbeing in England: Adult Psychiatric Morbidity Survey 2014; *NHS Digita*l: Leeds, UK
- Moore, M. L., Milkoreit, M. (2020). Imagination and transformations to sustainable and just futures. *Elem Sci Anth*, 8: 1. DOI: https://doi.org/10.1525/elementa.2020.081
- Mulgan, G. (2019). *Social Innovation: How societies find the power to change*. Policy Press, University of Bristol. http://doi.org/10.46692/9781447353805
- Peschardt, K.K., & Stigsdotter, U.K. (2013). Associations between park characteristics and perceived restorativeness of small public urban green spaces. *Landscape and Urban Planning*, 112, 26-39.
- Pool, S. (2018) 'Everything and nothing is up for grabs: Using artistic methods within participatory research' in Facer, K. and Dunleavy, K. Connected Communities Foundation Series. Bristol: University of Bristol/AHRC
- Connected Communities Programme. Queensland Government (2022) Place-based approaches. https://www.chde.qld.gov.au/about/initiatives/place-basedapproaches#:~:text=What%20is%20a%20place%2Dbased,accountability%20for%20outcomes%20 and% 20impacts.
- Rittel, H. W., & Webber, M. M. (1974). Wicked problems. Man-made Futures, 26(1), 272-280.
- Robinson, J. M., Jorgensen, A., Cameron, R., & Brindley, P. (2020). Let Nature Be Thy Medicine: A Socioecological Exploration of Green Prescribing in the UK. *International Journal of Environmental Research and Public Health*, *17*(10), 3460. https://doi.org/10.3390/ijerph17103460
- Sullivan, H. (2011) Evaluating social cohesion. In P. Ratcliffe and I. Newman (eds) *Promoting social cohesion: Implications for policy and evaluation*. Bristol: Policy Press. pp. 41–58.
- Sun, Q. (2007). Strategic market planning in China: A means-end chain approach to market segmentation within the Beijing mobile phone market. University of Salford (United Kingdom).

- Sun, Q., Jorgensen, A., & Corcoran, A. (2022). An investigation into the value of design in nature-based solutions for health and wellbeing in a post-COVID world. *AMPS Proceedings Journal Series*, 1(1), 1-17.
- Swami, V, Barron, D., Weis, L., & Furnham A. (2016) Bodies in Nature: Associations between exposure to nature, connectedness to nature, and body image in U.S. adults. *Body Image* Volume 18, Pp 153-161
- Walsall Director of Public Health Annual Report (2021) 'Improving Mental Wellbeing in Walsall: Together We Can' https://www.walsallintelligence.org.uk/home/demographics/diversity/
- Wolch, J.R., Byrne, J., & Newell, J. (2014) Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough' *Landscape and Urban Planning* Volume 125, Pp 234-244. ISSN 0169-2046, https://doi.org/10.1016/j.landurbplan.2014.01.017.
- Zhang, L., Tan,P.Y., & Diehl,J.A.(2017) A conceptual framework for studying urban green spaces effects on health. *J. Urban Ecol.* 2017,3.
- Zhang, J. W., Piff, P. K., Iyer, R., Koleva, S., & Keltner, D. (2014) An occasion for unselfing: Beautiful nature leads to prosociality. *Journal of Environmental Psychology* 37, 61-72

About the Authors:

Dr Qian Sun: Reader in Service Design, Policy and Social Innovation, and Senior Tutor on the Service Design MA programme at the Royal College of Art, with a demonstrated research record in Design.

Dr Mary Loveday: Postdoctoral Research Associate at the Royal College of Art, Lecturer in Design Contexts and Innovation, and creative practitioner in Arts & Ecology.

Funding

This work was funded by the Arts and Humanities Research Council (AH/X000060/1). For the purpose of open access, the author has applied a Creative Commons Attribution (CC BY) licence to any Author Accepted Manuscript version arising.

Data Availability Statement

Due to the ethically and politically sensitive nature of the research, participants of this study did not agree for their data to be shared publicly. Please contact the project PI at qian.sun@rca.ac.uk to discuss the underlying data.

Acknowledgments

We would like to sincerely thank all the participants in this study who gave us their valuable time.