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Arts and
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Research Council

RESEARCHING EVIDENCE-BASED ALTERNATIVES IN LIVING,
IMAGINATIVE, TRAUMATISED, INTEGRATED, EMBODIED SYSTEMS

REALITIES

THE IMPORTANCE
OF CONNECTION
AND CREATIVITY IN
WIDENING ACCESS
TO GREENSPACE

SUMMARY

It's widely understood that greenspace is important to our health. But while "access to greenspace" is typically assessed in terms of physical access, new research from the University of Edinburgh in partnership with the **REALITIES consortium** shows that this understanding excludes the experiences of people living in deprived rural communities, who may have physical access to greenspace but not see any health benefits due to a disconnection from their local landscape. Our findings from this research suggest:

- "Access to greenspace" should not solely be understood in terms of physical access; other barriers, such as connection to greenspace, should also be prioritised in work in this area
- Community members living in deprived areas in rural Scotland are particularly likely to encounter barriers to access rooted in disconnection from their local landscapes, despite being surrounded by nature
- Creative-green interventions offer a means to restore this connection and offer a route for disconnected communities to re-engage with and benefit from their immediate natural environment
- There is a need for more interventions which integrate creativity and the arts into efforts to reconnect people with nature, though these should be focused on the changing needs and wants of specific communities rather than "rolled out" to scale
- We need to prioritise developing the evidence-base on both connection to greenspace in rural areas of poverty and the potential for creative-green interventions to facilitate connection to greenspace
- Evidence, in this context, takes on many forms, most notably: the process of making art and being creative; the artwork itself (regardless of what it looks like); feelings and senses experienced in the body when out in nature; and connections formed through the act of coming together

INTRODUCTION

In the Highlands of Scotland, you wouldn't expect access to greenspace to be an issue. But our UKRI-funded research project, REALITIES in Health Disparities: Researching Evidence-Based Alternatives to Living, Imaginative, Traumatized, Integrated, Embodied Systems, has shown that, for certain communities, being located close to the natural beauty of Scotland doesn't automatically mean you benefit from it.

ACCESS TO GREENSPACE IN SCOTLAND: THE POLICY CONTEXT

The Scottish Government states in the Scotland National Performance Framework that they "[believe that access to greenspace, nature and other leisure activities positively enhances our lives and health](#)"; and that they wish to "[ensure all communities can engage with and benefit from nature and greenspace](#)". In March 2016, a new national indicator 'improve access to local greenspace' was added to the National Performance Framework, which is measured against [the proportion of adults who live within a five-minute walk of their local green or blue space](#). The latest measurements show that 65.6% of adults lived within a five-minute walk of their nearest green or blue space in 2019, compared to 65.3% in 2018. Data has also consistently shown that people living in the most deprived areas are less likely to live within a five-minute walk of their nearest greenspace than people in less deprived areas; and that there is a marked difference by ethnicity, with 66% of those from the white ethnic group reporting living within a five 5-minute walk of the nearest greenspace, compared to 46% of those from ethnic minorities.

This explicit concern for greenspace is reflected in Scotland's policy landscape, with action taken to protect, enhance, and promote green infrastructure underway



[across both government and third-sector organisations](#), for example in the [Place Standard Tool](#) (developed by Scottish Government and NHS Health Scotland), which includes "Natural Space" as one of the 14 relevant standards against which to assess a place. Historically, [Scottish government policy](#) has focused on investment in the creation of new greenspaces, resources for enhancing and maintaining existing greenspaces, protecting open space from development or fragmentation, and local authority open-space strategies.

The most significant current greenspace initiatives include:

- **Central Scotland Green Network:** The CSGN is a 40-year programme which aims to change the face of central Scotland by restoring and improving its rural and urban landscape. As part of its remit, the CSGN facilitates projects that deliver actions "improving the quality and availability of local greenspace and ensuring its accessibility to all". This includes "embedding community growing as part of local food growing strategies, encouraging outdoor physical activity and green active travel."

- **Our Natural Health Service:** Run by NatureScot, this project aims to show how greater use of the outdoors can help to tackle physical inactivity, mental health issues and health inequalities. Local Green Health Partnerships aim to develop area-wide, coordinated, cross-sectoral action to increase the use of green exercise in prevention, treatment and care; while Green Infrastructure for Wellbeing Partnerships aim to maximise the health benefits from planned investment in new green infrastructure.

Anticipated future drivers (as [outlined by Scottish Government](#)) include: revisions to the [planning system](#); the role for greenspace in supporting climate change mitigation and adaptation; the impact of climate change on quality of greenspace; urban demand for housing as well as health and associated services; and green infrastructure's role in placemaking and supporting healthy lifestyles.



KEY DEFINITIONS

Greenspace: A greenspace is an outdoor open-space area preserved for the natural environment. Typically used within the context of urban planning, this can include spaces such as parks, woodlands, playing fields, allotments, and cemeteries. Recently, discussion has broadened to also include blue spaces such as rivers and coastlines.

Natural assets: This term is mostly used within a sustainability context, and refers to the world's stock of natural resources – such as forests, soil, mountains, and beaches. More recently, this has been used within a community health context and can be understood as closely connected to the term “greenspace”.

Green prescribing: This is a form of social prescribing, which allows health and social care practitioners to “prescribe” non-clinical sources of support. This means that activities such as gardening groups, walking groups, or formalised nature-based therapeutic programmes, can be ‘prescribed’ to those whose health may benefit from participating in nature-based activities.

WHY “ACCESS” DOESN'T ENSURE BENEFITS FOR EVERY COMMUNITY

We wholeheartedly support the ongoing endeavours outlined above to improve and maintain access to greenspace in Scotland. However, understanding access to greenspace solely in terms of proximity – such as measuring success by the percentage of adults who live within a five-minute walk of their local green or blue space – ignores other barriers to access experienced by communities in Scotland. Moreover, this understanding has also led to policy focusing almost exclusively on urban communities (as in [Greenspace Scotland's “The Third State of Scotland's Greenspace Report \(2018\)”](#), for example).

Our research has shown that disconnection from local landscapes means that disadvantaged communities in rural Scotland do not see the health benefits that can be afforded from local greenspace. Securing access to greenspace for all, therefore, means reassessing how

we approach access to greenspace: our research suggests that a focus on connection rather than access is a better approach for ensuring that some of the most disadvantaged communities see the health benefits. Our research also indicatively suggests that integrating creative activities into nature-based health interventions offers a means of reconnecting with greenspace.

METHODOLOGY

EXISTING EVIDENCE ON GREENSPACE AND HEALTH INEQUALITIES

Interest in nature-based health interventions has grown steadily in recent years, with these viewed as less intrusive and more cost-effective options when compared to medicated interventions.¹ And over the last decade, an increasing amount of research has evidenced the ways in which the natural world can help tackle ill health: regular encounters with natural outdoor spaces have been shown to offer a wealth of both physical and mental health benefits. Physical health benefits include increased physical activity; improved cognitive function, brain activity, blood pressure, and sleep; and decreased risk of cardiovascular disease. Mental health benefits include improved quality of life, perceived wellbeing, and emotional health (including mood, self-esteem, self-confidence, and vitality); and decreased depression, anxiety, stress levels and behavioural problems (such as

hyperactivity and violence).²

Nature-based health interventions are also often cited as particularly beneficial to tackling health inequalities, since spending time outdoors is free and – theoretically – widely accessible. Issues with inequalities in relation to greenspace are typically raised in relation to limited physical access – such as in deprived urban areas³ or in cases where people with disabilities are unable to reach greenspaces due to collective failure to meet their access requirements⁴ – and in relation to barriers to access related to race, disability, age, and gender. For example, women, the young, and the elderly can sometimes feel unsafe in the greenspaces available to them, while people from minority ethnic backgrounds do not always feel welcome or that they belong in greenspaces.⁵



¹ Robinson and Breed, 2019.

² Jiminez et al., 2021; Nejade, Grace, and Bowman, 2022.

³ Wang, Brown and Liu, 2015.

⁴ Public Health England, 2020.

⁵ Collier, 2020.

THE REALITIES PROJECT

Fieldwork was conducted from February to November 2023 across three Scottish hubs in Clackmannanshire, Easter Ross in the Highlands, and North Lanarkshire. We also connected with displaced communities such as prisoners, ex-offenders, refugees, asylum seekers, and those experiencing homelessness in a hub that was initially called 'The Outliers' but was renamed to 'Release (Re)imagined'.

Hundreds of [community members](#) with first-hand experience of trauma engaged

BRINGING TOGETHER CREATIVE AND NATURAL ASSETS IN THE REALITIES PROJECT

Our research speaks to crucial evidence gaps relating to health inequalities, greenspace, and green prescribing, namely: (1) a predominant focus on urban areas; and (2) a lack of research investigating the potential benefits of integrating creative-green prescribing.⁶

Working across our three sites (Clackmannanshire, Easter Ross (Highlands), and North Lanarkshire) over the course of nine months, we engaged two local artists explicitly creating art connected to nature and ran two arts-based participatory action research workshops aimed at exploring the synergistic benefits of integrating creative-green prescribing. These workshops combined arts and nature-based activities co-designed with each group: painting stone markers for a gardening project with a mental health group (of six participants) in Easter Ross; and creating illustrations within a woodland setting with a group of six young people in Clackmannanshire. In North Lanarkshire, [a local artist](#) who cares deeply about plastic waste and the climate challenge created three visual art pieces using plastic waste and bottle tops. These were inspired by the woodlands and

in REALITIES through a range of creative-relational, participatory approaches. We [co-analysed](#) our data using the [REALITIES model](#) with community-embedded and academic researchers, practitioners, and project partners through close collaboration with community members. Our model connects People, Places, Processes, Price, Power and Purpose. It researches, analyses, and tests these 6 Ps simultaneously using different creative, participatory approaches and innovative datasets alongside traditional ones.

nature reserves that surround her home, and formed part of an initiative to connect locals to green and blue spaces on their doorstep.

These activities carried out directly by University of Edinburgh researchers were part of a wider programme of creative-green activities being conducted at these sites by our "community-embedded researchers" (CERs): practitioners immersed in community settings within each site, who brought their situated experiences to conducting data collection. Recorded discussions with CERs, as well as their fieldnotes, interviews, and surveys of communities and community workers in their local areas, therefore also informed our research findings.

KEY CONSIDERATIONS

Although our three sites were very different – both geographically and in terms of participant demographics – some striking similarities emerged from this research. Our research findings indicate that: (1) greenspaces in rural Scotland aren't seen as "for" local communities in areas of deprivation, with a significant barrier to access in these areas being disconnection from local landscapes; and (2) creative interventions can offer a means to reconnect communities with their local greenspace.

GREENSPACES IN RURAL SCOTLAND AREN'T "FOR" LOCAL COMMUNITIES

Although each of our three sites are surrounded by natural beauty, it came through very strongly that community members living in the deprived neighbourhoods we engaged with did not make use of this greenspace. While it is difficult as an outsider to think of the Highlands (and other areas of rural Scotland) without picturing the natural world, the findings from our creative workshops and data surfaced by our CERs suggested that these natural spaces are not seen as "for" local communities, but rather for tourists who travel to the area. This sense of disconnection means that disadvantaged communities in rural Scotland do not engage with or benefit from the greenspace that surrounds them.

In Clackmannanshire, our community partner Ochil Youth Community Improvement (OYCI) holds outdoor sessions for young people in the area. They are clear about the benefits that greenspace provides to the young people they work with, offering young people the physical space to engage with activities to a greater or lesser extent during sessions, or to take some time out if they need to decompress. Yet in spite of these perceived benefits – and the natural beauty of Clackmannanshire, with OYCI's

outdoor sessions offering striking views to the Ochil Hills – the organisation has found it difficult to engage local communities with the natural world. They attribute this to a perception that these spaces are not "for them" but for tourists, and also noted that issues with local transport can mean getting to and from the start of a walk can be challenging. At the creative workshop we facilitated, one young person commented to the researcher that they rarely used the local greenspace, although they appreciated what it offered them within the creative outdoor sessions run by OYCI: "I always think I should come out to the woods for a walk and that a bit more. I like coming out here. It feels really far away from home and school and things."

This lack of engagement with local landscapes is repeated in Easter Ross. As in Clackmannanshire, Easter Ross offers the kind of rich natural assets that many might wish they lived closer to: this area of the Highlands boasts stunning mountains, forests, and beaches. But, as in the case of Clackmannanshire, it emerged that local communities were not connected to or making use of their local landscapes. When surveying participants in outdoor mental health sessions facilitated by our CER, responses made clear that participants did not usually make use of local greenspace. In an interview with one local organisation, they commented on outdoor sessions: "We know it's beneficial but it can be a barrier [...] for some people just opening your front door can be a massive, massive difficulty if you're in the middle of depression." Echoing OYCI's reflections, the CER based in Easter Ross attributed the lack of engagement with local greenspaces to a sense that these spaces are not "for" the local population (and again mentioned issues with public transport). This belief occurs yet again in an interview conducted with another local organisation, with our CER noting from one

⁶ Thomson et. al., 2020.



conversation that “the majority of people she talks too [sic] are not using the green-space, they simply do not see it as it is all around them”.

In North Lanarkshire, artists and community members reflected on how green spaces nicknamed “snowdrop paradise when it’s completely overrun with snowdrops in the

CREATIVE ACTIVITIES CAN OFFER A MEANS TO RECONNECT COMMUNITIES WITH LOCAL GREENSPACE

The workshops carried out as part of our research indicated that creative activities can offer a means to reconnect communities with their local environments.

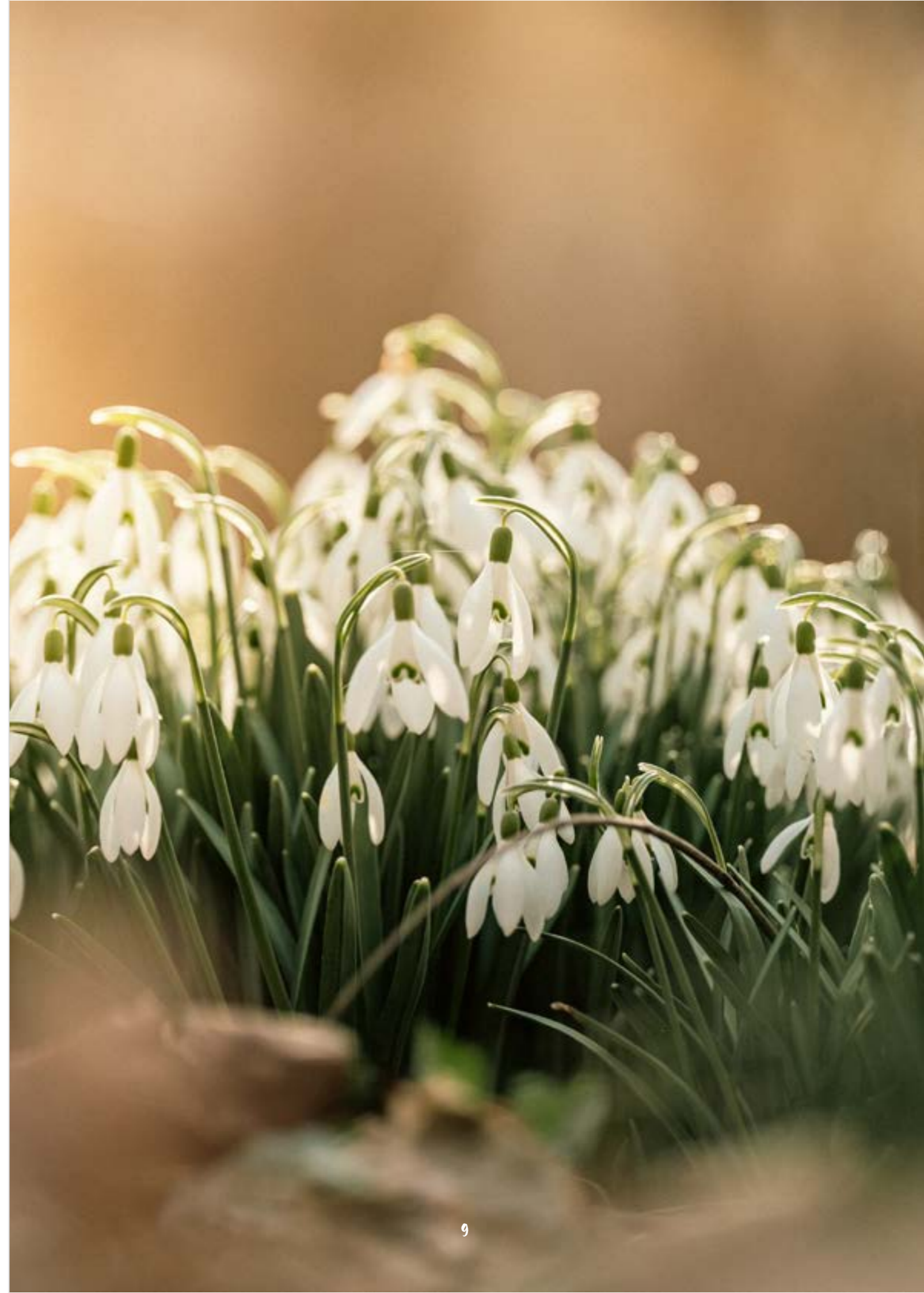
Our creative-green workshop with young people in Clackmannanshire involved creating illustrations using watercolour pencils in an outdoor session in a woodland area. In this workshop, the young people instinctively used the natural world as a source of inspiration for their work, asking whether they could draw the woods around us even before it had been introduced as a suggested exercise. Each young person drew inspiration from the woodlands around us, for example inventing different kinds of flowers (with accompanying rules, such as a flower that changed colour depending on how much water it received) and a “plant woman” superhero. Notably, these creative activities opened up a way for the young people to be in and with the natural space around them: the focus on creative activities offered a more familiar route (drawing) into engaging with an unfamiliar setting (the woods); while taking inspiration from the woodland setting for drawings meant that attention was directed to specific features of the immediate environment.

As with the group in Clackmannanshire, creative activities also provided a means to engage the mental health group in

spring” become overridden with litter and fly-tipping due to locals not appreciating the beauty they’re surrounded by. The process of community members picking up litter and turning it into art was used as a way to raise awareness of the importance of connection and creativity in widening access to nature.

Easter Ross with the greenspace around them. In this case, gardening served as a creative activity through which to engage the group, offering a way to develop a relationship with that greenspace – a formerly abandoned site on an industrial estate – through growing, weeding, and shaping the space. Our creative-green workshop at this site involved painting stones to make markers for the plants the group had been growing in the garden, and interestingly, this provided a means for the group to re-engage more deeply with the same space. Being new to gardening, some members of the group were unsure about which vegetables that they had been growing, and inviting them to reconnect with the plants through painting allowed them to engage differently, solidifying their understanding of what they had been doing and noticing how the vegetables they had planted looked at that point in time compared to the illustrations painting on stones.

In each site, offering creative activities within greenspaces provided communities with a means to reconnect with their local environments; the creative activities facilitated individuals beginning to foster a relationship with that greenspace.



POLICY RECOMMENDATIONS

Our findings cohere with existing research data demonstrating equalities issues with access to greenspace, with communities in deprived areas less likely to access those spaces. However, our research offers important new insights into barriers to access for these communities in rural areas of Scotland. Even in an area famed for its landscape like the Highlands, communities within the local population remain disconnected from this landscape, and from the health benefits that engaging with this landscape may offer. Overemphasis on physical access to greenspace does not capture the barriers to access experienced by these communities; rather, the barrier for these communities is in disconnection from their local landscapes; in not seeing these greenspaces as “for” them. This is not to say that physical access to nature is unimportant – but that simply having access, for disadvantaged rural communities in Scotland, often isn’t enough for this access to be beneficial.

These research findings mean that we advocate for the following policy recommendations:

- 1 A focus on connection should be prioritised alongside access in all policies relating to greenspace.** While current policy focuses almost exclusively on physical access to greenspace – such as measuring access by the percentage of adults who live within a five-minute walk of their local green or blue space – there is a clear need to broaden this understanding to other kinds of access. Our research findings point to the benefits of a focus on connection alongside access in order to capture the barriers experienced by disadvantaged rural communities in Scotland.
- 2 There is a need to commission further research into barriers to using greenspace.** Our research has offered indicative evidence that, for deprived rural communities in Scotland, disconnection from local environments is a significant barrier to attaining the health benefits of engaging with local greenspace. There is limited other research focused on rural communities or “connection” to greenspace; extending our understanding of connection, disconnection, and reconnection with greenspace offers huge potential for impacting the health and wellbeing of disadvantaged communities in rural areas of Scotland.
- 3 Creative activities should be integrated into existing greenspace interventions.** Our research provides important evidence of the potential for creative activities to re-engage disconnected communities with their local greenspace. While current activities offered by initiatives like the Central Scotland Green Network and Our Natural Health Service focus on activities such as active travel, health walks, and green gyms, these interventions are likely to appeal to individuals who already have some connection to these greenspaces; broadening the range of activities within these greenspaces offers an alternative route for a wider range of individuals to reconnect with their local environments.
- 4 There is a need to commission further research into creative-green interventions:** A focus on connection with greenspace opens up the possibility of how we might foster those connections. While our research offers evidence in favour of using creativity to engage communities with their local landscapes, there is a critical gap in research into the benefits of integrating creative-green prescribing. The initial positive findings of this fledgling field of research – along with the potential to widen engagement with greenspaces and the associated positive health impacts – provide strong grounds for prioritising research in this area in the national research agenda on health inequalities.

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See our complete list of reports on the [REALITIES website](#).

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