

REPORT, DOCUMENT

Anti-racist Wales evidence report: ethnicity and access to greenspace

A report showing the barriers ethnic minority groups face when visiting outdoor spaces.

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Introduction

ACCESS and rapid evidence summaries

ACCESS (Advancing Capacity in Climate and Environment Social Science) is a 5-year climate and environment social science network funded by the Economic and Social Research Council (ESRC). It is headed by Professor Patrick-Devine Wright of the University of Exeter, with Professor Birgitta Gatersleben of the University of Surrey. ACCESS aims to provide leadership on the social science contribution to tackling and solving a range of environmental problems. ACCESS will provide insights to find fresh thinking and new solutions to support the transition to a sustainable and biodiverse environment and a net zero society.

The ACCESS Research Insights Group (RIG) provides coordinated social science expert input to near-term (6 to 12 month) policy developments and practice decisions, and to quickly (within days/weeks/months) mobilise social science capacity in response to sudden emergencies or unexpected events. The Rapid Evidence Summary (RES) is one of a suite of agile working formats being developed by the RIG team. The RES, typically 1 to 3 months in duration, involves collaboration with a stakeholder to identify relevant environmental social science knowledge gaps and develop a scoping review of the field.

Anti-racist Wales Action Plan

The main aim of this RES is to 'build up the evidence base in relation to understanding the relationship between ethnicity and the environment in Wales'. The wider context of this work is the development and publication in July 2022 of the **Anti-racist Wales Action Plan**. While the final published version of the Action Plan did not include a specific environment focused section, it did include a commitment to developing actions on a range of climate and environment

related issues in the near future. This work contributes to the initial phase of that process.

In a draft version of the Anti-racist Wales Action Plan 5 environment related priority areas were identified.

Welsh Government's environment portfolio priority areas

- 1. Access to the countryside, outdoor activities, enjoyment of nature, access and use of green space.
- 2. Workforce/volunteering and activism.
- 3. Local Environment (air quality, litter, neighbourhoods).
- 4. Climate change (global scale in terms of climate justice and 'loss and damage') and individual action
- 5. Biodiversity and nature crisis

Given ACCESS's relatively limited resources it was agreed early on that from the 5 environment related policy priorities that were identified as part of draft Anti-racist Wales Action Plan, we should focus on the top 2, which were: ethnicity and access to the environment and ethnicity and environmental volunteering. Following an initial review of the literature it was also agreed that the geographical focus of our searches should be studies that focused on the UK, as Wales only searches generated too few results and international ones far too many to reasonably manage within the agreed timeframe.

Following agreement of the initial parameters, and in line with ACCESS's ambition to trial new, more collaborative, co-productive and responsive ways of working, a brief was established that developed through a process of continuous dialogue.

At the end of the process this RES seeks to offer the following insights and resources:

- a list of the 41 most relevant research papers and policy documents relating to issues of ethnicity and access to, and engagement with, greenspace in the UK
- · links to, or copies of, all key papers and reports
- a narrative summary of the issue of ethnicity and engagement with greenspace focusing on barriers to access and associated policy responses
- a set key recommendations based on a distillation of lessons learnt from across the literature

Methodology

Liaising closely with colleagues from the University of Exeter's specialist 'Evidence Synthesis Team', we undertook a thorough and methodical search and sift for relevant material.

The initial search

An initial database search was archived on EndNote bibliographic management software. This search employed a large number of search terms (30+) to capture variations in use of language with respect 'ethnicity', 'access' and the 'environment'. Using these various search terms we undertook reference, title and abstract searches across a comprehensive list of relevant databases. These included CAB Abstracts, all 50 databases available via EBSCOhost, and all 95 databases available via ProQuest, Dimensions, Web of Science and Scopus. CAB or CABI (Centre for Agriculture and Biosciences International) Abstracts is the leading English-language abstracts information service providing access to the world's applied life sciences literature.

The Sift[s] and further searches

This initial, broad search returned a longlist of approximately 1,000 academic and grey literature references. A manual first sift was then carried out based on a reading of the reference title, and if that proved inconclusive, the abstract/summary to identify which references were relevant and which were not. This process reduced the number of references significantly to a shortlist of 41 references. A second sift was then undertaken based on a more detailed reading of each reference. This reduced the number further still to a shorter list of 22 highly relevant references.

Supplementary citation snowballing and googling, particularly for relevant grey literature, returned a further 19 highly relevant references, producing a total of **41 key, highly relevant references**.

Findings

A note on language

There has been a marked evolution over the past few decades in the language used to refer to racialised individuals and communities. In the context of this report, taking our lead from the Welsh Government, we will use the term 'ethnic minority group' by default unless we are referring to a specific study, in which case we will use the term[s] originally used.

'The Literature': a quick overview

Among these 41 most relevant references there was a good mix of academic and grey literature, of quantitative and qualitative studies, and of original

research and systematic literature reviews. In terms of geographical focus, as noted above, our searches were limited to studies that focused solely or primarily on the UK and/or its constituent countries. Among the 41 references there was a very strong England focused bias and only publications that either focused exclusively on Wales or included Welsh case studies (see below). The literature also had an almost exclusively 'green-space' focus, with only 1 of the 41 references looking at issues of access to 'blue-space' (i.e. coastal and/or inland waters, see below). In terms of topic focus, there were significantly more 'access' related references than there were 'volunteering' focused studies, although some studies did combine the issue into broader considerations of ethnicity and 'engagement' with the environment.

When viewed as a whole, 2 other features of the literature are worth quickly noting:

The first of these is that inequalities around ethnicity and access to, and engagement with, greenspace have been highlighted and discussed for decades. Julian Agyeman (1989) for example, was identifying the reasons why 'people of colour' felt excluded and were infrequent recreational users of the (English) countryside back in the late 1980s (see: Barriers preventing ethnic monitory groups from accessing and engaging with greenspace).

The second notable feature of the literature is that it can be broadly divided into two related but distinct sub-literatures. One of these examines ethnicity and engagement with nature through, what can be described, as a 'landscape' lens, with a particular focus on ideas of race, identity, belonging and the (mostly English) countryside. (See for example Cloke & Little, 1997 and Neal, 2009). The other perspective employs a 'health and well-being' lens, focusing on issues of [in]access to (mostly urban) greenspace among different demographic groups. (See for example, Brown et al. 2010, Roe et al. 2016; and McEachan et al. 2018).

Why is access to greenspace important?

There is a 'maturing evidence base' which suggests access to, and engagement with nature/greenspace has a range of positive physical and psychological health and well-being benefits at both individual and population levels. Lovell et al. (2020) undertook a rapid scoping review of evidence relating to the links between green infrastructure and health and wellbeing for Natural England and Public Health England. They found that, simply put: 'people who live in neighbourhoods with greater amounts of green infrastructure tend to be happier, healthier and live longer lives than those who live in less green places' (p. 2). They also concluded that while all social groups are likely to benefit from exposure to and/or use of green infrastructure, 'some groups, including more socio-economically deprived and disadvantaged populations, appear to disproportionately benefit from greener living environments' (ibid).

Emerging evidence from a range of sources also suggests that people increasingly value and want access to greenspace. In 2020, for example, the Ramblers in association with YouGov carried out a survey of 2012 British adults and found that access to greenspaces are important to almost everyone, with only five per cent of respondents saying being able to access nature and greenspaces had never been important to them. Their survey also found that the intention to walk more (after COVID-19) was higher for people who identified as Black, Asian or Minority Ethnic than those who identified as White. In a similar vein, Natural England's The People and Nature Survey for England: Year 2 Annual Report (2022) found that 45% of adults reported that they had increased their time spent outside between April 2021 and March 2022. Over the same period, 40% of adults reported that visiting local green and natural spaces had become more important to their wellbeing. According to research by the Fields in Trust (2019) the wellbeing value associated with the frequent use of parks and green spaces is estimated to be worth £34.2 billion per year to the UK adult population and to save the NHS £111 million per year through a reduction in GP

visits.

To what extent is access to greenspace unequal?

While evidence suggests that there are multiple health and well-being benefits from engaging with greenspaces and an increasing desire, particularly post-pandemic, to do so, there is good evidence to also suggest that not all demographic groups are able to access the value and benefits of greenspace equally, and that people from ethnic minority backgrounds are particularly disadvantaged when it comes to access to greenspace.

This emerging body of evidence is not completely unequivocal, it varies in its robustness, and there is often difficulty in disentangling ethnicity from a range of other demographic determinants of non-access to nature, not least of which Socio-Economic Status. While recognising these limitations, the evidence presented across a number of recent reports; some of which draw on Natural England Monitor of Engagement with the Natural Environment (MENE) data, others on their own surveys; when viewed collectively, strongly suggests that ethnic minority groups in the UK have unequal access to greenspace.

For example:

- Office for National Statistics (2020) found that, when comparing people of similar age, social grade and living situation, those of Black ethnicity were 2.4 times less likely than those of White ethnicity to have a private garden.
 - CPRE/NEF (The Countryside Charity (previously Council for the Preservation Protection of Rural England and National Economics Foundation) (2021) report, drawing on Natural England MENE data, stated that: ethnic minorities have on average 11 times less access to greenspace.
 - Ramblers/YouGov (2020) survey found that people who identify as being from Black, Asian or Minority Ethnic backgrounds were:

- less likely to live within a 5-minute walk of a green space than people who identify as White (39% of Black, Asian or Minority Ethnic respondents compared to 58% of White);
- and less likely to report a variety of different green spaces within a walking distance (46% of Black, Asian or Minority Ethnic respondents compared to 58% of White).
- Friends of the Earth (2020) report found that almost 40% of people of Black, Asian and Minority Ethnic backgrounds live in England's most green space-deprived neighbourhoods, compared to 14% of white people.
- National Trust study (2020) found that Black and Asian people visit natural settings 60% less than White people.
- Natural England (2019) reported that only 1% of visitors to National Parks are from a Black, Asian and Minority Ethnic background, despite making up 10% of the national population.

What these recent reports collectively describe is a situation where people who identify as being from minority ethnic backgrounds are much less likely to have access to outdoor space at home; they are less likely to live close to greenspace; less likely to visit the countryside; less likely to visit national parks; and less likely to report spending time in the nature.

But what factors are preventing people from ethnic minority backgrounds from accessing and engaging with greenspace and what attempts have been made to address the issue?

What is preventing people from ethnic minority backgrounds from accessing and engaging with greenspace?

This section focuses on the numerous barriers to access and engagement with

greenspace faced by ethnic minority groups.

MENE data

A useful starting point to get a sense of what is preventing people from ethnic minority backgrounds from accessing and engaging with greenspace is Natural England's Monitoring Engagement with the Natural Environment (MENE) data. The MENE survey was undertaken annually between 2009 and 2019 and collected data about outdoor recreation and attitudes towards, and engagement with, the natural environment. Over its 10 years it collected information from nearly half a million respondents. It is one of the largest data sets of its kind in the world, and it is designated as an official national statistic. It is an extremely useful and robust dataset.

What is immediately apparent from MENE data is that there are a large number of reasons why people do not visit the natural environment. The MENE survey coded interview responses into 23 different categories. In a study that used data drawn from the first 6 waves of the survey, from 2009 to 2010 to 2015 to 2016, Boyd et al. (2018) ranked the reasons given by survey respondents for not visiting natural environments (see below). Their analysis found that the most common reasons given were being 'too busy at work', followed by 'poor health', 'being too busy at home', and 'no particular reason'.

Reasons respondents could select for not visiting natural environments at all/more often in the last 12 months

Rank	Reasons for not visiting natural environments	%
1	Too busy at work	20.2

Rank	Reasons for not visiting natural environments	%
2	Poor health	18.5
3	Too busy at home	15.8
4	No particular reason	14.7
5	Old age	13.9
6	Bad/Poor Weather	9.7
7	A physical disability	9.3
8	Not interested	6.2
9	Too expensive	4.8
10	No access to a car	3.6
15	This isn't something for me/people like me	1.4
17	Lack of suitable places to go/suitable paths	0.6
21	I don't feel welcome/feel out of place	0.2

Source: Boyd et al. (2018) based on MENE data.

It is notable that not one of the top ten reasons given are explicitly about ethnicity. This is perhaps a little surprising in the context of emerging evidence

(see: *To what extent is access to greenspace unequal?*) indicating that ethnic minority groups' [in]access to greenspace is a significant issue. Given that the MENE survey is a representative sample of the (English) population, one might expect it to be capturing some of the reasons why this might be the case and for responses like 'lack of suitable places to go', 'this isn't something for me' and 'I feel out of place' to achieve both a higher percentage score and ranking. The fact that they do not place higher in the ranking or have a higher percentage score might suggest that this quantitative survey, however robust and useful, is perhaps not capturing the full extent of ethnic minority experiences, and does not provide the opportunity for ethnic minority groups to articulate the reasons why they are not visiting natural environments, and the different kinds of barriers to access that they face.

Barriers to access/engagement: the academic literature

For a more in-depth examination of these issues we need to turn to the academic literature. While most research in this field looks at barriers to access across a range of demographic groups, with the most common focus being on socio-economically deprived communities, a recent paper by Robinson et al. (2023) has looked specifically at barriers to greenspace access for, what they refer to as, racialised individuals and communities. Based on a systematic literature review, and a subsequent focus on 10 key quantitative studies carried out in the UK and US, Robinson et al. identified and categorised the main barriers to access to greenspace for racialised individuals and communities (see below).

Types of barriers to access (Robinson et al. (2023)):

- 1. Psycho-social (interpersonal)
- Feeling unwelcome / out of place
- Cultural / language barriers

Low motivation to exercise

2. Practical barriers

- Financial concerns (travel, parking, entrance fees)
- Poor quality / aesthetics of green space (amenities, litter, maintenance)

3. Environmental

- Less Access / Availability to/of Green Space, Based on Location
- Safety Concerns / Comfort / Less Trust in Neighbourhood
- 4. Experience/knowledge
 - Prior Knowledge about Parks and Locations
 - Nature Affinity

The most frequently reported barriers to access across the 10 studies were:

- 1. poor quality/aesthetics of green space
- 2. safety concerns/comfort
- 3. financial concerns
- 4. availability of green space, based on location

Again it is interesting to note that no psycho-social barriers, for example, feeling 'unwelcome' or 'out of place' featured among the most commonly reported barriers to access.

Barriers preventing ethnic monitory groups from accessing and engaging with greenspace

Barriers to access: Agyeman (1989 and 1990)

- 1. Cultural: different meaning/understanding of countryside.
- 2. Economic: concentration of 'people of colour' in inner cities... difficult to get out.
- 3. Time: in common with other lower SES groups... less free time.
- 4. Racism: the fact is that many would-be visitors to the countryside are frightened of the potential reaction from local white people.

Barriers to access: Morris (2003)

- 1. Lack of confidence and negative perceptions of the environment.
- 2. Lack of (appropriate) interpretative information.
- 3. Lack of appropriate activities.
- 4. Lack of awareness.
- 5. Financial costs incurred and lack of time.
- 6. Negative feelings associated with previous experience of the countryside.
- 7. Inability to shape strategies for the delivery of rural services.

While the academic literature that specifically examines barriers to access for ethnic minority groups in the UK is not extensive it does have a considerable lineage. Julian Agyeman (1989 and 1990) was identifying and categorising the barriers to greenspace access faced by ethnic minority groups back in the late 1980s and early 1990s, as was Nina Morris (2003) 20 ago (see: Barriers preventing ethnic monitory groups from accessing and engaging with greenspace). Emphasis may have varied slightly, but whether viewed through a 'landscape' or 'health' lens many of the same barriers – related to time, cost,

proximity, culture/language, amenities, knowledge, negative perceptions etc. – get repeatedly mentioned from Agyeman, through Morris, to Robinson et al. and in a number of other papers and reports in-between (see, for example, Croninde-Chavez et al., 2019 and Pitt, 2019).

So while the evidence is not extensive, it is consistent, so we can be fairly confident that we have a good understanding about what the range and nature of the barriers are that are preventing people from ethnic minority backgrounds from accessing and engaging with greenspace.

What is motivating people from ethnic minority backgrounds to access and engage with greenspace?

What we can be less confident about is understanding what motivates people from ethnic minority backgrounds to access and engage with greenspace in the UK. When it comes to examining issues of ethnicity and engagement with the environment, most questions (and subsequent studies) are framed around 'barriers to access', few have focused on the positive aspects of engagement and what motivates individuals from ethnic minority backgrounds to visit and spent time in nature.

An exception is recent work by Helena Slater (2022) who, in a small qualitative study, explored what motivated members of two community based initiatives: Boots and Beards in Glasgow and the Sheffield Environmental Movement (SEM), to visit rural greenspaces. While the survey sample was small (n26), the research did reveal some interesting findings.

The below shows the broad range of motives that were selected in response to the question 'Why do you visit rural green spaces?'. The most common reasons, selected by all survey respondents, were 'for physical health/fitness', followed by 'to enjoy fresh air, 'to enjoy the scenery', for 'mental health and well-being', and to experience peace and quiet. In follow-up interviews, Slater also identified

'social connections' and 'escape' as two types of motiving factors that were frequently mentioned by all interviewees as reasons for visiting rural green spaces.

Frequency of motives selected as reasons for visiting rural green spaces. Survey respondents were able to select multiple options

Motivation	Frequency
for physical health/fitness	26
for mental health/well-being	23
for reflection	21
to escape from the city	17
to experience nature	21
to see wildlife	18
to learn about nature/outdoors	19
to experience peace/quiet	23
to relax/unwind	23
to entertain a child(ren)	8

Motivation	Frequency
to take part in sport/hobby	7
to challenge myself/achieve something	18
to help out/volunteer	8
to enjoy fresh air/pleasant weather	25
to enjoy scenery	24

Reproduced from Slater (2022) Exploring minority ethnic communities' access to rural green spaces: The role of agency, identity, and community-based initiatives. Journal of Rural Studies 92: 61.

Other key findings that emerged from Slater's study that are worth noting included:

- 1. that we need a more nuanced understanding of green space access to move away from simplistic assumptions of use and non-use
- 2. that motivations for accessing greenspace change over the life course (e.g. in relation to having children);
- 3. that multiple identities are performed in greenspace, and that
- 4. ethnicity is not the only lens through which racialized communities perceive, and/or engage with environment/green spaces

Does greenspace use and preference vary according to ethnicity?

Broadly speaking, a consensus has emerged that there is a difference, based on

ethnicity, between what individuals and communities want from their greenspaces and how they use them. In a systematic review Ordóñez-Barona (2017) summarised the empirical evidence on how different ethno-cultural groups use, prefer, and assign meaning to urban nature. While recognising that each of the 31 studies reviewed differed in terms of research methods, urban natural setting, and conceptualizations of ethno-cultural identity, Ordóñez-Barona concluded that they 'showed that ethno-culturally diverse people prefer to use urban natural areas for passive, social activities, prefer to visit them in bigger groups, and prefer these areas to be manicured, functional landscapes with less trees' (p. 69).

Most of the studies included in Ordóñez-Barona's analysis took place in North American and continental European contexts. Research that specifically examines how greenspace use and preference varies according to ethnicity in the UK is fairly thin on the ground and their conclusions sometimes contradictory. So for example, while Rishbeth (2004) found that some ethnic minority groups were less likely to use a park for exercise when compared to White British, a 2010 report by Thompson et al. for the Chartered Association of Building Engineers (CABE) found that ethic minority groups were more likely to visit for physical activity than white British.

In a more recent study, Edwards et al. (2022) compared the use patterns and preferences of Black, Asian and Minority Ethnic, and White users for two types of urban greenspace (parks and Sites of Special Scientific Interest (SSSIs)) in Lee Valley Regional Park, London. They found that whilst preferences and use patterns varied according to the type of greenspace, they did not vary significantly between ethnic groups, with both White and Black, Asian and Minority Ethnic visitors prioritising games/sports and built features in parks, and both prioritising wildlife viewing and natural features at SSSI sites. (See also Roberts et al. 2019).

Policy suggestions and responses

For almost as long as we have known about the barriers preventing ethic minority groups from accessing greenspace, whether urban or rural, there have been policy responses and action plans developed to try and address the problem. Agyeman's late 1980s (see for example Agyeman, J. (1989). Blackpeople, white landscape. Town and Country Planning, December: 58 (12) 336–8) scholarly discussions of rural racism and the barriers to participation, which led to the development of, and were amplified through, the pioneering work of the Black Environment Network (BEN), played a key and direct role in the establishment of the Countryside Commission's review of the issue. BEN was founded in 1988 in the United Kingdom by Judy Ling Wong and Julian Agyeman. It aimed to address issues of environmental justice and inclusion within Black and Minority Ethnic communities. BEN sought to empower these communities through education, advocacy, and community engagement, striving to ensure their voices were heard in environmental decision-making processes and to promote sustainability and environmental stewardship among all populations. Today, the Black Environment Network continues its efforts to promote environmental justice and diversity in the environmental sector through various initiatives, including education programs, advocacy campaigns, and partnerships with governmental and non-governmental organisations.

Published in 1991, the Countryside Commission's Visitors to the Countryside report, which incorporated many of BEN's suggestions, represents the first in what has been a steady stream of reports, reviews, and policy responses published over the last 3 decades (see below):

Policy responses: 1991 to 2021

- 1991: The Countryside Commission, Visitors to the Countryside.
- 1992 to 1994: The Commission for Racial Equality (CRE) publish a couple of

reports on ethnicity and the countryside: Jay, E. (1992) Keep Them in Birmingham and Derbyshire, H. (1994) Not in Norfolk: Tackling the Invisibility of Racism.

- 2000: Rural White Paper: a fair deal for rural England.
- 2004 to 2005: Countryside Agency. Following the Rural White Paper the
 Countryside Agency undertake a multi-staged review of rural recreation:
 Feb. 2004 Scoping Study; Dec. 2004 Evaluation Framework and Toolkit;
 July 2005 What about us?": Diversity Review evidence part one
 Challenging perceptions: under-represented groups' visitor needs; July 2005
 "What about us?": Diversity Review evidence part 2 Challenging
 perceptions: provider awareness of under-represented groups.
- 2006: Defra draft action plan and launch consultation.
- 2008: Defra launch Outdoors for All? Action Plan to increase the number of people from under-represented groups who access the natural environment.
- 2012: Public Health Wales, Green space, reduction of health inequities, and cost effectiveness of interventions.
- 2012: Natural England, The Mosaic Model Access to Nature: Early Findings Paper.
- 2018: What Works Wellbeing, Improving access to green space for Black, Asian, Minority Ethnic and Refugees communities.
- 2020: Public Health England, Improving access to greenspace: A new review for 2020.
- 2020: Natural England, A rapid scoping review of health and wellbeing evidence for the Framework of Green Infrastructure Standards.
- 2020: Friends of the Earth, England's green space gap.
- 2021: Groundwork UK (Holland, 2021). Out of Bounds: Equity in Access to Urban Nature.
- 2021: Scottish Government, Outdoor recreation understanding the drivers of participation.

In the following section we take a brief, closer look at 3 of the above.

Defra (2008) Outdoors for All?: An Action Plan

Defra's (2008) Outdoors for All? Action Plan was the culmination of a near 8 year process that began with reference to improving access to the environment for underrepresented groups in the Rural White Paper of 2000, and incorporated a 2-year data gathering and review phase through 2004 and 2005. In some ways the publication of the 'Action Plan' also represented the culmination of the 'landscape/countryside' framing of the problem.

The development and production of the comprehensive Action Plan seemingly represented a significant resource investment and sustained engagement by Defra with the issue of inequitable access to the environment. It identifies what needs to be done to address the issue (it has a total of 54 different actions across 9 different action areas) and by whom (mostly government agencies and outdoor activity service providers).

Action area: training and guidance

- Number of actions: 5
- Example action: produce guide for sector providers on business benefits of employing a diverse workforce.

Action area: information and education

- Number of actions: 10
- Example action: provide information in a range of accessible formats and languages and at appropriate locations to meet the needs of underrepresented groups.

Action area: championing, governance and regulation

- Number of actions: 6
- Example action: promote role of diversity and equality champions in relation to access to the natural environment.

Action area: funding and resources

- Number of actions: 3
- Example action: provide increased opportunities for disadvantaged communities to experience the natural environment, through applications to relevant lottery schemes.

Action area: research and evidence

- Number of actions: 8
- Example action: establish baseline data and report on access to the natural environment amongst the under-represented groups.

Action area: partnerships forums and networks

- Number of actions: 7
- Example action: work with Community Champions/Clusters and other models of bottom-up community outreach work to promote diversity.

Action area: plans and strategies

- Number of actions: 5
- Example action: involve services users in planning and delivery of services,

to ensure they meet the needs of under-represented groups in terms of access to the natural environment.

Action area: service planning and performance measures

- Number of actions: 5
- Example action: management plans to include locally driven and measurable diversity/inclusion objectives.

Action area: volunteering, employment and careers

- Number of actions: 5
- Example action: Identify positive role models from a diverse background within sector, and provide opportunities to work shadow.

Source: Defra (2008)

Public Health England (2020) Improving Access to Greenspace

Twelve years after the publication of Defra's 'Outdoors for All', and very much emerging out of a 'health and wellbeing' frame, Public Health England published its Improving Access to Greenspace report. Instead of a longlist of actions this report concluded with a set 9 key recommendations targeted at local authorities and NHS trusts (see below).

Recommendation area: policy

- Consider local green (and blue) space to be critical assets for maintaining and supporting health and wellbeing in local communities.
- · Ensure that local policies and strategies are informed by evidence of need

for sufficient access to greenspace.

 Prioritise improving access to greenspace and creating greener communities especially in areas of deprivation or where there is poor or unequal access

Recommendation area: local practice

- Support meaningful engagement across local government functions and the community to understand the actual and potential local benefits of greenspace and reveal the complex and diverse ways greenspace is thought about and used.
- Consider whether a formal valuation of benefits is necessary to strengthen the case for the creation, revitalisation and maintenance of greenspace.
- Identify and factor in resilient funding arrangements for the maintenance of greenspace as early as possible.
- Establish interventions, such as green social prescribing initiatives, to support people to begin using greenspace who currently are not.

Recommendation area: local research

- Develop persuasive, evidence-informed case studies that highlight the impact that accessible greenspace has on local health outcomes.
- Support robust evaluation of local greenspace interventions to help build a broader evidence base.

Source: Public Health England (2020)

Scottish Government (2021) Outdoor Recreation: Understanding the Drivers of Participation

For a non-English example we can look to the Scottish Government's 2021

Outdoor Recreation: Understanding the Drivers of Participation report. More a piece of research than a delivery/action plan, this report nevertheless produced a useful set of 17 guiding principles designed to inform policy and the planning of future interventions (see below).

Guiding principle theme: motivational

- Health professionals play an important role in prescribing outdoor exercise –
 particularly for minority ethnic groups where the benefits are not as well
 known.
- Strengthening the sense of identity people feel with an activity can help sustain and deepen participation.

Guiding principle theme: ability

- There is a role for greater information provision and communication of the benefits of outdoor activities, particularly among minority ethnic groups.
- Childhood experiences can strongly influence sustained participation in outdoor activities in adulthood.

Guiding principle theme: physical

- Availability of good quality, easy to access local spaces helps to facilitate regular participation, while a lack of these can be a barrier in more deprived areas.
- The physical infrastructure and maintenance of outdoor spaces affects their accessibility, appeal and usage.

Guiding principle theme: social

- Activity groups and organised trips can help both to initiate and to sustain participation.
- Cultural norms strongly influence knowledge, attitudes and behaviours, acting as both an enabler and a barrier.

Source: Scottish Government (2021)

In addition to the above, see also: Natural England's 2012 review of the Mosaic project (part of their 'Access to Nature' initiative), which identified the 9 key steps involved in the development of the 'mosaic model', a novel approach to engaging people from Black and Minority Ethnic (BME) communities in National Parks; What Works Wellbeing's (2018) Improving access to green space for BAMER communities; and Ground Work UK's (Holland, 2021) Out of Bounds: Equity in Access to Urban Nature.

Policy suggestions: the academic literature

The above Defra, Public Health England and Scottish Government examples, while referencing ethnicity, were not specifically targeted at the issue of a lack of access among ethnic minority groups to greenspace. For a specific discussion of ethnicity we need to return again to the academic literature and the recent work of Robinson et al. (2020) who in addition to identifying a range of barriers to green space access for racialised individuals and families also offered some policy suggestions as to how these could be overcome.

Barriers to access and suggested policy solutions

Psychosocial barriers

The review findings suggest there is systemic rural racism that further alienates racialised individuals and families from green spaces and contributes to feeling "out of place" in these settings (p.19).

Policy suggestion:

 Policy makers could initiate diversity-friendly schemes to improve engagement in green spaces for racialised communities, for example through introducing multiple languages on signs and additional prayer spaces in parks to promote inclusivity.

Practical barriers

Financial concerns too were highlighted as a major barrier understood as a manifestation of a hierarchy of needs through which those who are structurally poorer prioritise finances for more urgent concerns such as food/shelter.

Policy suggestion:

 Such evidence argues for targeted funding in services to support racialised individuals/families access green, socially prescribed activities to improve equitable access for all.

Environmental barriers

Factors predicting green space accessibility for racialised individuals and families included safety, comfort, park quality/aesthetic, and park proximity.

Policy suggestion:

• Initiatives to mitigate fear are likely to involve greater policing of parks in concert with urban planning to ensure good quality, safe green spaces in socially deprived areas, to improve comfort levels and access for all.

Source: Robinson et al. (2023)

Picking up on Robinson et al.'s call for targeted funding, we can also return to the work of Helena Slater (2022) for a suggestion on where focus and investment might be best placed. In addition to examining motivations for engagement, Slater's study also looked at the critical role that community scale initiatives (like Boots and Beards in Glasgow and the Sheffield Environment Movement) play in helping ethnic minority communities overcome both practical and social barriers to accessing (rural) greenspace. Slater's research found that the two local initiatives played a key role in helping communities overcome practical barriers to access by organising transport and sharing travel costs, thus helping to reduce the economic burden on individuals.

The research also revealed how the two initiatives helped individuals overcome a number of social barriers to access too. Firstly, by enabling members to visit rural greenspaces with like-minded people with whom they had an opportunity to form meaningful connections. And secondly, by playing an important role in disseminating information about rural green spaces and raising awareness among minority ethnic communities about the opportunities for outdoor recreation.

Bluespace

As with greenspace there is a growing body of evidence pointing to both the physical and psychological health and wellbeing benefits of access to, and engagement with, different kinds of 'bluespace' (see, for example, White et al.

2013). Research that specially examines access to bluespace from an ethnicity perspective however is very limited. Our literature review returned only 1 relevant reference, a study by Pitt (2019), which examined the reasons for the non-use of urban bluespace (inland canals and engineered rivers) in four case studies: Leeds-Liverpool Canal in Blackburn Lancashire, River Soar and Grand Union Canal in Leicester, Grand Union Canal in Milton Keynes, and Regents Canal in Tower Hamlets London.

In many respects, Pitt's findings mirrored those of comparable studies of greenspace. Ethnic minority groups, for example, were underrepresented urban water users, as were other disadvantaged groups. And while recognising that there were a few specific facets of waterways that made them uniquely unappealing (e.g. darkness), many of the barriers to access for underrepresented groups identified in the study were very similar to those identified in greenspace research. Lack of time, lack of interest and/or awareness, problems with accessibility, and negative perceptions with respect to quality and safety were all given as reasons for non-use.

Pitt's suggested solutions to the problem also strongly echoed those proposed by others in the context of greenspace, with familiar calls for: investment in physical infrastructure and amenities; greater information provision; and recognition of the value of peer-to-peer communication, local community initiatives and social networks.

Ethnicity and environmental volunteering

Our initial searches for references from the academic or grey literature that were specifically concerned with examining ethnicity and environmental volunteering also returned only one relevant study. The Institute of Volunteering Research (2007) undertook a review of the literature on volunteering in the 'natural outdoors' for the Countryside Recreation Network (CRN) in 2007. Their report concluded that:

"There is a lack of diversity of those that volunteer [and] an urgent need to become more representative of both the national population, and of the population engaged in wider forms of volunteering. Volunteering in the natural outdoors, environment, and nature conservation currently experiences low participation from people of ethnic minority backgrounds, something which urgently needs to be addressed."

(Institute of Volunteering Research / Ockenden, 2007: 21).

There is also an urgent need for more research in this area both to ascertain whether the extent to which the situation has improved (or not) since 2007, and to examine the relative environmental volunteering rates of different ethnic minority groups.

In the absence of research that specifically examined ethnicity and environmental volunteering, it is useful to turn to the broader 'volunteering' literature for some relevant insight. Southby et al.'s (2019) rapid review of evidence on 'volunteering and inequalities' for example, provided an overview of the breadth and interconnectedness of barriers to (general) volunteering for potentially disadvantaged groups (including ethnic minority groups). Examining the issue of volunteering through a 'health and well-being lens' Southby et al.'s narrative contains many elements in common with the 'access' literature. Volunteering, it is argued, has well documented health and wellbeing benefits but, with significant variations in the rates of volunteering across different demographic groups, not everyone has equal access to those benefits.

Again, as with the 'access' literature, Southby et al.'s review revealed that people from ethnic minority groups faced a number of unique barriers when it came to volunteering, these included: limited access to volunteering infrastructures, feelings of alienation or exclusion within volunteer organisations and environments, having fewer skills and resources to volunteer, and experiencing fewer positive outcomes from volunteering. While other

demographic groups also faced various unique barriers to volunteering the review also highlighted the many common barriers that different groups faced, and moreover, that barriers to volunteering associated with specific demographic groups were often compounded (and/or mitigated) by multiple socio-economic factors. For example, the barriers to volunteering experienced by different age groups were found to be affected by the gender, ethnicity, disability, socio-economic status, family background, and education of potential volunteers.

As with issues of access to greenspace, Southby's et al.'s review of volunteering highlights the complex and intersectional nature of identity and the difficultly of disentangling different 'disadvantaged' demographies from one another. Southby et al. also highlight the need for a shift in onus when thinking about volunteering, 'away from the level of individual choice (a dominant factor emphasised in policy and practical discussions around promoting volunteering) towards the influence of broader patterns of social exclusion and economic inequality as major determinants of volunteerism ability' (p. 917). Pathways to participation, they suggest, 'need to be developed in conjunction with addressing broader equity issues' (p. 916) (see also below).

Conclusions

Evidence summary

- There is strong evidence to suggest that access to and engagement with greenspace has a range of positive physical and psychological health and well-being benefits at both individual and population levels. Post the COVID-19 pandemic people increasingly value and want access to greenspace.
- However, not all demographic groups are able to access the value and benefits of greenspace equally. A number of recent reports collectively describe a situation where people who identify as being from minority ethnic

- backgrounds are much less likely to have access to outdoor space at home; they are less likely to live close to greenspace; less likely to visit the countryside; less likely to visit national parks; and less likely to report spending time in the nature.
- A recent systematic literature review by Robinson et al. (2023) identified and categorised the main barriers preventing racialised individuals and communities from accessing greenspace. These included a range of psychosocial, practical, environmental, and knowledge barriers. Our understanding of these issues and barriers however is not new. Many of the same barriers to access identified by recent scholars (related to time, cost, proximity, culture/language, amenities, knowledge, negative perceptions) have been consistently identified for decades.
- As well as thinking about the barriers it is also useful to understand what
 motivates individuals from ethnic minority backgrounds to engage with
 greenspace. A recent small-scale survey of members of two community
 based initiatives by Slater (2022) revealed that 'physical health and fitness'
 was the most common reason given. In follow-up interviews 'social
 connections' and 'escape' were also frequently mentioned as key
 motivations for visiting (rural) greenspace.
- It is also interesting to know if and how greenspace use and preference varies according to ethnicity. Studies from the UK that focus on these questions, however, are limited and their conclusions sometimes contradictory. A recent piece of research by Edwards et al. (2022) comparing the use patterns and preferences of Black, Asian and Minority Ethnic and White users for two types of urban greenspace found that whilst preferences and use patterns varied according to the type of greenspace, they did not vary significantly between ethnic groups.
- There have been a plethora of policy responses and action plans developed to address the issue of [in]access to greenspace among certain demographic groups, including ethnic minority groups. Defra, Public Health England, and the Scottish Government, to name just three notable examples, have developed between them a comprehensive suite of targeted

- actions, recommendations, and guiding principles designed to tackle the problem.
- Recent academic research has also sought to make useful suggestions for how and where policy makers can most effectively remove barriers to access to greenspace for ethnic minority communities. Suggestions have included: introducing multiple languages on signs and additional prayer spaces in parks to promote inclusivity; better urban planning to ensure good quality, safe green spaces in socially deprived areas; and targeted funding at local community-led access initiatives.

Evidence gaps

The issue of ethnicity and access to the nature / countryside / greenspace has been researched by both academics, policy makers, and third sector organisations for the past 30 years or more. And while the combined literature of papers, reports, and policy proposals is not huge, it does provide us with a good understanding of what the barriers to access to greenspace for ethnic minority groups are and, in theory at least, what actions need to be taken to remove or reduce those barriers. Despite this knowledge, however, the issue remains stubbornly persistent. Some community initiatives have been shown to have had a positive local impact, and it is possible that a degree of progress may have also been made at a national scale over the past decade or so too, but clearly significant inequalities in terms of access to greenspace remain. A deeper analysis of MENE data would reveal the extent to which any progress had been made between 2009 to 2019 (for England at least).

Why this might be, and why decades of research and policy proposals in this area have not resulted in significant improvements in access to greenspace for ethnic minority groups are key questions that need to be addressed. There is a significant evidence gap, for example, when it comes to understanding both the process of policy implementation (in terms of barriers, scale, consistency of approach) and the efficacy of specific proposals and interventions. We can

speculate on the reasons why significant progress has not been made on this issue (e.g. a lack of concerted intervention; insufficient funding; a failure to address more fundamental and systemic issues) but more research is needed to determine if and what recommended actions have been implemented and how effective (or not) they have been and why.

Wales focused research

There is also notable evidence gap when it comes to examining issues of ethnicity and access to the environment in Welsh contexts. Our searches returned only two directly relevant references. The first was a 2012 review carried out by Lester (Public Health Wales) for the Welsh Government examining health inequities, the provision of green space and the cost effectiveness of interventions. The findings in the review anticipated those of other similar studies (see Public Health England, 2020) in recognising and recommending that:

- access to good quality green space can improve health and wellbeing. It is recommended that green space should be maintained to a high standard and that interventions which encourage wider use should be supported
- access to good quality green space can reduce health inequities, but spaces in deprived areas are often of poor quality. To increase use of green space by people in disadvantaged groups, it is recommended that green space in deprived areas should be improved by removing graffiti, providing toilets, seating and other amenities and involving local people in planning
- communities are best placed to know what they want from their local green space and should be fully involved in improvement schemes
- good spatial planning which considers provision of green space, walkable
 environments and the needs of disadvantaged groups can be cost effective.
 It is therefore recommended that planning for health with an equity focus,
 including health inequality impact assessment, should become the norm

The second example, was a qualitative study by Robinson and Gardner (2006) that explored, through in-depth interviews with 40 Black and Minority Ethnic residents in rural Powys, the 'distinctiveness' of racism in rural Wales. Very much continuing in the 'landscape' lens tradition of research (see Agyeman, 1989; Agyeman and Spooner, 1997; Neal, 2002), Robinson and Gardner (2006) argued that rural racism in Wales was 'undoubtedly distinctive from its English, Scottish and Irish equivalents, because of the places within which it is enacted and the unique histories, cultures and demographics that these possess' (p. 69). One of the factors that Robinson and Gardner highlighted that made rural racism in Wales distinctive was the Welsh language, related to sensitivities concerning its future and the way it could be used to exclude or to gain inclusion. Another element of Welsh rural racism that made it distinctive according to Robinson and Gardner's research was that it was 'practiced' differently by the two main cultural groups living there: the Welsh and the English, although no consensus emerged among the interviewees as to which group were the most welcoming or exclusionary (p. 60).

This lack of consensus, Robinson and Gardner suggested, illustrated that there was/is no single Black and Minority Ethnic experience in rural Wales and no single relationship between Black and Minority Ethnic inhabitants and the communities in which they live. Rather there were/are a variety of racisms enacted by different groups, for different reasons and manifested differently in different places' (ibid.). While acknowledging the plurality of Black and Minority Ethnic experiences and the importance of nuanced understandings of racism, Robinson and Gardner concluded on a note of caution arguing that a focus on difference should not distract us from identifying the 'profound commonalities that underpin all racisms' (p. 70).

Structural and systemic racism

Rural racism was one of the four key barriers to access preventing people from ethnic minority backgrounds from visiting the countryside identified by Agyeman in the late 1980s (see above). Agyeman was the first to theorise, and explain the connection between the broader problem of racism in rural areas and the absence of people of colour from countryside recreation. His work and the associated work of the Black Environment Network (BEN) was also instrumental in the wider recognition of the problem and, eventually, the development of a series of policy responses and action plans.

Somewhere between the identification of the issue and the development of targeted policy responses, however, explicit references to racism seem to have been largely dropped. Many action plans fail to acknowledge racism, either in a specific rural context or in its more diffuse structural and systemic form, as one of the principal barriers to access to / engagement with greenspace for ethnic minority communities.

To tackle what is a complex and multifaceted challenge, therefore, requires a better understanding of the different manifestations of rural racism in Wales; it requires a better understanding of the experiences and preferences of different ethnic minority groups within Wales; and it requires a much greater understanding of the institutional and systemic causes of racism and its relationship to a range of environmental inequalities in the country.

Recommendations

Based on a distillation of all the recommendations, action plans, guiding principles, next steps, and key lessons learnt from across the 'the literature', we suggest the following key things to consider and to action going forward:

Key considerations

1. Ethnicity intersects with other socio-structural categories, gender, age, socio-

economic status, health. This is a challenge in the context of identifying specific barriers to ethnic minority access to greenspace. But it is also potentially an opportunity, as interventions targeted specifically at ethnic minority groups will also likely lead to improvements for other socio-structural groups.

- 2. There are a diversity of values, experiences, motivations and preferences among different ethnic minority groups.
- 3. Values, experiences, motivations and preferences with respect to greenspace are also fluid and change/evolve over the life-course.
- 4. Ethnic minority groups' engagement with nature is nuanced and not simply a case of use/non-use. Not wanting to engage with nature is also a perfectly reasonable choice which needs to be understood and respected.
- 5. The specific issue of access to / engagement with nature/greenspace needs to be considered in the wider systemic context of anti-racism discourse and action.
- 6. The problem is deep-rooted, complex and multifaceted. Solutions will need to comprehensive, multifaceted and sustained.

Key actions

- 1. Listen to, work with, and empower ethnic minority groups and communities to better understand and address these issues. This is the single most important message from this review of the evidence.
- 2. Recognise the value and efficacy of local scale, community based initiatives that support people in accessing, enjoying and managing local green spaces. Support them, invest in them.
- 3. Take a targeted approach. Target interventions that specifically support ethic minority groups or better still different ethnic minority groups. Target resources and effort too.
- 4. Gather more evidence. Understand the scale of the problem, the direction of travel, and crucially the effectiveness (or not) of different interventions.

Establish baseline data and monitor. Undertake a case study based review of best practice, identifying what initiatives have been successful and why. Set up a multi-stakeholder Task Force or Working Group to examine in greater depth previous policy failures and ongoing barriers to policy implementation.

- 5. Aesthetics and amenities matter. Investing in green/bluespace has multiple benefits and serves multiple agendas. Moreover, if ethnic minority communities have greater input with respect to the design and management of these spaces they (and others) are more likely to invest in (volunteer) in its maintenance and upkeep.
- 6. The problem is complex and multifaceted but small initiatives/investments can make a big difference.

References

Agyeman, J. (1989). Black-people, white landscape. Town and Country Planning, December: 58 (12) 336–8.

Agyeman, J. (1990). Black people in a white landscape: social and environmental justice. Built Environment (1978-), 232-236.

Agyeman, J., & Spooner, R. (1997) Ethnicity and the Rural Environment in Cloke, P., & Little, J. (eds.). Contested countryside cultures. London: Routledge.

Boyd, F., et al. (2018). Who doesn't visit natural environments for recreation and why: A population representative analysis of spatial, individual and temporal factors among adults in England Landscape and Urban Planning 175: 102-113.

Brown, C., Bramley, G., & Watkins, D. (2010). Urban green nation: Building the evidence base. CABE.

Cloke, P. & Little, J. (1997). Contested countryside cultures. London: Routledge.

Countryside Commission (1991). Visitors to the Countryside.

CPRE/NEF (2021). Access to nature in the English countryside: A participant led research project exploring inequalities in access to the countryside for people of colour.

Cronin-de-Chavez, A., et al. (2019). Not a level playing field: A qualitative study exploring structural, community and individual determinants of greenspace use amongst low-income multi-ethnic families. Health & Place 56: 118-126.

Defra (2008). Outdoors for All? An Action Plan to increase the number of people from under-represented groups who access the natural environment.

Edwards, R. C., Larson, B. M., & Church, A. (2022). A "magic teleportation machine": Ethnically diverse green space users derive similar cultural ecosystem benefits from urban nature. Urban Forestry & Urban Greening, 67, 127409.

Fields in Trust (2019). Revaluing Parks and Green Spaces: Measuring their economic and wellbeing value to individuals.

Friends of the Earth (2020). England's green space gap.

Holland, F. (2021). Out of Bounds: Equity in Access to Urban Nature. Groundwork: Birmingham, UK.

Lester, C. (2012). Green space, reduction of health inequities, and cost effectiveness of interventions. (Public Health Wales).

Lovell, R., White, M.P., Wheeler, B., Taylor, T., Elliott, L. (2020) A rapid scoping review of health and wellbeing evidence for the Green Infrastructure Standards. European Centre for Environment and Human Health, University of Exeter Medical School. For: Natural England, Department for the Environment, Food

and Rural Affairs, Public Health England, and Ministry for Housing, Communities and Local Government, England.

McEachan, R. R. C., et al. (2018). "Availability, use of, and satisfaction with green space, and children's mental wellbeing at age 4 years in a multicultural, deprived, urban area: results from the Born in Bradford cohort study." Lancet Planetary Health 2(6): E244-E254.

Morris, N. (2003). Black and minority ethnic groups and public open space. Literature Review. OPENSpace, Edinburgh.

National Trust (2020). Levelling up and building back better through urban green infrastructure: an investment options appraisal.

Natural England (2012). The Mosaic Model Access to Nature: Early Findings Paper.

Natural England (2022). The People and Nature Survey for England: Year 2 Annual Report.

Neal, S. (2009). "Rural identities: ethnicity and community in the contemporary English countryside" London: Routledge.

Neal, S. (2002). Rural landscapes, representations and racism: Examining multicultural citizenship and policy-making in the English countryside. Ethnic and Racial Studies 25(3): 442-461.

Ockenden, N. (2007) Volunteering in the natural outdoors in the UK and Ireland: A literature review.

Office for National Statistics (2020). Access to garden spaces: England.

Ordóñez-Barona, C. (2017). "How different ethno-cultural groups value urban forests and its implications for managing urban nature in a multicultural

landscape: A systematic review of the literature." Urban Forestry and Urban Greening 26: 65-77.

Pitt, H. (2019). What prevents people accessing urban bluespaces? A qualitative study. Urban Forestry & Urban Greening, 39: 89-97.

Public Health England (2020) Improving access to greenspace: A new review for 2020.

Ramblers. (2020). The Grass Isn't Greener for Everyone: Why Access to Green Space Matters.

Rishbeth, C. (2004). Ethno-cultural representation in the urban landscape. Journal of Urban Design, 9(3), 311-333.

Roberts, H., et al. (2019). "Associations between park features, park satisfaction and park use in a multi-ethnic deprived urban area." Urban Forestry & Urban Greening 46: 9.

Robinson, V., & Gardner, H. (2006). Place matters: exploring the distinctiveness of racism in rural Wales. In The new countryside? (pp. 47-72). Policy Press.

Robinson, T., et al. (2023). Examining Psychosocial and Economic Barriers to Green Space Access for Racialised Individuals and Families: A Narrative Literature Review of the Evidence to Date. International Journal of Environmental Research and Public Health 20 (1): 28.

Roe, J., et al. (2016). "Understanding Relationships between Health, Ethnicity, Place and the Role of Urban Green Space in Deprived Urban Communities." International Journal of Environmental Research and Public Health 13(7): 681.

Scottish Government (2021) Outdoor recreation – understanding the drivers of participation: research.

Slater, H. (2022). Exploring minority ethnic communities' access to rural green spaces: The role of agency, identity, and community-based initiatives. Journal of Rural Studies 92: 56-67.

Southby, K., South, J., & Bagnall, A. M. (2019). A rapid review of barriers to volunteering for potentially disadvantaged groups and implications for health inequalities. VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 30, 907-920.

Thompson, C. W., Roe, J., Aspinall, P., Zuin, A., Travlou, P., & Bell, S. (2010). Community green: using local spaces to tackle inequality and improve health. CABE.

Welsh Government (2022) Draft Anti-racist Wales Action Plan.

Welsh Government (2023) Anti-racist Wales Action Plan.

What Works Wellbeing (2018) Improving access to green space for BAMER communities.

White, M. P., Alcock, I., Wheeler, B. W., & Depledge, M. H. (2013). Coastal proximity, health and well-being: Results from a longitudinal panel survey. Health & place, 23, 97-103.

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