

# How Recognitional Justice (Re)Shapes Access and Participation in Urban Green Space Governance

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## HIGHLIGHTS

- Inequities in access to and governance of urban greenspace are deeply intertwined.
- Drawing-based methods facilitate elicitation of plural values and lived experiences.
- Values in urban greenspace vary based on socio-economic-political experiences.
- A lack of recognition of communities' lived experiences exacerbate inequities.
- Deprived areas and their local greenspace are the most structurally vulnerable.

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## ABSTRACT

Urban Green Space (UGS) policy has mostly focused either on addressing the distributional inequities and subsequent levels of access, or procedural inequities to widen public participation in their governance. In this paper, we build on work focussing on recognitional equity – a dimension of equity which calls for the acknowledgement and respect of diverse identities, values, and experiences – to deepen understandings of existing UGS inequalities. We develop an analytical framework that highlights how recognitional justice relates to both access and governance of UGS to explore UGS equity in Oxford, one of the most unequal cities in the UK. Using a mixed-method approach, we provide a spatial analysis of the available green space and relative influencing factors for three neighbourhoods with differing socio-economic deprivation levels and local planning provisions. Qualitatively, we consider with community members their values underpinning access to UGS, and their ability and willingness to participate in local governance. Overall, we show how recognitional injustices impact different socio-economic groups based on existing procedural and distributional inequities, making local UGS more vulnerable to loss in neighbourhoods that are relatively bioculturally diverse and socio-economically deprived. Ongoing institutional failures to account for principles of recognitional justice and embed strategies to mitigate the uneven impacts of system-embedded inequities risk continued erosion, rather than improvement, of UGS justice for the most deprived.

## 1. Introduction and theoretical framework

Urban green spaces (UGS) provide multiple benefits, from supporting the recovery of specific health conditions among adults (Yeager et al., 2020) and children and young people (Bell et al., 2008) to improving mental health (Mental Health Foundation, 2021), life satisfaction (Fleming et al., 2016; MacKerron & Mourato, 2013), and pro-nature behaviour (Richardson et al., 2020), while providing vital ecosystem

services (Smith et al., 2023). Yet, poorly managed UGS can yield ecosystem dis-services (Veibiakkim et al., 2025), including physical harm to infrastructure or mental distress (Guo et al., 2022; von Döhren & Haase, 2015). Nevertheless, consensus remains that UGS help to address a range of urbanisation-specific challenges (Acuto et al., 2018), especially among communities inhabiting the most deprived areas (Labib et al., 2022; Ordóñez et al., 2022). However, UGS are unevenly distributed across neighbourhoods and their governance processes

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rarely reflect the biocultural diversity of urban centres, undermining UGS justice (Buijs et al., 2024).

Building on recognitional equity research – a dimension of equity which calls for the acknowledgement and respect of diverse identities, values, and experiences (e.g., Grant et al., 2024; Nesbitt et al., 2018; Pike et al., 2025) – this paper deepens understanding of existing UGS inequalities. We propose an analytical framework highlighting how recognitional justice shapes both access to and governance of UGS. Using Oxford, one of the UK's most unequal cities, as a case study, we combine spatial analysis with qualitative insights to examine how recognitional injustices manifest across socio-economic contexts. Our findings reveal that these injustices intersect with procedural and distributional inequities, making communities in socio-economically deprived and bioculturally diverse neighbourhoods subject to ongoing systemic patterns of misrecognition and their UGS particularly vulnerable to loss. It is in this context that we ask: *How does a focus on recognitional justice deepen our understandings of dynamics in UGS access and governance?*

Debates around UGS justice have historically emphasised distributional aspects (Schlosberg, 2007). Spatial studies have quantified spatial disparities (e.g., Li et al., 2015; Nesbitt et al., 2019; Schwarz et al., 2015; Yang et al., 2022) and informed policy frameworks in multiple countries (e.g., Natural England, 2010, 2023; Oxford City Council, 2013; Vancouver Board of Parks and Recreation, 2020). Recently, procedural equity, focussing on fair and inclusive decision-making to widen and diversify public participation in UGS governance, has emerged as a focus of research and interventions to improve overall UGS justice (Frantzeskaki et al., 2023; Hansen et al., 2023). While participatory planning is now common, significant gaps persist in whose values shape outcomes and existing injustices impact equity of governance arrangements and their procedures (Harvey, 1996; Heynen et al., 2006).

Efforts to improve communities' access to UGS and spaces for their governance are often ineffective (Layard et al., 2024) and can result in socially unjust outcomes linked to gentrification (Anguelovski et al., 2022; Wolch et al., 2014), largely unaddressed among practitioners (Nesbitt et al., 2023). For instance, while higher property values near UGS are typically framed as positive (Smith et al., 2023), in more deprived areas they can displace lower-income residents eroding local identity and belonging (Sax et al., 2023), alienating communities from their local UGS and exacerbating existing socio-economic inequities (Cole et al., 2017). Critical environmental justice scholars locate these failures in, among other factors, the institutional inability to recognise a diversity of co-existing values and ongoing socio-economic and political experiences underpinning the structural constraints facing the most marginalised social groups in formal procedural and governance processes (Fraser, 1997, 2006). Despite advances in participatory planning, recognitional justice remains underdeveloped in urban policy (Grant et al., 2022, 2023; Pike et al., 2025). Meaningful integration of historic power imbalances, lived experience of oppression and marginalisation of communities, and their past institutional context is often incompatible with the short-termism of distributional or procedural efforts that formal institutions engage in, limiting the opportunity to address existing structures of marginalisation and the social-economic and political inequities that these legitimise and perpetuate (Schlosberg, 2007).

Recognition involves not just inviting diverse groups into consultation but acknowledging differing worldviews and cultural values (Wijsman & Berbés-Blázquez, 2022). Recent work has shown how little recognitional equity is still considered in urban forestry practice (e.g., Grant et al., 2022, 2023; Pike et al., 2024, 2025) and has helpfully highlighted the structural barriers facing the most marginal communities in participating in urban greening initiatives (e.g., Myers et al., 2023; Pearsall et al., 2024; Riedman et al., 2022). Nevertheless, how recognitional injustices interact with distributional and procedural inequities shaping equity of UGS access and governance and what these mean for different socio-economic areas and their UGS is still lacking. These understandings are necessary in contexts where UGS planning and

governance are closely dependent and intertwined with wider urban planning processes such as, among others, in England, UK.

To explore this, we form a theoretical approach to enrich our understandings of UGS access (i.e., distributional equity) and people's experience of political participation in UGS planning (i.e., procedural equity) through recognitional equity lens (Fig. 1). We apply this framework in Oxford, one of the wealthiest yet most socio-economically divided cities in England (Oxfordshire County Council, 2020), providing an interesting setting to explore how recognitional injustices manifest across different socio-economic groups and their local UGS. We identify and examine how recognitional justice is central to three aspects of UGS access and governance that are critical in advancing our understanding of equity of UGS access and governance: (i) situated value pluralism – in relation to access to UGS – and people's (ii) ability and (iii) willingness to participate in local planning – for UGS governance (see Nesbitt et al., 2018).

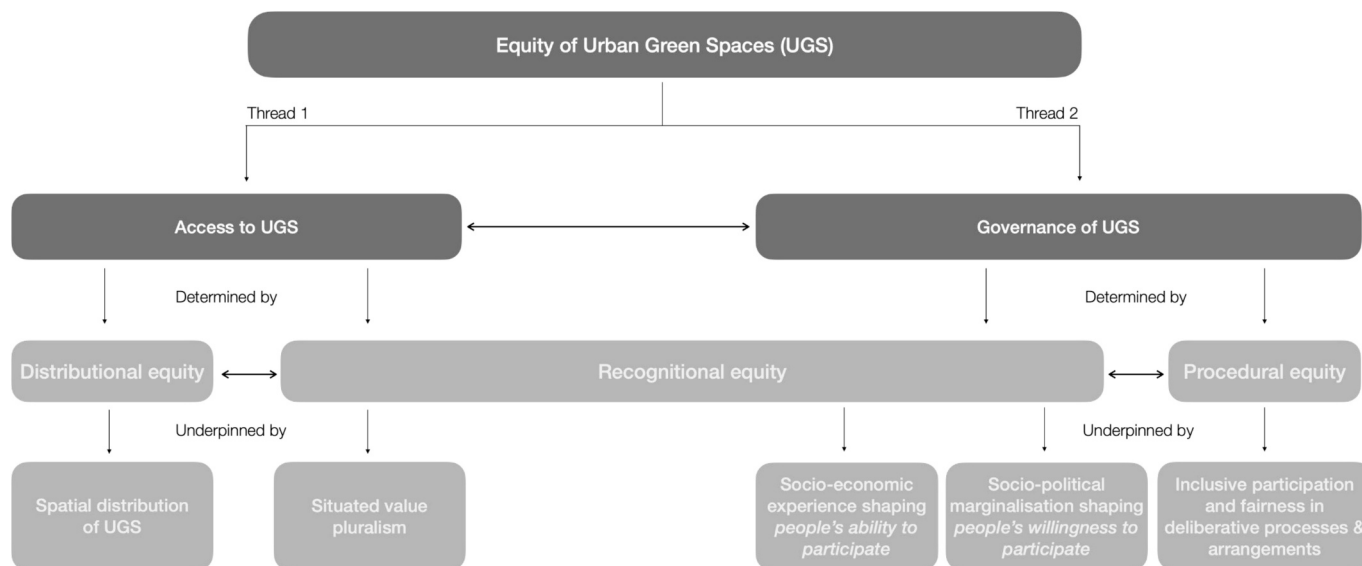
### 1.1. *Recognitional justice of UGS access: situated value pluralism*

Here, we consider values as “a principle associated with a given worldview or cultural context, a preference someone has for a particular state of the world, the importance of something for itself or for others, or simply a measure” (Pascual et al., 2017, p. 9). In our investigation, these values—rooted in residents' cultural identities and socio-economic informed needs – underpin access to UGS beyond spatial provision. Dominant frameworks such as ecosystem services have prioritised economic valuation, overlooking alternative ways of valuing nature (Buller, 2022; O'Neill, 2017). This value monism (i.e., the collapsing of diverse values into a single commensurable measure; see Pascual et al., 2023) poses particular challenges for bioculturally diverse cities where environmental values go beyond the ecological functioning and economic levels (Langemeyer & Connolly, 2020). They encompass human-non-human relational values and culture formation (Hirons et al., 2016; Pröpper & Haupts, 2014), upon which consideration of the *de facto* opportunities of UGS access can be more accurately made.

Recognising the co-existence of differing, often conflicting, values is necessary to shape context-reflexive urban geographies on the values of local communities (Grant et al., 2023), including those that, under mainstream channels of political participation, are not as visible as more politically engaged dominant social groups (Pascual et al., 2023). We establish the recognition of urban value pluralism as foundational for advancing recognitional equity in UGS equity of access (Fig. 1). Feminist and decolonial scholarship further underline that valuing nature is context-specific and shaped by lived experience (D. Haraway, 1988; D. J. Haraway, 2016; Wijsman & Feagan, 2019). Situating value pluralism requires exploring how communities' embodied interactions with space relate to broader political and historical contexts of inequity (Harvey, 1996; Young, 1990). In recognition of these insights, here we extend the focus of enquiry beyond just *preferences* regarding urban vegetation (Nesbitt et al., 2018). We take a value-plural approach to the investigation and seek to explore how specific values carry, or not, varying lived socio-economic experiences among neighbourhoods and their communities.

### 1.2. *Recognitional justice of UGS governance: People's ability and willingness to participate*

Equity in procedural processes concerns fair representation in decision-making (Emami et al., 2015). When institutions fail to acknowledge histories and realities of marginalised groups (recognitional justice), fair and inclusive procedural processes alone cannot foster meaningful representation of different social groups in procedural processes, or effectively address the structural injustices (McKeown, 2021). Nesbitt et al. (2018) frame recognitional equity in governance as residents' ability and willingness to participate in decision-making. Both are shaped by socio-economic constraints and historical relations with



**Fig. 1.** Theoretical framework articulating how recognitional equity-informed considerations enrich understandings of equity of UGS access and governance alongside the respectively more traditionally employed distributinal and procedural equity pillars, respectively.

institutions (Heynen, 2016, 2018).

With this paradigm of recognition in mind, our theoretical grounds (Fig. 1) are largely drawn from Nesbitt et al. (2018), with an important addition of value pluralism as a key additional parameter to explore recognitional justice of UGS access. In exploring recognitional justice of UGS governance, we augment individual level of analysis examining the parameters of people’s ability and willingness to participate offer with the more critical urban political ecology awareness of the need to account for how the structural and institutional level systematically privileges certain groups and their lived areas over others based on historic and current inequities (Grant et al., 2024). To do this, we mitigated the individual analytical level of recognitional justice principles offered in Nesbitt et al. (2018) through consideration of contextual differences in socio-economic deprivation and local planning provisions in Oxford, guiding the identification of our study area. To avoid ambiguity, our goal is not to individualise structural problems. Rather it is to highlight that both structural and individual analyses both important: the structural lack of recognition of values and lived socio-economic and political lived experiences (i.e., recognitional injustices), specifically in the context of UGS access and governance, continue to undermine UGS justice with however varying implications for different socio-economic and political neighbourhoods.

**2. Methodology**

We adopted a mixed-method, interdisciplinary approach: we combined quantitative assessment of UGS distribution with qualitative exploration of residents’ values and lived experiences through walking interviews and a drawing-based activity supported by an artist. These methods illustrate a commitment to, as Grant et al. (2024) remarks, the “need for widespread acknowledgment of unjust histories and contemporary circumstances, and genuine investment in building relationships, dialogue, and trust with neglected communities” (p.19). Our study area selection was driven by: (1) the English Index of Multiple Deprivation (IMD) to capture varying socio-economic contexts and (2) the type of local planning provision to contextualise residents’ opportunities for participation in local governance through different statutory provisions (e.g., top-down or bottom-up) across areas of Oxford representing *de facto* structural differences among our engaged communities.

In this specific socio-political context, we conceptualise socio-economic inequities and differing participatory governance provisions

as proxies of historic structural constraints shaping communities’ present distributinal and procedural differences. IMD and governance planning provisions, alongside brief historic accounts of the selected study areas informing what they have historically represented in the wider Oxford city formation and development enable our analysis to entangle the lived experience of individuals engaged with the structural injustices operating in the English context and shaping to date patterns of misrecognitional UGS justice. The following sections further clarify these aspects.

*2.1. Socio-economic inequities and differing local governance provisions*

The English Index of Multiple Deprivation combines weighted scores from seven domains into a single score of relative deprivation. Scores are provided at Lower-layer Super Output Area (LSOA) scale (i.e., a cluster of postcodes typically including 400 – 1,200 households). LSOAs in IMD decile 1 are the most deprived 10 % of England; those in decile 10 are the least deprived (MHCLG, 2019).

Neighbourhood Plans provide a statutory role to communities in local development (Parker et al., 2023). These plans are voluntarily developed by active community members formally gathered under neighbourhood forums, intended to enable residents to guide small-scale development and land use starting from community preferences and bottom-up negotiations before seeking approval at the local government level. Despite existing procedural caveats to overrule this in local government decision-making, once approved, local planning authorities largely need to account for and respect what neighbourhood plans set out (DLUHC, & MHCLG., 2014). By contrast, planning in highly deprived areas has often relied on top-down regeneration schemes designed to promote regeneration of the most nationally deprived areas (DLUHC et al., 2022). These plans are largely mandated by the national government with local authorities proposing and overseeing specific implementational plans in conversation with developers and communities, under public consultative mechanisms, rather than bottom-up mechanisms like in the case of areas with neighbourhood plans in place.

*2.2. The Case Study of Oxford*

Although Oxfordshire ranks among England’s least deprived counties (10th of 151 authorities), intra-urban inequalities persist in the city of Oxford: 28 of 407 neighbourhoods (hereafter LSOA to match

English statistical terminology) fall within the most deprived 30% (Crockatt et al., 2024). Oxford is also characterised by different local governance arrangements with heterogeneous degrees of participatory engagement and of influence on the statutory (formal) planning system at the City level. These differing local governance provisions, alongside existing socio-economic inequities, represent structural differences in the ways neighbourhoods and their communities have developed. We consider these disparities essential to understand how formal institutional channels for residents participation in local development reflect historic marginalisation of the communities inhabiting different neighbourhoods, posing effectively structural constraints on some while allowing others to take more statutorily lead on shaping their local environment. Based on these parameters, three neighbourhoods were selected.

### 2.2.1. Blackbird Leys (Parish Council area): a largely deprived and top-down planned neighbourhood

Blackbird Leys exhibits high deprivation, with IMD scores between 1 and 7 (median = 2) (OCSI, 2023a, 2023b; Oxfordshire County Council, 2020) (Table 1). National regeneration and levelling-up initiatives have targeted the area (HM Government, 2022). The redevelopment plans central to this study<sup>1</sup> authorise 294 new homes across two sites, including one on former greenfield land adjacent to Spindleberry Nature Park (i.e., Knights Road site) which became central space for our community engagement in this neighbourhood.

Historically, Blackbird Leys has been characterised by council housing developments to meet growing housing needs of wider Oxford. A locally provided historic account of the area indicates that: “the council housing estate was built in the 1960s. With the growth of the nearby car industry, homes were required for additional factory workers, and to provide housing from other parts of Oxford [...]. The City Council planned to build an estate of 2800 dwellings on land used by the sewage works and Sawpit Farm, and outline planning permission was granted in 1953. [...] By 1990 Oxford’s housing needs had become so acute that the city council developed the greenfield land on the outskirts of the city. The chosen site was the site of the former Blackbird Leys Farm – providing 1700 new homes.” (Blackbird Leys Parish Council, n.d.). Today, Blackbird Leys is characterised by a highly diverse population, long-term council tenants, and newer residents drawn by housing affordability and open space (Oxfordshire County Council, 2022), making this an important site where local development has been historically driven by wider Oxford city’s fast growing industrialisation and housing needs, leading to a largely working class demographic.

### 2.2.2. Headington and Summertown (Neighbourhood Forum areas): non-deprived and bottom-up planned neighbourhoods

Headington (IMD 3–10; median = 9) (Oxford City Council, 2014) and Summertown (IMD 4–10; median = 10) (OCSI, 2023c, 2023d, 2023e) are affluent areas governed through neighbourhood plans. Both neighbourhoods are comparatively homogenous, though interviews suggest increasing biocultural diversity in Headington not yet reflected in census data (last available community profile is from 2011) – see Table 1. These neighbourhoods represent bottom-up governance models, offering a useful contrast to the top-down regeneration provision of local governance characterising Blackbird Leys, and allowing analysis of recognitional justice across socio-economic and differing procedural contexts.

Historically, Summertown, according to its neighbourhood plan, was “mainly residential [...], a late arrival in the history of Oxford. [...] In 1832, Summertown was very much a separate village, its buildings outside the City boundary and therefore liable for lower County rates. [...] Speculative building in Summertown was a response to a huge increase in Oxford’s population, which more than doubled from 1801 to

1851, to nearly 26,000”. The plan however continues to highlight that “Summertown continues to be a prosperous residential area, home to several independent and state schools and a successful shopping and business centre.” (Summertown & St. Margarets Neighbourhood, 2019, pp.45-48).

Headington, as described by a resident-run online history archive, “was always a backward rural area compared to the city of Oxford, and it had to wait until 1926 for gas and 1929 for electricity. [...] In 1919/1920 Headington Rural District Council built Headington’s first council houses on the London Road. The growth of the Cowley car works caused an explosion in the size of Headington between 1921 and 1931, when its population increased by 79 per cent. In 1929, the three old villages came under the city of Oxford, and were henceforth considered a suburb. [...] The metamorphosis of Headington Polytechnic into Oxford Brookes University in 1992 and the huge expansion of the hospitals is helping to make Headington the most vibrant suburb of Oxford.” (Jenkins, n.d.).

While we recognise that the contextual and historic accounts we provide within the scope of this paper are limited, we find that these capture effectively the essence of the structural elements that novel research in urban recognitional justice requires, while tailoring such need for the specific English context.

### 2.3. Participants recruitment and positionality statements

We engaged 42 residents through walking interviews (see Table 2 for a summary by deprivation level of LSOA of residence; Appendix A for extended overview) and a drawing-based activity. Recruitment followed a cascading approach using community champions active in resident associations forming neighbourhood forums, or parish councils. Champions were encouraged to reach beyond their immediate networks to avoid repetition of dominant perspectives. This also helped mitigate impacts of the researchers’ positionality on engagement strategies.

The authors recognise how their social positions also shape the research. Particularly important, as researcher leading data collection, Matti is white, queer, Italian-born with middle-class privilege and secure UK residency. While aware of how structural injustices are embedded and complicated to eradicate from institutions (Castro, 2021), he has not experienced economic deprivation or socio-political marginalisation himself. The supporting artist is non-white, queer, and first-generation diasporic, with a privileged naturalised nationality, higher education background and full residence rights in the UK. His practice focuses on belonging and identity through auto-ethnographic methods, enabling culturally attuned participant engagement. Ongoing reflexive dialogue between the researchers and artist mitigated interpretive bias and researcher-participant hierarchies (Rodriguez & Ridgway, 2023), supporting a less prescriptive plural value elicitation (Kuhn et al., 2025).

Participants in Headington shared similar social position to the researchers, while those in Summertown and especially Blackbird Leys differed socio-economically and in terms of narrated lived experience, both of great privilege and marginalisation respectively. This complex social setting required sensitivity to power dynamics during data collection and analysis. Snowballing proved to be most effective in Blackbird Leys, capturing the area’s biocultural diversity. In Headington, recruitment largely mirrored the demographics of the neighbourhood forum, despite efforts to engage newer non-white communities. Summertown’s engagement reflected its low diversity and dominant demographic profile.

### 2.4. Data collection & analysis

#### 2.4.1. Spatial analysis of urban green space provision

Four metrics were employed to quantify access to UGS and green infrastructure, using publicly available data (Natural England, 2024): density of UGS (m<sup>2</sup> per ha of study area); potential for overcrowding (UGS in m<sup>2</sup> per person); provision of private gardens (m<sup>2</sup> per person) and % manmade surfaces (for further details see Crockatt et al., 2024).

<sup>1</sup> Application 3/00405/OUTFUL (Oxford City Planning Committee, 2023).

**Table 1**  
Overview of study sites' community profiles.

	English city ward(% mean?)	Blackbird Leys		Headington	Summertown		
<b>IMD ranges</b>	-	1-7 (median = 2)		3-10 (median = 9)	4-10 (median = 10)		
<b>First level of governance</b>	-	Civil Urban Parish Council		Neighbourhood Forum			
<b>Local planning provision</b>	-	Regeneration plans (top-down; public is consulted)		Neighbourhood Plan (developed by residents and plan approval is requested to City Council for it to be statutory)			
<b>City wards</b>	-	Blackbird Leys	Northfield Brook	N/A	Walton Manor	Summertown	Sunnymead & Cutteslowe
<b>Community profiling data from</b>	2021 census ( OCSI, 2023a)	2021 census ( OCSI, 2023a)	2021 census( OCSI, 2023b)	2011 Census (Oxford City Council, 2014)	2021 census ( OCSI, 2023c)	2021 census(OCSI, 2023d)	2021 census ( OCSI, 2023e)
<b>Population</b>	-	6,392 <b>13,467</b>	7,075	<b>17,354</b>	5,755 <b>19,085</b>	6,512	6,818
<i>White British</i>	73.5	3,368 (52.7%) <b>7,488 (55.6%)</b>	4,120 (60%)	<b>11,280 (65%)</b>	3,070 (53.3%) <b>10,925 (57.2%)</b>	3,853 (60%)	4,002 (60%)
<i>White-non-British</i>	7.5	724 (11.3%) <b>1,597 (11.9%)</b>	873 (12.3%)	<b>2,082 (12%)</b>	1,374 (24%) <b>4,068 (21.3%)</b>	1,371 (20%)	1,323 (18%)
<i>Non-White</i>	19	2,295 (36%) <b>4,383 (32.5%)</b>	2,088 (30%)	<b>3,818 (23%)</b>	1,315 (28.8%) <b>4,098 (21.5%)</b>	1,289 (20%)	1,494 (22%)

**Table 2**  
Overview of participants with respective LSOA and IMD decile of residence. | LSOAs\* are not formally part of the boundaries of the study site but interviewees from them engaged in the data collection use UGS and services in that area.

IMD (2019)	LSOAs (2021)	Study site	No. interviewees	Total
1	Oxford 018B	Blackbird Leys	6	6
2	Oxford 017B; 017D	Blackbird Leys	4	4
3	Oxford 017C	Blackbird Leys	2	3
4	Oxford 005A*	Headington	1	0
5	Oxford 007E	Headington	4	4
6	Oxford 010A	Headington	1	1
7	Oxford 018D	Blackbird Leys	1	1
8	Oxford 002D	Summertown	4	4
9	Oxford 006C; 006D; 007B	Headington	9	11
10	Oxford 003C; 003E	Summertown	2	8
	Oxford 007D	Headington	2	
	Oxford 002A*; 002C; 002F	Summertown	6	

We did not include private property such as schools and private sports facilities that are not publicly accessible and do not play a role in assessing community benefit of local green space. While being an important indicator for localised inequalities of UGS access (i.e., who has access to those schools, colleges, paid green spaces and who does not within the same neighbourhood), this indicator does not speak to the focus of our analysis of accessible green space which aims to make a policy impact contribution for actionable knowledge beyond the academic contribution.

The green infrastructure data used is provided at the LSOA-scale; we therefore made our assessments on LSOAs that fall within, or largely within, each study area (the boundary of Headington is not aligned with LSOA boundaries). LSOA-scale data were amalgamated to calculate values across each study area. The exception is % manmade surfaces: data are provided as a 250 x 250 m grid, with a % manmade surface for each grid square. Weighted values were calculated to obtain the mean % manmade surface for each study area.

**2.4.2. Semi-structured walking interviews in local UGS: Walk, talk & draw**

Walking interviews, paired with a drawing-based technique, elicited participants' environmental values and perceptions of UGS. Combining

methods allows richer, less biased value articulation (Kuhn et al., 2025). Participants guided the researcher and artist to meaningful local UGS, discussing current and desired qualities and exploring how these were underpinned by lived experiences of socio-economic (non-)deprivations. Drawings visualised these aspirations, exposing gaps between provision and perceived need. A single artist produced all drawings to ensure consistency and limit stylistic or positional bias. Interviews followed a relational mapping structure (Boden et al., 2019): participants reflected on (i) themselves in their community, (ii) important others, (iii) shared local environments, and (iv) desired change. In this last stage, the drawing component supported participants verbalised experiences, creating a shared medium for articulating relational and embodied dimensions of valuation (Cooper et al., 2016; Vaughn & Jacquez, 2020; see Appendix B for adopted interview guide). They also reflected on their opportunities to influence local governance based on their lived experience with the locally situation (i.e., neighbourhood planning or top-down public consultations for regeneration plans).

Interviews were recorded, transcribed, and coded both inductively and deductively (Fereday & Muir-Cochrane, 2006). For UGS access, inductive coding highlighted lived experiences of deprivation, while deductive coding organised themes under policy-relevant environmental value categories (e.g. cultural, spiritual, well-being, etc.). For UGS governance, inductive analysis identified structural enablers and constraints of participation, linking procedural inequities to distributional outcomes. The first few transcripts from each study area were used to iterate and finalise a common set of themes and sub-themes which would be stakeholder-centric yet linked to the relevant literatures of value pluralism and participatory and equitable urban governance respectively. The primary researcher collecting the interview was responsible for the qualitative data thematic coding, on NVivo12, while finalisation of themes and their analytical interpretation were corroborated with the wider research group and the supporting artist to ensure rigorous interdisciplinarity and cross-positionality awareness.

**3. Results**

**3.1. UGS access**

**3.1.1. Distributional equity: Spatial green space deprivation**

From our spatial analysis of green infrastructure provision among our study sites (i.e., assessed through four combined metrics explained in our methodological approach and listed in Table 3 below), Blackbird Leys has the greatest provision of UGS (density of green space, m<sup>2</sup> per ha), the highest percentage of manmade surfaces, lowest provision of private gardens (m<sup>2</sup> per person) and highest potential for overcrowding

**Table 3**  
Green infrastructure provision across study sites.

Study area	UGS provision (m <sup>2</sup> per ha)	UGS per person (m <sup>2</sup> )	Private garden provision (m <sup>2</sup> per person)	Mean % manmade surfaces
Blackbird Leys	812	13.5	43.1	44.4
Headington	747	14.8	71.3	40.5
Summertown	564	15.7	91.7	31.8

(m<sup>2</sup> UGS per person) of the three study sites. Overall, our metrics indicate that Blackbird Leys is has the least opportunity for green space access from a spatial perspective among our study sites. Furthermore, communities in Summertown and Headington have access to relatively large, publicly accessible UGS immediately adjacent to those areas, unlike Blackbird Leys (Fig. 2). These mixed metrics indicate that raw measures of green space area can mask meaningful differences in accessibility: when considered alone, UGS provision is the highest in BBL. However, when the other metrics, which seek to capture the wider local spatial context (i.e. UGS per person, provision of private gardens and manmade surfaces) are taken into account we see that BBL offers overall the least chance for communities to access green space benefits locally.

### 3.1.2. Valuation of urban green space: similar values but diverging realities

Qualitative data from the combined walking interviews and drawing-based method for value elicitation reveal that while certain values are shared across differing socio-economic groups, these carry different meanings based on residents' socio-economic contexts. The well-being effect and the sense of openness that UGS provide emerged as striking cases of this socio-economically influenced valuation process. Residents from Blackbird Leys, the most deprived area in our study, described well-being provided by UGS as an opportunity to escape or “withdraw” from material and mental hardship. On the former, a local resident stated:

*The life I live now with three kids, and mortgage, looking at all the bills that come on top of everything else, is just hard and hectic. [...] So I come here [Spindleberry Nature Park] to find some peace to the mind. You need that time and space to just zone out. (B11<sup>2</sup>)*

Another resident, speaking to the mental health escape that UGS offers them, shared that:

*It [the green field on Knights Road now part of local re-development] was really important for my well-being [...]. I was very isolated and confined to my house. But the fact that I could find a sort of tranquil space in nature was really important. I spend time over on the other side as well because the fields are there, and I can walk up. But unfortunately, that's all going to be built on as well. Just houses and that was a really important part of my recovery. (B4)*

Among residents of the non-deprived areas of Headington and Summertown, well-being was often explained in aesthetic and recreational terms. Largely, they understood this value as a break from life in the city and the visual impact of the built environment. One resident remarked:

*I just think it's also absolutely vital for one's mental health [ability to access nature] [...], it's just an absolutely essential antidote to modern life that keeps us pinned in a chair in front of a screen. I mean, I'm retired, but I'm still pinned to a screen. (H1)*

The value of openness displayed similar disparities. In BBL, “openness” was understood as access to essential extra living space that enables exercise, leisure, and cultural practices. One resident (B9) described the role of local UGS in providing necessary relief from

<sup>2</sup> In reporting our data (interviews and drawing-based outputs) we use codes where letters refer to the neighbourhood (B – Blackbird Leys; H – Headington; S – Summertown), and the number refers to the interview number in the specific study site.

overcrowded housing exacerbated by the cost-of-living crisis. A local resident noted that:

*Especially now with the summer coming, you will have to wait sometimes to queue [to use amenities for kids]. Putting more equipment, small toys, and more stuff for the children would make it more attractive [to access the UGS in question]. (B8)*

In Summertown, openness was valued for leisure and amenity—a complement to private gardens rather than a substitute. Residents cited opportunities for safe cycling (Fig. 3), sports requiring significant outdoor space (e.g., baseball; Fig. 4), wild swimming (Fig. 5), but also for aesthetic enjoyment of the “vista” as a local resident defined it (Figs. 6–7).

We turn now to present our empirics considering how socio-economic and political differences influence residents' ability and willing to participate in local governance, before discussing our findings by bringing spatial and qualitative data together in the light of the existing relevant literature.

## 3.2. UGS governance

### 3.2.1. Ability of residents to participate: the unequal cost of time and community organising

While the time-consuming character of participation in local governance was noted across all study sites, the cost of time varied significantly across socio-economic areas. Some residents in Blackbird Leys expressed a strong desire to influence planning but faced barriers such as long working hours or commuting, caring responsibilities, and economic pressures. Speaking to their inability to participate, a local resident remarked:

*I was going to go to the local development consultation series, but because it was organised during work hours, not everyone was able to attend. [...] One day, it was public, [...] it was open until 6pm, but if you work until 5pm and you're in Headington, there is no way you're going to get back here [Blackbird Leys] by 6pm. [...] I have a narrow vision because I do work full-time, and I have three kids. (B2)*

In problematising the higher cost of time and expertise required to participate in local governance arrangements as a structural injustice faced in the most deprived areas, a Summertown resident noticed:

*Hours and hours of time that people give voluntarily to develop neighbourhood plans. You didn't get that unless you're in an area like Summertown where you've got well educated retired people with time on their hands, quite frankly. [...] They can figure their way through this system. It's ridiculous to say that this is the provision for England because it's not happening, [...] “how many people have the luxury of that time to do it?”. (S10)*

In contrast, the Blackbird Leys Parish Council itself, representing the lowest governance level led by resident volunteers, faced major barriers to responding effectively to the planning application for top-down local regeneration plan. With respect to the Knights Road re-development site, resident B4 voiced their experience of querying the Parish Council regarding its ecological impacts:

*They didn't know about them. The Parish Council was struggling to deal with the planning application, because it was so huge, it's like 300 documents. [...] They ended up paying for a planning consultant to basically interpret and give them the summary of how good or bad this was. And they [Parish councillors] have never been against development, but his [consultant] conclusion was that this development wasn't serving locals (B4).*

Some of these resident volunteers explained that financial limitations prevented the Parish Council from continuing to receive appropriate legal expert support, leaving the community with little ability to formally contest the development granted in the area, with critical implications for residents' willingness to participate in such governance arrangements and processes.

### 3.2.2. Willingness of residents to participate: Perceived (un)meaningful engagement and relative sense of marginalisation

Among some residents in Blackbird Leys, the inability to personally

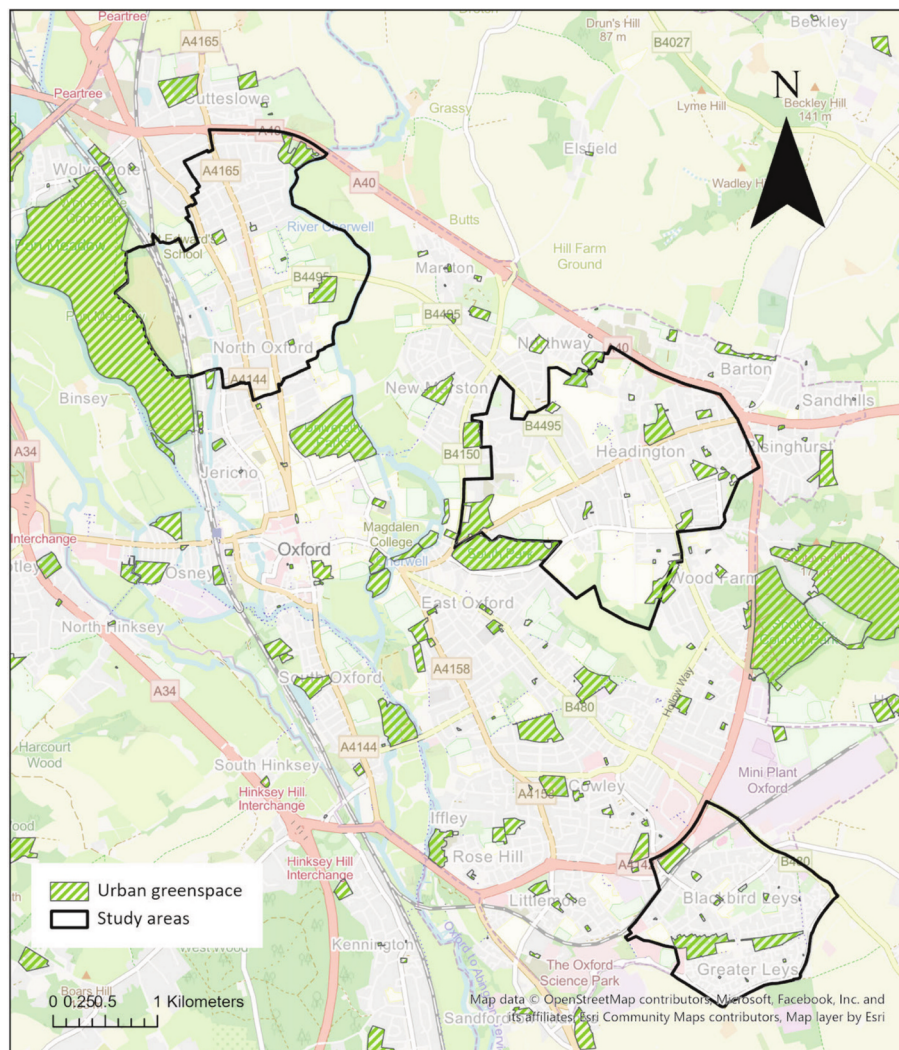


Fig. 2. Map of provision of accessible green spaces (marked as striped, green patches) across study sites (black lines defined). | From top to bottom: Summertown, Headington, Blackbird Leys.

mitigate recognitional injustices intrinsic to the inequitable governance of urban planning furthered a sense of institutional marginalisation. In explaining why some residents become *unwilling* to participate in local governance arrangements, a local community member in Blackbird Leys stated:

*They [city council and developers] did have public consultation, but the public consultation didn't reach enough people. [...] So, a lot of people are very upset with that green space gone. [...] To me it had misleading infographics and things like that. So, you know the headlines they always came out with "there were 1500 comments and 500 contacts", so across the meetings they had. But it didn't say if those were 500 different people. (B7)*

Blackbird Leys residents remarked that the development granted on the green space on Knights Road, site adjacent to their main neighbourhood Park is now resulting in the loss of open space restricting children's freedom to play and adults' sense of safety and belonging, eroding key values that people drew from accessing this existing local UGS. A resident put her and fellow community members' UGS values into perspective during our walking interview by explaining:

*I've not seen a deer since they started [development work on the Knights Road site] and it will get lost completely. I think that the powers really need to listen and think about it [local planning] more holistically. It's not just people saying we don't want more houses in our area. It's not that at all. [...] But I think it's a real shame. It's a real loss [...]. I'm lucky, I can drive so I can escape, but for a lot of people who don't drive in the area, this is it. This is the*

*kind of the nature and open space they get and it's just sad to see it going (B5).*

By contrast, in Headington and Summertown, setbacks in consultation processes discussed in contrast to Blackbird Leys through the bottom-up governance provision of neighbourhood forums, tended not to produce the same withdrawal from or unwillingness to engage in local governance. Residents of these more affluent neighbourhoods retained motivation to continue contesting decisions and overcoming systemic recognitional injustices to make their values seen through formal procedural processes, also beyond their own neighbourhood forums.

Among residents in BBL, an ongoing sense of encroachment of locally provided UGS also emerged as a key theme shaping their sense of trust in institutions and their unwillingness to participate in any formal governance arrangement, especially among some of the longest-term community members. This was not voiced among residents of other areas, unless referencing spaces on the outskirts of Oxford where new developments are compromising the green belt around the town boundaries. In voicing their sense of UGS encroachment locally, a resident from Blackbird Leys invited us to leave the formal park in which our interview was taking place so to see a more informal yet particularly valued UGS. This, like some more others, was a small informal patch of green in between residential houses which, due to top-down policy-making in the area, has been turned into an informal car parks (Fig. 8):

*This one 2-3 years ago was just green. Then, when new younger people came in, and they didn't have a parking space there [in the new development*



**Fig. 3.** Drawing-based output from walking interview with resident from non-deprived area of Summertown S1 showing how their ideal UGS accommodates an activity necessarily requiring more space beyond the private domestic garden, namely cycling.



**Fig. 4.** Drawing-based output from walking interview with resident from non-deprived area of Summertown S4 showing how their ideal UGS accommodates an activity necessarily requiring more space beyond the private domestic garden, namely baseball.

with regeneration plans shaped also by other policy agendas such as Net Zero strategies] [...], the newcomers started parking here. The [City] Council doesn't mind. I don't mind either because I am old, except that that's one spot

less for the children to run around safely (B6).

The recognitional injustices embedded in the planning system resulting in ongoing non-community reflexive local development not



**Fig. 5.** Drawing-based output from walking interview with resident from non-deprived area of Summertown S7 showing how their ideal UGS accommodates an activity necessarily requiring more space beyond the private domestic garden, namely wild swimming for kids.



**Fig. 6.** Drawing-based output from walking interview with resident from non-deprived area of Summertown S8 showing the value of openness that UGS provide as ability to see the “vista” as a sensorial and aesthetic experience.

only contributes to making some residents in Blackbird Leys *unwilling* to participate in local governance arrangements, but also pushes some of the longest residents to relocate. A resident in Blackbird Leys shared:

*The city is not residents-focused but mainly for transit, mainly for tourism. And the residents get their sort of bare minimum to keep going. [...] better move soon. Ideally, I'd like to move somewhere where within 5 minutes-*



**Fig. 7.** Drawing-based output from walking interview with resident from non-deprived area of Summertown S12 showing the value of openness that UGS provide as ability to see the “vista” as a sensorial and aesthetic experience.



**Fig. 8.** Informal overflow car park from the set of nearby developments characterised by no parking provision resulting in the loss of greenspace patches in between house blocks in Blackbird Leys.

*walk from a decent park or woodland or nature reserve and ideally with no threat of imminent development (B3).*

In this section we presented our findings regarding the recognitional equity dimensions of both UGS access and governance. To explore the former, understood as the equal recognition of different people’s lived experience and historic past with institutions, we assessed spatial distributional inequities in UGS across our study sites and qualitatively

explored plural values. In exploring justice of UGS governance, we adopted the parameters offered in Nesbitt et al. (2018) and therefore considered people’s lived experience of participating, or not, in wider local planning in which UGS governance arrangements tend to be part of at least in the English context. We now discuss these points in relation to our research intent and existing literature, before offering recommendations for policy and practice of urban greening and planning, and inputs for future research in urban justice.

#### 4. Discussion

The key findings from our study suggest that recognitional injustices operate through multiple mechanisms to shape both access and governance. Exploring the relation between lived experience of socio-economic deprivation and political marginalisation in shaping people’s valuation of UGS and their participation in local governance arrangements is critical to advance UGS justice meaningfully and grounded in recognitional equity principles that bridge the structural analytical level and the more individualised lived experience of various social groups.

Here we formed an analytical framework to explore UGS access and governance through the lens of recognitional justice to complement the more institutionally pursued distributional and procedural efforts, drawing primarily on individual parameters offered in Nesbitt et al. (2018). However, on the awareness offered by critical urban environmental justice (Heynen, 2016; Schlosberg, 2007; Young, 1990), and more recent recognitional justice-focussed research (Grant et al., 2024), we integrated our individual focus analyses with elements of the structural through our methodological approach. In this section, we discuss the integration of both our spatial and qualitative results as well as bridge the individual and structural considerations to problematise the uneven impacts of recognitional injustices among different social groups.

In our spatial analysis of UGS distribution, these metrics alone suggested that, across our three study areas, Blackbird Leys is not

necessarily the most UGS-deprived area in absolute terms (812m<sup>2</sup> per ha, compared to 564 m<sup>2</sup> per ha in Summertown). However, this area has the highest percentage of manmade surfaces, lowest provision of private gardens (less than half of Summertown's) and highest potential for overcrowding (m<sup>2</sup> UGS per person), also qualitatively voiced by resident B8, showing that residents of in Blackbird Leys have greater need for UGS due to lack of private garden provision, while experiencing less UGS benefits due to the high percentage of manmade surfaces and lower provision of UGS per person. These spatial information translated among residents in Blackbird Leys as an overall greater sense of encroachment in their local area, which, combined with an overall less mobile life, make locally provided UGS particularly important for residents to access benefits of UGS.

Qualitative data enabled us to integrate these spatial metrics with inhabitants' lived experiences of UGS access through a plural value approach (Kuhn et al., 2025). We found that values carry different meanings shaped by structural conditions and local distributional inequities, altogether shaping the structural constraints facing residents in the least affluent area considered. Community members from the non-deprived areas referenced gardens, countryside access, and travel as part of their broader green space repertoires, indicating less dependence on immediate, locally available UGS and more mobile lifestyles. Residents of Blackbird Leys mentioned such other UGS less frequently, implying instead a greater dependence on local UGS for everyday needs, often linked to forms of withdrawal from material and economic hardship, rather than from the aesthetic of the urban built environment as voiced in Summertown or from an ever more digitalised life as voiced in Headington. These latter values were previously found among city dwellers elsewhere, yet without an understanding of how structural injustices and contextual socio-economic conditions underpinning these values (Noe & Stolte, 2023).

Simultaneously, institutional forms of misrecognition – of the lived socio-economic and political contexts of communities underpinning both the valuation of UGS and the provided channels for participation in local governance – were mostly found in top-down urban planning mechanisms such as those characterising Blackbird Leys. Recognition injustices embedded in top-down local governance provisions (such as government-set regeneration plans) and mechanisms (such as public consultations) reduce the structural capacity of residents to protect their valued UGS, amplifying the vulnerability of such spaces to non-context-reflexive development in the largely socio-economically deprived but bioculturally rich neighbourhood of Blackbird Leys.

Misrecognition operates through everyday governance: by failing to acknowledge locally embedded values, institutions undermine trust and belonging. Historically, the City Council's historic decision to designate the publicly owned land of the historic Blackbird Leys Farm to support wider Oxford's acute housing needs was still narrated by the longest-term residents when explaining local development in their area as witnessed and discussed across generations. For Blackbird Leys residents, the Knights Road green site development symbolised institutional disregard (Gentin et al., 2023). This planning decision is perceived as being the results of negligence and misrecognition of local people's values in UGS (e.g., tranquil spaces, witnessing of biodiversity supporting a break from financial hardship, or just accessing necessary extra space beyond the limited domestic one). Today, the ongoing loss of informal UGS mirrors the historic development of the area and is perceived by locals as a community-detached development. Therefore, recognition injustices become both a cause and consequence of ongoing procedural inequities. Neighbourhoods with such socio-economic community profiles and local governance type experience *de facto* greater UGS deprivation and greater structural constraints to meaningfully shape procedural (governance) processes and their outcomes.

In contrast, the neighbourhood plan for Headington states: “in the past all statutory spatial plans have been prepared by the local planning authority, Oxford City Council. These plans are collectively known in

legal terms as ‘the Local Plan’ and will remain in place. These plans were prepared in consultation with the local community, however they did not necessarily reflect the ‘will’ of the community. Headington Neighbourhood Plan is being prepared by the community, for the community” (Headington Neighbourhood Forum, 2017, p. 12). In addition to benefitting from a more bottom-up local planning provision, representing a clear structural advantage, both Headington and Summertown benefit from concentrated reserves of social capital, time, and financial resources that support organised responses to planning threats.

Examples illustrating this include the Boundary Brook Wildlife Corridor & Warneford Meadow in Headington which was granted town green status after two local resident associations raised both expertise and money for an extensive and costly court case. In Summertown, the community raised £100,000 in legal fees to prevent development on what it is now known as the Trap Grounds Nature Reserve and raises £10,000 annually for its maintenance. Higher social and financial capital available in affluent areas therefore becomes a safety net for residents of neighbourhoods that, despite more bottom-up local governance, might want to legally object to local government-sanctioned development not perceived as serving the local community.

Our analysis contributes to an emerging body of scholarship positioning recognition justice as central to equitable urban greening (Grant et al., 2023, 2024) and wider urban policy (Wijsman & Berbés-Blázquez, 2022), corroborating how socio-economically deprived neighbourhoods remain more vulnerable to speculative development than wealthier areas (Layard et al., 2024). Furthermore, our findings highlight a tension between the democratic rhetoric of participatory planning and top-down redevelopment approaches (Horton & Penny, 2024; Pike et al., 2025), which neglect community-specific values and risk stripping UGS of meaning and function for local people (Sax et al., 2022, 2023). However, our study shows how the implications of patterns of misrecognition in UGS access and governance vary depending on the socio-economic levels of communities and the type of planning provisions shaping their opportunity for participation in local governance. It also shows how processes of institutional mistrust and alienation, and respective community resistance of formal procedural processes (Heynen, 2016), and displacement or alienation (Sax et al., 2022, 2023) are systematically recreated through recognitionally unjust local planning systems.

We argue that to comprehensively determine green space justice across the interlinked dimensions of access and governance, our combined spatial and qualitative analyses show that recognition justice-focussed research on UGS access cannot avoid engaging with people's values and lived experience of communities in their locally provided UGS, but also wider socio-economic and political inequities (i.e., structural constraints) as these often underpin the different valuation of such spaces across different communities. Ongoing inability to comprehensively account for community's values and the wider social contexts underpinning those, and the structural differences shaping different opportunities for participatory governance continue to undermine realisation of recognition justice of UGS.

## 5. Concluding remarks: theoretical and methodological reflections, policy implications and future research

Critical to urban planning and greening policy-making, our qualitative findings challenged the traditional understanding and analytical lens to explore green space provision and everyday *de facto* UGS justice. We argue that realising this everyday *de facto* UGS justice cantering *recognition* should be the priority of urban greening policy. To embed and operationalise recognition justice in UGS and wider local planning policy, spatial assessments of UGS distribution should always be complemented with engagement of local communities, especially those who are subject to structural constraints such as less procedurally participatory governance arrangements and existing socio-economic inequities which top-down development often reinforces rather than helps to

address. Integrating recognitional justice into UGS research and policy therefore requires acknowledgement of how the interdependence of access and governance is mediated by patterns of recognitional justice, effectively bridging between individual lived experience and structural systems of marginalisation and discrimination. We recognise that ours was a first, yet analytically limited, effort in this direction, offering nevertheless inputs for the specific English UGS policy landscape.

Recent reforms under the UK devolution agenda, which replace the Conservative government's levelling-up framework, represent an important policy window to embed these principles. The proposed Local Growth Plans and the updated National Planning Policy Framework (MHCLG, 2024) could strengthen community control over development if recognitional equity considerations are integrated explicitly. Firstly, recognising the multiple meanings people attach to UGS – rooted in cultural identity, lived experience, and socio-economic context – can help prevent the erosion of community values through redevelopment. Incorporating local plural value elicitation into environmental and social impact assessments would make planning more reflexive and responsive to local realities (Buizer et al., 2016; Pascual et al., 2023).

Secondly, consultation and engagement mechanisms must shift from generic, one-size-fits-all formats toward bioculturally reflexive participation (Grant et al., 2024; Puskás et al., 2021). This involves applying positive discrimination principles in procedural systems, so offering the most deprived and marginalised groups practical ways to mitigate the recognitional injustices representing *de facto* structural injustices (K. Bell, 2020). Strategies can include more flexible meeting times, financial and logistical support, and community-led facilitation. These adjustments would operationalise recognitional equity by mitigating the structural injustices that currently prevent meaningful participation among the least resourced and most marginalised community members.

Our findings point to three main directions for future research. First, there is a need to deepen understanding of how systemic patterns of misrecognition translate into spatial and governance outcomes across different urban contexts. Comparative studies could illuminate how recognition gaps operate at multiple governance levels—from municipal planning to national policy—and how they intersect with distributional inequities. Second, research should explore both long-term structural transformation and short-term corrective measures that mitigate recognitional injustices. Examining the interface between planning reform and community empowerment initiatives could reveal practical routes to embed recognitional justice principles within planning institutions and funding frameworks.

Finally, methodological innovation is needed to trace how lived experiences of recognition and exclusion connect to systemic decision-making processes. Combining spatial and participatory methods can help link individual experiences of misrecognition to institutional structures, making visible the hidden specific mechanisms that reproduce inequality. Reflexive engagement is also required in less bioculturally diverse neighbourhoods to uncover misrecognised groups within seemingly homogeneous populations. While ascribing to the call for deeply re-structuring knowledge systems of urban development to overcome misrecognition at the system level, our analysis was moved by a sense of urgency to re-think UGS equity in such ways which can, also in the short term, unveil how systemic injustices manifest at the individual level and what they mean for different social groups, while institutional efforts continue to fail to overcome patterns of misrecognition. More contextual research to understand the contextual relations between communities' lived experiences of deprivation and marginalisation, thus bridging structural and individual levels of recognitional justice analyses, is critically needed. This growing research stream has the potential to make a difference in wider urban justice debates in an ever more urbanised world.

## Declaration of Generative AI and AI-assisted technologies in the writing process

Generative AI (OpenAI ChatGPT, GPT-5) was used solely for language editing and structural refinement. No AI tools were used for data collection, analysis and interpretation. All authors reviewed the final manuscript and take full responsibility for the content

## Declaration of research ethics

The procedures involving human participants in this research are in accordance with the UK GDPR (General Data Protection Regulation) and have been reviewed and approved, including the data processing and storing procedures, by the Central University Research Ethics Committee (CUREC) at the University of Oxford, under the reference number SOGE-C1A-24-10.

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## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A and B supplementary data. Overview of research participants and interview guide.

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.landurbplan.2026.105691>.

## Data availability

Data will be made available on request.

## References

- Acuto, M., Parnell, S., & Seto, K. C. (2018). Building a global urban science. *Nature Sustainability*, 1(1), 2–4. <https://doi.org/10.1038/s41893-017-0013-9>
- Anguelovski, I., Connolly, J. J. T., Cole, H., Garcia-Lamarca, M., Triguero-Mas, M., Baró, F., Martin, N., Conesa, D., Shokry, G., del Pulgar, C. P., Ramos, L. A., Matheny, A., Gallez, E., Oscilowicz, E., Máñez, J. L., Sarzo, B., Beltrán, M. A., & Minaya, J. M. (2022). Green gentrification in European and North American cities. *Nature Communications*, 13(1), 3816. <https://doi.org/10.1038/s41467-022-31572-1>

- Bell, J. F., Wilson, J. S., & Liu, G. C. (2008). Neighborhood Greenness and 2-Year Changes in Body Mass Index of Children and Youth. *American Journal of Preventive Medicine*, 35(6), 547–553. <https://doi.org/10.1016/j.amepre.2008.07.006>
- Bell, K. (2020). Working-Class Environmentalism: An Agenda for a Just and Fair Transition to Sustainability. *Springer International Publishing*. <https://doi.org/10.1007/978-3-030-29519-6>
- Blackbird Leys Parish Council. (n.d.). History of Blackbird Leys. Blackbird Leys Parish Council. Bblpc. Retrieved 17 March 2026, from <https://www.blackbirdleyparishcouncil.gov.uk/copy-of-news>.
- Boden, Z., Larkin, M., & Iyer, M. (2019). Picturing ourselves in the world: Drawings, interpretative phenomenological analysis and the relational mapping interview. *Qualitative Research in Psychology*, 16(2), 218–236. <https://doi.org/10.1080/14780887.2018.1540679>
- Buijs, A. E., Gulsrud, N. M., Rodela, R., Diduck, A. P., Van Der Jagt, A. P. N., & Raymond, C. M. (2024). Advancing environmental justice in cities through the Mosaic Governance of nature-based solutions. *Cities*, 147, Article 104799. <https://doi.org/10.1016/j.cities.2024.104799>
- Buizer, M., Elands, B., & Vierikko, K. (2016). Governing cities reflexively—The biocultural diversity concept as an alternative to ecosystem services. *Environmental Science & Policy*, 62. <https://doi.org/10.1016/j.envsci.2016.03.003>
- Buller, A. (2022). The Value of a Whale: On the Illusions of Green Capitalism. *Manchester University Press*. <https://www.jstor.org/stable/jj.7551602>
- Castro, M. R. (2021). Intersectional reflexivity: Using intersectional reflexivity as a means to strengthen critical autoethnography. In V. Stead, C. Elliott, & S. Mavin (Eds.), *Handbook of Research Methods on Gender and Management*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788977937.00023>
- Cole, H. V. S., Garcia Lamarca, M., Connolly, J. J. T., & Angelovski, I. (2017). Are green cities healthy and equitable? Unpacking the relationship between health, green space and gentrification. *Journal of Epidemiology and Community Health*, 71(11), 1118–1121. <https://doi.org/10.1136/jech-2017-209201>
- Cooper, N., Brady, E., Steen, H., & Bryce, R. (2016). Aesthetic and spiritual values of ecosystems: Recognising the ontological and axiological plurality of cultural ecosystem 'services'. *Ecosystem Services, Shared, Plural and Cultural Values*, 21, 218–229. <https://doi.org/10.1016/j.ecoser.2016.07.014>
- Crockatt, M., Burrow, C., Gent, J., Hiron, M., McDermott, C., Rowe, R., & Smith, A. (2024). Oxfordshire's greenspace-deprived neighbourhoods. *Leverhulme Centre for Nature Recovery, University of Oxford*. <https://doi.org/10.5287/ora-vmj5gqmp>
- DLUHC, Homes England, & The Rt Hon Michael Gove. (2022). 20 town and city centres in England transformed through ambitious regeneration projects. GOV.UK. <https://www.gov.uk/government/news/20-town-and-city-centres-in-england-transformed-through-ambitious-regeneration-projects>
- Dluhc, & mhclg. (2014). *Guidance: Neighbourhood Planning*. GOV: UK. <https://www.gov.uk/guidance/neighbourhood-planning-2>
- Emami, P., Xu, W., Bjornlund, H., & Johnston, T. (2015, January 10). A Framework for Assessing the Procedural Justice in Integrated Resource Planning Processes.
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods*, 5(1), 80–92. <https://doi.org/10.1177/160940690600500107>
- Fleming, C. M., Manning, M., & Ambrey, C. L. (2016). Crime, greenspace and life satisfaction: An evaluation of the New Zealand experience. *Landscape and Urban Planning*, 149, 1–10. <https://doi.org/10.1016/j.landurbplan.2015.12.014>
- Frantzeskaki, N., Wijsman, K., Adams, C., Kabisch, N., Malekpour, S., Pineda Pinto, M., & Vandergert, P. (2023). Governance of and with nature-based solutions in cities (pp. 241–259). <https://doi.org/10.4337/9781800376762.00022>
- Fraser, N. (1997). Justice Interruptus: Critical Reflections on the 'Postsocialist' Condition. *Routledge*. <https://doi.org/10.4324/9781315822174>
- Fraser, N. (2006). Reframing justice in a globalizing world. In *Nationalism and Global Solidarities* (1st edn., pp. 168–186). Routledge.
- Gent, S., Herslund, L. B., Gulsrud, N. M., & Hunt, J. B. (2023). Mosaic governance in Denmark: A systematic investigation of green volunteers in nature management in Denmark. *Landscape Ecology*, 38(12), 4177–4192. <https://doi.org/10.1007/s10980-022-01421-z>
- Grant, A., Edge, S., Millward, A. A., Roman, L. A., & Teelucksingh, C. (2024). Centering Community Perspectives to Advance Recognition Justice for Sustainable Cities: Lessons from Urban Forest Practice. *Sustainability*, 16(12), 4915. <https://doi.org/10.3390/su16124915>
- Grant, A., Millward, A. A., & Edge, S. (2023). Pursuit of environmental justice in urban forest planning and practice. *Frontiers in Sustainable Cities*, 5, Article 1233878. <https://doi.org/10.3389/frsc.2023.1233878>
- Grant, A., Millward, A. A., Edge, S., Roman, L. A., & Teelucksingh, C. (2022). Where is environmental justice? A review of US urban forest management plans. *Urban Forestry & Urban Greening*, 77, Article 127737. <https://doi.org/10.1016/j.ufug.2022.127737>
- Guo, R.-Z., Song, Y.-B., & Dong, M. (2022). Progress and Prospects of Ecosystem Disservices: An Updated Literature Review. *Sustainability*, 14(16), 10396. <https://doi.org/10.3390/su141610396>
- Hansen, R., Buizer, M., Buijs, A. E., Pauleit, S., Mattijssen, T., Fors, H., van der Jagt, A., Kabisch, N., Cook, M., Delshammar, T., Randrup, T. B., Erlwein, S., Vierikko, K., Nieminen, H., Langemeyer, J., Soson Texereau, C., Luz, A. C., Nastran, M., Olafsson, A. S., & Konijnendijk, C. (2023). Transformative or piecemeal? Changes in green space planning and governance in eleven European cities. *European Planning Studies*, 31(12), 2401–2424. <https://doi.org/10.1080/09654313.2022.2139594>
- Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575. <https://doi.org/10.2307/3178066>
- Haraway, D. J. (2016). Staying with the Trouble: Making Kin in the Chthulucene. *Duke University Press*. <https://doi.org/10.1215/9780822373780>
- Harvey, D. (1996). Justice, nature and the geography of difference. *Blackwell*. [http://bvbr.lib-bvb.de:8991/F?func=service&doc\\_library=BVB01&local\\_base=BVB01&doc\\_number=007600901&line\\_number=0001&func\\_code=DB\\_RECORDS&service\\_type=MEDIA](http://bvbr.lib-bvb.de:8991/F?func=service&doc_library=BVB01&local_base=BVB01&doc_number=007600901&line_number=0001&func_code=DB_RECORDS&service_type=MEDIA)
- Headington Neighbourhood Forum. (2017). Headington Neighbourhood Plan 2017–2032. <https://www.oxford.gov.uk/neighbourhood-planning/headington-neighbourhood-plan>
- Heynen, N. (2016). Urban political ecology II: The abolitionist century. *Progress in Human Geography*, 40(6), 839–845. <https://doi.org/10.1177/0309132515617394>
- Heynen, N. (2018). Urban political ecology III: The feminist and queer century. *Progress in Human Geography*, 42(3), 446–452. <https://doi.org/10.1177/0309132517693336>
- Heynen, N., Perkins, H. A., & Roy, P. (2006). The Political Ecology of Uneven Urban Green Space: The Impact of Political Economy on Race and Ethnicity in Producing Environmental Inequality in Milwaukee. *Urban Affairs Review*, 42(1), 3–25. <https://doi.org/10.1177/1078087406290729>
- Hiron, M., Combetti, C., & Dunford, R. (2016). Valuing Cultural Ecosystem Services. *Annual Review of Environment and Resources*, 41(1), 545–574. <https://doi.org/10.1146/annurev-environ-110615-085831>
- HM Government. (2022). *Levelling Up the United Kingdom: White Paper. Housing and Communities: Secretary of State for Levelling Up*. [https://assets.publishing.service.gov.uk/media/61fd3c71d3bf7f78df30b3c2/Levelling\\_Up\\_WP\\_HRES.pdf](https://assets.publishing.service.gov.uk/media/61fd3c71d3bf7f78df30b3c2/Levelling_Up_WP_HRES.pdf)
- Horton, A., & Penny, J. (2024). Disrupting the Speculative City: Property, power and community resistance in London. *UCL Press*. <https://uclpress.co.uk/book/disrupting-the-speculative-city/>
- Jenkins, S. (n.d.). Brief history of Headington, Oxford. Headington. Retrieved 18 March 2026, from <https://www.headington.org.uk/history/timeline-briefhistory/briefhistory.htm>
- Kuhn, L., Cebrían-Piqueras, M.Á., Riechers, M., Loos, J., & Martín-López, B. (2025). How methods influence nature's values we find – A comparison of three elicitation methods. *Ecological Economics*, 238, Article 108721. <https://doi.org/10.1016/j.ecolecon.2025.108721>
- Labib, S. M., Browning, M. H. E. M., Rigolon, A., Helbich, M., & James, P. (2022). Nature's contributions in coping with a pandemic in the 21st century: A narrative review of evidence during COVID-19. *Science of The Total Environment*, 833, Article 155095. <https://doi.org/10.1016/j.scitotenv.2022.155095>
- Langemeyer, J., & Connolly, J. J. T. (2020). Weaving notions of justice into urban ecosystem services research and practice. *Environmental Science & Policy*, 109, 1–14. <https://doi.org/10.1016/j.envsci.2020.03.021>
- Layard, A., Marshall, A., de Vito, L., Few, R., Hatzisavvidou, S., Mabon, L., & Selomane, O. (2024). Protecting Everyday Nature. *Journal of Environmental Law*, 36(3), 275–299. <https://doi.org/10.1093/jel/eqae018>
- Li, X., Zhang, C., Li, W., Kuzovkina, Y. A., & Weiner, D. (2015). Who lives in greener neighborhoods? The distribution of street greenery and its association with residents' socioeconomic conditions in Hartford, Connecticut, USA. *Urban Forestry & Urban Greening*, 14(4), 751–759. <https://doi.org/10.1016/j.ufug.2015.07.006>
- MacKerron, G., & Mourato, S. (2013). Happiness is greater in natural environments. *Global Environmental Change*, 23(5), 992–1000. <https://doi.org/10.1016/j.gloenvcha.2013.03.010>
- McKeown, M. (2021). Structural injustice. *Philosophy Compass*, 16(e12757), 1–14. <https://doi.org/10.1111/phc3.12757>
- Mental Health Foundation. (2021). Mental Health and Nature: How connecting with nature benefits our mental health. *Mental Health Foundation*. <https://www.mentalhealth.org.uk/sites/default/files/2022-06/MHAW21-Nature-research-report.pdf>
- MHCLG. (2019). The English Indices of Deprivation 2019. [https://assets.publishing.service.gov.uk/media/5d8e26fed915d5570c6cc55/10D2019\\_Statistical\\_Release.pdf](https://assets.publishing.service.gov.uk/media/5d8e26fed915d5570c6cc55/10D2019_Statistical_Release.pdf)
- MHCLG. (2024). National Planning Policy Framework. [https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF\\_December\\_2024.pdf](https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf)
- Myers, G., Mullenbach, L. E., Jolley, J. A., Cutts, B. B., & Larson, L. R. (2023). Advancing social equity in urban tree planting: Lessons learned from an integrative review of the literature. *Urban Forestry & Urban Greening*, 89, Article 128116. <https://doi.org/10.1016/j.ufug.2023.128116>
- Natural England. (2010). 'Nature Nearby': Accessible Natural Greenspace Guidance. [www.naturalengland.org.uk](http://www.naturalengland.org.uk)
- Natural England. (2023). Greenspace & Us: A community insights project to understand barriers and enablers around access to greenspace for teenage girls in East Oxford (Natural England Joint Publication JP047). <https://publications.naturalengland.org.uk/publication/6754054076891136>
- Natural England. (2024). *Green and Blue Infrastructure (England)* (Version Open Government Licence) [Data set]. <https://www.data.gov.uk/dataset/f335ab3a-f670-467f-bedd-80bdd8f1ace6/green-and-blue-infrastructure-england>
- Nesbitt, L., Meitner, M. J., Girling, C., Sheppard, S. R. J., & Lu, Y. (2019). Who has access to urban vegetation? A spatial analysis of distributional green equity in 10 US cities. *Landscape and Urban Planning*, 181, 51–79. <https://doi.org/10.1016/j.landurbplan.2018.08.007>
- Nesbitt, L., Meitner, M. J., Sheppard, S. R. J., & Girling, C. (2018). The dimensions of urban green equity: A framework for analysis. *Urban Forestry & Urban Greening*, 34, 240–248. <https://doi.org/10.1016/j.ufug.2018.07.009>
- Nesbitt, L., Sax, D. L., Quinton, J., Harris, L. M., Barona, C. O., & Konijnendijk, C. (2023). Greening practitioners worry about green gentrification but many don't address it in their work. *Ecology and Society*, 28(4). <https://doi.org/10.5751/ES-14579-280429>
- Noe, E. E., & Stolte, O. (2023). Dwelling in the city: A qualitative exploration of the human-nature relationship in three types of urban greenspace. *Landscape and Urban Planning*, 230, Article 104633. <https://doi.org/10.1016/j.landurbplan.2022.104633>

- OCSI. (2023a). Local Insight profile for 'Blackbird Leys' area (Oxfordshire Districts). Oxford City Council. (Oxford). [https://www.oxford.gov.uk/downloads/download/379/east\\_oxford\\_community\\_centre\\_development](https://www.oxford.gov.uk/downloads/download/379/east_oxford_community_centre_development).
- OCSI. (2023b). Local Insight profile for 'Northfield Brook' area (Oxfordshire Districts). <https://www.oxford.gov.uk/downloads/download/379/downloads-for-local-insight-ward-profiles-post-may-2021>.
- OCSI. (2023c). Local Insight profile for 'Walton Manor' area (Oxfordshire Districts). <https://www.oxford.gov.uk/downloads/download/379/downloads-for-local-insight-ward-profiles-post-may-2021>.
- OCSI. (2023d). Local Insight profile for 'Summertown Ward' area (Oxfordshire Districts). <https://www.oxford.gov.uk/downloads/download/379/downloads-for-local-insight-ward-profiles-post-may-2021>.
- OCSI. (2023e). Local Insight profile for 'Cutteslowe & Sunnymead' area (Oxfordshire Districts). <https://www.oxford.gov.uk/downloads/download/379/downloads-for-local-insight-ward-profiles-post-may-2021>.
- O'Neill, J. (2017). Life Beyond Capital. Guildford: Centre for the Understanding of Sustainable Prosperity, CUSP Essay Series on the Morality of Sustainable Prosperity, (6). <https://cusp.ac.uk/themes/nature/m1-6/>.
- Ordóñez, C., Wheeler, M. A., Raynor, K., Panza, L., Seely, H., & Adamovic, M. (2022). Advancing research on urban greenspace experiences and perceptions in disadvantaged communities: A social housing perspective. *Urban Forestry & Urban Greening*, 77, Article 127754. <https://doi.org/10.1016/j.ufug.2022.127754>
- Oxford City Council. (2013). Green Spaces Strategy 2013-2027. Oxford City Council. [https://www.oxford.gov.uk/downloads/download/572/green\\_spaces\\_strategy\\_2013-2027](https://www.oxford.gov.uk/downloads/download/572/green_spaces_strategy_2013-2027).
- Oxford City Council. (2014). Headington Neighbourhood profile—2011 Census. <http://headingtonplan.org.uk/wp-content/force-download.php?file=uploads/Headington%20Neighbourhood%20profile.pdf>.
- Oxford City Planning Committee (2023). Plans submitted for redevelopment of Blackbird Leys. Uk: Mycouncil. Oxford. Gov. <https://mycouncil.oxford.gov.uk/documents/s74582/Blackbird%20Leys%20District%20Centre%20Knights%20Road%203-00405-OUTFUL.pdf>.
- Oxfordshire County Council. (2020). Some are more equal than others: Hidden Inequalities in a Prospering Oxfordshire. [2019/20 Director of Public Health Report.]. <https://www.oxfordshire.gov.uk/sites/default/files/file/public-health/PublicHealthAnnualReportMay2020.pdf>.
- Oxfordshire County Council. (2022). The Leys Community Profile (1st edition; Oxfordshire Insight). [https://insight.oxfordshire.gov.uk/cms/system/files/documents/202209\\_The\\_Leys\\_Community\\_Profile\\_Version\\_1.pdf](https://insight.oxfordshire.gov.uk/cms/system/files/documents/202209_The_Leys_Community_Profile_Version_1.pdf).
- Parker, G., Wargent, M., Salter, K., & Yuille, A. (2023). Neighbourhood planning in England: A decade of institutional learning. *Progress in Planning, Neighbourhood Planning in England: A Decade of Institutional Learning*, 174, Article 100749. <https://doi.org/10.1016/j.progress.2023.100749>
- Pascual, U., Balvanera, P., Anderson, C. B., Chaplin-Kramer, R., Christie, M., González-Jiménez, D., Martín, A., Raymond, C. M., Termansen, M., Vatn, A., Athayde, S., Baptiste, B., Barton, D. N., Jacobs, S., Kelemen, E., Kumar, R., Lazos, E., Mwampamba, T. H., Nakangu, B., & Zent, E. (2023). Diverse values of nature for sustainability. *Nature*, 620(7975), 813–823. <https://doi.org/10.1038/s41586-023-06406-9>
- Pascual, U., Balvanera, P., Díaz, S., Pataki, G., Roth, E., Stenseke, M., Watson, R. T., Başak Dessane, E., Islar, M., Kelemen, E., Maris, V., Quaa, M., Subramanian, S. M., Wittmer, H., Adlan, A., Ahn, S., Al-Hafedh, Y. S., Amankwah, E., Asah, S. T., & Yagi, N. (2017). Valuing nature's contributions to people: The IPBES approach. *Current Opinion in Environmental Sustainability, Open Issue, Part II*, 26–27, 7–16. <https://doi.org/10.1016/j.cosust.2016.12.006>
- Pearsall, H., Riedman, E., Roman, L. A., Grant, A., Davis, A.-L., Dentice, D., Ifill, T., Maslin, M., & Samaha, J. (2024). Barriers to resident participation in tree-planting initiatives across a metropolitan area. *Urban Forestry & Urban Greening*, 95, Article 128326. <https://doi.org/10.1016/j.ufug.2024.128326>
- Pike, K., Nesbitt, L., Conway, T., Day, S. D., & Konijnendijk, C. (2024). What is equitable urban forest governance? A systematic literature review. *Environmental Science & Policy*, 162, Article 103951. <https://doi.org/10.1016/j.envsci.2024.103951>
- Pike, K., Nesbitt, L., Sax, D., Quinton, J., Konijnendijk, C., Day, S. D., Conway, T., & Grant, A. (2025). Pathways towards equity: Solutions-focused workshops with urban greening professionals. *Landscape and Urban Planning*, 263, Article 105437. <https://doi.org/10.1016/j.landurbplan.2025.105437>
- Pröpper, M., & Haupts, F. (2014). The culturality of ecosystem services. *Emphasizing process and transformation. Ecological Economics*, 108, 28–35. <https://doi.org/10.1016/j.ecolecon.2014.09.023>
- Puskás, N., Abunnasr, Y., & Naalbandian, S. (2021). Assessing deeper levels of participation in nature-based solutions in urban landscapes – A literature review of real-world cases. *Landscape and Urban Planning*, 210, Article 104065. <https://doi.org/10.1016/j.landurbplan.2021.104065>
- Richardson, M., Passmore, H., Barbett, L., Lumber, R., Thomas, R., & Hunt, A. (2020). The green care code: How nature connectedness and simple activities help explain pro-nature conservation behaviours. *People and Nature*, 2(3), 821–839. <https://doi.org/10.1002/pan3.10117>
- Riedman, E., Roman, L. A., Pearsall, H., Maslin, M., Ifill, T., & Dentice, D. (2022). Why don't people plant trees? Uncovering barriers to participation in urban tree planting initiatives. *Urban Forestry & Urban Greening*, 73, Article 127597. <https://doi.org/10.1016/j.ufug.2022.127597>
- Rodriguez, J. K., & Ridgway, M. (2023). Intersectional Reflexivity: Centering Invocations and Impositions in Reflexive Accounts of Qualitative Research. *Sozialpolitik.Ch*, (1/2023). <https://doi.org/10.18753/2297-8224-4027>.
- Sax, D. L., Nesbitt, L., & Hagerman, S. (2023). Expelled from the garden? Understanding the dynamics of green gentrification in Vancouver, British Columbia. *Environment and Planning E: Nature and Space*, 6(3), 2008–2028. <https://doi.org/10.1177/25148486221123134>
- Sax, D. L., Nesbitt, L., & Quinton, J. (2022). Improvement, not displacement: A framework for urban green gentrification research and practice. *Environmental Science & Policy*, 137, 373–383. <https://doi.org/10.1016/j.envsci.2022.09.013>
- Schlosberg, D. (2007). Defining Environmental Justice: Theories, Movements, and Nature. *Oxford University Press*. <https://doi.org/10.1093/acprof:Oso/9780199286294.001.0001>
- Schwarz, K., Fragkias, M., Boone, C. G., Zhou, W., McHale, M., Grove, J. M., O'Neil-Dunne, J., McFadden, J. P., Buckley, G. L., Childers, D., Ogden, L., Pincetl, S., Pataki, D., Whitmer, A., & Cadenasso, M. L. (2015). Trees Grow on Money: Urban Tree Canopy Cover and Environmental Justice. *PLOS ONE*, 10(4), Article e0122051. <https://doi.org/10.1371/journal.pone.0122051>
- Smith, A., Hafferty, C., & Seddon, N. (2023). Embedding nature recovery in the Levelling-up and Regeneration Bill. *Agile Initiative Research Brief*. [https://naturebasedsolutionsinitiative.org/wp-content/uploads/2023/03/LevelUp\\_Policy\\_Brief.pdf](https://naturebasedsolutionsinitiative.org/wp-content/uploads/2023/03/LevelUp_Policy_Brief.pdf).
- Summertown & St. Margarets Neighbourhood Forum. (2019). Summertown and St Margaret's Neighbourhood Plan. [https://static1.squarespace.com/static/62de89154b8ec943524aa742/t/62e7a290b676bf414461a9fe/1659347611311/Final\\_Neighbourhood\\_Plan\\_March\\_2019%2B%281%29.pdf](https://static1.squarespace.com/static/62de89154b8ec943524aa742/t/62e7a290b676bf414461a9fe/1659347611311/Final_Neighbourhood_Plan_March_2019%2B%281%29.pdf).
- Vancouver Board of Parks and Recreation. (2020). VanPlay Strategic Bold Moves: Equity Chapter. <https://vancouver.ca/files/cov/vanplay-strategic-bold-moves-equity-chapter.pdf>.
- Vaughn, L. M., & Jacquez, F. (2020). Participatory Research Methods – Choice Points in the Research Process. *Journal of Participatory Research Methods*, 1(1). <https://doi.org/10.35844/001c.13244>.
- Veibiakkim, R., Shkaruba, A., & Sepp, K. (2025). A systematic review of urban ecosystem disservices and its evaluation: Key findings and implications. *Environmental and Sustainability Indicators*, 26, Article 100612. <https://doi.org/10.1016/j.indic.2025.100612>
- von Döhren, P., & Haase, D. (2015). Ecosystem disservices research: A review of the state of the art with a focus on cities. *Ecological Indicators*, 52, 490–497. <https://doi.org/10.1016/j.ecolind.2014.12.027>
- Wijsman, K., & Berbés-Blázquez, M. (2022). What do we mean by justice in sustainability pathways? Commitments, dilemmas, and translations from theory to practice in nature-based solutions. *Environmental Science and Policy*, 136, 377–386. <https://doi.org/10.1016/j.envsci.2022.06.018>
- Wijsman, K., & Feagan, M. (2019). Rethinking knowledge systems for urban resilience: Feminist and decolonial contributions to just transformations. *Environmental Science & Policy*, 98, 70–76. <https://doi.org/10.1016/j.envsci.2019.04.017>
- Wolch, J. R., Byrne, J., & Newell, J. P. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. *Landscape and Urban Planning*, 125, 234–244. <https://doi.org/10.1016/j.landurbplan.2014.01.017>
- Yang, W., Yang, R., & Zhou, S. (2022). The spatial heterogeneity of urban green space inequity from a perspective of the vulnerable: A case study of Guangzhou. *China. Cities*, 130, Article 103855. <https://doi.org/10.1016/j.cities.2022.103855>
- Yeager, R. A., Smith, T. R., & Bhatnagar, A. (2020). Green environments and cardiovascular health. *Trends in Cardiovascular Medicine*, 30(4), 241–246. <https://doi.org/10.1016/j.tcm.2019.06.005>
- Young, I. M. (1990). Justice and the Politics of Difference (REV-Revised). *Princeton University Press*. <https://doi.org/10.2307/j.ctvcvm4g4q>