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ARTICLE

Anthropause environmentalisms: Noticing natures with the Self-Isolating Bird Club

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Abstract

This paper offers a detailed empirical account of how human–environment relations were reconfigured in the UK and Ireland during the 2020–2021 COVID-19 lockdowns, a period which natural scientists defined as the COVID-19 Anthropause. Bringing this scientific concept into conversation with geographical work, we consider anthropause as both a lived condition and an historical moment of space–time decompression. Our expanded conceptualisation of anthropause, centred on lived experience and everyday life, develops a more hopeful politics than those offered by the 'Great Acceleration' narrative, which suggests digital media and urbanisation separate humans from nature. In contrast, we identify affirmative and inclusive modes of 'anthropause environmentalism' and explore their potential for fostering convivial human–nature relations in a world that is increasingly urban, digital, and powered by vernacular expertise. To make this argument, we turn to the Self-Isolating Bird Club, an online bird-watching community operating across several social media platforms which, at the pandemic's height, reached over 50,000 members. We trace three key changes to human–nature relations illustrated by this group which we use to structure our paper: connection, community and cultivation. The COVID-19 Anthropause recalibrated the fabric and rhythms of everyday life, changing what counts as a meaningful human–nature relationship. This paper will be of interest to geographers exploring environmental change at the interface of more-than-human and digital geographies, as well as environmentalists and conservationists. To conclude, we offer suggestions as to how scholars and practitioners might harness the lessons of anthropause to respond to the 'anthropulse'.

KEYWORDS

anthropause, anthropulse, COVID-19 lockdowns, digital ecologies, more-than-human geographies, Self-Isolating Bird Club

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1 | THE ANTHROPAUSE

> 'I think I was on the verge of burnout before lockdown. It was actually quite a welcome thing to slow down and notice nature every day'. Josephine is a middle-aged mother with young children, living in Bradford, Yorkshire. Before the strict limitations on social gatherings implemented to curb the spread of SARS-CoV-2 in March 2020, Josephine felt disconnected from nature in her daily life, noting: 'I was just a "visitor" in nature until lockdown'. She was at a loose end during quarantine but found solace in online communities that proliferated as the virus spread, affording isolated people opportunities to connect. Newly online, she 'got into doing some courses on noticing nature'. This later translated beyond cybernetic space: 'after noticing more about nature, I've felt more compelled to do more conservation-type things ... I joined a local litter picking group just to keep on top of the litter in the woods'.
>
> Abigail works for the UK National Health Service and was 'terrified at the very start' of the pandemic as she 'could see the NHS nearly collapsing'. To cope, she 'wanted something that was totally removed from all of that'. Like Josephine and many others, Abigail joined a new Facebook group called the 'Self-Isolating Bird Club'. After hearing the stories people shared about wildlife in their local greenspaces, Abigail began to realise that 'there were things going on in the garden' that she 'had absolutely no idea about'. She 'started being interested in the garden as a place for wildlife rather than a place for just sitting and having gin'. Before lockdown, Abigail was 'just looking' at wildlife, but now she was 'noticing it properly'. For her, it was 'a totally wonderful escape. And it was wonderful to see, in the middle of what seemed to be a time of total collapse and death, that there was life burgeoning and carrying on, doing its thing, and bringing joy'.

Josephine and Abigail offer two affirmative experiential accounts of 'anthropause', a concept coined by wildlife biologist Christian Rutz and colleagues to describe 'an unusual, substantial, temporary, continental- to global-scale reduction in human mobility' (2022, p. 158), exemplified by the 'considerable global slowing of modern human activities' (2020, p. 1156) caused by restrictions designed to tackle the COVID-19 pandemic in 2020–2021. Across the UK and Ireland (this paper's focus), social life and recreation were severely curtailed during this period, non-essential travel was prohibited, and those working 'non-essential jobs' were obliged to work from home. By December 2020, over 10 million people were on work retention schemes, and unemployment rose sharply. Many people's geographies were disrupted; their movements stilled; their worlds shrank.

Rutz et al. propose the concept of anthropause to examine disruptions to baseline levels of human movement. Their primary interest is in the environmental responses to these disruptions and their implications for nature conservation. They identify several positive, negative and neutral outcomes, and suggest the COVID-19 Anthropause is considered a valuable natural experiment that can 'provide important insights into human–wildlife interactions in the twenty-first century' (2020, p. 1156). Furthermore, they identify the need for a more expansive framework for understanding the ethical and political ramifications of global events like the pandemic, appealing to environmental researchers and policymakers to learn from the COVID-19 Anthropause to calibrate and choreograph the trajectories of modernity.

The natural scientific concept of anthropause is richly generative for comprehending disruptions to the spatiotemporal rhythms of modern life and the potential of these disruptions for reconfiguring human–environment relations. It has great promise for geography. But we also wager that an engagement with various strands of contemporary geographical scholarship would enhance the anthropause concept. In its current conceptualisation, anthropause describes changes in the aggregate *movement* of humans, and how these implicate various species of wildlife. Natural scientists are adept at dealing with Cartesian movement; tracking topographically how things travel across space and through time. But human geographers have identified limitations with this understanding of movement, suggesting it fails to capture the lived, subjective experience of moving (or not moving) (Bissell, 2010), it struggles to account for how patterns of movement on different sociospatial scales are infused with power relations (Cresswell, 2010; Merriman, 2012), and it misses the virtual, mediated and networked dimensions of social life (Møller & Robards, 2019). Instead of movement, geographers offer *mobilities* (and *immobilities*) as alternative conceptual lenses to understand movement as affective, cultural and political, suggesting we focus on diverse topologies to understand digitally mediated (and other non-Cartesian) spatial relations (Allen, 2011). We do not suggest that topological understandings of space negate topographic ones, nor that either approach be privileged, but our focus here is on the digitally mediated, relational, and topological aspects of what we term 'anthropause environmentalisms'.

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To critically develop the anthropause concept, we build on previous work (Searle et al., 2021) and additional empirical qualitative research. We conceptualise anthropause as both a lived condition (to anthropause) and an historical moment of space–time decompression (the COVID-19 Anthropause); a relative, yet highly unequal, stilling in some mobilities and a recalibration of others. These changes led to a profound reconfiguration of human–nonhuman relations for many, with important consequences for contemporary environmentalisms. In our analysis, we identify the character of a socially inclusive, digital anthropause environmentalism, and explore its potential for conservation in a world increasingly urban, digital and powered by vernacular expertise. We also bring much needed empirical attention to how digital technologies (and associated communities) alter human–nature relations in practice, both negatively and positively. Finally, we highlight the affirmative potentials of digital anthropause environmentalisms and speculate as to how these might inform policy and public engagement for environmentalists and conservation audiences. Within academic geography, this paper speaks to the expanding area of scholarship at the interface of more-than-human and digital geographies in the context of environmental change. This is of particular relevance to geographers engaging in grounded empirical accounts of digital technologies and their implications for human–nature relations. We also provide insights for cultural geographers interested in the affective and political qualities of slowness, deceleration, and space–time decompression.

Our argument is elaborated through an analysis of the Self-Isolating Bird Club (SIBC), an online nature community founded in March 2020 that swiftly grew to involve over 50,000 members. We offer a detailed empirical account of anthropause in the UK and Ireland during the 2020–2021 lockdowns, focusing on the experience of SIBC participants. We trace the parameters of its common regime of anthropause slowness and the modes of digital and offline environmentalism to which it gave expression. Our analysis of these anthropause experiences informs current debates about the character of environmentalism in the Anthropocene and the disruptive potential of the pandemic, while harnessing and grounding the wealth of conceptual speculation unleashed by social scientists in lockdown (e.g., Sandbrook et al., 2022).

We begin with further elaboration of our theoretical framework, before detailing our methodology. Following this, our analysis is structured to examine three key changes to social and human–nature relations experienced by our participants during this period, focusing on themes of connection, community and cultivation. Our conclusions summarise how our analysis develops the anthropause concept and offers some modest suggestions as to how geographers, conservation biologists and environmentalists might harness the lessons of anthropause—particularly the affirmative potentials of digital environmentalisms that were enabled under anthropause conditions—to respond to the subsequent 'anthropulse', understood as above baseline compensatory surges in human activity and mobility that followed the easing of restrictions (Rutz, 2022).

2 | MOBILITIES AND ENVIRONMENTALISMS IN THE ANTHROPOCENE

When theorising anthropause mobilities, it is helpful to flag a common metanarrative in Western environmentalism about the character, trajectory and consequences of modern levels of human movement. This story proposes that the Anthropocene is the outcome of industrial capitalism, colonialism and globalisation, which together drive the 'Great Acceleration': 'the holistic, comprehensive and interlinked nature of the post-1950 changes simultaneously sweeping across the socio-economic and biophysical spheres of the Earth System' (Steffen et al., 2015, p. 82). In caricatured form, the interlinked crises of pollution, biodiversity loss and climate catastrophe are indexed to space–time compression (Harvey, 1990; Massey, 2008) and its material and economic impacts. For proponents of this theory, the urbanisation, migration, consumerism and rise of digital media associated with this transition drive the unsustainable and unequal exploitation of resources, and lead to the 'disconnection' of people from nature (cf., Fletcher, 2017a; Louv, 2005). The loss of direct sensory interactions with nonhuman nature results in 'experiential extinctions' of more-than-human relations (Pyle, 1993), while digital media lead to the loss of organic, proximal community relations (Zylstra et al., 2014). Proponents of this idea claim that the fast lives of rootless, atomised urban populations, increasingly living inside, on-screen, and in degraded environments, cause a public decline in environmental concern, and a rise in a range of mental health problems and social pathologies. This dystopian parable has deep historical roots (Nash, 2014; Worster, 1994), and it cuts across the political spectrum, linking positions on the left and right of the contemporary environmental movement (e.g., Büscher, 2020; Monbiot, 2013; Scruton, 2014).

The COVID-19 Anthropause offers a unique natural experiment to test this environmentalist hypothesis, as lockdown compelled many people—like Abigail and Josephine—to recalibrate their relationships with the very technologies, practices and trajectories of acceleration that are pathologised in this narrative. Anthropauses allow us to carefully examine what happens to human–environment relations when many people are forced to slow down, stay put and take notice.

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Soga et al. (2021) identify three pathways along which lockdown altered human–environment relations: (1) changes in opportunity, as people found they had more or less time on their hands; (2) changes in motivation, owing to significant shifts in the reasoning people gave for interacting with nature; and (3) changes in capability, shaped by the mental and physical health effects of both the pandemic and government responses to it. Superficial analysis suggests that these pathways forced many into temporary regimes of 'slowness' that might be comparable to those advocated by environmental campaigners as the solution to the social and environmental crises of the Anthropocene (Mayer & Knox, 2006; Vannini, 2014), compelling people to experiment with other ways of noticing nature and of sharing their experience. Some commentators have begun to suggest that the Anthropause represents a perturbation in the Great Acceleration; a slowing of some of its trajectories, alongside an acceleration in others. Together these cause a disruption in the rhythms of daily life which engendered changed, sometimes enhanced, sensibilities to the lived environment and physical surroundings. For Roy (2020), the pandemic offered a 'portal' through which we might imagine, or even inhabit, other worlds.

Before embarking on our empirical account, we briefly highlight three important themes from geographical scholarship which allow us to develop our understanding of anthropause and its implications for environmentalism by offering a more nuanced reading of the Anthropocene metanarrative outlined above. The first draws on the extensive literature in cultural geography concerned with the affective experience of (relative) immobility, and of changes to baseline levels of personal movement. Geographers have developed sophisticated accounts of a range of affective states linked to such a process, like stillness (Buser, 2016), waiting (Straughan et al., 2020), suspension (Bissell, 2007), boredom (Anderson, 2004) and meditation (Lea et al., 2015), reflecting on both the structural drivers of these conditions and their psychological, epistemic and cultural consequences. We learn that pausing can be experienced in myriad ways with diverse consequences, such that there is no direct link between pausing and environmental connection and re-enchantment. Existing work in this register suggests that the COVID-19 Anthropause was first experienced as a disruptive, disorienting event, that later engendered a specific spatiotemporality in which new sensibilities and affects were invoked, including waiting, suspension, anxiety and boredom (Anderson, 2021; Jones, 2022).

Regarding nature, perhaps the most affirmative reading of pausing comes from examining the epistemic practices of those who learn about and care for nonhuman life. This literature examines 'arts of noticing' (Tsing, 2015), or how people 'learn to be affected' (Despret, 2004) by wildlife through a recalibration of their daily rhythms and sensory practices. Empirical work has examined the knowledge practices of gardeners, farmers, hunters, animal trainers and numerous other types of naturalists (Bear & Eden, 2011; Lorimer, 2008; Oliver, 2021), revealing how they learn to choreograph their bodily temporalities to attune with target organisms or ecological processes. Although the COVID-19 Anthropause was involuntary, as Choi (2021) shows in her work on ecotourism in South Korea, slowing down deliberately can encourage people to notice nature.

Second, a focus on mobilities offers insights into the more-than-mechanistic aspects of anthropause as a lived phenomenon. Geographies of mobilities have revealed stark inequalities in who gets to move, when and where, and how similar movements are experienced differently according to gender, ethnicity, age, class and other sociological variables (Cresswell, 2010). The term anthropause itself, like 'Anthropocene', runs the risk of homogenising human experience and environmental impact under the suffix 'anthro-' (Malm & Hornborg, 2014), erasing differential experiences of pausing. Unequal patterns in mobility were indeed stark in the case of the pandemic, evidenced in the differential abilities of social groups to pause, cope, shelter and protect themselves (Bambra et al., 2021). Although the mental and physical health benefits of greenspace are increasingly recognised across disciplines (e.g., Bratman et al., 2012; Parr, 2007), the everyday mobilities of urban life still leaves many estranged from more-than-human interactions (Hitchings, 2021). Urban political ecology has long flagged how access to greenspace—like parks, gardens, and the countryside—is socially stratified, and unequal access was exacerbated during the pandemic (de Zylva et al., 2020; Kindermann et al., 2020). Similarly, cultural geographers have documented how different social groups—especially women and ethnic minorities—feel excluded from mainstream sites for connecting with nature (Cloke & Little, 1997; Finney, 2014). Geographers also foreground the salutary and recreational importance of feral ecologies and urban brownfield sites to marginalised groups, and their potential as locations for transformative environmental encounters (Barua, 2021; Gandy, 2012). These considerations of mobilities are relevant when drawing potential environmental lessons from the COVID-19 Anthropause.

And third, a burgeoning literature on digital and media geographies has revealed the fundamental role of modern technological assemblages in configuring virtual connections that shape environmental sensibilities and governance, be this via social media or through novel technological devices for sensing the nonhuman world (e.g., Büscher, 2016; Gabrys, 2019; McLean, 2020; Nost & Goldstein, 2021). Work in digital ecologies offers a counter reading to the dystopian narrative of disconnection and nature deficit disorder associated with digitisation (cf., Balmford

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& Cowling, 2006; Kareiva, 2008; Louv, 2005). This work suggests that such accounts might be tempered and nuanced by an attention to the actual application of such technologies and how they are experienced by their users (see also Fletcher, 2017a, 2017b). In spite of confident assertions, such work is thin on the ground (e.g., Chambers, 2007; Searle et al., 2022; Silk et al., 2021) and empirical research is required to understand how digitisation transforms subjective experiences of nature (e.g., Arts et al., 2021; Gabrys, 2019). This paper offers one such empirical account, flagging how digital technologies are fundamentally constitutive of anthropause environmentalisms in ways that confound simple narratives of digital pathology and Cartesian maps of movement. Digital media have relational topologies that subtend the movements of human bodies in ways that complicate the Cartesian maps of movement which characterise natural science models of anthropause. Digital technologies enable actions and perceptions at a distance, which cut across topographical scales, shrinking time and space. The capacity of such networks to enable and maintain several aspects of everyday life became apparent during the COVID-19 Anthropause, as a plethora of social activities were forced to move online.

3 | METHODS AND LIMITATIONS

We illustrate the affirmative potential of digital anthropause environmentalisms through the Self-Isolating Bird Club, an online birdwatching group operating across several social media platforms, including YouTube, Facebook and Twitter. The SIBC began with daily broadcasts from naturalists Chris Packham and Megan McCubbin. Packham is a well-known British wildlife broadcaster known for promoting the ecological value of local greenspaces (Packham, 2003). McCubbin, Packham's stepdaughter and co-author (2020), hosts popular BBC nature shows including *Springwatch*, *Autumnwatch* and *Winterwatch*. The SIBC's first broadcast aired on 18 March 2020, livestreamed to Packham's Facebook page from a wobbly held mobile-phone.[1] 'What are we gonna do to stay sane, to stay mentally healthy?' Packham asks, above birdsong at dawn. 'Well, I know what I'm going to do. I'm going to be listening to those robins'. The group quickly evolved into an online collective where members shared images of local wildlife. McCulloch identified the SIBC's cultural significance, suggesting 'there can be few better online platforms than this in showing how modern, accessible tech has revolutionised local wildlife reporting' (2020, n.p.). The SIBC became immensely popular, evolving into a network of lockdown naturalists armed with smartphones, trail cameras, free time, patience, a desire to connect with the outside world, and a sense of community enabled by social media.

We realised the SIBC's launch and subsequent success captured the zeitgeist of mainstream anthropause environmentalism and decided to conduct time-sensitive qualitative fieldwork. We wanted to add empiricism to speculative accounts of how human–nature relations were changing during lockdown (see Awuh et al., 2021). So, we designed a survey and shared the aims of our project with the SIBC's Facebook administrator. A week later, Packham gave a 'shout out' to our project live on YouTube and circulated our survey on the SIBC's Twitter and Facebook pages. Numerous popular British wildlife, gardening and nature magazines also shared our survey, which included a dozen qualitative open-ended questions to assess how people's interactions with local natures changed during lockdown. Our survey allowed participants to respond in as much or as little detail as they wished. Several questions gave prompts, like specifying examples of digital/non-digital technologies, and we provided space to voice concerns or thoughts on themes not covered. The survey received 1017 responses. Of these initial respondents, 663 (65%) opted in for further research participation. We then ran five online focus groups (five to six participants each) that we identified from our survey as being characteristic of this anthropause environmentalism: (1) individuals who had engaged with wildlife for the first time; (2) individuals who used novel technologies to notice nature; (3) those who used online conservation networks for community building and wellbeing; (4) those who actively altered their local greenspaces; (5) those who used digital nature experiences extensively.

Quantitative accounts have demonstrated how 'nature-related social media commentary' supported wellbeing throughout the pandemic (Xu et al., 2021, p. 1). Yet these studies can be enhanced through attention to the qualitative conditioning of anthropause. By speaking to people directly about their online experiences, we avoided analysing only their online personas according to the same criteria used for offline ethnographic work. As online interactions are usually text based and partially anonymous, such personas and comments do not always correspond to people's actual opinions and actions, making online textual analysis a limited method (Sade-Beck, 2004). Quantitative methods are not able to fully accommodate the subjective and lived qualities of experience, and they can limit, influence or obscure the richness of descriptions of thoughts and opinions. This is not to say quantitative (online) methods are without value. Indeed, they can afford rich insights into certain aspects of online communities; for example, sentiment analysis methods can identify salient themes amidst large quantities of social media data (e.g., Gaytan Camarillo et al., 2021).[2]

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Nevertheless, our focus groups allowed for deeper engagements with oral histories and the lived, interpersonal experiences of anthropause. In addition, dozens of hours were spent conducting online ethnographic work on the SIBC's social media pages and tuning into their live broadcasts. Despite this method's limitations, participant observation of the SIBC allowed us to research the content that was being generated, to understand how each page was used by different people and for what reasons, and to trace the networks that arose from it. This participant observation ensured we were familiar with the everyday operations of the group, its general tone and atmosphere, and the kinds of natures and species that were most popular. We did so while remaining conscious of the diversity of the membership, and aware of the prominence of various groups of contributors in discussions. As such, we were able to compare our own experiences with those of our survey respondents and focus group participants. This was not an attempt to verify our participants' subjective experiences of the SIBC, but allowed us to share reference points with our participants during focus groups, allowing for fruitful conversations. The vignettes used throughout this paper are drawn from the focus groups. All participants' names are anonymised. We received verbal consent for use of these materials. Only verbal consent was required as participants had already expressed agreement to participate in the focus group via the survey. Research ethics approval was granted by the Department of Geography at the University of Cambridge (assessment No 1832).

The SIBC offers a compelling case study for examining novel forms of anthropause human–nature relations and how online spaces facilitated their flourishing. But we are also acutely aware that the pandemic and lockdown were not experienced evenly across geographies and social groups (Rose-Redwood et al., 2020). The differential and geographically contingent experiences of anthropause meant that some people did not, or could not, pause, and the experience of pausing itself often expressed existing patterns of political and economic inequality. Our respondents were a self-selecting group, many of whom were afforded the privilege of pausing, and had access to the time and space to meaningfully engage with nature without social or economic burden. Our sample cannot be extrapolated to speak for the UK and Ireland as a whole and we acknowledge that it risks capturing and reproducing elite—predominantly white, middle-aged and bourgeois—notions of environmentalism and corresponding human–nature relations. The consequences of this reproduction, and how it is resisted, are well documented (Baviskar, 2011; Pulido, 2000; Tolia-Kelly, 2007). As such, the claims made in this paper are constrained as they represent a specific experience of anthropause, and we appeal for further work exploring the experience of historically marginalised groups.

We structure our analysis to examine three key changes to human–nature relations that were experienced by participants in the SIBC during the COVID-19 Anthropause. *Connection* examines the reasons people turned to nature and online communities as a means of coping, and the digital forms of noticing nature which reached widespread popularity. *Community* outlines how online networks promoted novel forms of access to conservation, and fostered more inclusive, eco-positive digital spaces during this period. *Cultivation* speaks to the active steps taken by people to create more convivial spaces as they reimagined local greenspaces as sites of potential more-than-human flourishing.

4 | CONNECTION: NOTICING (DIGITAL) NATURES IN THE ANTHROPAUSE

> Jannette lives alone in the countryside near Dublin. She has always been a keen gardener, but her garden took on new meaning when the Irish government identified Jannette as vulnerable and she was not permitted to leave her home—including for shopping and exercise—or to welcome any guests. 'You have to find ways of looking forward to each day, otherwise you crack completely. I focused more on nature and every little thing that was changing: the flowers blooming, the leaves coming out on the trees, frogs spawning. I found that invaluable. For my sanity, I would spend so many days in the garden. It has kept me sane through lockdown'.

On a scale previously unimaginable, people turned to nature during lockdown to fill time and avoid loneliness (Ratschen et al., 2020). Quotidian spatiotemporal rhythms were drastically changed, engendering vast experiential shifts towards boredom, anxiety, hopelessness and stasis. A UK-wide survey conducted by YouGov on behalf of the RSPB found that 'two thirds of the public are soothing their pandemic anxiety by watching birds and hearing their song' (Quach, 2021) on balconies (Ragavan, 2021), in gardens (Theodorou et al., 2021) and through screens (Turnbull et al., 2020). During the COVID-19 Anthropause, many of our research participants described how they started actively noticing aspects of the nonhuman world they had previously paid little attention to, learning to be affected by other-than-humans that often go

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ignored (see also Tsymbalyuk, 2020). In this section, we explore our participants' reasons for turning to nature to cope with anthropause, and the role of online communities in enabling digital forms of noticing.

For Abigail, the pandemic was a time of 'trauma, fear, and anxiety', but nature offered 'a total distraction from everything that was going on'. For her, 'it was absolutely crucial that the first lockdown started in spring'. The serendipity of lockdown beginning as nature was coming into blossom was a significant consolation for many quarantined people (McCarthy et al., 2020) who slowed down just as nature was speeding up. Conversely, some found it difficult to remain interested in nature once the slowness of winter began. Indeed, some, like Robin, became 'melancholic' as autumn started. Chris, however, 'went to look for footprints, the deer tracks', enjoyed 'fungus faffing' and 'did winter tree identification': 'just because it was a different time of year does not mean there's nothing to see!' As human and nonhuman temporalities changed and intersected, people's sensibilities towards nature also changed. The space–time decompression of anthropause involved slowing down and noticing seasonal changes more acutely, which for many of our participants had not been apparent before. Emma, for instance, told us that 'seeing the routine of nature and how it comes back was magical really'. Eliza added: 'I actually lost my brother to COVID in February, and I think with spring coming again it's lifted my spirits—you know, life goes on'.

Technologies were intimately involved in noticing nature during lockdown. Most of our survey respondents (84%) reported using technology including binoculars (55%) and camera equipment (39%). Our participants also used identification applications, like iNaturalist and eBird (19%, see Sánchez-Clavijo et al., 2021), and streamed wildlife via webcams (13%, see Turnbull et al., 2020). Phillipa admitted she got 'quite obsessed' with 'following a lot of the wildlife webcams', noting puffins and owls as personal favourites. Many respondents were also inspired to buy trailcams. 'I had this real spark ignited by the SIBC', Lisa told us. 'We bought a trail camera and put it outside. We did not know we had hedgehogs and foxes in our garden until we saw them on camera. It was a massive shock to find out we'd missed all this amazing stuff in our own garden because our lives had been so busy with other things'. Sometimes called camera traps, trailcams are small, mountable devices that capture photo, video and audio in daylight or infra-red, usually triggered by motion sensors. After installing a trailcam, Kelsey told us, 'it just completely blew my mind what was appearing in our garden'.

From March to May 2020, traffic to the RSPB's 'A-to-Z of Birds' webpage almost doubled in comparison with the same period in 2019 (Barrett & Bott, 2020). Similar online surges were experienced by other UK wildlife organisations. Importantly, 79% of hits on the RSPB were from first-time users, suggesting that anthropause environmentalism engaged those previously unconcerned with nature (Barrett & Bott, 2020). Between March 2020 and January 2021, the membership of the British Trust for Ornithology doubled (Quach, 2021). Garden birds in the UK and Ireland—including blackbirds, blue tits, robins, and great tits—received the most online attention, signalling the intimate, domestic and urban spatial and temporal focus of human–nature relations during the COVID-19 Anthropause, as people increasingly came to appreciate wildlife from their confined vantage points.

Indeed, SIBC members shared thousands of views from their windows, balconies and gardens (Figure 1). In viewing others' images of local wildlife, people were often inspired to find it themselves and share their own images. Rhian started using Facebook to inform others of wildlife activity in her local common greenspaces: 'people say stuff like, "the little owls are over on the flats today" or "the bluebells are coming up now if anybody wants to go and see"'. Locality was not always important, though. Laura, for instance, appreciated her digitally enabled ability to engage with 'bird feeders up in Scotland'. Digital technologies both connected people locally and allowed 'virtual travel' across the country (Jarratt, 2021).

Digital technologies, social media and a range of other hardware thus encouraged people to relate to nature in new ways. We found that digital technologies do not necessarily sever human–nature connections as implied by previously identified metanarratives. Rather, our empirical findings contribute to an emerging body of work that critiques this limited understanding of how digital technologies affect human-nature relations (e.g., Arts et al., 2021; McLean, 2020; Sandbrook et al., 2015). Digital technologies allowed our participants to glimpse the intimate lives of wild animals, to learn more about the nature in their gardens, and to connect with other nature enthusiasts, which amounted to a digitised mode of 'biophilia' (Wilson, 1984): the notion that humans instinctively seek connection with nature and other forms of life. For many, these connections resulted in reimagining local greenspaces as multispecies communities.

This revisionist approach enables critical examination of how people make sense of encounters with digital natures not as a diminished form of experience, but as an alternative nature experience where 'digital space' is not ontologically separated from 'real space' (Leszczynski, 2015; McLean, 2020). Our research suggests encounters in digital space during the space–time decompression associated with the COVID-19 Anthropause were particularly important for those who were housebound, immobile or had limited access to greenspaces. In our sample, several people were compelled to seek out nature using technologies to enhance their newfound, or rekindled, affinity to the nonhuman world. The appeal of digital nature encounters, therefore, increased as they became the only option for many people.

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FIGURE 1 Typical scenes posted on the SIBC community page reproduced with permission of photographers. (a) 'a picture of my front lawn today' posted by Nil Mitchell, showing the effects of cultivated resurgence; (b) 'I am so very lucky to have them visit me' posted by Marian Pierce, with images of badgers in her garden; (c) 'A very nice surprise looking through my kitchen window this morning!', writes Lynn Welsher about a pair of siskins on her garden feeder

5 | COMMUNITY: BUILDING INCLUSIVE ECO-POSITIVE DIGITAL SPACES

When Phil uploaded a video to the SIBC asking for help identifying birdsong, he was met with helpful advice and constructive tips. It was the familiar cooing of a feral pigeon—and SIBC members were excited about his discovery as if it were a prized rarity, directing him to articles and documentaries on their natural history. This receptiveness to beginners made the SIBC an inclusive community where people felt able to ask for advice or insight without fear of condescension. According to participants like Hannah, the SIBC's welcoming atmosphere was largely fostered by the presenters' 'down-to-earth' charisma and accessible tone. Hannah told us that 'the relationship between Chris and Megan felt so familiar... watching them every morning, it soon became like a feeling of family'. When she logged on, she 'felt part of this community', which offered her structure and support in uncertain times, when many people were isolated from loved ones.

Online networks like the SIBC were perceived by many participants as more inclusive than in-person wildlife groups and pre-lockdown online forums. Hannah, for instance, explained that before lockdown she felt alienated from birding circles due to uninvited glances from 'older blokes in bird hides'. On one occasion whilst birdwatching, an 'older bloke' said, 'what are you doing here if you have not got the proper equipment?' This instance of policing access to nature evidences the classism and sexism associated with many conservation sites. Technical equipment and expertise are often prerequisites for inclusion in wildlife spaces where particular codes of conduct—and even dress codes—must be followed to be taken seriously. These codes are formulated from bourgeois, white, middle-aged and male-dominated perspectives on nature (Greer & Guelke, 2003; Moore et al., 2008; Tolia-Kelly, 2007). In contrast, in the SIBC Hannah felt 'comfortable' in groups related to wildlife and conservation for the first time: 'it was great because the ethos right from the beginning was that this is a space for everybody. Nobody is ridiculed for asking the most basic question, and that mixture is extraordinary'. Expert knowledge was decentred in the SIBC, giving space for more pluralistic forms of expertise. Alongside class and gender, future research should examine whether, and how, the racialised nature of environmentalism is reproduced and/or challenged in digital spaces (see Pulido, 2015; Tolia-Kelly, 2007).

Although further research is required, our research suggests that this model of online nature discussion has the potential to build more inclusive eco-positive digital spaces under conditions of anthropause. Eco-positive, in this sense, refers to community-building efforts that focus on forging collective environmental awareness. However, what eco-positive looks like is contested among social groups, as we note below. Eco-positivity, therefore, does not necessarily translate

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into normative forms of 'good ecological citizenship', but instead involves an iterative process of defining what 'good ecological citizenship' actually is—for better or worse—outside the confines of majoritarian conservation. We found that observing wildlife from home and online, especially in communities like the SIBC, permits broader access to nature afforded by many offline spaces. During the COVID-19 Anthropause, for our participants 'access to nature' became less about accessing specific (often 'exotic') species, and more about learning to attune to local (often urban) natures. Against the backdrop of anthropause space–time decompression, access to nature became a question of developing skilled, and often technologically mediated, modes of perception. Hannah felt the SIBC changed what counts as 'proper birdwatching', widening access to previously excluded social groups (cf., Cooper & Smith, 2010; Lea et al., 2015). For instance, the SIBC encouraged encounters with mundane, scruffy natures that are not often valued in mainstream wildlife media (Nagy et al., 2013). Meaningful multispecies encounters were reconfigured to include nonhumans like feral pigeons, crows, snails and garden hedges.

The shifting geographies of what was considered a 'meaningful' wildlife encounter were especially important for people with mobility issues. Robert, for example, told us how online nature groups allowed him to participate in communities he was formerly excluded from:

> Previously, wildlife organisations and charities ran field groups and stuff like that, which I could not go to because I cannot walk or stand for long periods of time. So yeah, the fact they were on Zoom changed everything for me. I did one every week for three or four months; I went to really diverse talks.

As Ray and Sibara (2017) note, a range of organised outdoor nature activities often implicitly assume and accommodate a certain degree of mobility and fitness (see also Kafer, 2017). Online nature experiences during the COVID-19 Anthropause, conversely, employed the affordances of digital technologies to allow people who cannot usually directly participate in things like nature walks to be included within these communities. Here, we note the potential for nature communities to increase the accessibility of their events—at least community/educational events—by taking place online.

In addition, our participants told us they were afforded greater access to forms of knowledge production and dissemination. From nationwide NGOs to village birding groups, the widespread normalisation of videoconferencing software such as Zoom gave different publics access to educational opportunities regarding nature. Nature-related societies and communities began offering online courses in everything from butterfly identification to wildflower gardening. Because of the rapid and mass digitisation of these resources, Janice told us she could attend courses that she would never have been able to before. More formal channels of nature engagement also changed to appeal to those with a newfound interest in nature. For instance, *Gardeners World* and other gardening and nature magazines began to feature readers' own gardens, much like the SIBC displayed community photographs during broadcasts. As such, these channels were partially reframed as participatory and collaborative spaces in which practice-based knowledge could be shared (Xu, 2021).

Environmental knowledge production was thus reconfigured during the COVID-19 Anthropause, giving rise to new digital environmentalisms. While the pre-pandemic UK already had a healthy community of citizen scientists and a long history of amateur naturalism (Allen, 1994), our findings suggest that the SIBC further encouraged citizen science participation, albeit in ways contingent on anthropause geographies. Citizen science has been empowered in recent decades through the widespread distribution of monitoring technologies and the rise of data sharing platforms, including projects spanning urban air quality (Gabrys, 2017), flooding (Lane et al., 2011) and biodiversity monitoring (Chandler et al., 2017). During lockdown, some citizen science projects received record levels of participation. More than 1 million people counted and recorded birds in their gardens as part of the RSPB's 'Big Garden Birdwatch', more than double the previous year (Anon., 2021). Widespread engagement in these projects signalled a heightened public interest and eagerness to learn more about nature.

The nature of the COVID-19 Anthropause as a widely shared public event was key to the emergence of these eco-positive digital spaces. The associated space–time decompression created opportunities to engage with previously backgrounded natures. Digital technologies and social networks meant that our participants engaged with nature as a collective, shared endeavour, fostering an open and positive online culture regarding nature and ecological knowledge. Of course, these findings are contingent on several things—not least the specific charisma and fame of the SIBC's presenters, its open-minded administrators, and access to such digital spaces. Nevertheless, such anthropause experiences prefigure ecological communities that might persist if the right socioeconomic conditions are in place.

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6 | CULTIVATING RESURGENCE

> 'I used to view the garden as my garden', Lynn told us. 'And now I do not. It's not my garden, it's a space that I've created for other things to visit. That's a big difference for me. Lockdown completely changed the way that I view that space. It's not mine, it's to share'.

Stories of 'nature healing' proliferated in the media at the beginning of lockdowns (Bosworth, 2022; Mathur, 2020; Searle & Turnbull, 2020), but many spectacular sightings of wildlife in unexpected places have since been debunked as fake or misreported (Allison, 2020). While these stories might not tell us anything about meaningful resurgence, they may instead hint at a heightened public attunement to nature throughout the COVID-19 Anthropause. Quantitative data support the idea that people turned towards local natures *en masse* during lockdown. For instance, the sale of bird baths in the UK increased by 440% during the 2020 lockdown, bird seed sales rose by 86% (Davis, 2020), and the number of people making or placing a bird box increased by 867% (Barrett & Bott, 2020) compared with the previous year. To understand anthropause resurgence in more detail, then, we must turn to the small, local acts of cultivation reported by our participants. Following Tsing (2017, p. 51), we understand this cultivated resurgence as 'the remaking of liveable landscapes through the actions of many organisms'.

With a heightened desire to connect with nature during lockdown, many of our participants actively cultivated opportunities for wildlife to thrive in their gardens and local greenspaces. They undertook a wide array of interventions to improve the ecological infrastructure of their gardens, including facilitating wildflower growth, installing wild ponds, bat boxes, and hedgehog, bug or bee hotels, and a range of other acts of wildlife-friendly gardening. Cultivating a more biodiverse garden was an important part of anthropause environmentalism for Sarah, who wanted 'to bring in the critters, bring in the six-legged and the eight-legged beasties'. In Sarah's new wildflower garden, 'all the plants are native, and they are all for early pollinators'. For many, like Lynn, the pandemic stimulated a localisation of environmental concern and a reassessment of the aesthetic and ecological value of lived-in, urban natures that have long been denigrated or dismissed by mainstream ecology and conservation. The privileging of the 'nativeness' of some species by Sarah and other participants signals that anthropause environmentalisms are not inherently progressive, and without direct environmental awareness campaigns, risk propagating the problematic tropes we see in environmentalism more generally (for critical accounts of the native versus non-native species debate, see Barua, 2021; van Dooren, 2011). Indeed, preferences regarding which species should be cultivated during the COVID-19 Anthropause were by no means homogeneous. Non-native species were regularly welcomed by some (see Figure 2), and not by others. Nevertheless, we posit that newfound interest in scruffy natures—native or otherwise—could serve as 'gateway species' that lead to further environmental awareness, and should therefore not be shunned outright. This is evidenced, in part, by the way gardens and local greenspaces were reimagined as multispecies communities by many, who began to value these scruffy, unkempt natures for the first time. Such spaces were reappraised by members of the public as valuable habitats where resurgence was possible and conservation could take place.

Paul is an ecologist who had to pause his fieldwork. He has always worked 'in an African setting, but never in the UK'. During lockdown, Paul, like many others, realised he had 'shed loads of wildlife in the back garden', which

FIGURE 2 A image which gained significant popularity on the SIBC Facebook group, taken and shared by Tony Watt in Birmingham. Reproduced with permission

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he 'never knew was there': 'six resident hedgehogs, a disabled squirrel, ravens, crows'. After setting up several trail-cams—he had five running at any one time—his morning routine was: 'drink a cup of coffee in bed and check the footage from the night before'. The technologies are allowing Paul and his family to cultivate new, responsible relationships with local wildlife. 'We're doing things like tick monitoring and removal, and injury monitoring. One of our [hedge]hogs, Spike, had a foot injury. We were able to identify him and send him to a local rescue'. Paul and his family took great pleasure in supporting local wildlife, stating: 'we have got a community that we respond to'. Paul's account is reflective of many other SIBC members' experiences that involved actively nurturing wildlife in local greenspace (Figure 2).

Digital technologies and social media played an important role in aiding cultivation efforts. Many people turned to social media to share the results of their gardening and to get tips from others. Lucía told us, she 'learned a huge amount' online, and that she 'found out about the No Mow May campaign[3] and how you are meant to maintain a lawn, or not maintain it', to enhance garden biodiversity. For Lucía, Monday evenings were dedicated to 'garden Twitter', a community she started during lockdown so people could share techniques, successes and tips for cultivating their gardens and local greenspaces. Similarly, Sarah turned to online groups for advice on growing pollinator-friendly wildflower gardens from seed and was embraced by a community of others also attempting to do so for the first time.

In line with Cammack et al. (2011, p. 314), it is clear that, for our participants, 'private domestic gardens in Britain are important sites of both leisure activity and conservation interest' (see Ginn, 2017). We suggest that these emergent anthropause environmentalisms offer substantial potential to ensure continued ecological engagement post-lockdown especially when combined with the widespread deployment of technologies to observe and record wildlife. Organisations dedicated to engaging publics with urban natures should look to build on these altered sensibilities to ensure these practices persist. This is especially important for countering the background trend towards the antibiotic sanitisation of urban space evidenced in the paving of outdoor space or the increased use of artificial turf, aggressive chemical regimes for weed and pest control, and the tidying up of municipal parks (Brooks & Francis, 2019).

In cultivating resurgence, whilst sharing and learning as part of online communities, our participants revealed how engagements with nature during the COVID-19 Anthropause were not just passive or observational, but active and engaged. Given the time afforded them during lockdown, many of our participants actively cultivated their gardens and local greenspaces, providing encouraging evidence that in the right socioeconomic circumstances, people have the desire to become ecologically engaged. Further research is required to understand how widespread these experiences were and what can be done to harness them for the future.

7 | ANTICIPATING THE ANTHROPULSE

In conclusion, we return to our opening suggestion that anthropause is a generative geographical concept. We examine the COVID-19 Anthropause as a natural experiment in slowing down to interrogate prevalent narratives that link environmental crises to practices and technologies of acceleration. Human geography offers three key insights that develop the concept of anthropause. First, mobilities studies attend to the lived, affective experiences of pausing and its differential effects on environmental sensibilities. Second, this work helps unpack the 'anthro-' of 'anthropause', highlighting important socioeconomic inequalities. And third, a qualitative approach to the COVID-19 Anthropause highlights the relational topologies of digital technologies and the vital role they play in connecting and disconnecting publics, enabling them to act in patterns overlooked by the Cartesian geographies of movement ecology (the scientific discipline which mechanistically studies the patterns, causes and consequences of organismal movement). As such, we see great potential for geographical conceptualisations of anthropause to be refined for interdisciplinary enquiry.

This expanded conceptualisation of anthropause offers an important corrective to the Anthropocene metanarrative of environmental alienation, which warrants further elaboration by geographers working at the interface of more-than-human and digital geographies. Our qualitative examination of the SIBC presents a more nuanced and affirmative account of the potential of digital technologies to connect people with nature. Stuck at home, participants turned to their screens as a way of coping, as a means of expanding their ecological knowledge, and as a tool for sharing information about local wildlife. Visual technologies like binoculars, nestcams and trailcams, and online identification applications brought participants closer to plants and animals. Social media technologies enabled a new public, not commonly involved in conservation, to connect to nature, each other, and pedagogic nature groups online. The SIBC created an eco-positive and inclusive space that brought previously excluded people into conversation about wildlife and conservation, making our findings relevant for conservationists and environmentalists looking to engage publics with local natures.

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Consequently, many SIBC members grew an affection for the scruffy, urban natures and feral species that have long been marginal to mainstream conservation. Participants experimented with wildlife-friendly models of gardening and other forms of environmental management. Space–time decompression during the COVID-19 Anthropause showed participants that meaningful ecological encounters can take place without having to occur in distant, idealised lands. As such, the SIBC experience of anthropause pushes against some key tenets of the mainstream account of the pathologies of modern life. It suggests that when life was put on hold, our research subjects did not retreat to a premodern, prelapsarian mode of nature engagement. Instead, they got busy repurposing the technologies and ecologies of modern life towards socially and ecologically just ends. We are not suggesting that digital experiences should replace in-person nature activities. Instead, we resist the binary between real and digital (Leszczynski, 2015; McLean, 2020) to show that online nature experiences are not disconnected from so-called 'real world' nature experiences. Indeed, for many participants, engaging with nature communities online frequently led to engagements with local natures and experiments with cultivation practices.

We are conscious that our affirmative story relates to the experiences of a particular social group. Our participants were relatively privileged amidst the unequal global experiences of the COVID-19 Anthropause (see Sultana, 2021). They had the means to pause, the technologies to connect, the social capital to deploy the information they gathered, and access to (often private) greenspace. They were often already inclined towards biophilia rather than biophobia. They tended to comply with government restrictions and scientific recommendations. In contrast, we have seen how social media enabled different publics to express a radical distrust of science and to protest against government restrictions concerning vaccines, lockdowns and masks. Others have detailed how the COVID-19 'slow emergency' (Anderson et al., 2020) intersected with, and reinforced, anti-Black violence in the US and fossil fuel extraction in Australia (Grove et al., 2021), while also weakening environmental protection in countries like Brazil (Vale et al., 2021). Anthropause does not, therefore, automatically equal eco-positivity. Our positive account does not seek to mask these unequal anthropause experiences and, in some cases, anti-environmentalisms. These all merit research and critique. But we seek to make an alliance with our participants in the hope of nurturing and supporting the progressive modes of environmentalisms they have invented. We hope these stories find traction with other groups resisting social inequalities caused by the logics of capitalist progress and the 'Great Acceleration'.

Our analysis raises two further questions about the potential of digitally enabled anthropause environmentalisms. Do our empirical examples represent a new or progressive form of environmentalism in which human–nature relations are reimagined, or simply a non-critical extension of mainstream conservation norms into a broader online public?[4] What do we ignore when affirming digital technologies and online spaces for their ability to foster conviviality? Three points follow. First, it is clear that some of the environmentalisms described in this paper are not inherently progressive, and can further ideological projects—for example, around nativeness—under the guise of ecology. Second, there remains a risk that the usual exclusions of environmentalism could be reproduced both in anthropause and online. The SIBC remained predominantly white and middle-class, highlighting the fragmented and algorithmically controlled nature of online communities. Finally, in affirming the role of digital technologies in fostering convivial relations with nature, we remain cognisant of the major environmental and social harms that digital technologies necessitate elsewhere. These digital lockdown encounters—like all digital encounters—are reliant on relations with places where rare minerals are mined under abhorrent labour conditions (Cubitt, 2017), long-lasting toxic by-products leak indefinitely into ecosystems (Gabrys, 2011; Parikka, 2015), and data warehouses power vast server farms with huge carbon footprints. Anthropause environmentalisms powered by digital technologies, despite taking place at the local—read 'environmentally-friendly'—scale, must be viewed as relational endeavours, impossible to separate from the broader 'locked-in' harms of neoliberal capitalist production (Büscher, 2016).

Nevertheless, newfound interest in nature, sometimes among people with no prior interest, leads us to suggest that there is potential for digital technologies to foster convivial multispecies relations that resist Great Accelerationism. In responding to anthropause, Rutz encouraged us to anticipate an 'anthropulse' that would accompany the easing of pandemic restrictions. He reiterates hope that 'as the world emerges from the tragic circumstances of the COVID-19 pandemic, our improved understanding of human–environment interactions must be used to plan for a more sustainable future' (Rutz, 2022, p. 159). As we finalise this paper in spring 2022, it is still too early to understand the SIBC's legacies. The group lost intensity as participants emerged from lockdown and it has now been archived, becoming Friends of the SIBC. But the connections, skills and sensibilities live on. Several participants hoped that the online communities they were engaged with during lockdown would continue and were going to seek out alternatives. For many, the digital home office remains a routine place of work, and we ourselves remain keen watchers of online nature streams. The technological infrastructures that rose to prominence during the pandemic may well have afterlives.

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We end with three brief reflections on the lessons that environmentalists could take forward. First, we see clear signals that scruffy natures often shunned by mainstream conservation circles can nourish and interest people. We recommend active work is done to engage people further with local natures, alongside awareness campaigns that disseminate the environmental benefits (and conveniences) of not travelling great distances to encounter Romantic Nature (see, for instance, Caletrío (in press), on 'low-carbon birding'). Second, the community spirit fostered by the SIBC was key in engaging people with nature. We encourage conservation organisations to further promote public engagement campaigns, citizen science, and educational initiatives to harness this mood. Lastly, despite concerns with the environmental harms caused by digital technologies, we suggest these tools are included in engagement policies due to their ability to bring people closer to nature and ecological education. Future work will unpack the extent to which these lessons are learned, and how our suggestions take specific shape after anthropause. We retain hope that conservation might harness the affirmative dimensions of digital anthropause environmentalisms such that the pandemic serves as both a 'portal' (Roy, 2020) and a springboard towards more ecologically and socially just futures.

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DATA AVAILABILITY STATEMENT

For reasons of ethics and privacy, data are not shared.

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ENDNOTES

[1] YouTube video: https://www.youtube.com/watch?v=eB9AmWfaG3A

[2] For example, the River Sentiment Dashboard organised by Thames21: https://riversentiment.app/

[3] 'No Mow May' is an annual campaign by British conservation charity Plantlife, encouraging people to refrain from lawn-mowing for healthy pollinator populations.

[4] We thank an anonymous reviewer for this astute question.

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