

1. Exploring the Urban Jungle: making space for wildness in cities

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Abstract

This chapter explores how we can embrace wildness in cities, using imaginative design solutions to convince city dwellers of the beauty and utility of urban nature. Cities rich in nature benefit wildlife and humans, making increasing urban greenspace and its ecological value vital for nature conservation, city functioning and human wellbeing. But urban greenery is being lost to development and its habitat value diminished by management practices, as these benefits are not widely understood. Rewilding is a solution that elicits mixed perceptions from communities, particularly in terms of its aesthetics. In cities, greenery is associated with enhanced appearance, yet its ecological function is limited by an expectation that it must look orderly. Given this ambivalence around the aesthetics of nature, how can “urban rewilding” integrate a wilder form of nature into cities? The chapter proposes a new definition of urban rewilding and a vision of how this could look, presented as postcards from a future London. Such interventions aim to persuade city dwellers to live alongside nature, understanding its usefulness and accepting its untidiness as part of its natural beauty. They offer a model for rewilding cities worldwide to ensure future cities are sustainable, ecologically and psychologically restorative “urban jungles.”

The beauty and utility of urban nature

Cities rich in nature benefit wildlife and humans. Urban areas can foster significant biodiversity. Species such as hedgehogs and bumblebees are more successful in urban than rural areas (Hayhow et al. 2019) (Samuelson et al., n.d.), while species including peregrine falcons have become city specialists (Kettel et al. 2019). Targeted conservation measures can boost urban biodiversity and have led to increases in bat species (Hayhow et al. 2016) and urban ponds attracting more species than rural ones (Hill et al. 2017). When declining global biodiversity has put one million species at risk of extinction (IPBES 2019), urban areas are rightly recognised as an ecosystem of importance for biodiversity conservation (Keith et al. 2022).

Addressing this ecological imperative would also benefit humans. Inhabitants of more biodiverse cities enjoy better health and wellbeing (Maller et al. 2006) (Fuller et al. 2007) (Maas et al. 2006). This can be linked to ‘biophilia’, an innate love of nature (Dembe and Lundberg 2000), which explains the desire for contact with nature among city residents (Van Den Berg, Hartig, and Staats 2007) and the perceived enhanced appearance of city greenspaces with high biodiversity (Gunnarsson et al. 2017), prompting higher property values in cities with more greenery (Ye et al. 2019). Inhabitants further benefit from ‘ecosystem services’ afforded by biodiverse urban greenspace (Costanza et al. 1997) (Harrison et al. 2014), natural processes that mitigate urban environmental challenges, from air quality (Janhäll 2015) to climate-change resilience (Gill et al. 2007).

The amount and ecological value of urban greenspace should therefore be increased to help wildlife and people by harnessing its beauty and utility. ‘Urban rewilding’ has been advocated (Prior and Brady 2017) as a cheap, low-maintenance, flexible way to achieve this (Pettorelli n.d.).

Threats to urban nature

But urban nature is being lost to development (Haaland and van den Bosch 2015), which a growing urban population will only exacerbate (UN n.d.), and its habitat value diminished in some contexts by altered management practices (Smith 2010), indicating that its benefits are not widely understood. Meanwhile, some people are resistant to rewilding, with the “terrible beauty” of nature - inherently encompassing untidiness, death and decay - contributing to an image problem even in rural areas (Prior and Brady 2017). Large-scale urban rewilding experiments in post-industrial sites in Dessau and Duisburg in Germany have had mixed success in terms of their perception by local communities, who see them as either abandoned or revived spaces (Pettorelli n.d.). The sometimes challenging aesthetics of nature and its perceived irrelevance in the city, disliked species, and health and safety concerns have been identified as barriers to urban rewilding (Moxon 2021), which can be linked to “biophobia,” a fear of nature (Dembe and Lundberg 2000).

Exploring a wilder urban nature

There is clearly a tension between *biophilia* and *biophobia*, which is echoed by urban nature being by turns desired or disregarded, and in particular revered or reviled for its appearance. There is a consequent expectation that any nature in the city appears orderly (Li and Nassauer 2021) and that any wildlife is kept away from buildings (Hwang 2017). Given this attitude, how can urban rewilding engender a wilder form of nature into cities? To capitalise on the benefits of and address the threats to urban nature we must first convince city dwellers to live with a wilder form of urban landscape, appreciating its utility and enjoying its beauty while accepting its untidiness and unpredictability.

This prompts questions such as: *What does rewilding mean in cities?* and *How do we make rewilding acceptable to city residents?* These questions are firstly explored abstractly, with reference to existing definitions, to arrive at a new definition of the term “urban rewilding” that avoids misunderstanding and captures its pragmatic potential. Secondly, they are explored in an applied manner, using a design process to create an image of how the UK capital, London might look after rewilding. Together, these methods can help us envision a new manifestation of the “urban jungle” as a template for retrofitting urban nature in cities.

Redefining urban rewilding

The word “rewilding” is powerful in its ability to capture the public imagination (Jørgensen 2015). Its straightforward dictionary definition as “the practice of helping large areas of land return to their natural state” (Oxford Learners Dictionaries n.d.) assumes a rural context and is neither practical nor desirable in an urban one, which will lack substantial open space and be inherently shaped by humans. More expansive definitions that encompass ‘*protecting an environment and returning it to its natural state, for example by bringing back wild animals that used to live there*’ (Cambridge Dictionary n.d.) can more readily be drawn from at a principles level to describe protecting existing urban habitats and attracting wildlife species

that have been lost from cities, albeit not through reintroduction. Pettoirelli makes an important clarification that rewilding, unlike other forms of conservation, aims to ‘reinstatate natural processes’ rather than ‘restore...former ecological states’ (Pettoirelli 2019), which suits constantly changing urban environments (Pettoirelli n.d.). Further, Jorgensen’s “Rethinking rewilding” systematically reviews the term’s use over time, concluding that rewilding ought to be inclusive of human culture rather than symbolizing a “wild without people” (Jørgensen 2015), something that becomes essential to acknowledge in an urban context.

Proposed definitions of “urban rewilding” as incorporating “native plants and animals into urban infrastructure” (Mills et al. 2017) begin to translate these basic principles to an urban application. Nevertheless, on the one hand, this loose definition is arguably too vague either to be meaningful in terms of biodiversity enhancement or to convey the integral benefits of the practice for the city environment and its human inhabitants. On the other hand, the specificity of native species is unrealistic and could be counterproductive when, for example, non-native flowering plants can usefully extend the nectar season for urban pollinators (Frankie et al. 2019) and invasive grey squirrels delight many people through contact with nature in European urban parks (Cerri, Martinelli, and Bertolino 2020).

There is therefore scope to advocate a new, more specific definition, such as:

Urban rewilding = reinstating vegetation, water, and other wildlife habitat in towns and cities to enhance biodiversity, climate-change resilience, and human wellbeing.

This highlights the need to create viable wildlife habitats comprising both natural and human-made features. It allows for a mix of native and non-native species, including those that might not have been present in cities historically, to constitute biodiversity. Critically, it acknowledges the need for rewilding that contributes to human health and urban-design strategies for coping with the effects of the climate crisis, as well as providing wildlife habitat in response to the ecological crisis. It could therefore aid the understanding of the utility of urban nature.

Redesigning the urban jungle

This theoretical definition of urban rewilding now extolls the pragmatic benefits of urban nature, yet further, more practical exploration is needed to tackle the concerns about urban nature by showing how attractive it might be in cities. Designers can offer positive visions of how rewilding proposals might transform cities for the better (Moxon 2019), focusing on visual appearance.

Designs were developed through the author’s “Rewild My Street” project, which provides guidance for city residents wishing to adapt their homes, gardens, and streets to encourage wildlife (Moxon n.d.), as part of a design-ideas fellowship to reimagine the post-Covid city (Colbert n.d.). The designs depict five key public space typologies in London transformed by rewilding, using a collage technique, which are presented as a postcard entitled ‘London: Urban Jungle’. The title is intended to challenge the negative idea of the ‘urban_’ or ‘concrete jungle’, with its unpleasant high-density development (Oxford Learners Dictionaries n.d.)

precluding all but the most adaptable species (Sarkar and Bhadra 2022), with the results of urban rewilding instead conjuring the original meaning of “jungle,” of a densely vegetated habitat (Oxford Learners Dictionaries n.d.). The scenes consist of inner-city “Pocket Parks” and “Tiny Forest Squares,” residential “Wild Play Streets,” an encircling “Wild Belt” and connecting “Green and Blue Ways.” The reverse of the postcard has a message written from the perspective of a time-traveling Londoner who is visiting the capital two decades into the future and is impressed with the progress that has been made with rewilding. A second postcard features maps showing how the rewilded spaces form a habitat network at both local and regional scale.

<Figure 1.1 here>

Figure 1.1. London: Urban Jungle postcard front. Illustration by the author (with altered photos courtesy of Potapov Alexander/Shutterstock, Karen Arnold, pau.artigas, Lawrence Elgar Blog, Steve Cadman, Jordan Carson-Lee/Shutterstock, Peter Church, Adrian Colston, Didier Descouens, EricIsselee/Shutterstock, Freebie Photography, J Gade/Shutterstock, Gordon, H Helene/Shutterstock, George Hodan, Gary Houston, Isarra, Natalia K/Shutterstock, Aptyp koK/Shutterstock, Bohdan Malitskiy/Shutterstock, Nelson L, P Martin, Dennis Matheson, Dudley Miles, Luis Molinero/Shutterstock, Ninjatacoshell, Keith Pritchard/Shutterstock, Rishichhibber, Denise Schmittou, Charles J Sharp, Piotr Siedlecki, Sonicpuss/Shutterstock, Adam Soukup, Super.lukas, Tarter Time Photography, Andreas Trepte, Peter Trimming, Bryan Walker, Chris Whippet).

<Figure 1.2 here>

Figure 1.2. London: Urban Jungle postcard back. Illustration by the author (with altered image courtesy of London National Park City).

<Figure 1.3 here>

Figure 1.3. London City Region postcard. Illustration by the author.

In combination, the postcard images and text offer a vision of hope and beauty that reimagines our cities after urban rewilding in a way that might be acceptable, even desirable, to urban residents. This hypothesis has thus far been confirmed by anecdotal positive feedback from sample audiences at public talks and events. Besides, most of the conceptual terms for rewilded spaces used in the postcard have been realised in cities before, sometimes in London, where they have achieved positive environmental impacts while being embraced by local communities. Pocket parks, green spaces created in single vacant lots between buildings, date back to the late 1960s in US cities, not least Zion and Breene’s enduringly popular Paley Park in New York, and benefit both local communities and biodiversity (Babalis 2020). Tiny forests, dense native woodlands on tennis-court-sized urban plots, began in the Netherlands with examples such as Muziekplein forest in Utrecht, and offer carbon sequestration alongside wildlife habitat and opportunities for school children in particular to engage with nature (IVN n.d.). Several tiny forests have already been planted in London (Hunston n.d.). Play streets, regular temporary road closures to allow safe play for children (Playing Out n.d.), could conceivably be adapted to create permanent areas that incorporated wildlife habitat with natural play features. Derbyshire Street park in London, albeit focussed

on sustainable urban drainage and cycling, offers a useful template that has become a backdrop for community events (Susdrain n.d.). The Wildbelt has been proposed in England as an alternative to the Green Belt, a ring of land around key towns and cities protected from development, to explicitly promote nature recovery in designated landscapes (Whittaker, n.d.). London's Metropolitan Green Belt (London Green Belt Council n.d.) would be a keystone target. Green and blue ways are based on the 'slow ways' concept of walking routes linking Britain's towns and cities (Slow Ways n.d.). Recent urban examples of this principle include New York's High Line, a well-used linear park for pedestrians (The High Line n.d.), and Singapore's Bishan-Ang Mo Kio Park, a route alongside a re-naturalised waterway (National Parks Board n.d.), which improved accessibility for residents (An, Chen, and Li 2020). These examples are seemingly valued by local residents, yet they are isolated projects and the postcards invite us to imagine them deployed *en masse*, at scale and connected together across a capital city.

Redefining the urban jungle

Retrofitting urban nature can ensure our cities become both sustainable and beautiful, benefiting wildlife and people. To enable the integration of a wilder form of nature into cities through urban rewilding, it is important to clearly define the term and show how it might be realised. The posited definition of urban rewilding answers the question *What does rewilding mean in cities?*, namely a mixture of natural and human-made habitats that attract a variety of native and non-native species, while benefiting people and the functioning of their urban environment. It therefore highlights the utility of urban nature. The postcards tackle the quandary of *How do we make rewilding acceptable to city residents?*, showing a beautiful vision of future cities based on rewilding ideas that have already been successfully pioneered. They therefore highlight the beauty, and achievability, of urban nature.

Together, the definition and postcards aim to persuade city dwellers to live alongside nature, understanding its usefulness and accepting its untidiness as part of its natural beauty. They offer a model for rewilding cities worldwide to ensure future cities are sustainable, ecologically and psychologically restorative "urban jungles." It will be important to create similar visions for other cities to reflect different built environments, species, climates and cultures. It will be paramount to gauge public response to urban rewilding through reaction to both conceptual proposals and built projects. It is vital to find a way to increase urban nature to exploit its benefits for both wildlife and people. Reimagining our cities as a new kind of urban jungle that nurtures humans alongside other species is a useful step towards making space for wildness in cities.

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