

Public realm

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Chapter 8: Rethinking values in the public realm

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The tensions and challenges that are changing the face of city centres will also challenge and change the function and uses of public spaces in cities around the world. These in-between spaces are frequently regarded as a liability rather than an asset, spaces to be managed, cleaned and controlled more than enjoyed and celebrated. As cities pivot to embrace or resist a digital age and come to terms with an unfolding ecological crisis, they have new opportunities to rediscover their central heartlands as connectors in human and environmental networks that can respond to global change with imagination and agility.

This chapter begins by considering the urban design tool of the figure-ground, a cartographical representation of the city that contrasts its built and unbuilt forms. It suggests that by inverting the traditional valorisation of what is built rather than what is 'empty', cities can foreground the flows and connections needed for environmentally and socially healthy city centres.

It then considers the public realm in three stages, each of them concerned with the way urban actors ascribe value to space. First it considers value in economic terms, examining how the commercial city centre considers public space as an asset to be sweated. It discusses how this plays out in retailing and the controlled commodification and privatisation of urban infrastructure, in which human interaction is mediated by commercial interests. The section concludes with a brief discussion of the increasing sanitisation of public space in order to facilitate commercial exploitation.

The second stage considers 'human values' in the public realm - the values of interaction and sociability that encourage people to visit and linger. It highlights the trade-offs between the commercial and the social and moves on to consider why future public spaces will need to emphasise play and informal uses. Finally it examines the importance of public spaces for human health and wellbeing.

The chapter then considers the 'more-than-human' values of flora and fauna within city centre ecosystems as a context for investment in human wellbeing and interaction. In the face of a climate and biodiversity emergency, it asks whether cities could begin to 'think like planets' (Alberti, 2016). It focuses on the need to think of the city centre not only in terms of buildings, people and commercial activities, but also in terms of the quality and ecological richness of the city centre's air, water and earth. The chapter concludes by considering the opportunity that now exists to create cities for biodiversity and climate resilience to complement and enhance human pleasure, drawing on recommendations from recent research.

The figure-ground city

The urban design technique of the figure-ground is a useful and popular way to understand urban form. Features of the built environment are inked-in to form solid blocks, in what is known in Germany as a *Schwarzplan*, contrasting with the white of undeveloped spaces. The coherence of street patterns and established commercial or residential areas can be compared with the scattered forms of business parks and urban edges and the swathes cut through by motorways, railways, canals and rivers. The figure-ground can help planners and communities to imagine connected and convivial urban places that work for people. But it can also valorise the built over the unbuilt, demarcating the city in terms of the already-developed, development opportunities, and spaces that for one reason or another are too difficult to develop. It flattens the city, representing watercourses, urban parks, rock outcrops or marshes alike as white space. But in flattening it also elevates the commercial priorities of the property industry.

As Hebbert (2016: 725), an advocate of the figure-ground technique, cautions, 'Its simplification of the city to a pattern of solids and voids omits all the variables of interest to social science – ownership, power, status, human agency, gender, exchange, mobilities.' It also erases ecological diversity or depletion: there is no green in the figure-ground. Street trees become blank, roof gardens black. The messiness of human and more-than-human interactions vanish in the distinction between enclosed and open. The potential of the open spaces for movement, fast and slow, for conversations and connections, and for protest and contestation likewise disappears.

By foregrounding these interstitial spaces, the public realm that is often public by default rather than design, it is possible to sketch out some futures for city centres that permit a realignment of urban priorities, valuing the fluidity of human interactions and the permeability of ecological networks alongside and encroaching into the solid material of roads and buildings.

1. Sweating the asset

The public realm has always been animated. It is the space of hawkers, idlers, lovers, beggars and - occasionally - philosophers. It is home to the European-style flaneur of Baudelaire and Walter Benjamin; the piki-piki riders of Dar-es-Salaam and tuk-tuk drivers of Colombo, and the economically and socially marginalised everywhere. It is where the public celebrate their freedom to be human, and where they are often beaten and shot when they protest about the removal of their freedoms.

In these relationships between the public realm and the public who use it, the written and unwritten rules favour the powerful. Political power and financial power, almost irrespective of ideology, are reflected in urban form. Benjamin (2019: 169) speaks of Haussmann's restructuring of the streets of Paris in the 19th century as a reflection of his 'hatred of the rootless population of big cities'. Equally, contemporary central business districts conform their

populations to visions of 'cosmopolitan modernism' (Therborn, 2017); Beijing's CBD masterplan seeks to 'create a perfect urban image with outstanding symbolic buildings' (ibid, 311) - an assertion of the rights and values of capital over citizenship.

In contemporary imaginaries of city centres, as devised by the property industry and disseminated and reinforced at gatherings such as the MIPIM real estate fair held annually at Cannes on the French Riviera, the outstanding symbolism is that of financial capital. Denser clusters of higher, shinier buildings congregate in central business districts, literally overshadowing public spaces and creating wind tunnels and odd microclimates, such as the concentrated heat reflected from London's concave 'Walkie-Talkie' skyscraper at 20 Fenchurch Street that famously melted car parts (BBC News, 2 September 2013).

But it is not enough that the buildings themselves should be symbols of capital. Public space itself becomes a commodity to be monetised. This can be done directly - by turning streets into retail pitches and populating them with stalls and kiosks - or indirectly through the proliferation of advertising, bombarding passers-by with demands on their attention, both in analogue and digital formats. The city centre retail malls of the early 21st century have enclosed and privatised formerly public spaces. In Liverpool, UK, the Liverpool One development, which opened in 2008, is a classic example of an 'open' mall, apparently respecting and renewing historic street patterns while changing the streets into privately owned and controlled spaces masquerading as traditional thoroughfares. It is a place to shop and stroll, and includes Chavasse Park, a green space to sit and enjoy a coffee or lunch - but as anthropologist Rebecca Toop (2020) points out, 'there are none of the usual signs of citizen appropriation around the site, whereas just outside at the docks, people have quite literally made their mark - locking padlocks with names and messages to the railings'. There's no space for leafletting or protest, activities that make a public space genuinely public. Outside the relatively secure environments of affluent cities in the global North, the demarcations become harsher: the Western-style services and layout at Rock City Mall in Mwanza, Tanzania, for example, with its enclosed air-conditioning and emphasis on access by car, contrast starkly with the city's traditional markets with their narrow, crowded walkways and the colours, noise and smells of live poultry or drying fish.

While the city centre mall may be seen as a last hurrah of the retail property industry before its retreat in the face of digital shopping, digitisation offers ever-increasing opportunities to monetise public space. City centres have always been advertising display boards, but digital and AI (artificial intelligence) technologies allow the creation of content geared to the perceived interests of people walking down city streets, standing at bus stops, waiting for trains or arriving at an airport terminal. Driven by data shared from citizens' mobile devices or sensors that aggregate information about weather, footfall and commuting patterns, out-of-home advertising (OOH) is expected to become a significant media growth area globally over the next five years (PwC, 2020). Cash-starved municipalities are unlikely to resist the opportunity to raise revenue to help pay for the upkeep of highways or offset the costs of public services, and the people using urban streets have no means of opting out. Alongside this commercial digitisation of public space, traditional public uses of walls or billboards for political debate - as in cities like Hong Kong - or for street art, except where legitimised by property owners, are increasingly

regarded as illicit and participants are criminalised. Legislation currently under consideration in the UK increases the penalties for protests that could cause 'serious annoyance, inconvenience or loss of amenity' (such as removing the statue of a slave trader) to a maximum of 10 years in jail.

The monetisation of public space reinforces a hierarchy of values that privileges particular narratives of the city centre. First is the narrative of the city as globally competitive, 'distinctive' in its ability to leverage its brand and history but surprisingly uniform in its means of delivering its purported distinctiveness. In Colombo, Sri Lanka, such uniformity takes the form of high-rise towers offering exclusive apartments, hotel and shopping spaces in a site dominating Galle Face Green, the city's traditional playground where citizens gather to enjoy the beach, fly kites and eat street food. Colonial-era low-rise buildings and trees have been bulldozed to make way for a development, 'The Residences', that describes itself as 'one definitive place to live, work and play' - a strapline that will be dreadfully familiar to observers of urban development worldwide. The Residences may not directly occupy public space, but it looms over it, highlighting demarcations between the exclusive lifestyles of occupants and the lives of the urban poor who are increasingly being evicted from the city centre (de Sayrah, 2021).

Second is a narrative of safety that is associated with notions of undisturbed consumption: the city centre as a safe place to shop and enjoy cultural attractions, perhaps, but not as a safe place when it comes to protesting that Black Lives Matter in Portland, Oregon, or resisting redevelopment in Gezi Park, Istanbul. This is a story that has long roots: Ebenezer Howard's vision of a garden city included a proposed 'crystal palace' of shops where 'most of that class of shopping which requires the joy of deliberation and selection is done' (Howard, 2010: 14). The safety of those who buy, sell and browse is prioritised, and it is reinforced by steel grilles that descend when shops close, and security guards whose eyes are trained to stop and remove those involved in unwanted activities such as begging, protesting or preaching. In these spaces, safety becomes the domain of the better-off, rather than Gehl's vision (2010: 97) of 'an open society in which people from all socioeconomic groups can move about side by side in the common room of the city'.

A third narrative is that the public realm is public by privilege rather than by right. The public realm becomes marked by practices of distinction that serve to exclude the more disadvantaged. Signs warn pedestrians that they are monitored by CCTV and that their use of what appears to be public space is governed by rules imposed by property owners. Whether belonging to the local state or to private landowners, the use of space is managed and sanitised to exclude marginal or unseemly activities and persons and present a simulacrum of citizenship free of challenge and contestation. Hubbard (2017) argues that traditional shopping streets have been subjected to a culture of 'disgust', where working-class pursuits such as betting, fast food and sex work are removed in favour of middle-class ideals of bohemianism and 'retail gentrification'. Eick (2012) describes how in Hamburg, Germany, the promotion of business improvement districts to bolster the fortunes of struggling retail areas has brought about alternative forms of governance with limited accountability - primarily to property owners - and policed by 'rent-a-cops' answerable to the BID rather than to the local state. The increasing use

of urban parks for festivals and ticketed events has brought about a similar demarcation between the haves and have-nots, often reinforced by the security fencing installed by private companies to keep non-payers out of paid-for events (Smith, 2021).

2. Human values in public space

Sixty years ago, the urbanist Jane Jacobs celebrated the 'smallness' of big city centres, their bustle and diversity which 'rests on the fact that in cities so many people are so close together, and among them contain so many different tastes, skills, needs, supplies, and bees in their bonnets' (Jacobs, 1993: 192). A decade ago Jan Gehl, an architect and urbanist who drew strongly on Jacobs' legacy, wrote that 'walking is the beginning, the starting point' of cities - 'purposeful walks from place to place, promenades, short stops, longer stays, window shopping, conversations and meetings, exercise, dancing, recreation, street trade, children's play, begging and street entertainment' (Gehl, 2010: 19).

These visions of the civilised and diverse city have been undermined in recent years. The global financial crisis of 2007/8 ushered in a decade of 'austerity urbanism' (Peck, 2012) that stripped finance and capacity from public institutions, leading to greater reliance on private investment - much of it linked to models of property development and ownership dependent on the rapid 'flipping' of assets for quick profits, a game of urban pass-the-parcel where the aim is not to hold the asset when the music stops. In 2020-21, in cities around the world, the music stopped abruptly: Covid-19 closed down city centres, populations were locked down in their neighbourhoods, and the buzz and diversity and walking that Jacobs and Gehl put at the heart of city centre life ceased in many respects. What Jane Jacobs and Jan Gehl noticed as presence in urban centres became manifest as absence.

While the buzz may return, the get-rich-quick model of city centre property ownership has been exposed as fundamentally unsustainable. For much of 2020 city centres were ghost towns as office workers, shoppers and theatregoers stayed away, and the only people to be seen were essential workers and the homeless. Long term trends in working from home, enabled by increasingly effective digital communication technologies, and growing interest in the notion of the walkable and accessible '15 minute city' (Moreno et al., 2021) will change patterns of land use, and put a premium on residential and social uses of city centre spaces. Already the Scottish Government is including the idea of the '20-minute neighbourhood' in a refresh of its Town Centre Action Plan (Gore et al., 2021). The challenge for city centre planners will be to provide within central districts the convenience and accessibility of the 15-minute neighbourhood combined with enough cultural and social zing to entice residents and visitors in to enjoy a different quality of experience.

It is experience, rather than functionality, that will characterise the successful city centre of the future and its public spaces. If you can work, shop, meet, and access basic services within a short walk of your home, how does the future city centre differentiate itself? One unforeseen impact of the Covid-19 lockdowns was the increased use of city centres for informal exercise

and play, with streets closed to traffic and the appropriation of open spaces as public outdoor cafes and picnic areas. City centre public space offers capacities for play that may not always be possible at a neighbourhood scale: in Paris, for example, mayor Anne Hidalgo has embarked on a quest to remove cars and parking spaces as far as possible from city centre streets, working to open up world-famous spaces such as the Champs Elysées to pedestrians and entertainers. There is a growing recognition that play is not only essential to children's cognitive and emotional development, but also a key part of urban life. The Real Play Coalition argues that 'the whole built environment is a critical play and informal learning resource for children' (Real Play Coalition, 2020). In Philadelphia, researchers found that turning an urban bus stop into a play zone resulted in statistically significant increases in children's interactions and language development (Hassinger-Das et al., 2020). In Tirana, Albania, and Lima, Peru, urban planners are working with civil society organisations to create child-friendly green spaces and places for play in and around city centres. But play is not only for children: adults too appreciate playful public spaces. Pieters (2021) talks of 'playscapes' rather than play areas — the urban public realm designed as a playful space, rather than considering play as a segregated activity to keep children safe and occupied. Such city centres could be places where 'play happens everywhere': the former English urban design agency, CABI Space (2008) cited the neighbourhood of Vauban, Freiburg, as one example of how play could be integrated into streetscapes.

To put play at the heart of city centres demands a revaluing of public space, prioritising movement by foot and effective public transit rather than movement by private vehicles, and permeability rather than demarcation of ownership and use. This is a very different vision of urban life to the segregated and select towers still rising in central business districts for corporations and elite residents and visitors. It is low-rise and low-fi, and emphasises the use of imagination rather than the provision of formal entertainment. Hopkins (2019) describes how the Playing Out scheme in the UK transforms urban streets into a 'blank canvas' for children's imagination, and argues that adults too would benefit from more playful cities.

This requires imaginative planning, but it also requires determination to prioritise active travel and effective public transit, as well as shared spaces that put pedestrians and motorists on an equal footing. As futurists revel in the possibilities offered by autonomous vehicles and flying cars, they need to avoid repeating the 20th century infatuation with the private car, which placed the convenience of the individual motorised traveller over the collective good created by safe, walkable public spaces.

In the city centres of the future, the public realm will need to prioritise human wellbeing. Urban policy typically emphasises the economic wellbeing of the disembodied city centre, represented by business turnover and footfall on retail streets, the numbers of hotel stays or attendance at events. The people are secondary to the economic activity. But without people much of the economic activity shrivels. When restrictions imposed during the Covid-19 pandemic were eased, it happened first in outdoor environments such as parks, beaches or streets. When they have been able to do so, urban populations have flocked to such places to meet others and enjoy the outdoors.

The use of outdoor environments highlights the need for public and sociable spaces. Well-designed urban neighbourhoods that are compact, well connected, walkable and provided with parks and greenery contribute to greater life satisfaction (Smith et al., 2017; Bird et al., 2018). Public spaces facilitate social interaction (Bagnall et al., 2018). A recent project based at the University of Sheffield, UK, highlighted the importance of the ‘magic of the mundane’ in urban residents’ experiences of green spaces and the natural world (Dobson et al., 2021). Based on their own research and a large body of previous academic evidence showing the importance of green spaces for mental wellbeing, they called on urban planners and policymakers to invest in ‘spaces of interest and surprise’ as well as protecting and promoting biodiversity and investing in regular maintenance to create safe and attractive places. As well as emphasising the importance of natural elements such as plants and wildlife, they underlined the need to think of green spaces as sociable spaces and for funders to support the civil society organisations that can make such spaces inclusive and accessible to all. Similar calls for greater investment in green spaces were made by Geary et al. (2021) as a way of addressing health inequalities.

Spaces of interest and surprise occur when the grids and arteries of transport routes and the blocks of development plots are mitigated and broken up. They can be created visually through artworks and planting, or spatially through twists and turns in the streetscape; and through heterogeneity in massing, verticality and architectural style. In Melbourne, Australia, the ‘laneways’ or back alleys once used for servicing city centre shops and offices have become one of the city’s tourist attractions, visually transformed by street artists and animated with eateries and coffee shops, often wedged into the smallest of corners. Surprise also occurs when space is made available for the unusual and spontaneous – from pop-up festivals to naked bike rides, drawing on the tradition of ‘tactical’ or ‘vigilante’ urbanism (Dobson, 2017).

There are early signs that planners are beginning to create new city centre open spaces in response to the structural shifts that have been accelerated by the Covid-19 pandemic. In Stockton-on-Tees, UK, part of the traditional high street will be demolished to make way for a new urban park, while in Sheffield a site originally slated for a multi-storey car park is to become a new green space next to the Heart of the City redevelopment. Car parks and highways will be turned into a new City Park on the southern side of Leeds city centre in the UK. In Beijing, President Xi Jinping has supported tree-planting initiatives to improve the quality of urban life, and in Ho Chi Minh City, Vietnam, planners recently approved plans to increase the amount of new urban green space from 0.64 to 1.2 square metres per resident, with seven new parks under construction in early 2021.

City planners will need to acknowledge that wellbeing comes in all shapes and sizes. As demand for traditional retail and office space shrinks, some space will be repurposed for a new generation of city centre dwellers - who will need a mix of quiet and lively spaces, basic services as well as entertainment, and ease of access. There will also be regular visitors, those whose use of the city centre may be primarily for work or educational activities; and visitors for whom the city centre’s cultural and leisure offer may be paramount. Each will have different needs and desires, and will be drawn into public spaces for different reasons. Attention needs to be

paid too to the lives of ‘strangers’, those already on the margins of society, for whom the city centre may offer a relatively safe and anonymous space.

These groups have diverse and diverging needs and interests, and the city centre needs to offer enough for all of them. Donovan (2018) speaks of the need for ‘compassionate design’ that puts human needs before those of the development industry, but acknowledges that this has typically only occurred ‘in places where conditions are particularly favourable and have been overlooked by “big development”’. If city centres are to be planned for wellbeing, compassionate design will need to become a priority.

3. More-than-human values in public space

The introductory chapter in this volume [*reference to be added by editors*] critiques the ‘universalist’ character of so-called ‘planetary urbanism’, citing Schmid et al’s distinction (2016) between urbanised societies and their urban forms. It is important not to elide urban forms worldwide into one global metanarrative. Nonetheless there is a vital place for the planet in discussions of the city centre as a specific expression of urbanism. In the context of an unfolding climate and ecological emergency, the city centre can no longer be considered separate from the natural environment. Landscape and its more-than-human inhabitants of flora and fauna need to re-enter our understandings of city centre public space.

Alberti (2016) argues that cities should ‘think like planets’; that they are ‘coupled human-natural systems’ in which social and ecological networks co-evolve. The resilience of such systems is typically associated with ‘heterogeneity and modularity’ (p22) - the more diverse and self-sustaining the city and its economic and ecological configurations are, the more a city is likely to be able to withstand shocks. Such hybrid systems are ‘simultaneously unstable and capable of innovating’ – new patterns emerge, such as the dispersal of seeds through road networks.

An understanding of urban ecology as distinct from, but connected to, the wider natural world demands a rethinking of the city as a whole and the traditional downtown in particular. The impacts of Covid-19 worldwide have shown the lack of resilience of city centres that have become retail and office hubs driven by real estate speculation. One of the most striking features of the initial lockdowns that occurred in spring 2020 was the return of non-human species into cities and their peripheries as human activity paused. Dolphins returned to the Venice lagoon. Wild boar roamed the streets of Barcelona. While these changes were short-lived, they offered a striking demonstration of the potential for rewilding the urban environment. The city of Pripyat in Ukraine, abandoned after the Chernobyl disaster of 1986, shows how flora and fauna can re-establish themselves over extended timescales.

Rather than waiting for the next crisis – be it environmental or economic – the lesson for urban planners is that by making space for the natural world it is possible to dramatically change the

quality of life in city centres, for humans and non-humans alike. Respect for air, water and earth can begin to reshape city centres for the 21st century and build resilience and adaptability.

City centre air

Urban air quality has been recognised as a key issue affecting human health. In 2012, one in every nine deaths worldwide was the result of conditions related to air pollution (World Health Organization, 2016a). Reducing air pollution has positive impacts on health and wellbeing, carbon reduction, poverty alleviation and food security (Rafaj et al., 2018). In city centres, the combination of traffic and tall, densely packed buildings intensifies the urban heat island effect, raising ambient temperatures: a study of the 2003 heatwave in the West Midlands region of England found that higher temperatures in cities (up to 7 degrees Celsius above surrounding rural areas) contributed to half the heat-associated deaths (Heaviside et al., 2015). The construction industry is one of the world's biggest contributors to carbon emissions, despite some attempts to adopt so-called 'green building' techniques (Gibbs and O'Neill, 2015). Urbanisation and air pollution are also among the factors contributing to the steep decline of insect populations, with some researchers predicting the extinction of 40 percent of insect species in the next few decades (Sanchez-Bayo and Wyckhuys, 2019).

Improving the air quality of city centres thus offers opportunities to enhance both human and non-human health. There is no single solution, but a combination of measures could give new meanings to the old German saying, *Stadtluft macht frei*. Traffic-free central zones served by efficient public transit fuelled from clean energy sources, planning regimes that prioritise conversion and repurposing over demolition and new build, and the conversion of streets and roofs into planted areas with street trees and roof gardens will attract non-human species and improve the quality of life for human residents and visitors to city centres. By increasing vegetation in so-called 'street canyons', where pollutants are concentrated because of the height of surrounding buildings, levels of nitrogen dioxide and particulate matter can be reduced dramatically (Pugh et al., 2012). The air in and around public spaces should be thought of as an environmental asset rather than as an invisible dump for pollutants.

City centre water

As tourism and destination management become an increasing feature of city centres, planners and developers have become alert to the potential of urban lakes, rivers and seafronts. Features that were once thought of as places to serve industry or deposit sewage have become desirable residential areas or opened up as public parks. Often the potential for development is at odds with the potential for economic gains through tourism, while also limiting the benefits of urban water features in terms of cooling, reduced pollution and carbon reduction. While open waterside spaces offer opportunities to promote human health and wellbeing and encourage biodiversity, these gains are incremental and long-term compared with the immediate economic payback from intensive residential or office development.

Urban water presents risks as well as opportunities, notably through flooding – including flash flooding from sudden heavy rainfall and riparian and coastal flooding exacerbated by climate change. There is increasing interest in nature-based solutions to flooding and stormwater management, including creating rain gardens (Xing et al., 2017), sustainable urban drainage

(SUDS) schemes, and restoring culverted urban watercourses (Wentworth, 2017). ‘Blue spaces’ are also important contributors to human health and wellbeing, providing space to relax in a calming environment or to take exercise or socialise (Gascon et al., 2017; Grellier et al., 2017). Watercourses and lakes bring vegetation and wildlife back into city centres, enhancing the quality of life for residents and visitors alike as well as supporting economic activities.

City centre earth

To make the most of city centre air and water, it is necessary to pay attention to earth – a feature notable for its apparent absence in most city centres, except in the occasional formal park or in the pits created for street trees. Yet the soil that gives rise to microbial, plant and ultimately animal life exists in city centres too, even if it is often built on or paved over. By thinking of city centre spaces as earthy as well as built, planners can ensure that the public realm is not limited to human experiences and activities.

It is by now well known that green infrastructure – the network of green and blue spaces and vegetation that exists in urban environments – contributes significantly to human wellbeing. Such spaces include green roofs, private gardens, playing fields and cemeteries. But they also include the public realm: streets, squares, alleys, footpaths, and green open spaces. There has been extensive research on the health and social benefits of green spaces and green infrastructure. A range of reviews summarise and analyse this evidence base (Dobson et al., 2019; Houlden et al., 2018; Hunter et al., 2019; Wendelboe-Nelson et al., 2019; World Health Organization, 2016b). Green spaces enable humans to connect with and appreciate the natural world, which in turn can lead to enhanced wellbeing (Wood and Smyth, 2020; McEwan et al., 2020). While green infrastructure in general, and nature connectedness in particular, are generally associated with rural or peri-urban locations, these could become salient features of thriving city centres in the 21st century.

There have been some high-profile attempts to change the image of city centres through greening projects, including the Bosco Verticale in Milan, Italy, which includes more than 2000 square metres of trees and vegetation in two residential towers and has been hailed as an exemplar for energy efficiency and biodiversity. The Desjardins building in Quebec included the world’s tallest indoor ‘green wall’ when it opened in 2014, and outdoor green walls are increasingly becoming a feature of corporate architecture. However, such apparently futuristic projects may be less fit for the future than they appear, glossing over the carbon emissions embedded in their construction. Their significance tends to be symbolic rather than ecological. An alternative approach is to create ecological networks and corridors throughout city centres, focusing on the public realm rather than private buildings. In their study of the Green Corridor mega-project in downtown Seoul, Korea, Scheutze and Chelleri (2016) conclude that long term sustainability requires ‘integrated, small scale, incremental, and adaptive (stepwise) urban planning and design processes’. These work with and supplement the existing ecologies of cities rather than turning urban nature into another construction project. One such example is the Mayor of London’s encouragement of community-led ‘depaving’ projects to remove hard surfacing and create new planted areas in public spaces (Mayor of London, n.d.). A pause in the

frenetic pace of city centre construction projects in the wake of Covid-19 offers a chance to explore more locally-led approaches, creating green infrastructure networks from the ground up that are sensitive to the needs of urban centres' human and non-human populations alike.

Mosaics of space for human and more-than-human prosperity

In conclusion, the urgency of the climate and biodiversity crisis, coupled with changes in the uses and populations of city centres around the world, creates an opportunity to rethink city centres as mosaics of space that serve human and non-human populations alike, where both can prosper. But this demands a bold and proactive approach.

The risk factors are well-known, although action to mitigate them has been limited. They include the environmental risks of poor air quality, overheating and flooding; the economic risks associated with structural shifts in patterns of work and consumption; and the social risks associated with pricing urban populations out of their city centres. By taking appropriate action, city centres can become green rather than grey, biodiverse rather than sterile, playful rather than intimidating, and open rather than exclusive.

Public spaces can play an anchor role in setting the tone and style of future city centres. Such spaces include not only the flagship urban parks and squares, but side streets and quiet corners too. As part of the Improving Wellbeing through Urban Nature project (Dobson et al., 2021) the author and colleagues produced recommendations for urban planning policy and practice. Three of these are particularly relevant for the city centres of tomorrow.

First, we linked green and social infrastructure, calling on planners to create 'a social green network'. Greener cities are intimately linked with more sociable cities, creating opportunities for people to get together and support each other. We called for the creation of biodiverse walking and cycling routes and the greening of everyday journeys.

A social green network is based on three principles. The first is movement, linking high quality green and natural spaces with commuting and leisure travel patterns and providing alternatives to polluted, heavily trafficked urban arteries. Routes should be planned for biodiversity and green links created where they do not currently exist, with walkers and cyclists having priority over motor traffic. The second principle is access: green infrastructure should be planned to complement existing urban flows, and be safe and well lit to reduce the fear of crime. Routes should be well signposted, both physically and on digital maps. Third, the network should be planned to maximise connections with nature, offering interesting planting and habitats for wildlife and preserving mature trees.

Our second set of recommendations was that to deliver wellbeing benefits, planners and policymakers should 'make the everyday amazing'. In other words, they should create spaces that offer surprise and celebrate both the human and more-than-human environment. Natural colour, wildlife, trees, plants and water should be an everyday feature of city centres, not the

exception. Art, theatre and music should be encouraged and celebrated by designing spaces for performance as well as passage. Urban streets, squares and corners should offer green areas where people can sit and meet without being bombarded with attempts to monetise their attention, and new spaces and developments should be planned with a view to increasing the network of urban green infrastructure.

The third set of recommendations is to support diversity: diversity in design, plants and wildlife, but also diversity of human residents and visitors, offering something for all ages and cultures. It is particularly important to reduce the exclusivity of spaces that appear designed for, or limited to, use by elites. The green and convivial city centre of tomorrow needs to be a place for everyone.

Picture: The site of The Residences in Colombo, Sri Lanka, pictured in 2013 before development and showing the trees now removed to make way for luxury towers.

Picture 2: The Grey to Green project in Sheffield, UK, has transformed busy traffic arteries into vibrant streetscapes.

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