



The Natureful City: Rediscovering Nature in a Pandemic Era

By Tim Beatley

I don't think any of us could have predicted where we are, collectively and individually, as we adapt to this terrifying global pandemic and the new realities that will exist after it is over.

Amongst the pain and suffering, and the shocking number of lives lost, we are all struggling for meaning and for silver linings where they exist. This search for a hopeful future is something that seems intrinsic to the human spirit. For me, there are many things to be impressed by during this pandemic, many selfless acts, many wise and cautious steps of committed public officials (in addition to actions more cavalier and unwise) that give hope and reaffirm a sense of our collective fate.

The importance of nature, and

the dramatic affirmation of its value in our daily lives, is for me perhaps the most striking thing about this challenging period. It is this sense of our collective desire to reconnect with the natural world and the essential balm and salve that nature provides to us. There has been a spike in bird-watching. More and more of us want to visit parks and beaches and to stroll through neighborhoods. We have undertaken a process of collective rediscovery of nature around our homes and in our neighborhoods.

Many of us have been planting vegetable gardens and native flowers in our yards. One of our professors here at UVA created a [makeshift church in his backyard](#) as a place to worship on Sundays. We have all returned

to worship at the altar of nature, in a way. I am hopeful that these tangible and meaningful acts of renewal and commitment will carry forward in important and meaningful ways.

There have been numerous reports of how nature has taken over spaces left unoccupied by humans. For many, this has provided some glimpse of what the world might look like without us, and for others it is practical and clear evidence of how quickly we might be able to rewild the spaces around us. The animals have always been there of course and our new observations are partly a result of having the time to watch and listen in ways that we have not in the past. Perhaps the sense of delight and surprise at the reappearance of wild nature

in our cities and communities can serve as a springboard for new efforts at coexistence with and conservation of urban biodiversity.

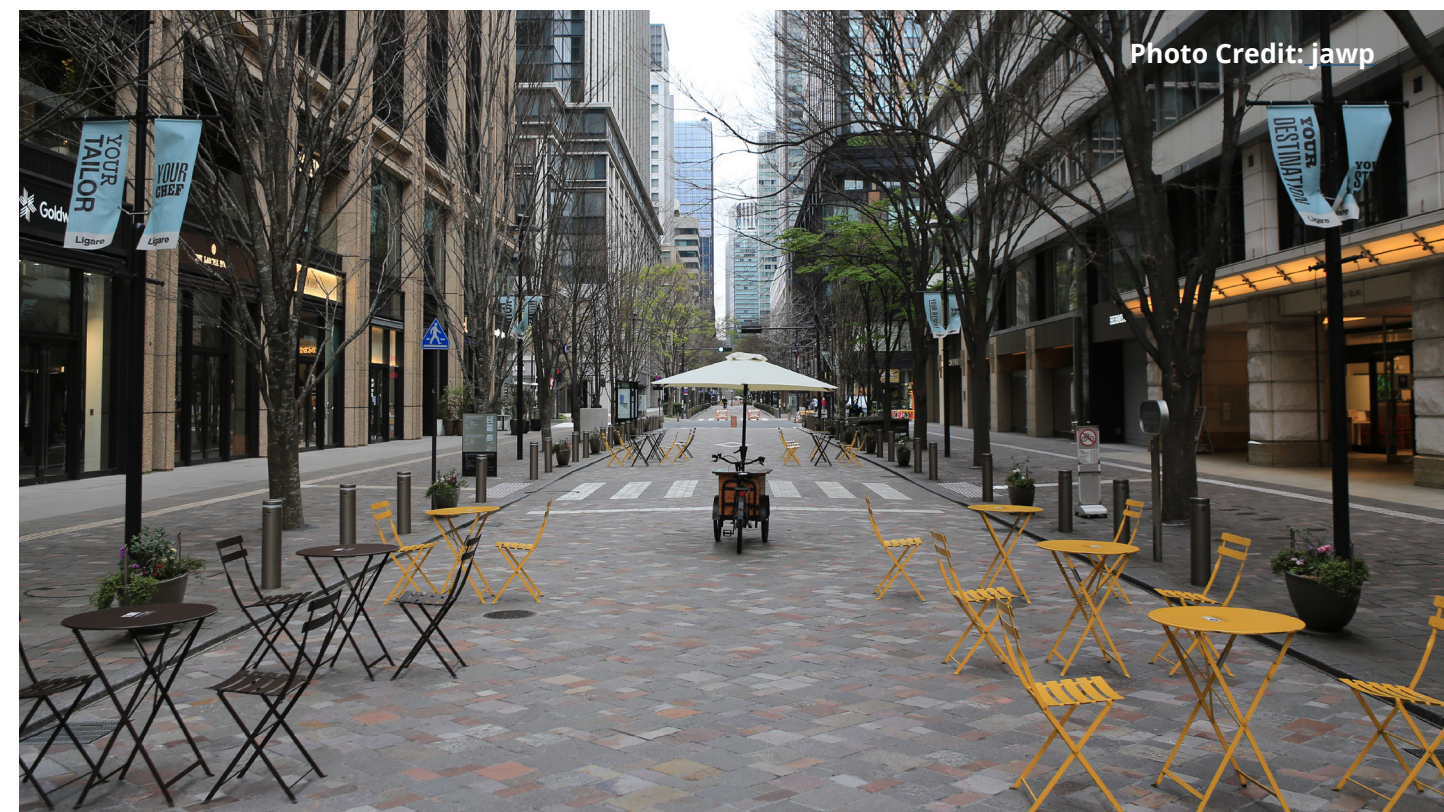
The pandemic has given another kind of connection as the usual noises of cars and planes and cities have, at least briefly, been muted. We are hearing things that we have not heard before or as clearly in some time -- birdsong to be sure, but also the sounds of rushing water in nearby streams and rivers, the rustling of trees, the natural background soundscapes of our cities that remind us that we are not alone and are a kind of natural music we should work to protect. It is the "subtlety of life around us," says soundscape ecologist Bernie Krause, in a [recent interview with NPR](#). At precisely the moment in history when we seem to be doing the most to destroy and

speed its unraveling, we are rediscovering nature as a steady and basic element in our lives unlike anything else. As the pandemic unfolded in North American spring, we found solace in the sight and sounds of birds and in the billions of our fellow soul mates doing what they have done for millennia, migrating and getting ready to reproduce and continue life that has existed for them since they evolved from dinosaurs.

I find many things to be thankful for during this period of lockdown, but many worries as well. In addition to the ability to see, hear and visit nature, I have the blessing of family to share these experiences. But I find myself wondering about the toll of social isolation and loneliness, something already on the rise before the pandemic. A [2018 Cigna study](#) (oft cited recently) found that nearly half of 20,000

respondents reported sometimes or always feeling alone or left out. I can only imagine the pain of isolation, especially for those without the ability to sit on a porch, plant flowers or visit with relatives. The high-mortality rate of the virus in nursing homes is one of the most depressing aspects of the pandemic: I can only imagine the sense of despair and loneliness that many residents, in the final days, experienced.

Another aspect of the natural experiment that we are in is our newfound competence as a species on Zoom. I am not convinced, despite our competence, that Zoom delivers anywhere near the level of connection we want and need and is certainly no antidote to isolation. Nature must surely be part of the answer of course, and I have begun thinking of the various critters that co-occupy my



Charlottesville space as members of the family: the chipmunks and squirrels, the occasional fox, and especially the birds. Several days ago, we watched with pride the arrival of a fledged bluebird chick, attended to warmly by her parents. We did nothing in fact to justify the pride but it was there along with a sense of wonder and beauty; one small moment of constancy in the otherwise chaotic lives we have been leading.

The importance of being able to see nature from the inside of our homes during lockdown, to be able to open windows, to spend time on a deck or balcony or a rooftop, as well as to bring more abundant nature inside, are important lessons as well. There has been a growing and useful discussion about how the pandemic will change the design of homes. More attention to natureful interior spaces is likely, as more people will continue to work from home after the pandemic ends (with a profound rethinking of office environments being another necessary result). The pandemic seems clearly to have [elevated the importance of biophilic design](#) generally and this has been heralded in a number of news articles as a trend that is gaining in strength.

Many local governments have admirably risen to the occasion by taking steps to open-up more public space for walking, biking and (with social distancing) some level of social interaction. There has been an exemplary level of openness and nimbleness in their planning responses. The many clever ways that local

governments are balancing public safety while ensuring contact with the world out of doors have been impressive: parks that accommodate one-way hiking and strolling; and the closing of streets to car traffic such as the closing of JFK Drive in Golden Gate Park in San Francisco and the creation of a network of 74 miles of slow streets in Oakland, along with the efforts of many other cities. Urban spaces everywhere it seems are being reallocated from cars and parking to strolling, new bikeways, and outdoor eating. Several cities have already announced that these changes will continue permanently after the pandemic subsides and we may be on the cusp of generational changes in the spatial priorities of cities. One of the key lessons from this time is the critical importance of a robust and diverse network of [urban trails](#), pathways, alleyways, streetparks and parklets, and as yet to be named informal spaces for being in and moving through cities. These are key ways to be outside and to be enjoying nature.

One of the indelible memories we may all carry with us from the pandemic were the [reports from Italy of the nightly balcony singing](#). An important way of connecting, and a response to the perils of loneliness to be sure, they made me appreciate and think a bit more about how those kinds of intermediate or edge spaces (balconies, front stoops and rooftops) help to bridge the inside and outside worlds and can be so essential in times like these. They are places to see and

be seen, to gaze at the lights below and beyond, to realize you are not alone, and hopefully to connect with the natural world through birdsong or the cultivation of gardens.

Another outcome of the pandemic has been a sense that we need major reforms to the supply lines that sustain us; indeed, the entire metabolism of our cities and communities needs reform. Shortages of eggs and flour have led to a resurgence of interest in backyard coops and local growers and producers. A highly dysfunctional, and quite inequitable, food supply became evidence as we saw (and see) unbelievably long lines at food banks on one hand and stacks of siloed potatoes and dumped milk on the other. There are already signs of change -- a sharp increase in CSA subscriptions is one, along with discussions everywhere about the need to protect farmland and [support struggling small farms](#).

The pandemic has demonstrated vividly the deep inequalities that exist in American societies as black and brown citizens have borne a disproportionate share of the burden -- experiencing greater vulnerability to the virus and dying at much higher rates than whites. The impact of pre-existing structural inequality and racism have been evident everywhere, including in the reality of fewer places to safely walk or bicycle in minority and lower income neighborhoods, fewer nearby parks and greenspaces to enjoy, fewer trees, and fewer resources overall with which to weather this crisis.



Greenmount West Mural, Baltimore
Photo Credit: Eli Pousson

Evidence has been mounting about the ways in which access to nature and the benefits of nature is impacted by long-standing discrimination. Several recently published papers have, for instance, come to similar conclusions about the lasting effects of redlining in our cities. [Lack of tree canopy cover is highly correlated with the redlining maps](#) of the HOLC (the federal Home Owners Lending Corporation), showing how these racist and discriminatory policies have had lasting effects, depriving communities of color of fair and equal access to nature.

In February, before the unfolding of the pandemic, I had the chance to participate in a wonderful conference organized by our colleagues at the Phipps Conservatory in Pittsburgh.

One of the most compelling presentations was by Kim Moore Bailey who heads the national nonprofit [Youth Outside](#). "Equitable access [to parks] is not enough," she told us. If the parks and green areas nearby are not welcoming, if you do not feel safe visiting them, then physical access or proximity is simply insufficient. If you are in fear of harassment or arrest or physical violence then what good is a nearby park?

These injustices were further highlighted by the George Floyd murder in Minneapolis in late May and the gut-wrenching protests that have swept up our country. It has been a moment of unusual clarity about the cumulative injustices experienced by communities of color. This history of racism and discrimination is interwoven

with enduring and present inequalities in the access to parks and nature and more generally to the safe and livable communities we all need, want and deserve. We will never truly reach the vision of biophilic cities without redressing these inequalities and the underlying racism behind them. We can must hope that change will result; but more, we must convert this hope into action.

In the months prior to the onset of the pandemic, we have seen our Biophilic Cities Network and community achieve some wonderful milestones. Many of us were able to travel in October to Singapore to participate in what was the first face-to-face meeting of the Network since its launch in 2013. We have had some wonderful new additions to the Network, including

Arlington County and the cities of Richmond and Norfolk. Each of these jurisdictions has a stellar record of connecting with nature and offering special lessons and insights.

Arlington has been a progressive leader when it comes to all things green, from bicycles to transit to green building. Notable in Arlington is a new [Public Spaces Master Plan](#) that includes specific reference to Biophilic Cities. The plan contains the important goals of strengthening the county's existing network of spaces along with creating new kinds of spaces, notably "casual use spaces" defined in the plan as "spaces that are intentionally designed to support casual, impromptu use and connection with nature" (precisely the kinds of spaces most needed during periods of lockdowns and

quarantines).

Richmond is unusual for its urban wildness, and its continuing efforts to connect residents to the James River. The innovative [James River Park System Master Plan](#) has led to new ways for residents to connect with water, including the new T. Tyler Potterfield Memorial Bridge for pedestrians and bikers. Norfolk similarly interacts with water and wildness in its existential need to plan for and adapt to coastal flooding and long-term sea level rise. Norfolk is a leader among cities seeking to accommodate sea level rise and has adopted a pioneering long-term plan and an innovative resilience-based zoning code to accomplish this. As this story unfolds, Norfolk will likely show how biophilic design and planning can at once help to strengthen connections to nature

and make a city more resilient.

How cities will change as we move beyond the global pandemic is hard to know, but I am hopeful that we use this period as a springboard to further renew our vows to nature. Again, the many steps that cities have taken (and are taking) to facilitate enjoyment of outdoor nature are impressive -- from designating slow streets in Oakland to new bicycle routes in Bogota to new car-free spaces in many cities, from London to Mumbai. There is a momentum here and level of attention to these issues that we must build upon. There is a growing sense, and resulting productive discussion, that to avoid future pandemics we will need to radically change our relationship with the natural world; global deforestation, biodiversity loss,

and of course climate change, can no longer be shrugged off. [Jane Goodall in an interview with PBS](#) spoke eloquently of the deeper lessons of how we must readjust our relationship with nature; how we must protect and cherish it, and work to curtail such things as animal trafficking and so-called wet markets that seem to be the primary source of such deadly viruses. The pandemic is a visceral and powerful demonstration of how we are all interconnected, she wisely says.

Combating a virus requires a coordinated international effort, but also so does climate change and biodiversity conservation. The bushfires in Australia seem a lifetime ago but also contributed to this sense of interconnection, as many of us grappled with the emotional and heartbreaking images of koalas, wallabies and other animals trying to escape the inferno. There was a sense of shared pain but also a sense of helplessness at things happening so far away and seemingly so far outside of our own control.

I am hopeful that the period of tumult we are in will strengthen our resolve for change. Cities especially will need to lead the way and the vision of biophilic cities is now more salient, relevant and compelling than ever before. The collective work will need include many steps to ensure abundant, nearby nature, and increasingly must be bolstered by actions that cities can take (politically, economically, and legally) to work to protect nature around the world. Part of this must involve efforts by

cities in the global north to take responsibility for the impact of their resource demands and large ecological footprints. Efforts at effectively blending and merging the agendas of global conservation with more local urban greening and biophilia will be critical moving forward.

Against the backdrop of the terror and depression these times evoke, is again the hopefulness of the many impressive things underway and the sense that change, in the direction of more natureful and just cities, is in the offing. In this issue, we shine a special spotlight on the efforts that concern trees in and near to cities. Few things in nature offer more hope, beauty and meaning than trees. And few things are as reassuring as gazing at a tree that has provided continuity, stability and commitment to the health of the larger community of life.

Resources:

Arlington County Public Spaces Master Plan (April 2019). <https://projects.arlingtonva.us/plans-studies/comprehensive-plan/public-spaces-master-plan>.

Tim Beatley (Jan. 31, 2016). The Value of Urban Trails. *The Nature of Cities*. <https://www.thenatureofcities.com/2016/01/31/the-value-of-urban-trails>.

Jeffrey Brown and Anne Azzi Davenport (April 22, 2020). Jane Goodall on animal-human interconnectedness amid the pandemic. *PBS*. <https://www.pbs.org/newshour/show/jane-goodall-on-lessons-from-the-pandemic>.

Cigna Corporation (May 1, 2018). New Cigna Study Reveals Loneliness at Epidemic Levels in America.

<https://www.cigna.com/newsroom/news-releases/2018/pdf/new-cigna-study-reveals-loneliness-at-epidemic-levels-in-america.pdf>.

City of Richmond (Sept. 26, 2019). James River Park System Master Plan. https://www.richmond.com/james-river-park-master-plan/pdf_c2253482-540d-11ea-9032-2beb7639132b.html.

Jeremy Hoffman, Vivek Shandas, and Nicholas Pendleton (Jan. 13, 2020). The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas. *Climate*. 2020: 8(1). <https://www.mdpi.com/2225-1154/8/1/12/html>.

Tim McKeough (May 5, 2020). Cooped Up Indoors? There's a Reason You Don't Feel Well. *The New York Times*. <https://www.nytimes.com/2020/05/05/realestate/sheltering-house-plants.html>.

Karen Stabiner and Don Barber (May 18, 2020). Nearly a third of small, independent farmers are facing bankruptcy by the end of 2020, new survey says. *The Counter*. <https://thecounter.org/covid-19-dan-barber-resourced-small-farmer-survey>.

Vanessa Thorpe (March 14, 2020). Balcony singing in solidarity spreads across Italy during lockdown. *The Guardian*. <https://www.theguardian.com/world/2020/mar/14/solidarity-balcony-singing-spreads-across-italy-during-lockdown>.

Matt Weber (April 9, 2020). My Church Is Closed, So I Built My Own. *The New York Times*. <https://www.nytimes.com/2020/04/09/parenting/easter-church-kids-coronavirus.html>.

Abby Wendle (April 14, 2020). Human Life Is Literally Quieter Due To Coronavirus Lockdown. *NPR*. <https://www.npr.org/2020/04/14/834460094/human-life-is-literally-quieter-due-to-coronavirus-lockdown>.

Youth Outside. <https://youthoutside.org>.



T. Tyler Potterfield Memorial Bridge
Photo Credit: Nicholas Seitz