the sycamore gap tree—one tragedy among thousands

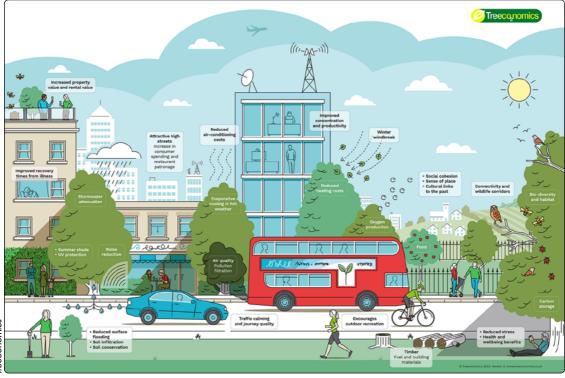
Heather Rumble, Dean Bell, Adam Cormack, Kenton Rogers and Danni Sinnett consider the need for greater protection for our urban trees and our old trees of special meaning and value



The Sycamore Gap tree near Hexham in Northumberland, before it was felled

Soon after davbreak on 28 September 2023 a collective gasp rang out across the British Isles. Under the cover of darkness, a devastating crime had been committed: a single tree, living in a small gap in Hadrian's Wall, had been felled in the night. The outpouring of emotion that followed was palpable. Media crews rushed to the remote spot in Northumberland National Park. The telephones of tree experts and notable enthusiasts rang all day as iournalist sought guotes. People trawled through photo albums and Facebook looking for a last picture taken of the spot—'We were there just months ago'; 'We could have been some of the last people to see it'; 'We decided to get married there'; 'We were there in 1967 with our grandparents: the World was so different then'.

The felling of the Sycamore Gap tree¹ was a terrible event. It was also a moment for reflection. We know that trees are good for us: they cool our cities in summer,² they purify our air,³ they absorb carbon, and they support a myriad of species that we rely on for survival (native oaks alone support more than 2,300 other species⁴). We also know that they benefit our mental and physical healthfor example, time spent in natural surroundings reduces inflammation,⁵ reduces cortisol levels⁶ and makes the symptoms of depression, anxiety, ADHD⁷ and dementia⁸ more manageable. Trees are a vital components of the natural world, their leaves and branches making up the all-important 'natural fractals' (irregular shapes that we find in nature) that benefit our brains.⁹



The benefits of trees

But the furore around the Sycamore Gap felling has demonstrated that our need for trees might run deeper than we think. They form part of our cultural landscape. They are a backdrop to our important life events. They form the character of places that have meaning to us. They connect us to our past and help us to celebrate the future. They help us to identify the changing of the seasons. They are a landmark, helping us to punctuate time and space to create meaningful events and places.

For those of us surveying trees in cities, hovering around a tree with a clipboard inevitably sparks attention from someone in the neighbourhood. Before a tape measure has even been drawn, there is often a shout from a nearby window: 'You're not going to chop that tree down, are you?'—depressing that an official with a clipboard appears to signify the destruction of a tree, but enlivening to witness people's passion for, and defence of, trees.

It is no wonder that a clipboard is a worrying sight for nemophilists (tree lovers!). Recent events in Plymouth,¹⁰ Sheffield¹¹ and Tooting (the 'chainsaw massacre')¹² have highlighted that, as important as trees are in our landscape, the funding and protection that they need to be able to persist, especially in urban areas, often are not there. While heritage buildings, battlefields and ancient monuments can be, and often are, protected by law, we have no specific mechanism for protecting our oldest and most special heritage trees—and we should not forget that it is these older, larger-canopy trees that often provide the greatest benefits. Nor can we protect trees that have special, cultural meaning to us or define the neighbourhoods in which we live.

In Poland, around 30,000 trees are legally protected as natural monuments, ¹³ in recognition of their cultural value and driving their active conservation. In Italy, a similar law protects 22,000 monumental trees.¹⁴ No such protection exists in the UK, even though the Woodland Trust's Ancient Tree Inventory¹⁵ now lists 180,000 trees, including 20,000 verified ancient trees, that would benefit from legal protection.

Tree Preservation Orders (TPOs) can be granted by local authorities, resulting in fines or even prison sentences for people damaging or cutting down trees. But TPOs cover a tiny proportion of trees in most places; many of us have witnessed community groups planting trees on their land (as is their right), only for a neighbour to cut them down in the night or poison them with weed killer. Although such vandalism is illegal, in reality little recourse is available to these groups. TPOs are also difficult to action, with objectors able to overturn them within the first six months of the granting of the initial temporary order and the grant of planning permission for development trumping a tree's protected status.¹⁶

Major infrastructure projects could do better too: thousands of trees have been felled to make way for HS2, many of which have not been accounted for within the project's 'no net loss' methodology.¹⁷ This means a reduction in the amount of compensatory habitat creation that is required of the project. While there are ambitious tree-planting targets in many UK cities and ambitious rewilding projects outside of cities, there is clearly a widespread attitude that one tree is replaceable by another, regardless of its age or what it means to people.

The veteran Cubbington Pear¹⁸ is a case in point: felled, with the stump moved 100 metres under the HS2 project to re-sprout as a new sapling, its character now completely different and its services to biodiversity diminished. The question—aside from 'who are we to end the life of a 200-year-old tree?'is: will the new pear reach the grand old age of 250 years without proper protection? And there was no guarantee that the moving process itself would be a success: many trees fail to establish once planted or moved,¹⁹ in some cases owing to natural processes but in many others the result of neglect or improper planting. A focus on planting numbers as opposed to a commitment to tree establishment frequently results in planting efforts going to waste, with trees dying by the roadside as a result of a lack of appropriate aftercare.

Furthermore, it is usually the case that responsibility for planting and preserving trees is assumed to rest with local authorities—but they have little control over trees in the private realm, which is where the majority of urban trees are found. Many of these trees are being lost to development or the changing preferences of households. Development has hitherto overwhelmingly failed to consider trees, and will have to be more mindful in light of the new Biodiversity Net Gain requirement.²⁰ However, the view that 'one tree is as good as another' still largely prevails: sometimes a mature tree is felled only for a new tree to be replanted mere metres away from the site of the lost tree.

Within domestic settings, the conversation seems almost taboo. A person's home is their castle, regardless of the fact that private gardens collectively form a large proportion of a city's footprint and have impacts on the wider landscape. Even in London, private gardens make up a guarter of the city's land mass.²¹ According to the *Trees in Towns II* report,²² 'Two thirds of all trees and shrubs were on private property (mainly in gardens) or on less accessible public land (e.g. schools, churchyards, allotments, etc.)'. Although these trees are often smaller, they are usually more diverse and in better condition than those on public land.²³ They have a significant impact on city-wide ecosystem service provision, urban biodiversity and the wellbeing of our neighbours. But never make the mistake of falling in love with a neighbour's tree...

So what is being done to reverse the plight of the urban tree? The Woodland Trust is campaigning hard to ensure proper protection for trees, seeking support from the public as well as from politicians. More than 70,000 people have signed its Living Legends petition,²⁴ which calls for legally protected status for our oldest heritage trees.



Cherry Tree Walk-but not a tree in sight

In terms of the broader urban forest, 41% of local authorities now have publicly accessible tree strategies²⁵ that form the basis for long-term, sustainable urban forest management, helping curb unnecessary tree removal and prioritising planting in areas of need. Torfaen County Borough Council's 'Branching Out' project,²⁶ part of its tree strategy, is a great example, adding public engagement by asking residents to identify areas in which they would like to see more trees planted, creating social buy-in on public (and private) land.

New tools are also strengthening such strategies and ensuring that trees are established in areas of most need. We know that lower socio-economic status areas are also the areas in which trees are most lacking²⁷ and their habitats the least protected.²⁸ In December 2023 a partnership of the Woodland Trust, the Centre for Sustainable Healthcare and American Forests launched the Tree Equity Score UK,²⁹ which combines tree canopy, socio-economic, air and heat pollution data to help identify priority urban areas for increasing urban tree canopy cover for those who most need it. The Tree Equity Score should also help when it comes to starting conversations about community level tree canopy conservation, also engaging those with trees on private property in the conversation.

There are so many dimensions to an urban tree's life that we, as planners, can have an impact upon. With luck and the right conditions, the Sycamore Gap tree will live on in a new form on Hadrian's Wall. But a walk down your local Elm Street, Almond Close or Oakland Drive will soon tell you that our urban trees rarely have that opportunity.

• Heather Rumble, Dean Bell and Danni Sinnett are with the Centre for Sustainable Planning and Environments at the University of the West of England, Bristol. Adam Cormack is the Head of Campaigning at the Woodland Trust. Kenton Rogers is a chartered forester and Co-founder of Treeconomics. The views expressed are personal.

Notes

- See S Jagger: 'Sycamore Gap tree at Hadrian's Wall cut down by 'vandals''. BBC News, 28 Sept. 2023. www.bbc.co.uk/news/uk-england-tyne-66947040
- 2 MA Rahman, LMF Stratopoulos, A Moser-Reischl, et al.: 'Traits of trees for cooling urban heat islands: A metaanalysis'. Building & Environment, 2020, Vol. 170, Mar., 106606
- 3 P Mei, V Malik, RW Harper and J M Jiménez: 'Air pollution, human health and the benefits of trees: a biomolecular and physiologic perspective'. *Arboricultural Journal*, 2021, Vol. 43(1), 19–40
- 4 RJ Mitchell, PE Bellamy, CJ Ellis and R Langwell Hewison: 'OakEcol: A database of Oak-associated biodiversity within the UK'. Data in Brief, 2019, Vol. 25, 104120. www.researchgate.net/publication/333688021_ OakEcol_A_database_of_Oak-associated_biodiversity_ within_the_UK
- 5 JC Bikomeye, AM Beyer, JL Kwarteng and KMM Beyer: 'Greenspace, inflammation, cardiovascular health, and cancer: A review and conceptual framework for greenspace in cardio-oncology research'. International Journal of Environmental Research & Public Health, 2022, Vol. 19(4), 2426
- 6 C Twohig-Bennett and A Jones: 'The health benefits of the great outdoors: A systematic review and metaanalysis of greenspace exposure and health outcomes'. *Environmental Research*, 2018, Vol. 166, 628–37
- 7 GN Bratman, CB Anderson, MG Berman, et al.: 'Nature and mental health: An ecosystem service perspective'. Science Advances, 2019, Vol. 5 (7). www.science.org/doi/10.1126/sciadv.aax0903
- 8 PCL White, J Wyatt, G Chalfont, *et al.*: 'Exposure to nature gardens has time-dependent associations with mood improvements for people with mid- and late-stage dementia: Innovative practice'. *Dementia*, 2017, Vol. 17 (5), 627–34
- 9 RP Taylor: 'The potential of biophilic fractal designs to promote health and performance: A review of experiments and applications'. Sustainability, 2021, Vol. 13 (2), 823
- 10 See 'Early-hours injunction halts 'despicable' tree felling in Plymouth' *BBC News*, 15 Mar. 2023. www.bbc.co.uk/news/uk-england-devon-64961358
- 11 S Shackle: 'Chainsaws, disguises and toxic tea: the battle for Sheffield's trees'. *The Guardian*, 24 Oct. 2023. www.theguardian.com/environment/2023/oct/24/ chainsaws-disguises-and-toxic-tea-the-battle-forsheffield-trees
- 12 T Steward: 'The Tooting chainsaw massacre: Council spent £80,000 to fell 140-year-old trees'. *The Standard*, 25 Oct. 2017. www.standard.co.uk/news/london/ the-tooting-chainsaw-massacre-felling-of-140yearoldtrees-cost-taxpayer-more-than-ps800-000-a3667356.html
- 13 A Benson: 'Exploring Poland's Natural Monuments Scheme: Protecting old and special trees in law'. Blog entry. Woodland Trust, 18 Nov. 2023. https://ati.woodlandtrust.org.uk/blog/2023/exploringpolands-natural-monuments-scheme-protecting-oldand-special-trees-in-law/

- 14 J Moens: 'See the beautiful, ecologically priceless trees Italy is protecting forever'. National Geographic, 9 Sept. 2021. www.nationalgeographic.co.uk/ environment-and-conservation/2021/09/see-the-beautifulecologically-priceless-trees-italy-is-protecting-forever
- 15 See the Woodland Trust's Ancient Tree Inventory webpages, at https://ati.woodlandtrust.org.uk/
- 16 'Tree Preservation Orders and trees in conservation areas'. *Planning Practice Guidance*. Ministry of Housing, Communities and Local Government, Mar. 2014. www.gov.uk/guidance/tree-preservation-orders-andtrees-in-conservation-areas
- 17 HS2 Double Jeopardy: How the UK's Largest Infrastructure Project Undervalued Nature and Overvalued its Compensation Measures. The Wildlife Trusts, Feb. 2023. www.wildlifetrusts.org/sites/default/files/2023-02/23JAN_HS2_Double_Jeopardy_FINAL01.02.23.pdf
- 18 'Cubbington pear tree sprouts into life after replanting'. BBC News, 27 Oct. 2023. www.bbc.co.uk/news/ uk-england-coventry-warwickshire-67237632
- 19 'A14 Cambridgeshire: 'Large proportion' of million trees dead'. BBC News, 2 Mar. 2021. www.bbc.co.uk/ news/uk-england-cambridgeshire-56254842
- 20 See the Department for Environment, Food and Rural Affairs' 'Biodiversity net gain' website, at www.gov.uk/government/collections/biodiversity-net-gain
- 21 C Smith: A Garden City? Investigating the Changing Anatomy of London's Private Gardens, and the Scale of their Loss. London Wildlife Trust, Greenspace Information for Greater London, and the Greater London Authority, 2010. Available at www.lbp.org.uk/downloads/ Publications/HabitatInfo/LondonGardenCity.pdf
- 22 C Britt and M Johnson: *Trees in Towns II A New Survey of Urban Trees in England*. ADAS UK and Myerscough College, for the Department for Communities and Local Government, Feb. 2008. Executive Summary available at www.townforum.org.uk/press/treesintowns190208.pdf
- 23 A Chambers-Ostler, H Walker and KJ Doick: 'The role of the private tree in bringing diversity and resilience to the urban forest'. Urban Forestry & Urban Greening, 2023, 127973
- 24 See the Woodland Trust's 'Protecting our living legends' webpage, at www.woodlandtrust.org.uk/ protecting-trees-and-woods/campaign-with-us/ tree-protection-campaign/
- 25 KL Hand, H Rix, J Stokes and KJ Doick: 'The creation, content and use of urban tree strategies by English local governments'. *International Journal of Urban Forestry*, 2022, Vol. 44(4), 183–207
- 26 See 'Hundreds of trees to be planted'. News story. Torfaen County Borough Council, 22 Aug. 2023. www.torfaen.gov.uk/en/News/2023/August/22-Hundreds-of-trees-to-be-planted.aspx
- 27 'Tree cover, green space inequalities and deprivation in England'. Webpage. Oxford Consultants for Social Inclusion (OCSI), Dec. 2023. https://ocsi.uk/2023/04/12/ tree-cover-green-space-inequalities-and-deprivation-inengland/
- 28 Local Green Spaces Report 2023: Increasingly Important for Community Well-being and Nature Recovery. CPRE – The Countryside Charity, Oct. 2023. www.cpre.org.uk/news/more-local-green-spaces-butdeprived-areas-still-lacking-our-report-shows/
- 29 See the Tree Equity Score UK website, at https://uk.treeequityscore.org/