

Q&A with Sonja Dümpelmann, Associate Professor of Landscape Architecture at the Weitzman School of Design

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What is the value of a street tree vs other forms of civic infrastructure?

In contrast to other parts of civic infrastructure like lamp posts, bus stop shelters, fountains, water hydrants, and benches, street trees are alive. They grow and change with time. Depending on the species and climate zone, trees also change with the seasons. During springtime in temperate climate zones, it will be relatively easy for casual observers to detect trees' developmental changes even on a daily basis. Cities change color not only through various atmospheric and meteorological conditions, but also through blossoming and leafing trees. Trees' aesthetic provides a lively contrast to cities' inert built structures. Street trees bring life into cities which is not our own, and for this and other reasons they have positive effects on human health. Street trees are valuable for many other reasons as well. They fulfil functions that may not, or, not as easily be provided by other types of infrastructures. For example, they provide shade and can reduce the heat island effect, they filter dust, reduce stormwater runoff, and buffer sound.

During the Civil Rights Movement, the African American community used trees to reclaim the city. Could you talk about how street tree planting became a means for them to reclaim their right to the streets they were living on and to improve their living environment?

In the decades leading up to the 1960s, many inner cities in the US with large African Americans populations were affected by disinvestment, neglect, and disrepair. Decades of discriminatory practices including redlining, restrictive covenants, and outright prejudice had led to segregation, social and environmental injustice—a situation we still witness today. In New York City's Harlem and Bedford-Stuyvesant neighborhoods citizens gathered in block associations to effect positive change in their neighborhoods. In Bedford-Stuyvesant, community tree planting activities began in 1964, the first year of civil rights riots in the neighborhood. The riots were a response to the shooting of a 15-year-old African American student by a white police officer. Ensuing protest rallies led to violent fights between the police and predominantly African American citizens, and to the destruction and looting of stores in Harlem and Bedford-Stuyvesant, further exacerbating a situation in which streets had already been unsafe and littered with trash. Citizens under the leadership of Hattie Carthan planted street trees as a peaceful self-help initiative to improve their living environment. They ultimately managed to draw the mayor's attention to the lack of trees along Bedford-Stuyvesant's streets, and New York City's Department of Parks and Recreation began a tree matching program: for every four trees that a block association planted it would receive six additional ones from the City.

Your work looks at those in power and those subjected to that power; the relationships between social and political processes and landscape transformation. Historically, how has the landscape transformed as a direct result of the type of civil unrest we are currently witnessing?

These past weeks' events have again made very clear that we still need to fight for equal human rights in this country and that social and environmental justice are aspirations, not the reality. Despite *1954 Brown v. Board of Education* and the *1964 Civil Rights Act*, we are still inhabiting a landscape not only shaped by racism, but one in which racism is practiced on a daily basis. Although public parks, like other infrastructures, may have been formally desegregated since the 1950s and 1960s, they have, in fact, often been used to establish spatial barriers between neighborhoods inhabited by different socioeconomic and ethnic groups. Parks have been used to spatialize discriminatory racial practices, and their provision and use are influenced by exclusionary zoning.

While the grassroots movement recounted above inspired temporary positive change, another (design) movement in the 1970s, initiated by architect Oscar Newman, had more ambiguous outcomes. To prevent crime, public housing was to be designed in a way that not only improved residents' place-attachment and identification with their home, but also the ability to self-police and self-surveillance. Creating so-called "defensible space" meant, among other things, designing landscapes that would not prohibit oversight. However, instead of reducing fear and increasing trust, "defensible space" quite literally meant producing a housing landscape of retrenchment. Civil unrest has often led to fear of crime, and as a result, to requests to fell trees because these may be used as hideouts by potential criminals. Rather than designing "defensible space," felling trees or not even planting them, the actual societal causes of fear and mistrust have to be addressed, so that designed landscapes and vegetation can be provided equally and contribute to human health and happiness.

Do you feel that street trees and public space can be used to activate efforts of equality? What are some examples of this?

Yes, I believe that the planning and design of public space, including parks, and the planting of street trees can contribute to combatting social and environmental injustice. However, caution is necessary, as they can vice versa also contribute to exacerbating social and environmental injustice. Access to public parks and recreational facilities has to be provided equally, and the street tree canopy also needs to be distributed throughout our cities more evenly without displacing people and running the risk of green gentrification. Ordinances, policies, and laws have to be instituted to this effect. Although I have laid out above how street trees differ from other civic, or public, infrastructures, they also have to be considered as similar. For example, we make sure that all housing is connected to sewer and water mains (even if the social and environmental injustice occurring with regards to healthy drinking water provision, for example, still needs to be resolved). Similarly, we need to make sure that all housing has access to trees and urban nature. As some street tree promoters put it already in the first half of the twentieth century, "the right to shade trees" is implicit in the equal opportunities for the pursuit of happiness laid out in the Declaration of Independence. Frederick Law Olmsted, often considered the nineteenth century "father" of

landscape architecture in this country, served in public offices himself, and he significantly considered his fledgling profession “a common wealth.”

There is a history of designers initiating urban forestry programs without input from the community. How can designers be more involved when instituting programs?

One of the most important things is to inform people about programs and plans, and to provide people with opportunities to learn, ask questions, and voice concerns and opinions. Designers, urban foresters, and arborists need to explain why they are doing what they are doing. Many NGOs are running, supporting, and promoting tree planting programs, and in many cases, trees in cities are partly planted and cared for by these non-for-profit organizations. These organizations often garner much support for urban forestry. In fact, US cities have a long tradition of private-public partnerships when it comes to urban tree plantings.

What lessons can we, as landscape architects, learn from existing urban tree planting?

One of the more general lessons is that small interventions can lead to big transformations, or, phrased differently, that one can make big changes through small things, or interventions. The simple and single act of planting a tree can make a huge change in people’s lives in a variety of ways.

Regarding specific tree planting methods, planting diverse species is one lesson that was already promoted in the early twentieth century. This will not only increase biodiversity, but it can also help to protect trees against the spread of harmful insects and diseases. It can also make the urban forest more resilient in current times of climate change. Species diversity does not mean that the undoubtedly impressive aesthetic of single-species boulevards needs to be compromised, but it means that it is important to realize an overall species diversity throughout urban areas, achieving variety within a certain uniformity. It also means that different planting patterns could be used. For example, in the early twentieth century, streets were sometimes planted with alternating species. Sometimes streets were planted quite densely at the beginning to quickly achieve certain aesthetic and climatological effects; then, after a certain time period every second tree was removed. Landscape architects, arborists, and urban foresters have been quite inventive in street tree planting in the past. Besides implementing different types of tree surveys facilitating tree protection, planting, and management, they have drawn up street tree master plans for entire cities, districts, and neighborhoods. Investments in sophisticated tree planting design, planting, and management can pay off in multiple ways. As landscape architects have been arguing since the early days of their profession, built structure needs to be planned and designed together with trees, parks, gardens, and other open spaces. Landscape architects need to be equal players on design teams, if not their leaders. Landscape architects’ cross-sectional knowledge can make them predestined to play leadership roles in the design of our built environment.