# Bringing Nature To The Urban Environment

Kenneth W. Betz, Senior Editor

Accessible green space has multiple benefits for cities.

Landscaping, along with green space and public amenities, has been given greater emphasis in urban areas across the United States in recent years and the trend is growing. Europe long had its formal gardens and plazas, and the U.S. has a history of significant parks, but they tended to be separate, sharply delineated spaces. Today, there is an increased effort to integrate green, open spaces into the built environment, noted Alice Shay, urban designer, Cities Practice, BuroHappold Engineering, New York.

"Historically we know there is a long lineage of important landscaping in parks. Central Park, Prospect Park, and Forest Park in New York are gems of Frederick Law Olmstead design, but landscape is essential to this day and it's played important roles in different ways throughout time. Landscape brings light and air to our cities; it brings people together. Landscape and parks are the places where people come and rejoice," Shay said.

"I think in recent years it has only become ever more potent and well understood that all forms of public realm amenities contribute to the livability of cities. It's not just parks but it's also the streetscape, plazas, and the way sidewalks work with the streets. It's little pockets of oasis across the city. It's the way our waterfronts engage both with the water and with developments on the other side. Today there is a full palette of opportunities that planners, designers, and municipal leadership can use to make cities more attractive through the tools of landscape design," she said.

"Especially in cities and urban environments where density is constantly increasing, landscape or hardscape design is often a vital aspect of a project's overall success. For developers, commercial tenants, or residents of a multifamily property, accessible outdoor space is more valued than ever. Whether these areas are at grade, designed as part of wharf structures, built on rooftops, or even planned as central courtyards or atria, they're now seen as a vital aspect of site plans, design visions, and amenity packages that can make a commercial property viable in increasingly competitive markets," agreed James Szymanski, AIA, NCARB, LEED AP, associate, The Architectural Team Inc. (TAT), Chelsea, MA.

"The biggest change we've seen in our cities is recognizing that we need parks and more green space. It's a part of the re-gentrification of cities in general, an effort to create more bike paths, parks, and other outdoor amenities. I believe this stems from the personal needs people have and their desires to connect with nature," said David Fowler, AIA, NCARB, LEED AP, principal and senior designer with three, an architecture firm based in Dallas.

Fowler sees three major factors that directly feed into the desire for better landscapes and public spaces:

- The basic human need to connect with nature.
- The trend toward greening buildings, including the recent interest in green walls and green roofs. These elements introduce nature into the building and facilitate the landscape interconnecting with buildings. Whether it's on rooftops or on the ground, trees and plantings help reduce the heat gain of cities. Trees are a major factor in reducing the urban heat-island effect.
- Scale: Trees and landscape elements help break down the scale of large buildings and high-rises in the urban environment, creating a more human scale as city dwellers transition from the outdoors into their buildings. The same is true in suburban settings and even resorts.

As an example, the Cap Rock Members Club Complex for the Horseshoe Bay Resort, 45 min. west of Austin, TX, designed by three, offers an example of how reorganizing a site by working with the existing environment can create a sense of discovery and union with nature, Fowler related. "For this four-building, 20,000-sq.-ft. new complex on an existing site, we worked with our landscape architect partner, Coy Talley with Talley Associates, Dallas, to deal with the fact that there was no memorable or impressive progression into the site from the main road. In fact, the entrance of the clubhouse and pool was approached through a parking lot, which was far less than ideal," Fowler said.

"In hospitality architecture, we're always trying to create a sense of discovery while arriving, whether it's a resort, golf-club complex, or even an urban environment. That's how we begin to connect emotionally with people and create a memorable experience and destination. The connection starts at the property line, and sometimes before," he explained.

"So at Cap Rock, we rerouted the entrance and arrival sequence of the site, which was the biggest move in renovating the site. Sequence of

Romare Bearden Park, Charlotte, NC, inspired by Charlotte-born artist, Romare Bearden, provides space for urban recreation and gathering in the heart of Center City and is a catalyst for economic development in Uptown Charlotte. *Photo: courtesy LandDesign*

The Cap Rock Members Club Complex for the Horseshoe Bay Resort, designed by three, offers an example of how reorganizing a site by working with the existing environment can create a sense of discovery and union with nature. *Rendering: courtesy three*

arrival and progression through the site is the most important role of the architect, planner, and landscape architect working together on a project. Landscape architecture's biggest value is contributing to the master planning of the site," he continued.

"For Cap Rock Members Club Complex, we completely reimagined the entrance to the site and the entire routing to the clubhouse, which allowed us to create a safe drop-off golf zone where people could drop off their clubs in a relaxed and comfortable environment that defined the golf arrival. Previously, the site was confusing and unorganized, let alone delivering that sense of discovery and wonder that make places special. So, from a planning standpoint, that's where the public area and landscape architecture have the biggest influence in a commercial and landscape setting," he said.

"A strong public realm is crucial to the success of commercial developments, and to cities themselves," according to Donald Clinton, AIA, MRAIC, LEED AP, partner, Cooper Robertson, New York. "Our work has been intimately tied to these ideas and issues since our very first project at Battery Park City 40 years ago, where we planned a Manhattan neighborhood from scratch with an emphasis on public space and street networks that responded to the surrounding urban fabric."

"Today, those ideas have become core principles of good urbanism, and we see them taking hold more and more," Clinton said. "In Mississauga, Ontario, a formerly suburban community outside of Toronto, Cooper Robertson recently took the city's concept for densifying their emerging downtown and tied that plan to almost two acres of open space that link to the historic Mary Fix Creek Greenway. A key component of Mississauga's long-term urbanization goals, the plan sets the stage for intelligent growth with a pedestrian-friendly network of streets and parks connected to a planned light-rail line serving the downtown core."

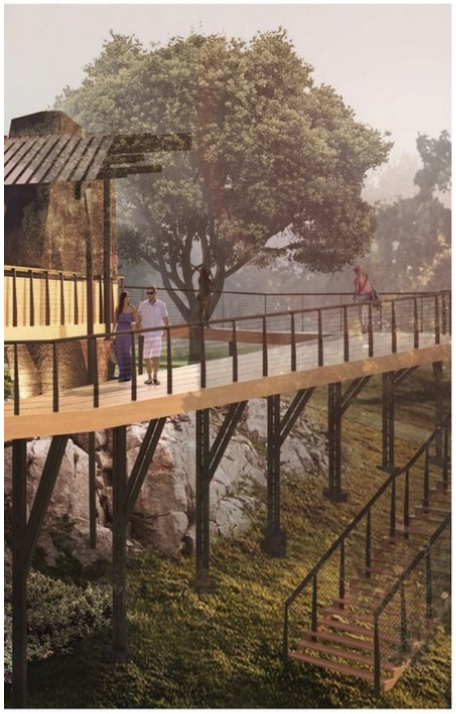
## BENEFITS OF LANDSCAPING

The benefits of landscaping are numerous and increasingly recognized. "Landscape is tremendously important to commercial developments and cities, perhaps in different ways. For cities it may be the most significant public space available to residents, parks, and green ways, for example. It provides places for recreation, shading, and gathering, but, equally important, provides visual relief. Humankind benefits from a connection to nature. Landscape may be softscape, hardscape, or even water features, but all provide different critical functions, including practical ones such as storm-water management, cleaning the air, preventing heat islands, providing acoustical benefit, whether by letting sound escape or providing the soothing sound of water in an urban park to drown out urban noise. It can also encourage birds and wildlife to co-exist with humans and aid the migration of birds, butterflies, or bees for pollination. For commercial developments, it can have many of the same benefits," Andrew Franz, AIA, LEED AP of Andrew Franz Architect, New York, observed.

In addition, local zoning ordinances often dictate a minimum amount of open space, so their design becomes an integral part of the entitlement process. "These areas bring tangible benefits for cities, since incorporating landscape design into a storm-water management system lessens the burden on the municipal drainage infrastructure. Similarly, reusing storm water can also lower a project's water usage, greatly reducing the larger environmental impact," said TAT's James Szymanski.

He continued, "From a user perspective, developments with exterior program space bring numerous benefits, too. Shared gathering areas with access to fresh air and natural light create a healthier environment, both physically and psychologically. At TAT, we work to incorporate these principles of biophilic design whenever possible. For example, at our Fenway Center project, a large-scale, multi-phase, mixed-use development in Boston's urban core, the design emphasizes a connection between the outdoor amenity spaces and the interior environment.

"Working closely with the developers of Fenway Center LLC (a joint venture of Gerding Edlen, Boston, and



**Above.** The High Line is a 1.45-mi.-long elevated linear park, green way, and rail trail created on a former railroad spur on the west side of Manhattan. The defunct rail line created an opportunity for new public space where there wasn't any. BuroHappold Engineering, James Corner Field Operations, and Diller Scofidio+Renfro created a masterplan for the reuse and reintegration of the railroad. *Photo: Eric Soltan, courtesy BuroHappold*

**Below.** The 12-acre Clippership Wharf, designed by The Architectural Team (TAT), sits along the Boston Inner Harbor, offering sweeping views of the Boston skyline from Charlestown to South Boston. The plan calls for outdoor amenities, including a Harborwalk, beachfront area, and floating dock where pedestrians can launch kayaks—and where neighbors can be reintroduced to a natural shoreline. *Illustration: courtesy The Architectural Team*

Meredith Management, Beverly, MA), we created key outdoor program elements including roof decks on both of the buildings in Phase 1, with spaces for swimming, cooking, dog walking, and general gathering. On one of the buildings, we also found a way to pull the exterior into the top-floor indoor amenity space by creating a glass-enclosed atrium," Szymanski said.

"Interacting with the landscape reduces stress and increases productivity," according to David Fowler of three. "When people are inhabiting a building, what they see looking out onto a landscape is as important as traveling through the landscape to get in the building. Whether it's looking into courtyards or taking a break and going outside, or just the ability to see the landscape and the connection to sunlight outside, all of that plays a big factor in how people experience places."

From a practical perspective, landscaping and plantings can be used to hide the parts of buildings that we don't want to highlight, back-of-house elements such as utilities, loading docks, and the like. In these zones, landscape offers a practical use in screening and softening the appearance," he said.

"From a zoning standpoint, there are almost always requirements associated with landscape in a city environment. Most cities now require a certain number of trees, and caliber of trees, and list minimum streetscape requirements," Fowler added.

Additionally, there are meaningful health benefits that come from open, green spaces. "The British author and neurologist Oliver Sacks wrote that he saw the mental health benefits of nature be the only truly effective environmental therapy, and this is something we think about in all urban-design projects," Cooper Robertson's Donald Clinton remarked.

"Landscaping and a welcoming public realm are especially important in the healthcare sector, where green space is proven to have a positive impact on patient health and wellbeing," he elaborated. "Cooper Robertson's research campus plan for the Children's Hospital of Philadelphia, for example, takes advantage of a unique riverfront site to create nearly three acres of landscaped open spaces that support approximately 2-million sq. ft. of mixed-use development, offer connections to the existing Schuylkill River Trail, and tie this new campus to the adjacent historic South Philadelphia neighborhood. Design features such as flexible seating and children's play areas flank an open plaza that can host special events. The result is an uplifting environment where linked public spaces provide amenities for the campus users as well as the community at large.

"From the perspective of ecological and environmental impact, we see a whole new level of design opportunity for urban spaces. From a growing awareness of urban heat-island effects on energy consumption, to greater understanding of the cost and environmental tradeoffs for how storm water is managed, well-designed open spaces offer tremendous environmental benefits for urban


**Top.** Cooper Robertson transformed the historic Miracle Mile shopping district in Coral Gables, FL, into an experiential, pedestrian-oriented setting. The project started with a new approach to capturing rainwater, using it to naturally irrigate the intensive native planting that now makes this shopping street into a tropical-garden experience. *Photo: courtesy Cooper Robertson*

**Above.** Some of the most interesting examples of placemaking come from unexpected urban areas. Cooper Robertson's work at The Park Las Vegas devised an open, accessible, and free park environment on The Strip. The venue features retail, dining, and entertainment attractions framed by a lushly landscaped setting with water elements, outdoor dining terraces, and informal performance spaces. *Photo: courtesy Cooper Robertson*

areas of all scales. At the Children's Hospital of Philadelphia, our work supports the resiliency of the site and the neighborhood in the event of flooding. The design plans for the collection, conveyance, and retention of 85% of the storm water that hits the site, through a combination of green roofs, rain gardens, and underground cisterns that are expressed as landscape features," Clinton said.

## ACTIVE DESIGN

"Active design recognizes the physical and psychological health benefits to engaging people in activity, whether climbing stairs, biking to work, walking between buildings on campuses, or playing ball in the park outside one's office, and landscape design is the best vehicle to provide and encourage these activities," said Andrew Franz of Andrew Franz Architect.

"Municipalities are encouraging active design as a way to create a higher quality of life for residents. Active people are healthier and happier people as proven by decades of study. Good planning and landscape that encourages active living can reduce the risk of chronic diseases, reduce stress, and improve persons' sense of well being. More active people mean fewer cars and congestion, less pollution, and healthier citizens, thus creating a self-reinforcing cycle of improved quality of life. Happier and healthier employees that have less stress benefit employers and reduce turn over," Franz said.

"The American Society of Landscape Architects (ASLA), Washington, spearheaded a study on the value of tree canopy with the goal of designing a model that would demonstrate the economic value of a mature tree and the benefits of that tree to the streetscape. That's not something typically considered in anyone's bottom line. You can focus on minimizing costs with smaller trees, or focus on placemaking and incorporate mature trees that enhance the aesthetic and social value of the project, but at the end of the day, there is hard data that nature enhances our lives. Designers all over the world are becoming mindful of this," noted Gabriela Cañamar Clark, PLA, principal, LandDesign, Alexandria, VA.

## PLACEMAKING

Landscaping is central to urban planning and placemaking. "Landscape architects are the authors of what happens in the fabric of a city in between the buildings. The definition of placemaking is making a place, but in reality, placemaking is made by people. If a place doesn't feel inviting, then people won't use it, and it won't come alive in the way it was intended. The first step in the design process is to understand the various spaces in the public realm, their mission and goal and social and physical context. Responding with the right approach ensures we are creating a place where people want to linger. As landscape architects, we prepare the canvas for placemaking to happen, whether organically or programmed," Clark said.

In addition to placemaking, "in the private sector, it's all about the brand of the place, and if projects have a strong identity in the marketplace their chances of being successful are higher," Clark reflected. "As designers, we help translate that brand through signage, passive and active public art, and curated gardens, among other components. There is a gradient of experiences that can be incorporated into a project's design. That's where landscaping and placemaking can add another layer to what the developer is offering," she said.

For TAT's James Szymanski, "Landscape architecture is often what connects a building to its environment, as well as to its history. At Lovejoy Wharf, a reimagined historic waterfront complex in Boston, TAT's adaptive reuse and renovation created a new headquarters for clothing-brand Converse–and the design emphasized outdoor program elements to take advantage of the project's unique location. A former industrial warehouse, the project is located directly on the waterfront where the Charles River meets Boston Harbor–once an ideal location for shipping of materials. Adjacent to the Leonard Zakim Bridge, Lovejoy Wharf is visible to thousands of commuters every day as they enter the city of Boston from the north, so connecting the building to this urban context was key in creating a true destination.

"Our design opens up the ground floor to a 30,000-sq.-ft. multilevel landscaped wharf that pays homage to the historic wharves that were located on the site. The 10th floor includes a roof deck that spans the entire length of the building overlooking the wharf below, as well as the Bunker Hill Monument in the distance. These outdoor spaces serve a true placemaking function, creating a desirable

amenity for tenants while also turning the entire site into a popular public destination," he said.

In David Fowler's view, "from a placemaking perspective, architects and landscape architects approach design with the desire of creating a strong sense of place. We always think of the landscape as creating "rooms" in the outdoor environment, and architects see that as part of sculpting space to create a welcoming, enjoyable progression into the building. Outdoor rooms can include amphitheaters, covered areas such as pergolas, courtyards, and the like, all of which contribute to creating a sense of place. Much like we do inside a building or when designing a resort, it's all intertwined. For example, when we work on a resort, we are working congruently with the landscape architect to sculpt places outdoors. It's an integral process."

"Open spaces integrated into urban projects knit large developments together and tie those developments to the surrounding city fabric. The value-creation importance of well-designed open spaces is a proven matter, from Central Park to the Seagram Building, it works at all scales. At Manhattan's highly anticipated new Hudson Yards development, Cooper Robertson's foundational master plan proposed a new linear park threading through eight blocks of west Midtown, linking to a major new open space that ties the district to the Hudson River. That master plan vision was then formalized as zoning, and has guided the wave of new development that now extends from the High Line to 42nd St.," Donald Clinton said.

"Landscape architecture improves the everyday experience and creates landmarks from which to orient oneself. I would say its role is to connect and direct people by providing places to gather, whether that means plazas or playgrounds, winding paths, or fields for picnics, sports, or outdoor concerts. It's providing opportunities and encouragement for people to safely walk and commute without cars," noted Andrew Franz of Andrew Franz Architect.

Overall, the trend in urban landscape is greener, with a nod to open spaces and places to sit, gather, or just take in the sights. Few would disagree that it's a welcome improvement. CA

**DATA CACHE**

Sources listed below are linked at **commercialarchitecturemagazine.com/1906landscape.**

- American Society of Landscape Architects, **asla.org**
- Andrew Franz Architect, **andrewfranz.com**
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## Ken's VIEW

# Technological Solutionism——And A Goat

I'm thoroughly convinced that "making things better" generally makes them worse, and that "new and improved" just means different, annoying, and dysfunctional.

On a trivial level, an involuntary, unannounced, and unauthorized (by me) operating-system upgrade recently disabled my older computer. Even though my data was backed up, rescuing a digital recording of an interview was only accomplished by a convoluted process that involved transferring it to an analog transcription device purchased years ago at a resale shop for six dollars. That machine has never had a software upgrade, which is why it still works just fine.

That's the reason I wasn't in the least surprised when, shortly after the Notre Dame fire in Paris, a report surfaced that the computerized fire alarm system at the cathedral may have reported the fire in the wrong location. I don't know if that's been confirmed or if the correct information would have substantially altered the course of the fire, but the alleged glitch is entirely believable. There was other speculation that an electrical short in other "improvements"—either an elevator or an electric bell-ringing mechanism—might have been responsible for the fire. Again, none of it has been definitively established, but if that fictional bell-ringer Quasimodo had still been on the job, I'll bet none of this would have happened.

The problem is, that in our desperate attempts to stave off disaster, we've introduced safety systems that are increasingly complex—and complex things frequently produce unpredictable outcomes. In layman's terms, they break. We've put too much faith in complicated solutions. In his 2014 book, *To Save Everything, Click Here*, the author Evgeny Morozov argues that "technological solutionism" causes other less-complex ways of addressing problems to be overlooked. The wishful thinking goes that if only we can digitally quantify and track behavior, solutions can be had for everything from malfunctioning fire alarms to crime, corruption, obesity, and just about everything else that ails mankind.

Sociologist Charles Perrow, writing in 1984 about accidents involving human-machine systems in *Normal Accidents*, argued that safety systems fail first because they are complex, and second because parts of them are so interdependent that failure of one cascades, domino-like, into another. Imagine, if that were true in 1984, what it must be like now. Redundant systems only result in more complex systems that are more prone to errors and accidents. Need I mention that such systems are everywhere today?

But to return to Notre Dame and Quasimodo, none of this was vaguely on the mind of Victor Hugo when he published *The Hunchback of Notre Dame* in 1831. I stopped reading Hugo at *Les Misérables* in high school and so haven't read *Hunchback*, but I learned that Hugo was a big fan of architecture, believing that architecture was, "the supreme expression of human thought," but that it was degenerating in his era—something he spent a full chapter of *Hunchback* discussing, according to the online study guide I skimmed.

Hugo was particularly concerned with deterioration of Notre Dame, which was old even when he was writing about it in the 19th century. He was alarmed by changes being made to the cathedral as well as to Paris streets and public buildings—making things better, or *améliorer les choses* as some French person might have shrugged. In fact, Hugo's narrative diversions and rants about Parisian architecture and other subjects are said to be scattered throughout Hunchback at plot-deadening intervals.

Even so, perhaps I should pick up a copy of *Hunchback*—just as long as it's not a digital version. In addition to discourses on architecture, the impact of the printing press, and the meaning of art, to name only a few topics, I hear there's a goat trained to do goat tricks that are not exactly flattering to the political establishment of the day, a deaf judge questioning the equally deaf Quasimodo, and reportedly a whole lot of deaths and violence.

If my desultory reading of French history is correct, Notre Dame has been dinged in the past both by Huguenots and revolutionaries in their turn. At one point it was in such disrepair there was talk of demolishing it. It survived two world wars but never seems to have burned—not while Quasimodo was on the job and not until it was equipped with a computerized fire alarm system. Ironic, isn't it? **— Kenneth W. Betz, Senior Editor**