



FOREWORD

Susan Everett, Executive Director Landscape Architecture Foundation

Creating the Built Environment: Issues and Trends in Design captures the ideas and observations of fifteen high-profile panels of leading design professionals, city and transportation planners, developers, academics and others. This ambitious effort, the first study of its kind in the design industry, brought these panels together to explore how an integrated, planned approach to the design of public space can enhance the creation of outdoor environments that encourage social interaction, stimulate creativity, and build community, thereby improving the human experience in urban environments.

The intent of this traveling think tank was to "study the potential impact of new trends in environmental design and shape emerging trends in the integration of site design, interior design, and architecture." In particular, the panels were asked to focus on the impact of landscape design on behavioral patterns and social interactions in outdoor environments.

This collaborative study not only provided a much-needed forum for dialogue on important issues, but also succeeded in identifying trends and issues in the design of public space.

Creating the Built Environment is a valuable resource to everyone involved in the creation of places for public use. As such, it is a tremendous gift from Landscape Forms to those professionals who struggle day-to-day on the ground with the issues involved in creating public space without the benefit of such information.

The Landscape Architecture Foundation (LAF) is honored to be a part of this important exploration and its resultant findings, and to be a partner in sharing it with industry professionals and educators worldwide.

I was one of the more than 200 participants who benefited from the opportunity to engage in thoughtful discussion with a multidisciplinary group of progressive and innovative thinkers. My hope is that *Creating the Built Environment* will provide the impetus for continued dialogue, greater collaboration, and improved methods and techniques that will result in urban environments that nurture the human spirit and connect people in meaningful ways.

INTRODUCTION

Bill Main, President Landscape Forms

This white paper is the product of an amazing collaborative effort. More than two hundred people participated in events in fifteen cities. At each place participants generated and discussed ideas anew, revealing broad patterns as well as local contexts. We are indebted to each of you who generously volunteered your time and trusted the exercise to be worthwhile.

First and foremost, we thank the many thoughtful and talented professionals who attended the roundtables. You came for the opportunity to break bread and join in a spirited conversation with other professionals. Thank you for sharing your wisdom and perspectives.

The Landscape Architecture Foundation's support was invaluable for helping to bring a great mix of people together, providing assistance and feedback, and for its industry role as a portal for research. Thank you to Susan Everett, Executive Director, and Dr. Frederick Steiner, past President.

Frog design contributed conceptually and graphically, as well as providing the first venue. Thank you to Jonah Staw for facilitating the early roundtables.

No one person did more to make this white paper a reality than Richard Heriford, of Landscape Forms. He organized the process and brought in many others to help along the way. Kathy Travis helped facilitate and writer Gail Greet Hannah articulated the key themes.

Finally, a project of this type can only be undertaken and supported by an organization that has the desire and means to reinvest in the future health of the industry it serves. Landscape Forms is fortunate to be in that position. Thirty-four years ago John Chipman, Sr. founded the company on principles of respect for people and design. We can trace this project, and many other fortuitous works, to his remarkable vision and energy.





Chicago

San Francisco

ABOUT THE SPONSORS

The Landscape Architecture Foundation was founded in 1963 to respond to what its Declaration of Concern identified as a crisis in the development of the natural environment. It was established as a mechanism to help the profession better use planning and design to solve environmental problems. The LAF is located in Washington, DC. Its mission is the preservation, improvement and enhancement of the environment.

Landscape Forms is a leading designer and manufacturer of outdoor commercial furnishings. Founded in 1969 and headquartered in Kalamazoo, Michigan, its award-winning products include a system of modular exterior architectural components, and exterior seating systems, benches, tables and chairs, umbrellas, planters, litter receptacles and ash urns. Landscape Forms joins people and design to achieve its core purpose to enrich outdoor spaces.

Frog design is a leading innovator in industrial design and business strategy. Founded in 1969, it applies world-class talent and a multidisciplinary process to address the challenges facing companies in rapidly changing marketplaces. Its designs include the Sony Trinitron and the Apple Computer, as well as leading user-interface software and e-commerce solutions. Frog is headquartered in California's Silicon Valley and has additional offices elsewhere in the U.S. and in Germany.

A NOTE ON METHODOLOGY

This white paper is based on a series of roundtable discussions with design professionals and others from multiple disciplines held in fifteen cities in the U.S. and Canada between April, 2002 and September, 2003. The discussions were part of the research for frog design and Landscape Forms' joint effort to create the next generation of furniture for outdoor environments.

The roundtables, which we called "The Meeting of the Minds," included more than 225 architects, landscape architects, planners, interior designers, writers and editors, academics, local government officials, and representatives of professional organizations. Questions designed to elicit responses to five themes related to the creation of the built environment were provided to participants in advance of each meeting. During the roundtables, all themes were discussed but participants were encouraged to range freely over them and to engage the issues and each other with openness and spontaneity.

Most sessions were audio-taped. Others were recorded in notes. Each of the meetings had its own distinct character depending, in part, on region, on the balance of representatives from the various disciplines, and on interpersonal dynamics. Some themes resonated more deeply with one group than with others. No attempt has been made to quantify responses. What is presented here is an overview of what design professionals and others are thinking about timely issues that affect the creation of the environments in which we live and work.

These conversations were particularly interesting because they took place among professionals whose work often intersects but who rarely sit down together to share experiences and perspectives on what they do. Indeed, the most frequently heard comment from participants was how much they enjoyed the opportunity to share ideas and concerns with professionals from other disciplines and how much they wished that more such opportunities were available.

The themes discussed were:

- Workstyle/Lifestyle: Design for a 24/7 Universe
- Technology: The Future of Real Spaces in a Virtual World
- The Corporate Campus: Dinosaur or Evolving Species?
- A Sense of Place: Creating Successful Public Spaces
- Design Practice: Challenges for the Profession

"For anyone who is part of a global practice, the daily cycle has changed. The workspace needs to be everything for everybody all the time, relaxing and energizing at the exact same moment, because you may finally be on the relaxation cycle while I'm on the I-need-the-best-idea-of-my-life cycle."

Chip Crawford, Director of the HOK Planning Group

I. WORKSTYLE/LIFESTYLE: DESIGN FOR A 24/7 UNIVERSE

"24/7" signifies more than longer hours on the job. As the design professionals who participated in our roundtables noted, work cycles are not simply longer — they merge with other cycles of life. The boundaries between work, family and leisure are blurred. Changes in the hours people work are accompanied by changes in the places they work, in the kinds of activities they perform at work and in the cultural norms and patterns that have traditionally defined the structure of our days. Technology lets us take it with us. Work is interactive, it's collaborative, and it takes place wherever we are. Given this new reality we might reasonably question the relevance of the corporate workplace as we know it.

IS THE WORKPLACE NECESSARY?

Some design professionals suggested that the workplace is not nearly as important as it once was. Networked computers and cell phones enable many workers to conduct business from all sorts of environments - at home and halfway around the world - while remaining connected and productive. Many companies have had successful experiences with professional associates who choose to relocate long distances away from the home office but continue to make valuable contributions to the business. Despite these developments, no one predicted the demise of the workplace and a few, including Network Appliance executive Thom Bryant, suggested that the officeplace in the age of knowledge work is more important than ever. "Contemporary organizations need to facilitate knowledge work and enhance idea development and sharing," he said. "It is very important for teams within the corporation to get face time together. People telecommuting all over the place sometimes works, but it is definitely not as efficient as being able to have a lot of people get together quickly on the spur of the moment to deal with problems. So there is a trend to get people closer together."

Landscape architect and University of California professor Walter Hood made the case for place as a defining aspect of work. "Place - meaning where I choose to work and the people who choose to work with me will always be important. Many times clients want to come and see where I work because of what it tells them about me. Of course, the work we're actually engaged in at any moment can happen now in public space, in the car, in the airport. We have added more connections and more communication. But the place is always going to be important because it is a representation of who we are and what we do and those values and attitudes that we believe in."





FLEXIBILITY IS KEY

The issue, our participants said, is what kinds of workplaces are needed to support the broad array of activities, schedules and styles of the people who use them. The call for increased flexibility in environments and furnishings was one we heard across disciplines and in every part of the country. Fred Schmidt, Principal Environments Group, Chicago observed: "Within a day a given space might be used for group work, for a training session, for a party, or for one-on-one meetings. And you might have two clients within the same industry but end up with two very different design solutions. Part of it is driven by function and part is driven by culture." Participants agreed that addressing the multiplicity of functions over time requires objects that can bend and flex, expand or contract, move into the foreground or background, depending on the needs of the situation.

Dr. Galen Cranz, Professor of Architecture at UC Berkeley, called for a whole new look at what true flexibility in the workplace means, questioning the basic assumption that people must sit upright when they work. "The workplace needs to be redesigned to accommodate more than one posture," she said. "If you're going to be spending 8 hours, even 12 hours there you cannot be in the right-angle seated posture the whole time." She cited the growing incidence of repetitive strain injuries as a clarion call for changes to support people and their bodies in a wider variety of postures.

Design professionals pointed to a broad spectrum of adaptive workplace environments that include open and private offices, individual and shared spaces, and an array of amenities and services. On one end of the scale were environments that offer simple settings in which workers can mingle and relax, such as coffee bars and lounges. On the other were offices that welcome dogs, incorporate play areas for kids, and provide pup tents for people who work late. Such environments, designed for younger workers in highly competitive sectors who often work 80+ hours a week, attempt to make workplaces hospitable and friendly to people who spend more time there than at home. Participants reported workstyle/lifestyle innovations in their own offices, including seating areas designed to accommodate visiting family and friends, entertainment areas for hosting after-hours events and community functions, and afternoon teas at which all firm members gather to share downtime.

Companies are also making workplaces more hospitable and responsive by providing larger and more varied outdoor environments that support both work and leisure activities. Patios and gardens outfitted with data ports, electrical outlets and phone connections are now common, along with basketball courts, jogging trails, cafés, and seating enclaves of many sorts. At the new Sprint World Headquarters in Overland Park, Kansas, 60% of the site is green space. The campus contains five major courtyards – one an amphitheater and the others used for yoga and karate, outdoor dining, relaxing, and meetings – as well as walking trails and other exercise facilities.

Even in areas, such as southern Florida, which have not historically been popular places to sit outside, there has been an increase in the use of outdoor facilities. Some participants saw this as a direct reaction to the 24/7 phenomenon and the need to escape from the workplace to a completely different environment. Architects and landscape architects reported increased client requests for a variety of outdoor spaces to which workers can retreat, even if those spaces are in close proximity to buildings. They noted that corporations are using outdoor facilities as tools for recruiting employees.



CORPORATE CULTURE COUNTS

While many companies, such as Turner Entertainment in Atlanta and TIAA-CREF in Charlotte, successfully integrate relaxation and work elements in their landscape design, others discourage the use of outdoor spaces for work activities. Sonja Schiefer of frog design reported that some high-tech clients have instructed the firm not to design outdoor furnishings with built-in access to technology because they want to encourage their workaholic associates to get out of the office and relax. And designing non-traditional spaces and amenities doesn't ensure that they will be used.

Architect Jim Prendergast, Principal at Perkins & Will, observed that "The idea of having outdoor pavilions where people can go for meetings and where they have internet access and phone lines has a lot of momentum as you're talking to clients. But culture becomes the bigger hurdle. The perception is that if you're out at the picnic table, you're not really working very hard. There's a functional and cultural link in America to the landscape that runs in our blood, but connecting it to our corporate clients is a tough thing to do."

The nature and scope of change vary by industry and geography. Radical workplace solutions were more enthusiastically embraced by the west-coast dot.com culture than in many other areas. But meaningful changes have been widely implemented and they are having a lasting effect. Multiple activity settings, facilities for socializing and recreation, and access to personal services in the workplace have created more diverse, multi-layered, urban-like environments. This trend is further reflected in the resurgence of traditional urban environments, an issue that we explore in our discussion of the corporate campus.

FAMILY MATTERS

The desire to balance the relationship between family and work in a 24/7 world emerged as a serious concern. While a number of participants pointed to Europe as a model, applauding the place of honor reserved there for social and family life outside the world of work, several design professionals suggested that the solution to ballooning work schedules might be inviting the family to the workplace. After all, they asked, if you don't have time to go home and interact with the kids, why not find ways to accommodate them at the office? Ernest Wong, landscape architect and principal of Site Design Group, said he finds taking work home unproductive. So he brings his children to the office where they play on their Gameboys while he conducts meetings. "I'm now preparing a new office to increase our space," he says "and adjoining it I'm creating a space for my mother, so that she can help with the kids."

Some participants weren't sure all this is good for business. They claimed that the blend of office and personal life within the workplace sometimes results in less rigorous professional work. They struggle with the challenge of how to make the mix of family, personal and work life stimulate creativity.





Not surprisingly, as workplaces become more informal and people spend so much time there that it starts to feel like home, there is a pronounced trend for corporate furnishings to become more residential in feel. Design professionals said they looked for comfortable, lightweight, moveable furniture for creating home-like settings in places such as hospitals and corporate environments. Some reported specifying higher-end versions of residential products to provide more personality and less institutional quality. And designers saw the overlap in residential and workplace design going in the other direction as well, pointing out that the kinds of spatial experiences and preferences expressed in the workplace are having implications for how people design their homes.

NOT EVERYBODY WORKS 24/7

The landscape architects, architects, designers and other professionals who met to discuss these issues were mindful of their atypical perspective as people in creative fields working with and for other creative types. As one participant reminded his peers, "Most standard rank-and-file corporate customers are not interested in having you bring your dog or your girlfriend to work."

Robert Sutton, Professor of Organizational Behavior and Management Science and Engineering at Stanford University, questioned the very assumption that work has changed so dramatically. "All the evidence we have is that there is a small percentage of highly paid people for whom it has changed, but for the rest of society work is pretty much as it always has been," he said. He, among others, voiced the conviction that workers in all situations require healthy, comfortable, supportive places to work and that design professionals must step up to the challenge.

BRIEF SUMMARY

The 24/7 global economy may not directly touch all workers, but it is having a profound effect on many, especially in the knowledge work and creative sectors. Although the cycles, protocols and tools of work have radically changed, the central workplace remains viable. Design professionals are players in the 24/7 world but many are ambivalent about the implications. Their challenge is to create flexible workplaces that support multiple modes of work and contribute to the humane balance between work and life.



"Privacy is something that you can now actually have in public.

When we're out there with our cell phone on the corner waiting for the bus, having an intimate conversation, we are in a private moment in the most public of spaces. The whole idea of privacy has gone from a place to a state of mind."

Architect Randall Shortridge, RTKL, Los Angeles

II. TECHNOLOGY: REAL SPACES IN A VIRTUAL WORLD

Technology is everywhere. It's part of the infrastructure of our public spaces and, as anyone who has walked down a city street, waited in an airport terminal, or shopped at a mall can confirm, it is now in the hands of a very large portion of the human population. The ubiquity of personal technology – particularly mobile phones – has changed our experience in public spaces and breached the traditional boundaries between public and private behavior. As a result, the public realm has become more complex. Public space is not just a place for leisure or specific programmed activity. People are bringing new tools, behaviors and expectations into the mix, and that has major spatial ramifications.

NATURE VS. CULTURE

Personal technology is a worldwide phenomenon. People in China are as enamored of it as Americans and Europeans. Of course, as many participants observed, we don't have to talk on cell phones in all places and at all times, we choose to do it. They maintained that the real discussion is about behavior, not about the tools or the spaces in which they are used. In some parts of the world, notably Japan, etiquette defines cell phone behavior, but western culture has, for the most part, yet to develop generally accepted protocols around appropriate use. While one participant suggested that some rules are intuitive, citing as an example "no cell phones in church," another reported spotting a woman at the Duomo in Milan whose cell phone rang while she was kneeling in prayer. She took the call.

Mark Johnson, Principal of Civitas, Denver, argued that with new technologies we are seeing the expression of core attributes of human nature. "These things which facilitate us allow our true human nature to act. So even if protocol tells us not to talk on our cell phone while standing with others in line, we are going to do it anyway because the desire to communicate is in our nature. There are core elements that make us human, which are both genetic and cultural and which are now in question. I believe the genetics are starting to drive the culture rather than the other way around."



PUBLIC SPACES: GENERATORS OR RESPITE?

Active measures to control the use of private technology in public spaces are beginning to appear. The equivalents of "no smoking" signs now prohibit the use of cell phones and laptops around some hotel pools. Certain golf courses in England and Scotland require guests to leave mobile phones with the course secretary before proceeding onto the greens. Amtrak has designated "quiet cars" on its New York to Washington Acela service in which the use of cell phones and laptops is prohibited. One participant reported dining in a restaurant in which a cell phone booth was installed right next to a standard model. Jamming devices are being employed to prevent cell phone reception in concert halls and museums. "Dead zones" are being created in some parks, via scrambling devices installed in outdoor furniture and structures, to limit the use of mobile technology in selected areas.

At the same time, corporations and educational institutions are expanding technology infrastructure on their campuses, Chicago is installing coin-fed kiosks to provide technology access in city parks, and New York's Bryant Park now features wireless service. These developments reflect two competing points of view on the role of outdoor spaces in a technology-driven world. We might call them public space as respite versus public space as generator. The first defines outdoor spaces primarily as places for escape to which we repair to break with the daily grind and connect with the natural world. They are refuges to which we go to sit in the sun, watch the birds, read a book, chat with friends or simply stare into space. Advocates of outdoor spaces as respite cite the traditional role of the landscape architect as steward of the environment and creator of spaces that celebrate nature, and they warn against abdicating this important function. They defend the human need for a balance between density and relief and the importance of outdoor public spaces in providing alternative experiences. They worry about the loss of such opportunities in technology-saturated environments.

Some participants argued that when significant amounts of technology are programmed into public space the platform for the space is tilted toward a particular group of users and away from others. Those who find technology intrusive may have little choice but to leave. In this respect, technology in public spaces can be anti-democratic. At the very least, it is a programming challenge.

"Creating spaces within public plazas where there is a natural deadening of noise or seclusion is just an extension of the concept of creating places that serve multiple social needs. It's not only being able to provide spaces that allow the opportunities for solitude or group activity that is important, but also being able to provide those that reduce ambient noise levels or chatter, encouraging the idea of public space as refuge."

Arun Jain, Chief Urban Designer, City of Portland Bureau of Planning



Some design professionals questioned the impact on civil society of personal technology in public spaces. They observed that people using cell phones and laptops may be connecting to people in their own circles, thereby behaving in a social way, but are at the same time engaging in behavior that is markedly anti-social to those around them. Architect Mark Rodgers offered an example that highlighted the conflict. He reported that the University of Denver is creating wireless communities on campus where students can move around freely while using the laptops that all undergraduates are now required to have. Predictably, they end up in places where coffee is served, places which have historically served to encourage random interaction – between students and faculty, younger students and older students, the athlete and the student of law. Instead, the university is finding that the technology intended to keep students connected is limiting face-to-face interaction and encouraging immersion in the virtual world.

THE LAPTOP AND THE LATTE

The proponents of public spaces as generators have a different vision. They see technology in public space as a step on the evolutionary ladder, one that reflects the reality of a changing world. Landscape architect Paul Shaw said one of his favorite places was a park with electrical outlets in tree wells because "it recognizes the ubiquity of the laptop and the latte." Others celebrate technology's facilitation of education and entertainment in the public realm. Emory University, among others, is now developing solutions for powering outdoor classrooms. Interactive technology using touch screens and related elements is being implemented in gardens, zoos and other venues across the country. Electronic billboards are already common in European capitals. Joe Parinella, a landscape architect at Universal Studios in Orlando, described generator nirvana in which hotels offer internet connections around the pool so mom and dad can work on laptops while watching the kids rock to underwater music. And where, in the future, visitors could use a Blackberry or PDA to interact with kiosks or games set up around the park.

Some participants said they view technology in public spaces as a medium for democratic expression and an opportunity to embrace diversity. "The boom box is not anti-democratic," insisted landscape architect Lynn Wolff of Copley Wolff Design Group. "Music is very important to certain cultures. We're not designing parks just for Caucasian Americans. People from different cultures use parks in different ways and that's a problem we have to solve. The more democratic place is the one where you have diversity and you celebrate it."

Several design professionals noted the advantages of clear way-finding and other information now available through technology in interactive kiosks like the transit tracker. "It's not how much information is out there," explained landscape architect Carol Mayer-Reed. "It's a matter of presenting it appropriately so that we do not feel bombarded and overloaded." A Chicago participant pointed out that, although 60-65% of Chicago workers commute by bus and train and many use laptops and cell phones, the acoustics in public transit are terrible and there's no place to plug in. He and others argued that, given the critical importance of mass transportation to the economy and the environment, transit facilities must incorporate technology to support the way we live and do business today.



HOW MUCH IS TOO MUCH?

Some proponents argued that technology in public spaces is necessary to lure the next generation out of doors. Opponents asked, "Is the only solution to getting people to use outside space giving them what they can have inside?" They worried about the power of technology to "anesthetize" spaces by encouraging global uniformity, ignoring the unique features of a site, and negating the sense of place.

Some participants argued that it is possible to achieve a balance in which experience of the natural world and connection to the virtual world complement and feed off each other. New York's Bryant Park was cited as an example. There, people working on laptop computers share six acres in midtown with people who are eating lunch, playing cards, dozing in the sun, and enjoying the park's newest addition, the Reading Room, a designated reading area complete with magazines, newspapers and books on loan. Norman Mintz, Design Director of the Bryant Park Restoration Corporation and New York's 34th Street Partnership, says, "This is the most popular park per square foot in the country and part of our goal is to encourage as much diversity in activities as possible. Computer access adds to the diversity and usefulness of the park. This is a place for people to relax, and even people who are working on their computers are enjoying the break it provides."

DESIGNING WITH TECHNOLOGY

Finally, in addition to personal and programming technology, participants noted the trend toward the use of technology in the design of outdoor public spaces. Computer-assisted design tools speed the design process, enable a freer exploration of possibilities, and allow designers to create presentation materials that help clients understand concepts and plans. Soil and drainage system technologies are enabling design solutions such as roof decks. Technology-driven improvements in lighting, paving systems and other components are making it possible to increase the quality of outdoor spaces while controlling costs. Design professionals reported that in some areas technology affords their clients greater choices, higher quality, more flexibility and better value.

Participants also pointed to the use of technology in security, including cameras and other sophisticated tools, such as sensing mechanisms that signal when children wander to the perimeter of a space and track their safe return. And many participants heralded the use of sustainable technology including wind power, solar power and condensation recycling systems in site design. "If we are using technology in our design process that is sustainable and unseen," landscape architect Randy Sorensen of Carol R. Johnson Associates predicted, "we will preserve the sense of the landscape while giving spaces new versatility so that they perform as public spaces have never performed before."

BRIEF SUMMARY

Personal technology has changed the definition of privacy and our experience in public spaces. Programming technology is influencing the platforms for use of public space. Design professionals are sharply divided in their assessment of technology as a generator of activity on the one hand, and a threat to meaningful experience of the outdoors on the other. New technology in products, materials and design tools is helping professionals deliver innovative solutions to clients.

"The isolated corporate enclave is done. It's history. People don't want to work in those places. They want to be in urban settings."

Ed Friedrichs, President, Gensler, San Francisco

III. THE CORPORATE CAMPUS: DINOSAUR OR EVOLVING SPECIES?

Is the corporate campus on the endangered list? The broad consensus that emerged from our roundtables was that the opulent and iconic suburban campuses of the 80s and 90s are an idea whose time has come - and gone. One participant called them "white elephants." Another charitably suggested that "we should preserve a couple of them." Nevertheless, the corporate campus does have its defenders. They argue that in some areas the campus is alive and quite well. New York architect David Smotrich cited Morgan Stanley as an example. After 9/11 this financial powerhouse moved most of its operations out of the city to the northern suburb of Westchester which it perceived as a safer setting.

The more widely held perspective was articulated by Orlando landscape architect Lucina Selva. "It's an evolutionary process," she said. "Corporate campuses aren't going to die, they're going to be redefined." Indeed, there are strong signs that corporate and academic campuses are evolving to meet changing economic, social and environmental realities.

At one end of the continuum, corporations such as TIAA-CREF, USA Today, Nike and Microsoft are building relatively isolated campuses, designing them to function as self-contained environments by including a huge range of services and amenities, from exercise facilities to day care centers, dry-cleaning pick up to take-home meals. At the other end, companies including Adidas, Vulcan Ventures and Southwestern Bell, and academic institutions such as Grand Valley University, the University of Denver and The Savannah College of Art and Design, are moving into city centers and/or expanding their presence there. In between, other companies are breaking down the barriers between their campuses and adjacent communities, implementing public transportation solutions, and partnering with other corporations and public entities to create mixed-use campuses that serve a wide range of users.



THE DRIVERS OF CHANGE

Numerous factors are driving the changes in how we think about and design corporate campuses. Ex-urban campuses require costly infrastructure and use resources that, in less isolated settings, might be shared. Locating campuses in areas remote from population centers encourages sprawl and contributes to a growing transportation crisis. Remote campuses require workers to spend hours a day in automobiles, consume large parcels of land for parking lots and garages, and contribute to highway congestion and pollution.

The rising cost of real estate makes investment in big, individual campuses an expensive and risky business. Initial costs are high and specific programming and design may make facilities hard to re-sell. Long-term maintenance costs are significant, driving many companies to prefer leasing to owning. And in difficult economic times, when corporations want to prove to their shareholders that they are fiscally responsible, large campuses may not deliver the desired message. Some corporations are reducing risk by building campuses consisting of several small flexible structures, rather than a single large one, enabling the campus to be fully occupied if the company is doing well and sub-leased if the business contracts.

Technology and the reliance on outsourcing are enabling some companies to shrink the size of their facilities. Many corporations are looking at ways other than icon campuses to convey identity by, for example, investing in high-profile projects or advertising in the communities in which the consumers of their products and services live. Participants suggested that the long-term impact of the post 9/11 need for greater security is not yet clear, and that many more corporations might be reconsidering the risks of concentrating their operations in a single location.

The evolution of the corporate campus is also being driven by changes in lifestyle and a growing concern for quality of life. Workers are more conscious of transportation and health issues. Fewer workers are willing to endure long hours in their cars and wide separation from their homes, families and social life. Knowledge workers, especially younger workers, show a preference for living, working and playing in urban areas.

Landscape architect Jerry Shapins of Shapins Associates observed: "The very notion of campus implies over-consumption of resources, uniformity of approach and a single aesthetic. Complexity is much more flexible. The campus is too simplistic given our current economic climate and the evolving status of the world."



MULTI-TENANT/MIXED USE

Design professionals in our discussions reported a movement away from the single-use, single-tenant campus toward mixed-use centers. They noted that many corporations are seeking less expensive office space and that smart developers are responding by building campuses that serve multiple tenants with relatively inexpensive offices and high-level shared amenities, such as sports facilities, outdoor dining, and day care. The approach has proved a successful leasing strategy.

In many parts of the country partnerships are developing among corporations, academic institutions and local municipalities. Texas A&M uses its research park during the week for business, and on weekends shares its hiking and jogging trails, lawns and duck pond with the community. The University of Denver has opened childcare centers and created a variety of services and programs designed to attract people of all ages to its campus. Adidas's urban campus in North Portland, which includes basketball courts and a soccer field, is open to the public 24/7. The Federal Reserve in Houston makes its outdoor spaces available to the community. As public funding for parks and other outdoor public spaces continues to diminish, communities are looking to private sources for help. Corporations are spending on open spaces, transportation improvements and other projects because it's good for business - and because they want a different character and higher level of design than municipalities would normally provide. Sasaki Associates landscape architect Joanna Fong issued the caveat. "These are private spaces for public use," she said. "Corporations provide these spaces and invite the public to come. However, they also set the rules for what one can do in these spaces. This raises new questions as to potential conflict of authority versus the benefit of such open spaces within the public domain."

CAR TROUBLE

Historically, corporate and academic campuses were conceived at pedestrian scale. Their designers envisioned people crossing them by foot. Open spaces defined their contours and character. Over time, accommodating an ever-increasing number of automobiles took precedence. Buildings were sited and scaled to the roadway, not the walkway. As Sharp & Diamond landscape architect Paul Whitehead observed, "These campuses were created as social spaces but they are nowhere for people to be."

Some academic institutions are leading the reassessment of campus organization based on the automobile. Emory University is moving parking out to the perimeter of its campus, creating roads for shuttle buses that are closed to public traffic, and recapturing what was surface parking as green space. The Savannah College of Art and Design is relocating student parking at a distance from the downtown campus to decrease auto congestion on Savannah's historic streets. Students are encouraged to use public transportation and city buses have been fitted with racks to foster the use of bicycles on and around campus. And Wellesley College, whose original mandate included a day of "vigorous exercise" for all students on the hills of the campus, raised millions of dollars to restore open landscape that had been filled in with, among other things, parking lots.



NEW URBANISM AND THE CORPORATION

Participants suggested that good models for an evolved urban-style campus can be found in late 19th and early 20th century mill towns, citing as examples Longview, a central Oregon lumber mill town, and Kohler, the Wisconsin town founded by the ceramic plumbing fixtures manufacturer. Longview was a large city, laid out on an axial grid, with employee housing, parks, a train station, a centrally located hotel and religious, civic and social facilities. It remains a thriving, attractive (no longer company owned) community today. Kohler, planned originally to house skilled Italian immigrants, contained factory buildings as well as dorms for workers, houses for families, schools, churches, social and health facilities. Designed with the assistance of the Olmsted brothers, it was a community so successfully designed for livability that it has become an upscale community and a destination for entertainment and hospitality. But while advocates argued that the mill town model is consistent with the ideas of new urbanism and sustainable practices, urban purists rejected the idea of building new places modeled on cities when existing cities are ripe for revitalization.

Andre Staffelbach, Architect, Staffelbach Designs was emphatic. "Now developers and corporations try to create an urban environment in suburban areas. With good, responsible city government, the cities could be cleaned up by creating better landscapes. The corporations would return and we would have a productive, revitalized downtown. With the help of corporations and developers that build these urban spaces in suburban areas, we could build better urban spaces."

Some corporations are helping to build better cities. Participants cited entrepreneur Paul Allen's 24-hour Vulcan Ventures campus in Seattle, a project that has helped galvanize a stagnating downtown, and described similar developments in Omaha, Nashville, Chicago, Denver, Portland, Memphis, Atlanta, Grand Rapids and Dallas. The new urbanism embodied in these initiatives rejects the monolithic, fortress campus in favor of open, accessible spaces that are integrated into the cityscape.

Design professionals and municipal representatives agreed that transportation is key to successful re-integration of corporations into urban environments. Intermodals are facilitating the process by bringing together a number of transportation modes in central urban locations. David Grubbs, architect for Greyhound Bus Lines, reported that the company is in about 100 intermodals across the US and is planning another 200. In Albuquerque, for example, the plan in process brings housing, theatres, grocery stores, city buses, Greyhound, and Amtrak together in a well-thought out urban environment. Design professionals also stressed the importance of residential development to the continued movement of companies into urban areas.

Urban advocates cited the benefits that location in the city offers to businesses and workers alike: diversity, stimulation, cross-fertilization of ideas, connectivity, and the sheer profusion and variety of spaces. Several participants sang the praises of interstitial spaces, those peculiarly urban patches that landscape architect Ken Smith defined as, "the interesting little pieces of space that occur between other things and are the places where the real social life occurs." Finally, many design professionals applauded the ability of the city to support work as it is actually done today. "Most high-tech corporations now work 24/7," Vancouver architect James Cheng said. "The young people who work in them want to be able to quit work at ten o'clock, go out for a bite to eat, socialize, and come back at eleven thirty and work some more. The urban environment is very important for the well being of employees."

BRIEF SUMMARY

The corporate campus is evolving. Its forms range from self-contained ex-urban mini cities to multi-tenant, multi-use suburban facilities to urban anchors whose campuses are bounded by revitalized city streets. Technology, transportation, concern for the environment, economic factors and lifestyle are driving the change. New urbanism is gaining momentum among new economy corporations seeking to position themselves for success in the 21st century.

"There's a commonality of feeling that we experience in public spaces. And if we return, it's because those feelings had lasting quality, they were connecting to our core human nature."

Mark Johnson, Landscape Architect, Principal, Civitas

IV. A SENSE OF PLACE: CREATING SUCCESSFUL PUBLIC SPACES

WHAT MAKES A PUBLIC SPACE SUCCESSEUL?

On the one hand, it's something intangible that resides in the ability to elicit feelings and experiences that transcend the realm of the everyday. San Francisco Chronicle Design Editor, Zahid Sardar, suggested that successful public spaces also satisfy the basic human needs for engagement and narcissism. They are places in which to see people and to be seen.

On the other hand, successful public spaces embody an array of quite specific characteristics. Participants singled out liveliness; diversity — of cultures, generations and activities; distinctiveness — reflected in the site-specific qualities of a space; intimacy; security; and comfort. Landscape architects reported a growing preference for smaller, more intimate spaces in outdoor environments. They emphasized the importance of comfort in attracting people to public spaces and remarked on the identification of comfort with a less institutional sensibility and the feeling that one was "at home." Chicago participants recalled that replacing Daly Plaza's benches with chairs and tables transformed it from a rarely used space to a favorite gathering place.

In roundtables across the country participants stressed the importance of flexibility to the success of public spaces. New York's Bryant Park was a favorite point of reference. Its pioneering use of moveable chairs in a busy city park was greeted with skepticism when first proposed. Few thought that hundreds of Bistro chairs would last a week in midtown New York. But they've lasted for several years and their use has been widely adopted elsewhere. Landscape architect Dennis Reynolds talked about the implications of this development: "The notion of choice and flexibility makes us think differently about both the furniture and the places that it occupies," he explained. "Inherently, moveable furniture seems to be more chaotic, more random. It moves around, it clusters in different areas. And so the spaces we design need to be flexible. They need to have more clarity to them. We don't want these spaces to be overly complex, and we don't want the furniture to be overly complex, either. The attention is on the pattern language that evolves with use."

Most successful public spaces are firmly woven into the context in which they are located. Their edges are permeable. Design professionals voiced strong support for growing efforts to integrate commercial, residential and public space. American architects and landscape architects have long looked with envy at the lively social life surrounding European parks and plazas. As the trend toward more flexible and moveable furniture grows in this country, and municipalities that once restricted the use of sidewalk furniture relax their codes, private retailers are becoming more engaged in the street. Chairs and tables, which one poetic participant called "urban flowers" are popping up on sidewalks across the country. The movement toward greater flexibility is helping connect private business to the public realm.



MAKING CONNECTIONS

Successful public spaces not only bring people together, they encourage them to interact. In some situations this happens naturally. There's seldom a dearth of communication in dog parks, playgrounds and smoking areas. Animals, kids and cigarettes invariably provide the triangulation that William H. Whyte identified as essential to successful social spaces. But getting people to interact in other settings can be a challenge. As one participant put the question: "How long does a bench have to be before you can get two strangers to sit on it?" Orrin Shively, Executive Director of Creative Services at Walt Disney Imagineering, noted that the theme park solves the problem by having each cast member wear a badge that displays their name and where they're from. This simple technique provides an excuse for people to exchange information, to act on the basic human desire to communicate and share. "We need to create more opportunities like that," he said. "Unfortunately, in America, you need an excuse."

Participants suggested that one reason for the decline in open communication in public space is the loss of public ritual in our society. In some Hispanic neighborhoods people still "paseo" - that is, stroll along a popular street or promenade and socialize along the way. In Asian enclaves people shop during certain hours and gather to practice Tai Chi. But such rituals prescribing the use of the shared realm are few and far between. More than one participant noted the role that Starbucks now fills in reviving what one nicely called "the ritual of coffee in a locale of exchange."

At our New York roundtable, the destruction of the World Trade Center loomed large in the minds of design professionals. During the weeks following the disaster, New York experienced a flowering of ad-hoc spaces. People constructed memorials and created informal venues for information exchange. Public spaces became necessary spaces. City parks became magnets for people who simply wanted to connect with each other. New York City's Commissioner of Parks, Adrian Benepe, said: "New York parks play a unique role as a commons. People just go there when they're happy, when they're sad or stressed. Understanding and accommodating that was the biggest revelation for us."

In the aftermath of the event, landscape architects joined other design professionals in planning for the rebuilding of the downtown site. Kim Mathews, of Mathews Nielsen in New York, moderated an ASLA sponsored workshop attended by people living and working in the area. She and her professional peers discovered that people in the community were as interested in the connections between open spaces — pedestrian, vehicular and visual connections — as they were in the quantity or location of the open spaces themselves. Walking from the subway to the office or the office to lunch they cherished the encounter with corner and pocket parks, churchyard cemeteries and other little green spaces that dot downtown — and wanted to continue to enjoy the newly reopened views across lower Manhattan. The quality of movement — what Mathews called "the meandering route through the finer-grained spaces of downtown" — was regarded as essential to the use and enjoyment of open space.



THE QUALITY OF SPACE

Walter Hood offered a broad framework for thinking about public space. He observed that, as a society, Americans think first about quantity, not quality. When we have a piece of land we declare that we need a park or a monument or some other "thing." We don't think about the qualities of the space and, as a result, we have created a market for a standardization of type in public space and in the objects we put in it.

"It would be a new direction if we started thinking about quality. Instead of making the roads wider, just making great roads. We don't need more curving gutters. And I can't change someone talking on a cell phone. But if for a brief moment the sun is hitting the ground and the shadows are falling, someone might just say, "hold on for a minute dear. Wow."

Jane Brown Gillette, writer, editor and industry observer provided another perspective. She challenged the assumption that physical use is the sole judge of the success of public spaces. Beautiful spaces serve our mental and emotional needs as well, she observed, and can be very important to us because they exist as possibilities.

UNDERSTANDING CULTURE

Design professionals are challenged by cultural differences in how people use public spaces. Chicago participants, for example, noted that parks on the north side of the city are populated mostly by "Anglos," described by one participant as "sitting 10 feet on center," while in parks further south, Hispanic families hold huge family picnics. Fred Holman, landscape architect with the Providence, Rhode Island Parks Department, recalled master planning a rural college campus in upstate New York which had problems keeping inner city students. These urban youth were frightened by the open space character of the campus and found it impossible to study in a quiet environment. Landscape architects are called upon to address the needs of a wide variety of users, sometimes in the same place and at the same time. Successful public spaces understand the people they are meant to serve. Programming that draws input from the community is critically important in determining whether public spaces will be embraced, defaced or ignored.

PROGRAMMING: DO NO HARM

Design professionals address both design programming and usage programming. They plan and design physical spaces then create the infrastructure to support elements and events within those spaces. Once again, there was strong consensus that flexibility is key to success. Many participants maintained that trying to predict how spaces would be used was seldom successful and often unwise. They suggested that providing possibilities for things to happen was a better course. Several participants warned against over design that can get in the way of people simply interacting in a place. Susan Brown, landscape architect with the Boston Parks & Recreation Department, offered a rule to work by. "We should take the approach of 'do no harm'," she declared. "Put in an infrastructure that allows many different things to happen – but don't put in things that preclude what you can't even imagine."



There is an anecdote about Frederick Law Olmsted's visit, after long years of planning and building, to Central Park. As the story goes, he was appalled to find the common folk sitting on the lawn instead of walking with their parasols down the paths. The Sheep's Meadow has, of course, become one of the most widely used and beloved spaces in the city, precisely because it can be whatever people need it to be. It is the stage on which a vast variety of dramas are enacted.

On the other hand, insufficient programming can result in spaces that are underused or inappropriately used. Participants argued that successful programming helps people understand how to use public space while not necessarily dictating how it must be used. Some suggested that landscape architects should receive more training in asking the right questions and building the relationships with the public that can determine the success of designed spaces.

SOMETHING FOR EVERYONE

Participants in these discussions advocated for the design of public spaces for all people. They emphasized the need to design spaces that work across generations, provide access for the handicapped, and accommodate people at all levels of the economic scale. They advocated for dog walkers and skateboarders. "I don't think that we should look negatively at all the ways people want to use spaces," Drew Becker, landscape architect and Chief of Staff of the Chicago Park District, said. "We should figure out the best place to accommodate them."

The appropriate amount and kind of active, ongoing programming within public spaces was a subject of some debate. Solutions differ by community and environment. Active programming is sometimes staged in spaces that are not well used in order to attract people and help make those spaces safer. Events such as ethnic festivals and music fairs are employed as opportunities to celebrate cultural diversity and engage community members in the public realm. Expectations play a role. New York landscape architect Terri-Lee Burger noted that "It's hard to get children today out of the house and away from the virtual worlds available via computers and video games. The environment alone doesn't seem to be stimulating enough. If there is not continuous and active programming, you're never going to get their attention." And Ann Mullins, landscape architect and Principal of Civitas, suggested that parks in the center of cities may require a lot more programming and organization precisely because people expect to find structured activity there. Whereas parks situated in natural areas can be more passive because people come to them looking for a different kind of experience.

Whether, when and how to accommodate technology in public spaces was, perhaps, the most divisive issue discussed in our sessions. Many design professionals praised the use of technology-based programming as a stimulant to vitality and a necessary accommodation to a changing world. Others decried it as a desecration of nature and a direct assault on out door public spaces as sanctuaries and places of escape. (See discussion on technology.)

Design professionals noted the importance of a very specialized type of programmed public space. Vancouver landscape architect Margot Long observed, "A lot of landscapes are now being designed as memorials. These landscapes bring back the memories and stimulate the senses. They are very powerful." The Vietnam Veteran's Memorial in Washington DC and the park in Oklahoma City memorializing the victims of the Murrah Federal Building bombing are examples of public spaces, cited by a number of participants, that attract a broad range of people and touch them in powerful ways.

WORKING WITH THE COMMUNITY

Landscape architects embrace their role as agents for helping communities develop outdoor public spaces that have genuine significance for the people they serve. That means listening to people talk about their experience and interpreting their history and meaning in the designed environment. Professionals share an interest in solutions that enable people to act in hands-on ways on their environments. And they recognize that designing public spaces involves more than creating a streetscape or park. The process itself is important in engaging people and helping them become invested in their spaces. The community building that often results can be critical to revitalization.

The public's investment in public spaces is essential to their long-term viability. The more people care about spaces in their communities, the more likely it is that those spaces will be respected rather than abused. But the resources for maintenance are decreasing. Participants remarked on the growing importance of private investment in maintaining public space. Partnerships between private organizations and public parks are being forged in which private entities assume responsibility for upkeep and oversight. There is also a growing reliance on private funding to underwrite active and costly programming in public space.

ARTFUL SPACES

There has been much recent discussion within the landscape architecture profession about the value of what might be called "high-design" public landscapes. Martha Schwartz's award-winning HUD Plaza in Washington, D.C. has been a lightning rod for debate. It raises the question: Can a public landscape be considered successful if it is visually arresting, intellectually challenging, critically acclaimed, but rarely used? Some design professionals said Yes. They celebrate the boldness of the vision, the exploration of new ideas, the ability of the work to enchant and delight.

Most landscape architects at our roundtables framed the responsibility of the designer in a traditional light. Landscape architects, they said, are stewards of the natural environment, mediators between the land, the client and the built world. They recalled the profession's historical commitment to context, the responsible use of natural resources, and the forging of a connection between people and the land. Vancouver landscape architect Cornelia Hahn Oberlander said, "It is very important to experience discovery in the landscape. It's like going to an art gallery and seeing paintings you've never seen before. However, art must be integrated into the landscape to make spaces that are people friendly and environmentally responsible."



Many landscape architects are actively seeking to bring an artful dimension to the design of outdoor spaces by collaborating directly with artists. And it's not just about creating objects or what one participant called "plot art and murals on walls." Designers and clients are looking to artists for the unique perspectives they can bring to the understanding of place.

BRIEF SUMMARY

Successful public spaces strike an emotional chord and often serve as places of refuge and comfort in times of crisis. The qualities that determine the lasting value of spaces frequently reside in natural and site-specific characteristics rather than objects or programming. Flexibility in design and programming is key to serving an increasingly diverse population with wide-ranging customs and expectations. Design professionals are working closely with communities to develop public spaces that respond to local aspirations and needs. Public/private partnerships for maintaining and programming public space are on the rise.

"It is our responsibility as designers to think of the total environment, not just the specific pieces or our individual disciplines. What's most desperately needed in the world is an overall vision for the environment. We all now understand sustainability and realize that we have to think of the big picture. This is the future."

James Cheng, architect, James KM Cheng Architects

V. DESIGN PRACTICE: CHALLENGES FOR THE PROFESSION

In addition to the subjects addressed in the preceding discussion, three major issues emerged as especially critical to design practice going forward. They are security, sustainability, and an integrated, cross-disciplinary approach to design.

SECURITY: AT WHAT PRICE?

Until recently, security in the design of outdoor environments focused on measures to discourage vandalism and street crime and create perceptions of safety intended to attract people to outdoor spaces. Those issues are still real. People do not typically choose to spend time in places that are debased, defaced or dangerous. Putting a cop on every corner runs the risk of marking a place as especially unsafe and can have negative impact on the life of the community. Architects and landscape architects have addressed the challenges of combining security and amenity with some success. New York's Bryant Park and Oakland's Lafayette Square are notable examples. But security after September 11, 2001 has new meaning. Designing and building structures and outdoor spaces that provide security from terrorism present challenges of a different order.

The push is on for design professionals, product manufacturers, and service providers to develop new security solutions. Meanwhile, municipalities have limited public access to entire city blocks and architects and landscape architects are using existing products and techniques including barriers, planters, bollards, and berms to address the issue at hand. The participants in our roundtables expressed concern about the impact on public spaces of restrictive and physically intrusive security solutions. They fear solutions that threaten a free and open society.

Washington D.C. participants generally agreed that the city was the loser as a result of increased security measures and restrictions on access to the downtown. Landscape architect Frederick D. Jarvis, of HNTB Corporation, described the strategic and tactical differences in the way landscape architects and security professionals are approaching the situation: "Design professionals want security features to disappear into the landscape, become invisible. We don't want to see huge, overpowering and intrusive elements everywhere. Many security specialists want the exact opposite. They want the solutions to be overbearing, to demonstrate a sense of invincible power and strength. How you design to accommodate security interests while making the solution aesthetically pleasing is a difficult challenge."

One way that this might happen is through increased awareness and collaboration among architects, engineers and landscape architects on such issues as the relationship of buildings to the exterior environment, and the interface between building systems and public spaces.



SUPPORTING SUSTAINABLE DESIGN

Design professionals welcome environmental sustainability as a growing trend. The pursuit of sustainable practices is reflected in planning strategies targeted at reducing sprawl and promoting public mass transportation. It is expressed in more efficient allocation and consumption of natural resources through land management, water conservation and reuse of materials. In the South and Northwest special attention is being paid to the design and building of sustainable water systems for waste, storm and natural water. Environmental sustainability is being implemented in parks and other public spaces through the use of wind power, solar power, condensation recovery and other sustainable technologies. And design professionals are asking manufacturers to develop products that are harmless, and beyond that, helpful to the environment.

LEED is emerging as a forceful agent for change. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a voluntary, consensus-based national standard for developing sustainable buildings and environments administered by the U.S. Green Building Council. LEED provides detailed standards for assessing sustainability and confers certification at four levels on projects that meet its criteria. Many corporations and educational institutions are following LEED guidelines to "green-up" their facilities. New York architect Ed Pang advocated for greater implementation of sustainable practices and products in urban landscape design. He noted that cities like New York are, by virtue of their scale and density, sustainable environments and suggested that urban parks should express that sustainability.

Many landscape architects view the pursuit of sustainability as an aspect of their role as environmental stewards. They define sustainability as a core value.

Participants reported signs that sustainability as a movement is gaining momentum. Design professionals are becoming more proactive in their adoption of sustainable practices and are educating their clients and the public. Students in landscape architecture programs are contacting firms to get information about sustainable innovations such as eco roofs. Clients are beginning to understand sustainability and are making the connection between it and the bottom line, realizing that they can often save money over the long term by implementing sustainable solutions in facilities and outdoor spaces. Business leaders are searching out architects and landscape architects who are knowledgeable about sustainability to help them achieve their goals.

Kori Chan, an architect with Vancouver-based Proscenium Architecture and Interiors observed that other benefits also follow from the pursuit of sustainability. "The design challenges are quite stimulating. You get an opportunity based on the sustainable principle to explore new directions, and look at systems and ideas that wouldn't have had a chance five or six years ago because we couldn't quantify and we didn't have clients who were environmentally sensitive to these ideas. Sustainability has opened up doors on the process of thinking in design which is quite important."



DESIGN INTEGRATION

Design professionals working to creating a built environment for the future are faced with a host of complex challenges including global economic change, cultural diversity, technology, urban growth, security, and environmental sustainability. The consensus in these roundtables was that successful solutions will require multi-disciplinary effort. For landscape architects, the opportunity to engage in projects at the planning stage and to remain active team members throughout the process is of critical importance. Many landscape architects complained that for too long they were viewed as the people brought in at the end of a project to "shrub it up." "Integration is something that has to happen," said Orlando landscape architect Christina Lathrop. "You can't have a successful project without it. And in my experience, landscape architects often act as the catalysts." Another Orlando-based landscape architect declared, "We often serve as keepers of the vision."

In Europe and Asia an integrated approach to the design process is more deeply embedded than in the US. Here the collaboration between design disciplines enjoys stronger support in some parts of the country than in others. Orlando and Grand Rapids participants reported significant multi-disciplinary collaboration. Design professionals in Atlanta reported that most major projects in and around the city include integrated design teams while participants in Dallas noted that the amount of collaboration varies by client and industry. In Houston and Phoenix, landscape architects are frustrated at their exclusion from multidisciplinary teams. In Portland, Doug Macy's landscape architecture firm solved the problem by merging with an architectural practice. Size is also a factor. Small landscape architecture practices are less likely to be invited to the table than large, well-known firms, which frequently act as prime consultant. Landscape architect Laura Solano of Michael Van Valkenburgh Associates reported that her firm ensures the integrity of its work by securing its own contracts with clients. "By not having a veil between us and the client we get better results," she explained.

When landscape architects are not given an important place at the table, who's to blame? Entrenched practices, lack of financial resources and the struggle for power among professions certainly play key roles, but a few landscape architects called their own profession into account. A landscape architect affiliated with a large multi-disciplinary engineering firm complained that landscape architects are not taught the necessary skills for selling themselves to architects and engineers or at interacting effectively with them. Another argued that the profession has become reactive rather than proactive, defending its work rather than promoting it, in contrast to predecessors who were forceful, eloquent voices for the landscape. Florida-based landscape architect Gerald Marston asserted that the leadership in environmental planning has shifted to the hard sciences and it is the landscape architects that choose to do the hard science that may represent the future of the profession.

EVERYTHING I LEARNED...

While design professionals agreed that cross-disciplinary education is essential if multi-disciplinary teamwork is to flourish, they reported that educational practice, in many cases, continues to proceed along segregated disciplinary lines. One participant characterized the still widely practiced "silo" approach as a guild system, which acts to "carve professions out of professions and legislate other people out of them." On the other end of the range, younger professionals reported growing awareness in schools of the need to provide a more integrated design education and the emergence of curricula to support the goal. Evidence of this was offered by a landscape architect who observed that young graduates coming to his firm don't have the sense of division that some older professionals have and cautioned his peers to be careful that they do not put up the walls.

THE FUTURE

Future professional collaboration will be driven by a variety of factors, including cross-disciplinary education, technologies that make it easier to share information and ideas, and an increasing number of clients demanding packaged, coordinated services to address their needs. But the pursuit of environmental sustainability will, perhaps, play the deciding role. Participants reported that the LEED process is changing the way projects are being done. LEED criteria and documentation require the design disciplines to work together and are thus providing a framework for integration. Design professionals have become leading advocates for environmental responsibility, education and action. In many cases they are far ahead of industry practices and regulatory requirements. They share a vested interest in protecting and sustaining the natural systems on which the built environment depends. Architects, landscape architects, interior designers, engineers and related professionals working together offer hope for a sustainable environment and a livable future.

BRIFF SUMMARY

The events of 9/11 have changed the definition and scope of security, and the impact is being felt in the practice of architecture, landscape architecture, engineering and city planning. Environmental sustainability is a growing concern and LEED is emerging as a forceful agent for the promotion of sustainable practices. The complexity of design for a global environment requires multi-disciplinary, multi-national efforts. Collaboration will be key to building livable environments in the 21st century.

VI. CONCLUSIONS

Several overarching trends emerged from the detailed discussions of our themes. The first is a demand for greater flexibility in the built environment — in the design of spaces and the design of products. This requires greater variety and adaptability in the planning and programming of public spaces to address the many ways that they are used by people of different ages, cultures, interests, physical abilities and economic levels. It calls for expanded efforts to engage the community in the design process to ensure that public spaces are useful and meaningful to the people they are meant to serve. Flexibility in products includes a growing focus on modular elements and movable furniture, on design that can accommodate many different kinds of interactions, and on aesthetic solutions that satisfy the desire for more informal, relaxed comfort in both indoor and outdoor environments.

The second trend is the need to accommodate technology. This includes both personal technology, such as cell phones, boom boxes and computers, and programmed technology such as kiosks, electronic billboards and tech-based entertainment. It requires supporting infrastructure and site design that addresses the need for respite and enjoyment of the natural environment as well as the desire for connectivity and stimulation.

The third is a focus on quality: in spaces designed to attract and delight and supported by investment in maintenance and programming over time. In well-designed products, made of quality materials and built to endure. And in experiences that evoke powerful feelings, promote a sense of connection with the natural environment, and support civic life.

The fourth is a softening of some boundaries between private and public, isolation and integration. It is reflected in the collaboration between corporations, institutions and municipal authorities to create and maintain public spaces and in the re-integration of corporate campuses into the fabric of community and urban life.

The fifth is a growing sense of urgency about the development and despoiling of the natural environment and a commitment to policies, planning, products and practices that support global sustainability.

Pursuing these trends will require enhanced professional skills, education and imagination, a more nuanced understanding of the impact of the designed environment on the natural world, and greater collaboration among professionals from all the design-related disciplines that contribute to the creation of the built environment.

"The Meeting of the Minds" confirmed that design professionals are enthusiastic about the challenges. There is no question that the various professional disciplines represented at these roundtables have unique and important contributions to make to the solutions. But these discussions also revealed a hunger among professionals for opportunities to share ideas and perspectives. We hope that this modest effort advances that goal.

A LETTER TO THE PROFESSION

Dr. Frederick Steiner, President 2002-2003 The Landscape Architecture Foundation

We should consider the future of design for three reasons. First, we know that our relationship with the natural world needs to be redefined. Our species spent the twentieth century plundering and destroying the planet. We should devote our energies to healing the Earth in the twenty-first century. Second, 9/11 changed how we regard our safety. Good design can help us live both safely and freely. Third, we now live in the first urban century. We need to create built urban environments that are healthy and beautiful.

Carpet remnants of nature are not enough. We depend on the earth, its waters and air, for our very existence. Over the past several decades, green design migrated from the hippie fringe to the core of many design practices. This emergence resulted largely as a result of efforts by the U.S. Green Building Council and its Leadership in Energy and Environmental Design, or LEED, standards. Much work needs to be undertaken to build on the strong LEED foundation. LEED standards effectively address building design but need enhancement for the outdoors environment. I would like to see LEED standards broadened to address site, landscape, and urban design too. Green design provides a good first step towards sustainable design, which considers equity and economic concerns along with those addressing energy and the environment. The promise of sustainability is to leave the planet in better condition than we found it for future generations.

The events of September 11 elevated concerns about safety. If we all live behind a fence and we shroud our national monuments with protective shields, then the 9/11 terrorists can claim victory. We need to design places that are both safe and accessible. We can learn much from concepts about "defensible space." For example, the more eyes look out to the street, the safer the street. Active places tend to be more secure than isolated areas. Street furniture can effectively invite positive activity while forming barriers to unwanted activities.

The creation of such positive places is essential in this first urban century. For the first time in our history, over half of the world's population lives in cities, or more accurately city-regions. This percentage is expected to grow to two-thirds in the next 30 years or so. This rapid urbanization is a result of population growth. At the beginning of the twentieth century, two billion people lived on Earth. Now, some 6.3 of us inhabit the planet. That number will grow to 9 billion by mid-century then up to around 11 billion by the end of the century. Good design is necessary for the creation of the built urban environments for these people to live and to work.

The roundtable conversations of design professionals that fed this White Paper will contribute to the ongoing dialogue about these and other issues. As a participant in one of the roundtable discussions, I found my fellow participants to be enthusiastic about the opportunity to share ideas with other professionals across disciplinary lines. The conversations were stimulating and informative. This White Paper extends that dialogue to include you and other readers. I hope you will engage in this discussion about creating our future.

LIST OF ATTENDEES

1 | ATLANTA BOSTON ATLANTA Susan Brown

Robert Benson Boston Parks & Recreation Dept.
Boston MA

Robert & Company

Atlanta GA John Copley

Copley Wolff Design Group

Peter Bilson Boston MA Bilson & Associates

Marietta GA H. Kenneth Crasco

Boston Parks & Recreation Dept.

ETIC BISHOP Boston MA
EDAW
Atlanta GA Steven Elmets

Moshe Safdie & Associates
William Chung

William Chung Somerville MA HOK

Atlanta GA
Gary Forst
Pressley Associates, Inc.
Glen Deal

EDAW Cambridge MA

Atlanta GA Elissa Henebry

Joel Eliason Moshe Safdie & Associates
Somerville MA

Nimrod Long Associates

Birmingham AL Judith Kohn
HNTB
Kate Firebaugh Boston MA

Kate Firebaugh Boston MA Savannah College of Art & Design

Savannah GA Terry W. Savage

Catherine Fox National Park Service

Atlanta Journal-Constitution

Boston National Historical Park

Charlest and MA

Atlanta Journal-Constitution Charlestown MA
Atlanta GA

Cynthia Smith

Brad Good Halvorson Design Partnership
Hughes, Good, O'Leary & Ryan Boston MA

Hughes, Good, O'Leary & Kyan

Atlanta GA

Boston MA

Laura Solano Martin Haber Michael Was

Martin Haber Michael Van Valkenburgh Associates
Roy Ashley & Associates Cambridge MA

Roy Ashley & Associates Cambridge MA
Atlanta GA

Randy Sorensen
Greg Hudspeth
Garal P. Johnson

Greg Hudspeth Carol R. Johnson Associates
Niles Bolton Associates

Atlanta GA

Boston MA

James Johnson Marcy Stefura
Lucas Stefura Interiors

Emory University

Atlanta GA Lynn Wolff

Copley Wolff Design Group

BOSTON Boston MA

Mark Zarillo

Gerald Boyle Symmes Maini & McKee Associates

Boston College Cambridge MA Chestnut Hill MA 2 | CHICAGO COLUMBUS CHICAGO

Chicago Park District

Dan Purciarello

Drew Becher Chicago IL Chicago Park District

Chicago IL Dennis Reynolds

HOK Sport + Venue + Event
Bastiaan Bouma
Kanasa City: MO

Chicago Architecture Foundation

Kansas City MO

Chicago IL Terri Ryan

Jacobs/Ryan Associates

Frank Clements Chicago IL
Wolff Clements & Associates

Chicago IL Fred Schmidt

Environments Group
Chip Crawford

Chip Crawford Chicago IL HOK

St. Louis MO Diane Schroeder

Phil Enquist GHK
Chicago IL

Skidmore Owings & Merrill

Chicago IL Frederick R. Steiner
University of Texas

Susan Everett Austin TX

Landscape Architecture Foundation

Washington DC James Wescoat
University of Illinois
Ed Freer Champaign IL
Smith Group/JJR

Madison WI Michael Wolf

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