ARCHITECTURAL RECORD

SEEKING THE SHAPE OF GREEN
Foster and Partners’ Design
for London City Hall

PLUS Special Presentation
Nine Proposals to Rebuild the World Trade Center
Will New York Rise to the Challenge?
One Out of Nine?

By Robert Ivy, FAIA

What if you got what you asked for? That happened when architecture and planning leaped to the forefront of media attention late last year. In a single, widely publicized unveiling at the Winter Garden of Manhattan's World Financial Center on December 18, 2002, seven teams presented nine schemes for the redevelopment of the former World Trade Center site, an intellectual exercise capturing headlines and air time around the globe. What did we get?

Regardless of the turn of events, the value of the architects' contributions cannot be overstated. Thanks to their commitment, suddenly we all had a ray of hope for a situation that has been hotly debated, politically compromised, and heading rapidly toward the dustbin of mediocrity. The city and the nation deserved better than business as usual. Finally, we have had a glimpse of a positive direction, though significant work lies ahead.

These solutions face strong hurdles. As Hugh Hardy, FAIA, coordinator of New York New Visions Plan Review Task Force, pointed out at a Lower Manhattan Development Corporation (LMDC) meeting, "Without a realistic program and method for development, and with the lack of leadership from above, the schemes present a quandary." The crux of the problem remains: No real client exists for the largely theoretical program and the commissioning institutions are ad hoc—subject to the governor's will or to the development community's parsimony. Will the projects ultimately belong to the public realm or to commercial interests? What will the roles become for leaseholder Larry Silverstein or mall owner Westfield America, not to mention the Port Authority of New York and New Jersey? How can visionary plans overlay the demands for transit, which has prompted the Port Authority to hurtle forward, building below grade? The powers-that-be are calling for solutions, when the best answers benefit from a longer view.

Several observations seem relevant. The architects engaged in these plans followed the rules, with bold assertions. While the LMDC allowed modification and reduction of its original demands to return all 11 million square feet of office space to the site, the remaining sheer bulk still produced gargantuan responses by each team. The plazas are broad; the buildings, skyhigh. The proposed scale is daunting, a fact clearly evident in the images of plans by Foster and Partners, or United Architects, or Richard Meier's team, where jumbo structures are counterposed against the skyline. By analogy, the massive towers arrayed along New York's Sixth Avenue, including the McGraw-Hill building, typically contain 50 floors; more than one World Trade Center scheme doubles that height.

By the look of it, the future of the tall building seems assured. Four schemes propose the tallest buildings in the world. While one of the original towers reached 1,388 feet, Daniel Libeskind's garden-tower hits 1,776 feet, and one of the THINK group's schemes exceeds 2,000 feet. The questionable validity of such extremes is pointed out by the renderings, in which height and bulk loom against the existing urban fabric. The SOM group's cluster, by contrast—limited to 60 stories (940 feet)—elbows itself into the thick of Lower Manhattan without lording it over the skyline. Somehow, the tallest metaphor sniffs of hubris.

Some of the work seems reactive, a term that demands clarification: The events surrounding September 11 had an unavoidable influence on the schemes. For that reason, Foster's office replicated twin towers, making them nevertheless the "tallest, strongest, safest" towers in the world. This urge to rebuild, and to rethink, dual towers arising from the ashes of the destroyed World Trade Center seems inevitable, but demands reflection. Would we have built twin structures otherwise? Should they figure in the shape of the emerging city, or should we seek new forms for a new century?

While twin towers incorporated memorial expression in their form, Daniel Libeskind suggested retaining a significant percentage of the foundation plane, 70 feet below grade, as a memorial plaza. And though it would present complicated structural demands, the slurry wall holds memory authentically and poetically, without resorting to sentimentality. Libeskind's proposal, which captured critical admiration, deserves consideration and selection for the potent way in which it responds both to history
and to the future. The asymmetrical, modulated skyline he designed reinforces and adds new forms to Manhattan without overpowering the city. Before leaping to acceptance, however, as in all of the proposals, individual elements deserve analysis, including the garden-laced sky tower, an attractive symbolic gesture but of questionable utility, or the forms of the Pennzoil-like office towers themselves.

Potent imagery from all of the proposals lingers, including THINK’s third scheme’s homage to the Eiffel Tower—a romantic, open armature reaching skyward. United Architects produced dizzying views of a delirious new Manhattan. The notion of an interlinked “city in the sky,” in which both upper and subterranean floors of tall buildings house a public realm, with gardens and cafés, harks back to other urban visions (good and bad), including those of Antonio Sant’Elia’s citta nuova, or even John Portman’s. The effects for the streetscape, however, remain problematic.

Although it has largely been overlooked in critical discussion thus far, several teams devoted significant energy to sustainability, the larger subject of the current issue of this magazine. Foster and Partners produced a techno-marvel, dual-skinned tower, based in part on its work with the Commerzbank in Frankfurt, Germany, with interior gardens and operable window walls. THINK suggested harvesting high-level winds through turbines; Richard Meier’s team captured sunlight through photosensitive glazing, which glows at night. Each idea demands scrutiny beyond the schematic.

At the record forum on January 7, architect Bernard Tschumi suggested that collage had been a potent 20th-century force but was unlikely to succeed unless done by a Braque or Picasso. However, by the publication date of this editorial, the LMDC and the Port Authority may have made their selections and tried to incorporate certain ideas into an urban plan. It would be difficult, if not impossible, to graft idea onto idea, scheme onto scheme. Short of a miracle, the result would be compromised. A better solution would be, after studying them all, to make a single choice (at this writing, the Libeskind scheme seems the most promising), allowing this one team to incorporate the best ideas into its own master plan, forging the design for a memorial plaza and the attendant public spaces and setting guidelines for subsequent development of commercial space, including office towers—a strong, clear shot at excellence for the years, and the unfolding ideas, to come.

From The Descent
by William Carlos Williams

The descent beckons
as the ascent beckoned.
Memory is a kind
of accomplishment,
a sort of renewal
even
an initiation, since the spaces it opens are new places inhabited by hordes heretofore unrealized,
of new kinds—
since their movements are toward new objectives (even though formerly they were abandoned),
No defeat is made up entirely of defeat—since the world it opens is always a place formerly unsuspected. A
world lost,
a world unsuspected,
beckons to new places

and no whiteness (lost) is so white as the memory of whiteness
With evening, love wakens though its shadows which are alive by reason
of the sun shining— grow sleepy now and drop away from desire

Love without shadows stirs now beginning to awaken as night advances.
The descent made up of despairs and without accomplishment realizes a new awakening: which is a reversal
of despair.
For what we cannot accomplish, what is denied to love what we have lost in the anticipation—a descent follows,
endless and indestructible

Instead of devising a 21st-century urbanism, the latest WTC proposals rehash old notions of the future

Critique

By Robert Campbell, FAIA

I write this column shortly after the unveiling of nine proposals by seven teams for the site of the World Trade Center in Manhattan. They were a huge disappointment. Once again, we are being asked to take our children to an image zoo.

Most of the proposals look like a Stephen Spielberg invasion of dinosaurs, trampling the fabric of the city. It’s some kind of backhanded tribute to these designs, I guess, that hey’ve succeeded in making Lower Manhattan, which once seemed so soaring and powerful, look fragile and delicate. The existing city fabric becomes a sort of weedy underground beneath these vast, self-important new constructions.

In most of the designs, there is at least one building intended to be the world’s tallest. I guess we Americans have to take back the title from Kuala Lumpur, don’t we? Often the proposed towers are connected by sky bridges, creating what more than one designer called “cities in the air.” This is avant-garde architecture?

People have been imagining and cartooning sky bridges and aerial cities in Manhattan since the 1920s. Flash Gordon got there first. In all the designs, there is more interest in creating a novel, dramatic skyline than in creating a human and usable city fabric at ground level.

The reason for the fireworks on the skyline is largely symbolic. All the designers were working with guidelines set out by the Lower Manhattan Development Corporation (LMDC). The guidelines state: “A tall symbol or structure that would be recognized around the world is crucial to restoring the spirit of the city.” The statement is bombastic, The spirit of New York did not depend on the Twin Towers, which were dreadful in every way.

Is there any reason, anyway, for this kind of massive development in this particular location? The LMDC’s program calls for 6 to 10 million square feet of commercial space plus a great deal of other stuff, all on a site that is just 60 percent larger than Washington Square. Is there any market for it, with 17 million square feet of office space currently vacant in Lower Manhattan? And if there is, should the new space be in this location? There is plenty of underutilized land only a few blocks away. Why pile such gargantuan development on one small parcel?

How do you phase it?

Cloning an old formula

It’s not as if anyone has thought freshly about what the program should be. The LMDC’s program is déjà vu all over again. It’s a recap of the program of 30 or 40 years ago, when the World Trade Center was first conceived. The only purpose of cloning this ancient program is to satisfy the developers who hold leases on the site and hope to collect their insurance money, and the Port Authority of New York and New Jersey, which hopes to collect rent again from the lessors. (It’s a curious sidelight that nothing about the World Trade Center, present or past, has anything to do with the Port of New York, which is what the Port Authority is supposed to be worrying about.)

With one partial exception (the Vinoly/Schwartz/Ban team in one of its three proposals), none of these seven supposedly daring designers bothers to challenge the program. Nobody does any fresh thinking about much more than sculptural form or seductive parkland. I’d hoped—actually, I’d assumed—that some or all of the architects would deliberately violate the program. They’d propose some alternatives. That would bring pressure on the LMDC and its parent organization, the Port Authority, The Authority, which is largely controlled by New York’s Governor Pataki, could then exercise some political muscle. It could break the leases and open the door to some fresh questions. Such as: What would be a good downtown neighborhood for our own time, now in the 21st century? What is genuinely new about the world that is evolving, and how should urban design respond to it? What are the virtues of traditional urbanism that we should be sure to hang on to? Instead, both in program and in design, the architects and the LMDC are rehashing the late 20th century.

Part of what seems to be driving the current zeal for a glorious and novel skyline is a concept that I thought had long since been put to rest by the philosopher Karl Popper and other thinkers. This is the belief that architecture must serve some emerging zeitgeist, that it must be midwife to a future that is struggling to be born. For those who embrace such a religion (which is what it is), it is helpful to remember that anything new will soon be old, and that it won’t be either better or worse for being so. Architecture isn’t about forward- or backward-looking ideas. It’s about good ideas and bad ones. Piling a gargantuan commercial monoculture on this site may not be one of the good ones. Whether it is or not, the fact is that the question hasn’t been investigated. The LMDC has taken over an old program that never

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Critique

worked well, added some tchotchkes, and called it a day. Why hasn’t it seized the opportunity to reconsider the future of the WTC site not as an isolated entity, but as a piece of the redevelopment of Lower Manhattan?

I’m well aware that none of the architects regard their designs as finished proposals. They had only 11 weeks to tackle an enormously difficult problem. It’s safe to say that whatever eventually emerges won’t resemble any of these flashy skylines. The LMDC will pick a team—and all of the teams, certainly, are competent—and only then will the team get down to the actual work of design. Maybe then they’ll finally challenge the program, which, after all, is something any creative architect normally does. Think of these proposals as marketing moves. They’re gaudy diagrams to catch the eye. But as diagrams, most of them are a little scary. They’re as puffed up with their own egos as they are contemptuous of the older city around them. And speaking of ego, it’s amusing to report that one competitor pasted a paper over its office windows so no one could steal the genius ideas being fomented inside.

Libeskind’s scheme

All that said, though, I confess to being seduced by some of the designs, viewed as pure architecture. They’re fantasies, but they’re compelling fantasies. Fantasies and utopian proposals, of course, have their place in the history of architecture, although that isn’t how they’re being billed in this case. My personal favorite is the one by Daniel Libeskind, designer of the Jewish Museum in Berlin. Libeskind makes two superb moves. He leaves the excavation untouched: the so-called “bathtub,” 75 feet deep and lined with the old concrete retaining walls that function as dams to keep out the water of the Hudson River. He proposes this raw excavation as the site for a future memorial to 9/11. It is a setting with the grim vacuity of an Anselm Kiefer painting. Above this space, he cantilevers a crystalline glass memorial museum. On the rest of the site, he arranges a family of towers that look like shards of glass. They rise in a spiral to a green garden at a height of 1,776 feet. It’s all quite wonderfully beautiful. It’s also totally impractical. How do you maintain a vertical garden inside a slim glass spike a quarter mile up in the air? But as an image to bear in mind, as a sort of Oz-like, unattainable ideal, Libeskind’s design is valuable. Despite its great height, it would carry the pincushion skyline of Manhattan to a climax, instead of overwhelming and trivializing it, as the old Twin Towers did and the other new schemes do. I wish the other equally impractical designs shared Libeskind’s deft sense of form.

It’s only fair to note, as everyone has, that one scheme, the Peterson/Littenberg one, does lack ego gestures. Like the others, it fails to challenge the banana-brained program, but it succeeds in distributing that program on the site in a modest, sane, and even conventional manner. Although I wouldn’t particularly mind seeing it built, I agree with those who feel that something more is called for. That something is not a big show-off idea, not an Everest of verticality, not tired futurist cartoons. What is called for is a sense that an opportunity has not been lost to think long, hard, and freshly about the real issues of the city at the beginning of the 21st century.
REBUILDING LOWER MANHATTAN

Architects at the forefront as they show Ground Zero aspirations

By John E. Czarnecki, Assoc. AIA

If it was unclear before, it became official on December 18: Architecture is now front and center as the focus of discussion regarding the future of the World Trade Center (WTC) site. Commissioned by the Lower Manhattan Development Corporation (LMDC) and the Port Authority of New York and New Jersey, seven teams of world-renowned architects presented nine proposals on that day in the Winter Garden of the World Financial Center in New York City.

In terms of architectural design presentations, this was a sort of Super Bowl rarely seen in the profession. All three hours of presentations were broadcast live on NY1, a local cable news station. Architects making their pitch included Lord Norman Foster, Greg Lynn, Daniel Libeskind, Rafael Viñoly, Peter Eisenman, Richard Meier, Steven Holl, and Charles Gwathmey. They offered a glimpse of what the future of the Ground Zero site could be, but at press time in mid-January it was unclear if any of their visions would become reality, or how the process would unfold.

The LMDC and the Port Authority were expected to develop a land-use master plan for the site by early February. That plan, developed by Stanton Eckstut, FAIA, working for the Port Authority, with Alexander Garvin, the LMDC’s vice president of planning, design, and development, will likely include the footprint of one of the nine schemes that the architects developed. How the land-use plan will then be realized has not been spelled out.

Designs without client

The teams developed their plans based on a program from the LMDC and the Port Authority that has little variation from the uses that were previously on the site. The key exceptions are a call for a home for a cultural institution, a memorial, a park, and approximately 6.5 to 10 million square feet of office space compared to the 11 million square feet that had been in the WTC. The lack of a clearly redefined program for the site, reflecting the reality of a depressed market for Lower Manhattan office space, was increasingly troubling to the New York architecture and real estate communities after the latest proposals were unveiled. “They are starting with a design and hope to arrive at a program,” Bernard Tschumi told The New York Times in a January 1 article.

“There are two minor impediments—there’s no program and no client,” Richard Kahan, the president of Urban Assembly and Take the Field, dryly stated in a January 7

Presenting their schemes on December 18, 2002, were (top row, from left) Norman Foster, Steven K. Peterson, of Peterson/Littenberg Architecture and Urban Design, and Daniel Libeskind; (middle row, from left) Rafael Viñoly, of the THINK team, and Roger Duffy, of Skidmore, Owings & Merrill; (bottom row, from left) the team of Peter Eisenman, Charles Gwathmey, Richard Meier, and Steven Holl, and Greg Lynn presenting for the United Architects team. The presentations were made in the Winter Garden of the World Financial Center, and the designs were exhibited in that space through February 2.
United Architects
Foreign Office Architects, Greg Lynn FORM, Kevin Kennon Architect, Reiser+Umemoto RUR Architecture, Imaginary Forces, and UN Studio

United Architects includes architects from New York, London, Los Angeles, and Amsterdam.
- Single building (1, 2, 6) that is really five structurally independent towers, the tallest of which is 1,620 feet tall
- Building includes more than 10 million square feet of space
- Towers (3, 4, 7) act as a curtain on the site, ringing the site, directing people to look up
- Skyway—a sort of “city in the sky” (5), with five floors of contiguous space at 800 feet above ground
- Areas of refuge every 30 floors in case of disaster
- Vertical sky gardens (5) are arranged every five floors throughout the complex
- A Sky Memorial will be atop one of the towers, and another memorial will be at the footprints below grade

forum called Waiting for Ground Zero sponsored by RECORD and moderated by editor in chief Robert Ivy, FAIA (see the news archive at www.archrecord.com for a complete story on Waiting for Ground Zero).

The client, at least for the design study exercise, was the LMDC and the Port Authority, but developer Larry Silverstein still holds the lease for the WTC office space, and Westfield America, which operated the underground shopping, expects to rebuild the retail space. The LMDC does not have authority over the
land, which is owned by the Port Authority, an agency jointly con- 
trolled by governors George Pataki of New York and James McGreevey of New Jersey. New York architects have asked: If there is not a clear client, how can the LMDC expect great architecture?

RECORD's forum was one of many events and discussions held last month in New York City related to the latest proposals. New York New Visions (NYNV), a pro bono coalition of 21 architecture, planning, and engineering organizations, released a 42-page evaluation of the nine concepts in mid-January. The document can be found on the NYNV Web site, www.nynvaiga.org, Hugh Hardy, FAIA, chair of the NYNV Plan Review Task Force, said of the plans, "If they are to be more than an illustration in an architectural history book, they must also be realistic—they must be able to be phased, to incorporate changing program needs and multiple participants over time, to fit within the context of the Lower Manhattan community."

And what is Beyer Blinder Belle (BBB) doing? The role of the New York firm has been diminished since it produced the first round of urban design proposals [RECORD, August 2002, page 23] for the site in July 2002. In a statement released to coincide with the December 18 unveiling, BBB stated, "The planning team led by Beyer Blinder Belle and Parsons Brinkerhoff continues to serve as consultants to the Port Authority, providing analysis and insight on planning implications of various concepts for West Street, as well as transportation studies related to commuter bus and ferry access to Lower Manhattan. BBB will provide consultation to Port Authority staff as they analyze the nine designs."

Prodigious amount of work
Six of the teams were selected in a process in which 406 teams had submitted to a call for architect qualifications. The seventh team, Peterson/Littenberg Architecture & Urban Design, had been working as in-house urban design consultants to the LMDC since spring 2002. Each of
REBUILDING LOWER MANHATTAN

Studio Daniel Libeskind with Gary Hack, Hargreaves Associates, and Jeff Zupan

Berlin-based Daniel Libeskind is the only architect to implement the bore slurry wall as part of the design.

- Includes 1,776-foot-tall tower (1, 2) at the site's northwest corner with the "Gardens of the World" at the top
- Memorial space (6) that is some 70 feet down on bedrock foundation with slurry wall visible to the west
- Museum will serve as the entrance into memorial (6)
- Two public spaces: Park of Heroes and Wedge of Light (4)
- An elevated walkway (1, 5) would serve as a memorial promenade encircling the memorial site
- A performing arts center is included
- A rail station concourse (3) links PATH trains, subways, hotels, the performing arts center, offices, and retail
- Buildings are situated for a ray of sunlight to show on September 11 each year from 8:46 A.M. to 10:28 A.M.

The seven teams produced their proposals in 11 weeks and were initially paid a stipend of only $40,000, although some teams spent well over $500,000 developing their schemes. The LMDC is since authorized an increase in the amount paid to the teams to a sum not to exceed $1.35 million in the aggregate. Each team produced models, drawings, computer renderings and animations, and some produced videos. The work was on display in the Winter Garden through February 2.

Are there clear favorites among
the schemes? Not necessarily, although the Foster plan—the only one to have what appears to be twin towers—leads in two national polls. An online CNN poll that asked people to vote for a favorite garnered nearly 300,000 votes through mid-January. Foster and Partners received 24 percent of the vote, followed by Think and Libeskind (18 percent each), United Architects (14 percent), Peterson/Littenberg (12 percent), the Meier team (9 percent), and Skidmore, Owings & Merrill (SOM), with 5 percent of the vote. A similar Newsweek online poll had more than 101,000 votes through mid-January. The schemes by Peterson/Littenberg and Foster and Partners each received 22 percent of the vote, followed by Think and United Architects (15 percent each), the Meier team (14 percent), Libeskind (8 percent), and SOM (4 percent).

**Tall statements**

Although the teams came up with widely divergent designs, a number of them had common elements. All of the proposals respect the footprints of the twin towers in some way—a few propose leaving the tower footprints alone with only a glass-bottomed water feature. The LMDC called for “a tall symbol or structure that would be recognized around the world,” and all of the teams incorporated at least one. In fact, four called for the world’s tallest building or structure. Many of the plans also propose “green” spaces or gardens at upper levels in the towers. In descending order from the tallest, the tall structures are by Think (2,100-foot-high Great Hall tower), Libeskind (1,776 feet), Foster (1,764 feet), United Architects (1,620 feet), Think (1,600-foot open-lattice World Cultural Center structure), Peterson/Littenberg (two 1,400-foot-tall buildings), the Meier team (1,111 feet), and SOM (940 feet). Think’s Sky Park scheme proposes three tall buildings of any height based on market demand. Currently, the 1,483-foot Petronas Towers, in Kuala Lumpur, are the world’s tallest buildings, and the 1,813-foot CN Tower, in Toronto, is the world’s tallest freestanding structure. The
THINK
Rafael Viñoly Architects, Frederic Schwartz Architects, Shigeru Ban Architects + Dean Maltz, Ken Smith Landscape Architect, William Morrish, Janet Marie Smith, and Rockwell Group

This team, led by New Yorkers Viñoly and Schwartz, is the only one to develop more than one scheme.

- THINK developed three designs: World Cultural Center, Sky Park, and Great Hall
- World Cultural Center (1, 2, 3) has two 1,600-foot-tall open latticework towers with cultural facilities set within
- World Cultural Center towers (1, 2, 3) are built above and around the World Trade Center footprints
- Sky Park (4, 5), surrounded by three towers, is a 16-acre park above cultural facilities and a transit hub
- Great Hall (6, 7, 8) is a free-span, glass-enclosed, 13-acre public room adjacent to a 2,100-foot-tall tower
- With the Great Hall (6, 7, 8), two glass cylinders surround and protect the footprints of the twin towers

WTC twin towers were, respectively, 1,368 and 1,362 feet tall.

While the proposed towers are tantalizing, they are also distracting from what has appeared to be the key purpose of this charrette exercise, which was to formulate a potential land-use plan at the ground level. And while evocative in imagery, forms, and in the scale of the towers, a number of the proposals were noticeably vague on details such as square footage of uses, what the underground portions of the site would look like, and
how a major transit station would be coordinated with the plan.

**The nine proposals**

The United Architects team, which includes Foreign Office Architects, Greg Lynn FORM, Kevin Kennon Architect, Reiser + Umemoto RUR Architecture, Imaginary Forces, and UN Studio, developed a proposal that would include the world’s tallest and largest building: essentially five structures that torque and meet as one building with five floors of contiguous space at 800 feet above ground. United Architects conceived this as a sort of “giant cathedral” that is “a new kind of vertical city,” according to the team. The team touts safety in this mammoth building, with 29 separate stairways that are connected by 43 safety areas of refuge. The memorial would reside in the vicinity of the twin tower footprints, and a Sky Memorial would look down on one of the towers.

Daniel Libeskind makes perhaps the most evocative use of the site’s current condition: The slurry wall would be exposed on the west side of the site’s foundation and a space for a memorial would be at this level, 70 feet below ground, Libeskind said, “The slurry walls are the most dramatic elements to survive the attack.” Angular and asymmetrical buildings would ring the site, and the tallest would be a 1,776-foot-tall tower with gardens at the highest level. Libeskind’s site includes two outdoor public spaces, the Park of Heroes and Wedge of Light. The Wedge of Light and surrounding buildings are positioned so that there will be unimpeded sunlight on September 11, each year from 8:46 A.M. (time of the first plane hit) to 10:29 A.M. (time of the second tower collapse).

The ambitious Think team produced three proposals (pictured on this spread). Led by Rafael Viñoly Architects and Frederic Schwartz Architects, Think included Shigeru Ban Architects + Dean Maltz, Ken Smith Landscape Architect, William Morrish, Janet Marie Smith, and Rockwell Group. One of their schemes, called World Cultural Center, has two,1,600-foot-tall latticework structures built above
**Foster and Partners**

Following September 11, London-based Lord Norman Foster commissioned an expert multidisciplinary task force to conduct a study into the safety of tall buildings. The findings informed the Foster tower design:

- A "twinned" tower (1, 3) that "kisses and touches and becomes one," Foster explains.
- Where the tower "kisses" at three points are public observation platforms and trees: parks in the sky.
- Tower has 98 floors and is 1,764 feet tall: "the tallest, strongest, and greenest," Foster says.
- Footprint of twin towers (2, 6) becomes site for memorial with monumental walls of steel and stone.
- Foster considers three memorials: the tower voids, a 20-acre park (5, 6), and the new twinned tower itself.
- The park (5, 6) extends to the Hudson River waterfront and Battery Park City, bridging over West Street.
- A mass transit hub (4) connecting the PATH train, subway lines, and new airtrain links to airports.
- Fulton Street and Greenwich Street will be extended (6).
- Liberty Street as a street market on the site (6).

and around the footprints of the twin towers. Cultural facilities and a memorial would be embedded in the structures. Nine office buildings would be phased on the site, ranging in height from about nine to 60 stories. This scheme is the only one of the nine that does not require a tall building with offices to create the dynamic skylight element that the LMDC requests.

Thinks Sky Park plan has three towers that could be any height, but the architects suggested towers of 70, 90, and 110 stories along the eastern
edge of the site. A 10-block, 16-acre public park with a 3-acre public green and amphitheater is 10 stories above ground level. The transit hub, as well as cultural facilities, retail, a hotel/conference center, and office space would all be under the park.

Think's Great Hall plan features a vast 13-acre, glass-enclosed public space that the architects call the Gateway to the City and the Great Hall of the Transportation Center—planned as the world's largest covered public plaza. The footprints of the twin towers, surrounded by glass cylinders, would be visible from the hall itself. At the southern edge of the site, a 2,100-foot-tall tower would include offices, a hotel, and a transmission tower. The architects would incorporate environmentally sustainable features into the Great Hall, although the details of how it would harvest electricity and use natural air to moderate the plaza's temperature were not spelled out.

**Twinned tower that kisses**

Foster and Partners created a proposal (pictured on this spread) that is dominated by what Foster describes as really one 1,764-foot-tall "twinned" tower that "kisses" at three points. At those points, there are public observation platforms containing green plants and trees. The tower features a dual skin for energy conservation, which Foster claims could provide natural ventilation 80 percent of the year. At the ground level, a park would bridge over West Street and connect to the Hudson River waterfront and Battery Park City. Walls of steel and stone would surround the footprint of the twin towers, which would remain empty voids.

Peterson/Littenberg's scheme has been called everything from the most "retro" or neotraditional to the most rational and understandable for a general audience. The firm's insider role in this exercise has been questioned, though, because the firm has been the LMDC's in-house urban designer for nearly a year and has also worked with Mayor Bloomberg to draft his "Vision for 21st-Century Lower Manhattan," unveiled in December 2002 [RECORD, January
Skidmore, Owings & Merrill (SOM) with SANAA, Iñigo Mangiano-Ovalle, Rita McBride, Field Operations, Michael Maltzan Architecture, Tom Leader Studio, Jessica Stockholder, and Elyn Zimmerman

SOM, which has designed the new 7 WTC tower for Larry Silverstein, worked with a team that included Field Operations, led by Stan Allen and James Corner, as well as a variety of artists.

- A dense grid of nine vertical structures (1, 5) that are all 940 feet tall
- Towers (3) will function as heat exchanger and actually contribute power to the city
- Gardens (4), 46 acres in total, at the top of each tower
- Various people-movement systems and terraces, multiple ramps on site (3)
- A reflecting pool with bridges is over the twin tower footprints; a light-filled transit hub (2) is integrated

(print of the north WTC tower. SOM conscientiously put together a team that included mostly emerging voices in art, architecture, and landscape architecture. Their design called for nine buildings, each 940 feet tall with gardens at the top. The buildings would be connected by multiple ramps and people-movement systems.

The team of Meier, Eisenman, Gwathmey, and Holl attempted to express the sublime in austere building forms and landscape. The (continued from page 41)
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Peterson/Littenberg Architecture and Urban Design

New York-based Peterson/Littenberg, led by Steven K. Peterson and Barbara Littenberg, has been an in-house urban design firm for the LMDC since spring 2002 and was not selected in the international competition.

- Scheme has seven towers (1, 2, 3) surrounding gardens. The two tallest towers are 1,400 feet tall.
- Garden (4), sunk below street level, is a walled enclosure.
- Public garden with an amphitheater in the footprint of the north twin tower.
- Amphitheater has 2,797 seats—one commemorating each of the September 11 victims.
- Museum is underneath the amphitheater, and main transportation building is between two tallest towers (1).
- West Street (1, 3) is a boulevard extending south to Battery Park.
- Features 1.8 miles of new street frontage and 17 city blocks (1).
- Four theaters, a library, a school, and 500,000 square feet of housing included.
- Includes one million square feet of retail and 8.5 million square feet of office space.

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2003, page 36]. Still, the firm has its supporters. Daniel Henniger, a Wall Street Journal editor, suggested in a December 20 editorial that Barbara Littenberg be put in charge of the planning process.

The Peterson/Littenberg plan proposes seven towers surrounding memorial gardens. A transportation center sits between two 1,400-foot-tall towers on the eastern edge of the site. An amphitheater with 2,797 seats—one commemorating each of the victims—will be in the foot-
Richard Meier & Partners Architects, Eisenman Architects, Gwathmey Siegel & Associates, Steven Holl Architects,

At the December 18 unveiling, Meier began his team's presentation by saying: "Ladies and gentlemen, we're the New York team. Some may also say we're the dream team, but we're very real."
- Two hybrid buildings (1, 2, 5) that rise 1,111 feet each; footprints occupy about 25 percent of the site
- Nine million total square feet of space for office, retail, hotel, convention, and cultural uses
- Interconnected "superfloors" (4) have large continuous floor space suitable for conventions, trading floors
- Buildings employ PV cell technology in wall to capture sunlight during the day and emit a glow at night (3)
- Multiple memorials: twin towers footprints are shallow glass-bottomed reflecting pools (5)
- Final shadows cast by the towers delineated with special paving and dense linear rows of trees (5)
- At the top of the Church Street building is a memorial chapel and landscaped memorial observation terrace

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self-described "New York team" proposed two 1,111-foot-tall hybrid buildings with interconnected "superfloors" that have large, continuous space for conventions, trading floors, or other events. PV cell technology would be embedded in the exterior to capture daylight and emit a glow at night. On the ground, the twin tower footprints would be shallow, glass-bottomed reflecting pools, and the final shadows cast by the twin towers would be delineated with tree-lined extensions into the Hudson River.
A Defining Moment for Architecture

ANALYSIS: Nine designs challenge New York to express the nation’s values in the rebuilt WTC. Will it rise to the occasion?

By James S. Russell, AIA

As the seven teams of architects presented their schemes on December 18, 2002, the event was beamed live to television audiences worldwide. It appeared on front news pages everywhere the next day. The Lower Manhattan Development Corporation’s (LMDC) Web site (renewnym.com) was hit 6 million times in the following two weeks. As many as 70,000 people visited the exhibition of the plans in its first three weeks and dropped off 4,000 comment cards.

In short, the architectural plans for the rebuilding became an international media and popular phenomenon, unprecedented in architectural history. The uniqueness of the moment was not lost on team members, who, along with colleagues and well-wishers, celebrated the presentations a day later at a reception in the Winter Garden of the World Financial Center, where the ideas were exhibited. Relief at the end of an eight-week charrette was mixed with jubilation at the generally positive reaction to the proposals. The presence of architect-shunning government-agency heads and real estate developers underscored the significance of the event. At no other architectural exhibition could one imagine WTC leaseholder Larry Silverstein schmoozing with architect Daniel Libeskind. The normally courtly Alexander Garvin, LMDC’s chief planner, ecstatically hugged startled design-team members.

It seemed, on December 19, that an architectural Rubicon had been crossed. Garvin gloried in the
The Port Authority of New York and New Jersey and the LMDC promised to deliver at least a street and parcel plan, with bulk guidelines, this month. Taking the work of the innovators into account has turned this task into a minefield, however. So many of the plans entail “polar opposites,” Garvin says. Foster’s plan leaves the tower footprints off-limits to visitors, while United Architects “want you to walk in and look up and have the sense of a future city,” he explains. Commemorative opportunities abound in the scheme designed by a team led by Richard Meier. Libeskind has carved the largest memorial precinct of all, focusing on the slurry wall that kept the Hudson River at bay as the towers collapsed.

Plains by United Architects and Foster and Partners integrate the office-building concept closely with a transit hub. Several designs require raised plazas to bridge

CRITICISM: What Works and What Doesn’t

A lot of people thought contemporary architecture was too cool and self-absorbed to contend with loss and that it had no language for inspiration. The plans presented December 18 changed all that. Two of the most vexing aspects of the schemes—their memorial proposals and their tall buildings—tested assumptions that have congealed into orthodoxy over the months.

Honoring the extent of loss in this tragedy has turned the memorial into the planning linchpin. Each team raised questions about the memorial even as they offered compelling visions for it. Peterson/Littenberg drew up a pedestrians-only commemorative precinct, separated from daily life by a layer of buildings and a high wall (image 5). Foster’s plan erects a high wall around the footprints and accesses the bedrock 70 feet below by a monumental ramp system. It seems a good idea to remove the distractions of the city, to carve out a dignified, contemplative space. But can this void interrupting the daily life of the city be seen as anything but a scar? Can such a monumental place offer a message transcendent
West Street, tying the long-isolated Battery Park City and the waterfront back into the fabric of Lower Manhattan.

These strategies reflect a notion in many of these teams’ minds that the architecture is the urban design. Libeskind says, “This takes New York and architecture where it needs to be—which is not separating urbanity from architecture. I think this is a change that has been brewing for some time. But here it looks explosively new.” Indeed, in Europe and Asia, architects are frequently commissioned to do what in the U.S. would be classified as city planning or urban design.

Littenberg, who also worked on the discarded July plans, still feels strongly that “It doesn’t matter how much architecture you throw at the site, you have to figure out the essential orientation to open space and the existing urban fabric. We assert that urban design happens before architecture.”

Doing the urban design first is precisely the task Stan Eckstut has set for himself. As part of the evermore byzantine interrelationships among stakeholders (chart, page 46), the Port Authority hired his firm, Ehrenkrantz Eckstut & Kuhn, to draw up the master plan for the site, in cooperation with LMDC’s Garvin.

Eckstut is working with the same program the architects did, and he feels confident he can create a plan that would accommodate numerous future possibilities. “I am guided by principles,” he says. “The context, first. We’re recognizing the best of what’s there, and interpreting what New York is. We’re defining a system of public spaces and creating a distinct sense of place.” And, he adds, “I’m not looking for a singular work of art.”

Libeskind, for one, is not buying it. “Urban design done by a faceless office in the shadows doesn’t make much sense to me. We are in a world of grown-ups and professionals. Only a bold decision will empower the citizens of New York to create a civic space to match their aspirations.”

How bold can plans be?

Just how assertive or symbolic the rebuilding should be remains unanswered as Eckstut and Garvin pushed to create their plan. “In this ballet of billions, the public must decide what it is owed,” observed Rafael Vithol, member of the team called Think, at RECORd’s forum. His team’s three schemes represented three different levels of public commitment, from largely commercial to almost entirely cultural. None of them, added team member Fred Schwartz, “depend on office buildings to have meaning or as an iconic image.”

The Think scheme offered a resounding response for those who believe it was not just people and buildings that were attacked, but ideas and values: Think’s three schemes most clearly framed the all-important question: How are the aspirations of the public to be represented? “The apparently irreconcilable desire for memorial space and city life is a spur to architectural invention,” said Stan Allen, of the SOM team, which creates the opportunity to devise “a city not yet imagined.”

What would turn this “opportunity” into a necessity? The most provocative scenarios are certainly risky. But failing to make a calculated bet on the future may no longer be an option. Given the amount of vacant space available in New York, real estate analysts have predicted that the square footage lost in the towers won’t be needed for anywhere from 10 to 30 years. The real estate industry secured a federal guarantee of a whopping $5 billion in incentives for tenants willing to locate in Lower Manhattan. They are going begging.

One-way “dialogue”

What bets to make nowadays must inevitably involve the public. Officials enough to retain its hold on us as the terror attacks inevitably take their place in history?

In respecting the 200-foot-square footprints of the twin towers—a different planning consensus—and drawing the inevitable linkage between them, several designs created a very large and monumental precinct that would be off-limits to almost anything but the commemorative program. That expansiveness, in turn, stymied efforts to more gracefully thread the rebuilt site into the surrounding network of streets and blocks. It’s why the site remains a distinct enclave in most of the schemes. And it’s why you see big open plazas in schemes by Foster, Think (the Sky Park variation), and United Architects. The Heier Eisenman Gwathmey Helo team actually defined the memorial precinct as even larger, stretching it up into gardens in monumental openings high above the street and fingerling it out across the Battery Park City development and into the Hudson River (image 7). Studio Libeskind’s scheme rejects the footprints in favor of exposing the length of the “heroic” slurry wall that held back the Hudson River as the towers collapsed on top of it (image 2).

We should beware of a commemorative battle of the biggest. It should not be surprising that survivors would define significance in terms of size as well as in the use of ruins. This is what happens in the absence of a sensitively led design dialogue.

Designers have learned from experience that significance is best conveyed by art and design, not size. Landscape architect Diane Balmori, who accompanied Ground Zero stakeholders on a tour of Berlin monuments, was particularly moved by a Holocaust memorial that involved only the painting of vanished Jewish owners’ names on building stoops.

To its credit (and with the involvement of designers), the LMDC committee that developed a draft mission statement for the memorial did not demand that the footprints be retained, only respected. Artifacts from the destruction need only be considered for inclusion, it added. Too bad the mission statement came too late to inform the program that was given the seven architect teams.

The teams also demonstrated the validity of other memorializing approaches. By extending the precinct of the historic St. Paul’s church into the site, a pocket park by SOM suggests a commemorative possibility that is both moving and authentic (image 6). Since September 11, 2001, the historic church has offered spiritual solace and physical respite for rescuers, victims, and volunteers.

Great idea, sure. But how to advance key rebuilding decisions while keeping commemorative possibilities open? A series of charrettes or competitions could help everyone understand what is possible on small or large sites, and a clear approach may emerge that does not entangle future possibilities for the entire site. Such an approach would also permit the city to wait longer for its realization. Waiting may seem cold-blooded, but priorities change as grief evolves, and a clearer view of what this memorial should say and how it should deal with the unique senselessness of the tragedy will emerge over time.

Do we really need another world’s tallest building downtown? Foster’s proposal alone won over many skyscraper rejectionists with its haunting elegance (image 4). It is the most beautiful he has ever done—and beauty counts in restoring the terrible gap in the skyline. Foster’s approach recognizes that if you want to set aside a great deal of the site for a memorial and still accommodate a lot of office square footage, a super-tall building is not an unreasonable answer. I am not among the naysayers who think it will take a decade or more for downtown to support significant new square footage. Strategic invest-

Criticism (continued on page 50)