TERREFORM
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Terreform is a nonprofit organization and philanthropic design collaborative that integrates ecological principles in the urban environment. The group views ecology in design as not only a philosophy that inspires visions of sustainability and social justice but also a focused scientific endeavor. The mission is to ascertain the consequences of fitting a project within our natural world setting. Solutions range from; green master planning, urban self-sufficiency infrastructures, community development activities, climatic tall buildings, performative material technologies, and smart mobility vehicles for cities. These design iterations seek an activated ecology both as a progressive symbol and an evolved artifact.

Michael Sorkin – President/ Founder, Terreform

He is a New York based architect devoted to both practical and theoretical projects at all scales with a special interest in the city and in green architecture. Recent projects include planning and design for a highly sustainable 5000-unit community in Penang, Malaysia, master planning for Hamburg, Visselhoevede, Leipzig, and Schwerin, Germany, planning for a Palestinian capital in East Jerusalem, urban design in Leeds, England, campus planning at the University of Chicago and CCNY, studies of the Manhattan and Brooklyn waterfronts, housing design in Far Rockaway, Vienna, and Miami, a resort in the desert of Abu Dhabi, and a park in Queens, New York. Sorkin is active in research in issues of urban morphology, sustainability, and equity and has been the recipient of numerous awards from, among others, Progressive Architecture, ID, and the New York AIA.

Michael Sorkin is the Director of the Graduate Urban Design Program at the City College of New York. From 1993 to 2000 he was Professor of Urbanism and Director of the Institute of Urbanism at the Academy of Fine Arts in Vienna. Previously, Sorkin has been professor at numerous schools of architecture including the Architectural Association, Cooper Union (for ten years), Columbia, Yale (holding both Davenport and Bishop Chairs), Harvard, Cornell (Gensler Chair), Nebraska (Hyde Chair), Illinois, Pennsylvania, Texas, Michigan (Saarinen Chair) and Minnesota. In 2005 -2006, Sorkin is directing studio projects for the post-Katrina reconstruction of Biloxi and New Orleans. Sorkin lectures widely and is the author of many articles in a wide range of both professional and general publications and is currently contributing editor at Architectural Record and Metropolis. For ten years, he was the architecture critic of The Village Voice. His books include Variations on A Theme Park, Exquisite Corpse, Local Code, Giving Ground (edited with Joan Copjec), Wiggle (a monograph of the studio's work), Some Assembly Required, Other Plans, The Next Jerusalem, After The Trade Center (edited with Sharon Zukin), Starting From Zero, Analyzing Ambasz, and Against the Wall. Forthcoming in 2006 are Twenty Minutes in Manhattan, Eutopia, All Over the Map, Indefensible Space, and Project New Orleans.

Mitchell Joachim, PhD – Executive Director, Terreform

Dr. Joachim completed his doctorate at the Massachusetts Institute of Technology in Architecture: Design and Computation. His dissertation is entitled: Ecotransology - Integrated Design for Urban Mobility. He is faculty at Washington University and Columbia University. Prior to MIT, he accomplished two master's degree programs: Harvard University MAUD, and Columbia University M.Arch. His BPS was fulfilled through SUNY at Buffalo with honors. Currently he is a Partner in the nonprofit organization Terreform. Formerly as a researcher at the Media Lab Smart Cities Group, he collaborated with his advisor William J. Mitchell on the General Motors/ Frank O. Gehry Concept Car. In parallel with Gehry Partners in Los Angles, he actively worked as an architect on the Brooklyn Atlantic Yards Project. During his time in Cambridge, he has been the Moshe Safdie and Associates Research Fellow award winner and a Martin Family Society Fellow for Sustainability. Previously he has been an architect at Pei, Cobb, Freed and Partners in New York. Mitchell has served as visiting faculty in sculpture at the School of the Museum of Fine Arts, Boston. His work has been published within 306090, Newsweek, Popular Science, Discovery News, Frieze, Intersection, L'Arca, Esquire, Monacelli Press, New York Magazine, Rizzoli, Technology Review, The Boston Globe, The New York Times, and more. His winning design of living structures - Fab Tree Hab - with Habitat for Humanity has been honored with a nomination for the world's largest design and innovation INDEX Award and exhibited internationally. He also was awarded the Time Magazine Best Invention of the Year 2007, Compacted Car, w/ Smart Cities Group, MIT.

Makoto Okazaki – Principal Architect, Terreform

Fifteen years of experience in architectural and urban design and construction management of high-rise buildings, cultural buildings, transportation hub, and city developments. At Michael Sorkin Studio for the past four years, he has devoted to both practical and theoretical projects at all scales with a special interest in the city and in green architecture. Recent projects include planning and design for a highly sustainable 5000-unit community in Penang, Malaysia, urban design in Chungcheong, Korea, campus planning at CCNY in Manhattan, New York, housing design in Bangalore, India, a resort in the desert of Abu Dhabi, and a park in Queens, New York. He has received Japan Sign Design Association Awards (2001) and Second Place on Architectural Design Contest (1997) from Ministry of Internal Affairs of Japan.

Maria Aiolova – Principal Investigator, Terreform

She received her Master in Architecture in Urban Design from Harvard University, Graduate School of Design in Cambridge, Massachusetts, her Bachelor in Architecture from University of Sofia, Bulgaria and the Technical University of Vienna, Austria. She also holds Professional Degree in Architecture from Wentworth Institute of Technology in Boston, Massachusetts. Maria has a number of winning competitions including first place in the CHARLES/MGH STATION Design Competition, Boston and the Izmir Post District International Urban Design Competition in Izmir, Turkey. As a founder and director of Compost Art Center, nonprofit artists residency program, Maria has been involved in the design and construction of affordable and dynamic space for artists in the new millennium. Located in Southampton, Long Island, New York, the Center established a unique laboratory for artists, students and individuals of all ages and backgrounds to explore the creative process. In 2002, Maria formed a Design/Build Partnership focused on design and construction sustainable houses of modest scale and budget in the Hamptons. The houses she designed and built represent an appreciation of the intense beauty of the East End of Long Island; challenging the current standards of grandiosity and repetition; utilizing simple design and sustainable building strategies. In addition to her diverse design work, Maria has been a visiting critic at the Graduate School of Design at Harvard University, Rhode Island School of Design and Boston Architectural Center.

Yanqing Sun, PhD – Collaborator, Terreform

Partner of Shanghai based Sorkin Studio China Office. He obtained his Ph.D, M.Arch and B.Arch from Tongji University, Shanghai. He also holds a M.U.D degree from The City College of City University of New York. The doctorate researches focused on green architecture and urban design in the dimension of regionalism. His professional career started in 1992 at Xian Design Institute, and his previous working experience also includes Feng Jizhong studio at Shanghai, China and Venturi, Scott Brown & Associates at Philadelphia. Before joining Sorkin Studio, he was the chief designer of Cox Architects & Planners Shanghai Office.

Andrei Vovk, AIA – Architect, Terreform

Born in 1962 in Moscow, Russia. He graduated from the Moscow Institute of Architecture in 1989, immigrated to the United States in 1992, worked as an architect both in Moscow and in New York until September 2001—a partner in the Michael Sorkin Studio, urban design consultant, teaching since 1991, different courses in different schools: structures, media, design and urban design. Formerly faculty of architecture at Pratt Institute, The City Collage CUNY, SUNY at Buffalo, Academy of Fine Arts, Vienna.

Jonathan D. Solomon – Collaborator, Terreform

He is a designer trained in architecture and urban planning at Princeton and Columbia Unversities. He has worked as an architect and as a planner in New York City and is currently Assistant Professor in the Department of Architecture at the University of Hong Kong.

Kent Hikida, AIA – Architect, Terreform

Faculty at The Parsons AAS Interior Design program. Formerly Project Manager at Gensler and Designer/Project Architect at HLW International, LLP. BA, Bennington College; M.Arch, Columbia University.

Craig Schwitter, BSCE MSCE PE – Partner, Buro Happold

Born 1967.Craig joined Buro Happold in the Spring of 1992 having previously graduated from John Hopkins University and MIT, where he took a particular interest in specialized structures. Starting out in the Bath office, he worked on a number of projects including Eastleigh Tennis Centre where he put his special structures knowledge into action. "I left the US looking for something different and found Buro Happold," says Craig who describes himself as a native New Yorker with a mixture of Swiss and Italian heritage. After a two year period in Bath Craig returned to New York where he joined FTL Happold. Craig was involved in the design and construction of the Butlins Skyline Pavilions, which made use of tensile structures and of course the Millennium Dome in Greenwich where he worked on-site. Craig, along with other senior people from FTL, formed the new Buro Happold New York office. From a core of five key people, the team has now grown to 70. The practice offers structures, building services and FEDRA. He was appointed to the first Bedford Distinguished Chair of Architecture and Engineering, in the architectural and civil engineering departments of Rensselaer Polytechnic Institute in New York.

Cities From Scratch – Michael Sorkin

The statistics are grimly eloquent. Half the world's 6 billion people are now living in cities and the rate of urban growth is over one million per week. Disproportionately, this burgeoning population is in the developing world and the vast majority of these new city dwellers are very poor. According to one study, 90 percent of urban household growth in South Asia in the slums. By 2015, sub-Saharan Africa will have 332 million slum dwellers, doubling every 15 years. By the most conservative estimates, at least a billion people are currently in slums, possibly as many as twice that. Of the thirty largest "mega-slums" on the planet three – Soweto (1.5 million), Cape Flats (1.2 million), and Inanda INK (0.5 million) are in South Africa.

Debates over what can be done about this misery have now been going on for centuries. Whether the answer to slums lies in a rising economy, in rationalization and improvement in place, in demolition, or in dramatically new forms of urban physical organization, it has long seemed clear that the contemporary convergence of exponential urban growth, vastly increasing slums, the emergence of the unsustainable pattern of megacities and the ubiquity of a continuously sprawling, interurban, "non-place" ooze demands the construction of new cities, imagined from scratch. Indeed, at our current rates of growth, two cities of half a million are needed every week, just to keep up with growth.

The images here are from an on-going project to study potential morphologies of new cities of various sizes in a number of locations – real and imagined – and try to address several fundamental issues of new town design. The first goal is self-sufficiency, based on a careful reading of the settlement's ecological footprint and on an effort to achieve neutrality in such things as energy, carbon, temperature, food, employment, housing, movement, waste, diversity, and other categories. While the idea of a completely self-sufficient – import replacing - metropolis may not be fully practical, its degree of autonomy is a crucial measure of urban success economically, environmentally, and politically. In an era of weak states and powerful corporations, the tractable city remains at the bulwark of democratic popular power.

If new cities are logical increments of social, political, economic, and environmental organization, they confront – in their potential numerousness – fundamental issues of form. Some of the principles are easy: these cities need to be compact, green, independent of the private automobile, structured around walkable neighborhoods, and contoured to the particulars of local landscape and bio-climate. While these critieria may be beyond any useful dispute, they do not directly conduce form. The morphological question for these, cities, then, is just where their character will come from. As historic cultures of place experience are stressed by globalized culture and technology, their relvance must be vigorously questioned if they are not – in the manner of so-called "new urbanism" - to wind up as camouflage, forms from which all originary meaning has been sucked. Nor is it rational to simply surf the global flows, accepting the spatial character of multinational culture, flecking the sprawl with the odd bit of dramatic architecture.

The work presented here offers another argument. As both traditional and contemporary urban culture become more and more alienated from both experience and nature, the singularity of new cities will more and more rely on artistic invention as a point of origin for self-expression. Producing a Fez, a Kyoto, or a Prague does not happen automatically and our desperately needed new cities – which must make huge levels of accommodation available at a stroke – will not have centuries of intimate interaction to give them their form and patina. Rather, new cities must be born with challenging, beautiful, functional, and sustainable characters, engaging their citizens at once with the promise of both a life well-lived and with a thick texture of annealing points to which local identity can attach itself. This is no luxury. The modern culture of the minimum that informs so much of our urban ideology, polarizing the planet into internees in their squalid camps and slums and global citizens with their uniform infrastructure of highways, condos, Starbucks, and Bilbao Museums, must be opposed by numerous acts of inventive love. Universal architecture is the enemy of the most important of our universal values: difference, tolerance, sustainability, and the beautiful.