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1 THE TRIANGLE REPORT

THE COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART

Message from the President

As the 2003-04 Academic Year draws to a close, I'm pleased to introduce you to *The Triangle Report.* Designed to provide periodic updates to the Cooper Union Community—students, faculty, staff, alumni and friends—*The Triangle Report* describes progress on the College's master plan to modernize its academic facilities and achieve enduring financial strength.

The report draws its name from the triangle formed by the Hewitt Building at 41 Cooper Square, the Engineering Building at 51 Astor Place and Cooper Union's property at 26 Astor Place between Lafayette Street and Fourth Avenue—where Peter Cooper's Foundation Building sits as an icon at the center. Each of these sites is designated to play a crucial role in the institution's future, providing technologically advanced, pedagogically sophisticated space for our academic programs and generating a reliable stream of income to support the full-tuition scholarship.

At the close of 2003, the plan was actualized in earnest, with two landmark events. First, The Related Companies broke ground on 26 Astor Place for a 22-story residential building designed by esteemed architects Gwathmey Siegel & Associates, followed closely by the announcement that our Architect Selection Committee had concluded a rigorous, international search naming Thom Mayne to design Cooper Union's new academic building.

With Mayne and his project team now engaged with Cooper Union for almost half a year, this first issue of *The Triangle Report* offers an overview of our progress. It is useful, as you read through it, to think about the parameters that we stipulated in the college's original goals in searching for an architect.

The Cooper Union seeks a unique architectural solution that responds to its mission, its commitment to unparalleled excellence, its focus on the confluence of science and art and the belief that space can inspire learning and engender creativity. The solution must recognize the rapidly evolving pedagogical framework and educational delivery systems in higher education, but also the timelessness of fundamental learning strategies. The building needs to be based on high standards of sustainability, durability and flexibility so that it can be of most value to the college over time. As the home to Cooper Union's School of Engineering, the Humanities and Social Sciences faculty and portions

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Project Team Nears Completion of Pre-Schematic Phase

The project team for the new academic building, led by Thom Mayne and his firm Morphosis in association with Gruzen Samton and contractor Sciame Construction, began working on the Pre-Schematic Phase of the project in December 2003. Coordination for the effort is being provided by Horne Rose, engaged by Cooper Union as its Owner's Representative. Horne Rose is part of Jonathan Rose Companies, a New York based development and project management group that works with owners to develop buildings that support the cultural, environmental and biological health of communities.

> ***The Pre-Schematic Phase of design is scheduled for completion by autumn, 2004.***

By March the design team had assembled its core consultants and begun developing both design and program for the new building. Their approach has been to work on the two concurrently so that discoveries made during design can inform programming, rather than adjusting programming later to accommodate design. Programming started with transfer and analysis of the EE&K Report, a preliminary program document that was developed between 2000 and 2003 with the faculty and administration of Cooper Union.

On February 10th Thom Mayne made a presentation to introduce his work to the entire Cooper Union community in the Great Hall. He also met with a group of Cooper Union student representatives. Mayne and his team have had ongoing meetings with the deans, each of the four faculties, and many administrative departments. In addition, a committee representing the CUFCT and a group representing the School of Architecture faculty have been formed to provide input during the development process.

On February 25th, an all day Working Session was held at the offices of Gruzen Samton. Thom Mayne, Peter Samton and their project teams met with the project Steering Committee: President Campbell, Vice Presidents Denes and Hawks, Deans Baum, Bory, Lemiesz, Rindler, Vidler and Weir, Trustee William Sandholm, representing the Board, and Clark Wieman, Senior Planner. Also present were Horne Rose, Sciame and project consultants focused on laboratory design. Discussion centered on preliminary strategies for incorporating the baseline program within the zoning envelope. An end of the day wrap-up session outlined next steps including how to incorporate user input and a commitment by Cooper Union to complete a centralized scheduling study that is critical to the success of the new building.

The Pre-Schematic Phase of design is scheduled for completion by autumn, 2004. It will define a basic design concept, create a program framework for making more detailed programming decisions and set the budget and schedule for the project. The goal is to have an exhibition featuring the design in September 2004.

The next step, Schematic Design, will be completed by the end of 2004. Design of the building will be complete by the end of 2005. With groundbreaking anticipated in early 2006 and 20 months of construction, the new academic building is scheduled for completion by the end of 2007. ■

A Commitment to Sustainable Design

The Morphosis/Gruzen Samton team brings to the project an integrated approach to incorporating sustainable principles into the design. From their first working sessions they included the mechanical and structural engineer and specialty "green" and day lighting consultants. The goal is to attain a minimum LEED rating of Silver for the building and, right now, the team is looking at the possibility of "going for gold." The LEED (Leadership in Energy and Environmental Design) Green Building Rating System™ is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Members of the U.S. Green Building Council representing all segments of the building industry developed LEED and continue to contribute to its evolution.

Cooper Union received a New York State Energy Research and Development Authority (NYSERDA) grant to study combined heat and power for both the new building and the other Cooper Union buildings. This study is currently underway with an immediate focus on the potential for co-generation. ■

MESSAGE FROM THE PRESIDENT

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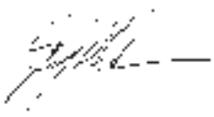
of the Schools of Architecture and Art, the structure will need to maximize its utility as both a space for study and a learning laboratory. To the greatest extent practical, mechanical, structural, telecommunications, and environmental technologies must be accessible for study by the building users...

This critical project is the linchpin in Cooper Union's overall strategic plan for renewal of its campus, for revitalization of the community centered on Cooper Square and for establishment of a sustainable financial infrastructure for the institution.



George Campbell Jr.

Program

The new academic building is planned to house all functions for the Albert Nerken School of Engineering, some facilities for the School of Art and the Irwin S. Chanin School of Architecture, and the Humanities and Social Sciences Faculty.

The design team has been tasked with providing a unified program that accommodates Cooper Union's needs between the Foundation building and the new academic building. The evolving program indicates that there will be some adjustments to space within the Foundation Building, which are still being defined.

...the study of engineering itself will continue to evolve as technological innovation and scientific discovery reshape current knowledge and future potential.

The curriculum for the School of Engineering is currently changing from a departmental base to a more flexible interdisciplinary structure. More importantly, the study of engineering itself will continue to evolve as technological innovation and scientific discovery reshape current knowledge and future potential. The building therefore will have a great deal of internal flexibility to accommodate these changes.

Academic space within the new building will consist primarily of classrooms, laboratories, studios, offices and conference ooms. There will also be an auditorium, gallery, student and faculty lounges and areas for informal gathering to encourage community. ■

Our Partners

Thom Mayne founded **Morphosis Architects** in 1972 to develop an architectural style that surpasses the boundaries of traditional forms and materials. With Morphosis, he has received 25 Progressive Architecture Awards, 52 AIA Awards and has been the subject of group and solo exhibitions throughout the world. The firm recently completed the celebrated Diamond Ranch High School and the University of Toronto Graduate Student Housing. Current projects include the University of Cincinnati Student Center, the Caltrans Headquarters Building and the technologically advanced NOAA Satellite Operation Control Center. Mayne, who has significant experience designing green buildings, is acclaimed for integrating the elements of environmentally conscious buildings with progressive design. Founder of the Southern California Institute of Architects, Mayne has demonstrated leadership not only in architecture, but in the entire process of making buildings—from an organic approach to sustainability, to the integration of engineering principles—and to educating the next generation.

Horne Rose, the consulting arm of Jonathan Rose Companies, provides owner's representative services to support communities and institutions through planning, development, design and construction. Founded in 1989, Jonathan Rose Companies is currently managing over $500 million in residential, commercial and mixed use projects on its own behalf and for clients including the Seventh Regiment Armory Conservancy, Theatre for a New Audience, the Duke Foundation, Winrock International, and the National Jazz Museum in Harlem. The firm brings each project its unique experience as owners and developers, team management skills and a commitment to sustainability and excellence in design. Jonathan Rose has won numerous awards including Global Green USA's "Designing a Sustainable and Secure World" award, the Natural Resources Defense Council's "Force for Nature" award, the Open Space Institute's "Land Conservation Award" and the AIA New York Chapter and NY Foundation for Architecture 2002 Design Award.

Gruzen Samton is a 130-person, internationally recognized architectural, planning and interior design firm with offices in New York City, Alexandria, Virginia, and Newark, New Jersey. Gruzen Samton has designed projects for major institutions including: MIT, Columbia University, William Paterson University, Queens College, SUNY Old Westbury, United States Merchant Marine Academy, Touro College, and Medgar Evers College. At Columbia University, Gruzen Samton has completed five major projects – more than any other architect since McKim Meade and White designed the campus. Gruzen Samton has a long history of successful collaborations to design quality, award-winning buildings, including recent associations with Bernard Tschumi, Cooper Robertson, Patkau Architects, Pei Cobb Freed and Partners and Davis Brody Bond. Two collaborations have been on major buildings in Manhattan: Alfred Lerner Hall Student Center at Columbia University, and Stuyvesant High School in Battery Park City.

F.J. Sciame Construction Co., Inc. (Sciame) is a 100-person firm based in New York City serving as construction manager for the new academic building. Sciame brings a 27-year history and a proven track record of completing a wide range of buildings and interior spaces on time and within budget. "Where Building is an Art" has become a trademark of Sciame because of the company's meticulous examination and evaluation of each detail of the project. CEO Frank Sciame's sensitivity to, and appreciation for, quality and specialized design have become values of all members of Sciame. The firm has consistently received awards from such notable institutions as the American Institute of Architects, The Municipal Arts Society of New York and New York Landmarks Conservancy.

IBE Consulting Engineers is a 30-person firm based in Los Angeles that provides mechanical, electrical, plumbing engineering and fire protection design consultancy services, specializing in cost effective designs that meet clients' budgets and technical expectations while achieving additional measures such as energy efficiency, ease of maintenance, and system integration. Currently involved in a wide range of projects, IBE is working on federal office and courthouse projects, research laboratory projects, museums, universities and college facilities. IBE has a history of successful collaboration with architecture firms such as Morphosis, Perkins & Will, The Smith Group, Cannon Design, Anshen + Allen, and Koning Eizenberg Architecture.

Syska Hennessy Group is a recognized leader in sustainable design, and energy-efficiency, and is working with IBE Consulting Engineers on the Mechanical, Electrical and Plumbing (MEP) of our new academic building. Syska Hennessy is a national and international leader in consulting, engineering, technology and construction whose clients include top corporations, fast-growing and high tech companies, educational institutions, design professionals, real estate owners and developers, as well as local, state and federal government agencies. Syska Hennessy is headquartered in New York and Los Angeles with a staff of nearly 600 throughout the United States.

Steven Rosenstein Associates (SRA) is a national leader in the programming, planning and design of science and academic facilities. As a national laboratory consulting practice, SRA provides a complete range of laboratory planning and consulting services ranging from strategic facilities planning through detailed laboratory design. Beyond traditional facilities planning issues, SRA's focus is to provide responsive and innovative solutions that address the long-range requirements of the institutions they serve.

John A. Martin & Associates, Inc. (JAMA), located in Los Angeles with offices in Denver and Las Vegas, has teamed with **Goldstein Associates**, Consulting Engineer, PLLC, (GACE) in New York City to provide structural engineering design. JAMA is an internationally known structural engineering firm that has been in business for over 50 years and has extensive experience with academic institutions such as: USC, UCLA, the University of Arizona, MIT, and others. With offices in New York and Moscow, GACE is a structural engineering firm providing services throughout the United States as well as overseas. GACE has extensive experience with academic institutions in New York City completing projects for New York University, Pace University, Yeshiva University, Rockefeller University, among others.

Davis Langdon Adamson was founded in 1974 to provide a comprehensive construction cost planning service to architects and owners. The firm has since grown into an international consultancy delivering a complete range of services to control cost, limit risk and add value throughout project development. Now consulting with major corporations and institutions, the firm's global practice, Davis Langdon & Seah International, has more than 2,700 staff in 28 countries, and is consistently ranked as the number one international cost consultant in World Architecture's annual poll. The firm has provided services for such designers as Morphosis, I.M. Pei, Sir Norman Foster, Nicholas Grimshaw, Frank Gehry, Daniel Libeskind, Zaha Hadid, Renzo Piano, Herzog de Meuron, and OMA. ■