



## **Payette's green design at Columbia University wins 3 design awards**

May 22, 2009 - Spotlights

Payette, a leading architectural design firm specializing in complex buildings for medical and scientific research, academic teaching, and healthcare, received three notable design awards for its design of the Gary C. Comer Geochemistry Building at Columbia University's Lamont-Doherty Earth Observatory.

"Honoring the challenge posed directly by the late Gary Comer, founder of the Lands' End Company and a committed supporter of Lamont's climate change research, the building's architects set out to make this a truly sustainable laboratory in spite of its demanding environmental requirements," said Joe Ienuso, executive vice president of Columbia University Facilities. "Payette sought to achieve this in a holistic way, recognizing that sustainability is more than using green materials or green power. Starting with its placement on the campus, sustainability was at the root of the design concept." The Comer Geochemistry Building garnered an award for design in the 2009 Sustainable Design Awards sponsored by the Boston Society of Architects committee on the environment and the American Institute of Architects. The biennial award is co-sponsored by the U.S. Environmental Protection Agency and the committee on the environment of the AIA New York Chapter. Its purpose is to recognize projects that systematically integrate several aspects of sustainability and, as a result, make a substantial impact on the environment. Jurors reviewed more than 50 portfolios of projects from around the world. They cited the Comer Building's success in meeting the technical challenges of a complex research program, and also how "the solution settles into the landscape beautifully." The project was also named the 2009 Lab of the Year in the competitive awards program co-sponsored by R&D Magazine and the Scientific Equipment and Furniture Association (SEFA). Now in its 43rd year, the annual Lab of the Year competition brings together judges from the fields of R&D programming, planning, design, construction, and engineering, as well as laboratory scientists and equipment manufacturers. According to the demanding judging criteria, there are more than 30 different characteristics that jurors evaluate, including siting, planning, flow of materials and people, plant operation, aesthetics, working conditions, energy efficiency, and cost to build/operate. The Society for College and University Planning (SCUP) and the American Institute of Architects Committee on Architecture for Education (AIA-CAE) also cited the project in the 2009 Excellence in Planning and Excellence in Architecture Awards program.

The Lamont-Doherty Earth Observatory, part of Columbia University's Earth Institute, is home to hundreds of research scientists, including a geochemistry staff of over 80. The observatory's researchers investigate the origin, evolution and future of the natural world, including the dynamics of the solid earth, circulation of the oceans and atmosphere, and transport of materials via wind and water. In recent years, the work of the geochemistry division has been at the forefront of global climate science.

The Gary C. Comer Building was recognized with a Merit Award for Excellence in Architecture for a New Building, one of only two projects recognized in this category. "The opening of this new laboratory facility is an important step towards accelerating our efforts to understand the earth's dynamics and predict our planet's changing climate," said Michael Purdy, director of Lamont-Doherty Earth Observatory. "The visionary design combines the three primary attributes of a great and effective building: environmentally sound and energy-efficient architecture; an uncomplicated layout that is driven directly by the specific needs of the researchers; and a traffic pattern that will enhance important interactions between the many different groups of users." A common thread among all jurors was the innovative planning and siting solution for the 70,000 s/f cutting-edge research facility. While the design incorporated numerous common sustainable concepts and materials, the actual solution is notable for its siting and building organization strategies. The imbalance between the number of laboratories and offices required led to an innovative "skip-stop" massing strategy. A two-story wing of 15-foot high laboratories was coupled with a three-story wing of 10-foot high offices. Separating the laboratory and office functions not only reduced the building footprint, it also allowed for a highly responsive energy infrastructure. The lab side is a high-energy environment with complex mechanical systems, while the office side is a low-energy structure with modest systems and operable windows. "We share this honor with Columbia University and all of the scientists at Lamont-Doherty who are advancing our knowledge of the planet and the impact of climate change," said James Collins Jr. FAIA, LEED AP, president of Payette. "These awards are a testament to our shared mission of environmentally responsible building solutions." Decoupling the constrained lab areas from more ordinary office and support functions enabled the development of a highly efficient, low-impact design (with respect to both energy and material use) for more than 70% of the building volume. This resulted in a 19% smaller building footprint and 13% smaller building envelope than the conventional, 2-story baseline design.

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