

Chapter 1 : Cooper Union - Wikipedia

The Foundation Building opened in and marked the creation of The Cooper Union. The building "today a New York City landmark" quickly became a common meeting place for intellectuals, inventors, tinkerers, and people from across the social strata.

History[edit] Founding and early history[edit] The Cooper Union was founded in [23] by American industrialist Peter Cooper , who was a prolific inventor, successful entrepreneur, and one of the richest businessmen in the United States. After achieving wealth, he turned his entrepreneurial skills to successful ventures in real estate , insurance and railroads. The interior of the Great Hall, c. To achieve these goals, Cooper designated the majority of his wealth, primarily in the form of real estate holdings, to the creation and funding of The Cooper Union, a tuition-free school with courses made freely available to any applicant. According to The New York Times in , "Those [students] only are supposed to pay anything who are abundantly able, or prefer to do so. People with limited funds could obtain tuition in studies and receive knowledge from branches of higher education where all were welcomed, free of charge, to the opportunities the institution grants. Since the opening of this institute all who desire, and particularly those who work for their own support, can avail themselves, free of charge, of all the advantages the institution affords. The early institution also had a free reading room open day and night, and a new four-year nighttime engineering college for men and a few women. Tiemann , [29] John E. Since , the Cooper Union has educated thousands of artists, architects, and engineers, many of them leaders in their fields. Petersen , one of the founders of the American Institute of Architects. It was the first structure in New York City to feature rolled-iron I-beams for structural support; Peter Cooper himself invented and produced these beams. Douglas on the question of federal power to regulate and limit the spread of slavery to the federal territories and new States. It is now referred to as the Cooper Union Address. The audience seats, which had not been altered since a prior renovation in , were replaced by modern seating designed to replicate the unique shape of the original furniture. The hallway and lobby leading to the Great Hall were also redecorated during the renovation period, with additions featuring historical information and primary source documents relevant to the space. In , the Great Hall hosted a musical tribute devoted to the men, women and children affected by the American Civil War over years before. The Faculty of Humanities and Social Studies provides classes and faculty to all three programs. In addition to resident assistants , the Residence Hall provides living spaces for incoming freshman students of all three schools. New first-year students are not required to live in the dormitory building, unlike housing policies of many other universities. Remaining space in the building, when available, is allocated to upper-class students based on individual housing needs. In response to concerns by East Village residents and local elected officials that the development might convert their artistic neighborhood into a sterile business campus, [64] Cooper Union altered the building designs and sizes that were then approved by city planners. In contrast to the Foundation Building, 41 Cooper Square is of modern, environmentally "green" design , housing nine above-ground floors and two basements. The structure features unconventional architectural features, including a full-height Grand Atrium, prevalent interior windows, a four-story linear central staircase, and upper-level skyways , which reflect the design intention of inspiring, socially interactive space for students and faculty. Other "green" features in the design include servo -controlled external wall panels, which can be swiveled open or closed individually in order to regulate interior light and temperature, as well as motorized drapes on all exterior windows. The ninth, top floor is dedicated completely to School of Art studio and classroom space in addition to the art studio spaces located throughout the building. Rose Auditorium, a capacity lecture hall [citation needed] and event space designed as a smaller, more modern alternative to the Great Hall. Connecting the first four floors of 41 Cooper Square is the linear Grand Staircase, which is used both for transportation and as a recreational space for students. Higher floors are connected by floating interior skyways , in addition to two standard corner staircases and three passenger elevators. Further, under a very unusual arrangement, New York City real-estate taxes assessed against the Chrysler lease, held by Tishman Speyer , are paid to Cooper Union, not the city. This arrangement would be voided if Cooper Union sold the

real estate. During the national real estate crash in , Cooper Union investment committee Chair John Michaelson acknowledged to The Wall Street Journal that Tishman Speyer "would not do that deal today" since such a generous deal had been made near the peak of the real estate boom. Cooper Union financial crisis and tuition protests Around October 29, , rumors circulated that the school was in serious financial trouble. On October 31, a series of open forums were held with students, faculty, and alumni to address the crisis. A possible tuition levy and more pointed solicitation of alumni donations and research grants were being considered to offset recent financial practices such as liquidating assets and spending heavily on 41 Cooper Square , a controversial new academic building. On April 24, , the college announced approval from its Board of Trustees to attempt to establish a new tuition-based cross-disciplinary graduate program, expand its fee-based continuing education programs, and impose tuition on some students in its existing graduate programs, effective September . The administration maintained that they would continue to offer need-based tuition remission to incoming undergraduates on a sliding scale. The administration, board of trustees, and those members of the Cooper Union community who had been occupying the Office of the President since early May reached an agreement that ended the occupation on July . The decree includes provisions for returning to a sustainable, tuition-free policy, increased board transparency, additional student, faculty and alumni trustees, an independent financial monitor appointed by the Attorney General, and a search committee to identify the next full-term president. It is one of the most prestigious and selective engineering schools in the United States, consistently ranked within the top ten undergraduate engineering programs among non-doctorate-awarding schools nationwide. All School of Engineering departments maintain a focus on project-based learning and opportunities for extension through undergraduate research, in addition to training students in the science and mathematics fundamental to engineering practice. Students in the B. In contrast, the interdisciplinary B. Baum , who served as Dean from to . The core curriculum, which is required of all engineering students regardless of major , consists of 17 specific courses in the fields of Mathematics , Physical Science , and Humanities and Social Sciences , as well as two project-oriented courses in Engineering Design. The academic curriculum is designed such that all students are capable of completing this core curriculum by the end of their Sophomore year. Students may pursue the degree with or without a research thesis. All applicants must declare their major on application, enrolling themselves in a particular department or the interdisciplinary B. Most department-specific courses do not begin until the latter half of the second year, and therefore switching majors before that point is very feasible from a curricular standpoint. However, given the intense and competitive nature of the first two years, maintaining the academic requirements for eligibility can be extremely difficult. Chemical engineering[edit] The chemical engineering curriculum and program structure is designed to provide students with thorough knowledge of energy and material balances , thermodynamics , and the physical and reactive characteristics of chemical structures, in order to facilitate creative design and analysis of chemical and nuclear systems. Major focus is given to understanding and quantification of the relevant safety, cost, and environmental impact of such systems. The Chemical Engineering curriculum includes a total of 53 credits in specific required courses in addition to the credit engineering core curriculum. Civil engineering[edit] Civil engineering is the oldest and smallest degree-granting engineering program at Cooper Union; roughly 25 students are admitted into the undergraduate program each year. The Civil Engineering program focuses heavily on the topics of mechanics , materials science , and computer-aided design and analysis. Students are also educated in the processes and analysis methods relevant to the development of new materials and structural systems. All students in the program are required to choose a specialization, and each has unique graduation requirements. The computer engineering track is designed to develop skills in computer architecture , systems programming , data communication networks, and artificial intelligence. Finally, the Electronic Systems and Materials specialization bridges Electrical Engineering and Materials Science , including advanced integrated circuit design and the production of semiconductors and optical materials. All tracks also include a general electrical engineering curriculum, covering circuits , digital logic , control systems , signal processing, and computer programming. Students study varied topics including thermodynamics , control engineering , mechanics , materials science , systems , and instrumentation , and may choose to pursue individually crafted

specializations through elective coursework. Common specializations include Aerospace , Biomechanical , and Robotics Engineering. In addition to providing required and elective courses in their respective subjects to students in all majors, the faculty of these departments provide engineering students with research and independent study opportunities. Consisting of roughly students and 70 faculty members, [] the Cooper Union School of Art draws on the creative energy of the East Village to produce some of the most distinguished artists in the world today. The school offers a 4-year program leading to a Bachelor of Fine Arts B. A degree, which can be extended to 5 years with faculty approval. In addition, students may instead opt to receive a Certificate of Fine Arts degree, which can be completed in two years of study. Mike Essl [] served in an interim capacity for , after which he became the current dean. This conceptually-focused assessment consists of six prompts addressed by applicants using visual pieces in any medium, as well as 10 short-answer writing prompts. The School of Art encourages all applicants to attend an open house prior to portfolio submission, wherein faculty members are available to offer suggestions and advice regarding portfolio compilation. In addition, a total of 39 credits in specific courses are required of all students. This core curriculum includes literature, social sciences , art history, and writing courses, in addition to "foundation" studio courses in color , drawing , and design. This program is generally limited to an extremely small number of "special case" students for whom the B.

Chapter 2 : Foundation Building - Cooper Union | Open Green Map

Cooper Union was founded by Peter Cooper in It is a free school of science and art with an endowment of \$4,, Stereopticon view of "Cooper Union at the Head of the Famous Bowery, New York."

History[edit] The Cooper Union Academic Building was once the site of the two-story Hewitt Building, a city-owned property constructed in that housed the School of Art for the institution. The plan was put forth in the beginning of and proved to be very controversial. It originally called for a nine-story academic building to replace the Hewitt Building, a fifteen-story office complex to replace the engineering building, the removal of Taras Shevchenko Place a tiny street honoring a Ukrainian folk hero between St. Cooper Union needed approval from the City Planning Commission for the construction of larger than normal buildings and the transfer of zoning allowances between sites before the plan could be realized. They felt the proposal would turn the low-rise artistic character of the East Village into a typical midtown high-rise business district. The bulk of the two new buildings were reduced, Taras Shevchenko Place was to remain and the development of the lot on Stuyvesant Street was no longer pursued. Not only was the new space and resources needed by faculty and students, but the school needed new sources of revenue. Its revenue consisted of rent collected on the land below the Chrysler Building , which it owns, alumni donations, and an investment portfolio. The primary assets are in real estate and that is what the plan capitalized on. Leasing out the parking lot and the office and commercial spaces in the new buildings would bring in much needed income for the school. On September 3, , the expansion plan was approved by the City Planning Commission. The necessary zoning changes were permitted, allowing the school to maximize the amount of office space in the new tower and have commercial space on land that was restricted to educational and philanthropic uses. The city planners felt the public good that Cooper Union provided outweighed the impact on the community. After redevelopment is completed, an office tower designed by Fumihiko Maki will replace the former engineering building on 51 Astor place, with the Morphosis Academic Building on the former site of the art building just a block away. The area around the site consists mostly of low to mid-rise buildings with small commercial businesses on ground level and residential spaces above. Mixed into the scene are various buildings belonging to New York University. The neighborhood was once the scene of early twentieth-century tenements and warehouses and a heady experimental art and cultural scene in the s and s. Recent projects, most of which are part of the Cooper Union expansion plan, have started to change the modest physical profile. The site is serviced by two subway lines and many bus routes, which make it a desirable location for developers. Mayne situated the lobby entrance of the building at the corner of the block to face the entrance of the Foundation Building. Also, the ground levels are visibly accessible to the public. Retail space lines the Third Avenue frontage of the Academic Building similar to the original arcades of the Foundation Building. It was to be a vehicle for cross-disciplinary dialogue among the three disciplines, which had previously been housed in separate buildings. The atrium plays the role of the public square in the building where social interaction can occur. Its form was created by carving out program space and circulation paths and is contained and accentuated in a steel lattice envelope that reaches the full height of the building. Classrooms, offices, studios, and laboratories surround the vertical atrium and are connected by three separate staircases. Two secondary staircases cross the atrium like bridges and connect the fourth to sixth and seventh to ninth floors. To move from the sixth to seventh floor, one must use the fire stairs. The discontinuity of the staircases was intended to promote physical activity and to increase meeting opportunities. The main elevators are treated in a similar fashion where stops are limited to the first, fifth and eighth floors, encouraging occupants to use the sky bridges and stairs. Mayne concentrated the program of student activities on the same floors that are serviced by the skip stop elevator. Student circulation is made visible and from inside, Peter Cooper Park and the Foundation Building become the focus. Retail spaces and an exhibition gallery can be seen from street level. There is also a board room and two-hundred-seat auditorium on the lower level that houses public events. The operable perforated stainless steel skin is offset from the glass but still attached to the main frame. Innovative technologies are introduced into the building system to maximize energy efficiency. Radiant heating and cooling ceiling panels provide a

more efficient means of achieving thermal comfort, a green roof helps insulate the building and collects storm water, and a cogeneration plant provides additional power but recovers waste heat. Nicolai Ouroussoff , architectural critic of The New York Times , praised the building as being an "example of how to create powerful architecture that is not afraid to engage its urban surroundings" [5] and "a bold architectural statement of genuine civic value. It also appears in the third season of the television series Person of Interest as the headquarters for the fictitious company Lifetrace and in the first season of the television series Limitless as the headquarters for the fictitious company Claxion. It also saw use as a background for scenes from the fourth season of the TV series " Glee ".

Chapter 3 : The Cooper Union, Foundation Building in New-York, NY | LibraryThing Local

Cooper Union's Foundation Building is an Italianate brownstone building designed by architect Fred A. Petersen, one of the founders of the American Institute of Architects. It was the first structure in New York City to feature rolled-iron I-beams for structural support; Peter Cooper himself invented and produced these beams. [33].

After a final address by the President of the Peter Cooper Insurance Company, the Times reported that "the proceedings, which, considering the greatness and munificence of the work, were characterized throughout by a most republican absence of parade, then terminated. Professor Allan Nevins in his excellent biography of Abram S. Hewitt "with some account of Peter Cooper" reports that "the first horizontal rows of Trenton beams were soon in place; and they constituted the earliest fabric in America in which a rolled wrought-iron grid was used to support the flooring of a large and heavy structure. When the outer walls had risen sufficiently, the second floor was likewise laid. The building housing his printery, warehouse and offices had burned spectacularly and he was anxious to rebuild as soon as possible. Seeing a young journeyman painter named Thomas Snell he was later to grow up and become a trustee , Colonel Harper shouted, "Call Mr. Cooper for me, boy! Cooper was called down from the scaffolding where he was inspecting the progress of his building, and Colonel Harper forthwith bought all of the available beams for his new building near the Brooklyn Bridge, which thus became the first building in the world to be constructed of pre-fabricated members. It is far more likely that Mr. Hewitt, both business men with sufficient initiative to acquire the fortune that built and endowed The Cooper Union, sought out Colonel Harper soon after the fire and extolled the advantages of their new beams. In any case, beammaking for Mr. It covered more than half an acre, was seven stories high, and remained in use until Its completion within a few months attracted wide attention and the same Federal government which could afford massive stone structures became the second customer for the beams. The new beams were suggested and adopted and once again work on the Foundation Building was held up while the product of the Trenton mill was diverted elsewhere. Cooper had been dreaming of his institution for a good many years. Its completion could wait, particularly since each delay for such a cause meant a profit that would strengthen its financial structure. By word of mouth, news of the new material spread to every important builder in the country. The result, as Professor Nevins points out, was that there grew an active demand for the new beams at a price that was nearly double that for rails and at a time of depression in the iron industry that was a forerunner of the disastrous panic of The architect for the Treasury decided to specify the new beams and girders for all public buildings under his supervision and during the winter of some six thousand tons of iron were bought by the government. It was easy, by using his beams, to render structures highly fire-resistant, if not fireproof. Outer walls might be made of brick, masonry or stone; the floors might be either terracotta tiles or brick arched between the beams and levelled off with cement. Hewitt offered prominent contractors a commission of five per cent for introducing his materials. Hewitt offered a prime selling argument. All of the ironwork on the Foundation Building had been erected by the time the financial storm of broke. Brought on by over-expansion and speculation in the West, touched off by the failure of a Cincinnati life insurance company for seven million dollars, every day brought new bankruptcies. A new low tariff had been particularly rough on the iron companies, and American docks were piled high with English rails. More than half the iron mills in the country closed down, but although operations were reduced to a minimum and at times they seemed near the brink of financial disaster, the Trenton Iron Works weathered the storm. The humanitarian spirit of Mr. Cooper was never more evident than throughout this period. Concerned with the fate of the workmen in the mills, he had letters sent to every possible customer offering to make iron without profit simply in order to provide work. Proposals were made to furnish rails for the bare cost of wages and materials, without charging for capital or overhead, to get the cash required to buy food for the men. The superintendents were told to keep family men on the payroll and discharge bachelors whenever the force had to be reduced, and wages were lowered so that more men could be kept on the payroll. At times the pay was in food bought at wholesale prices on the theory voiced by Mr. Hewitt that "it is better to knock off 25 per cent all around at once, and pay in food at wholesale prices. Starvation at least will be avoided. Yet while the financial storm raged, Peter

Cooper went ahead perfecting the plans for his institute. While the surplus had been wiped out and there were large losses on inventory, the capital was intact, every obligation had been promptly and honorably met, and not a single bill was left unpaid. In , the Foundation Building was finally completed. In the spring of the legislature passed the amended charter and on April 29, the Deed of Trust was executed by Mr. While the most far reaching in its effect, the idea of iron beams was not the only original idea in the building. The Great Hall was on the basement floor, easy of access, protected from street noises, and using space that might otherwise have been wasted. So efficient is the design that it is never necessary to operate the fan at full capacity.

Chapter 4 : 41 Cooper Square - Wikipedia

The Cooper Union Foundation Building is a gem and well worth the visit. The building and university was founded in before the Civil War. The Cooper Union is mainly an arts, engineering and architecture school founded by Peter Cooper.

Chapter 5 : Welcome | The Cooper Union

From its beginnings, Cooper Union was a unique institution, dedicated to founder Peter Cooper's proposition that education is the key not only to personal prosperity but to civic virtue and harmony. Peter Cooper wanted his graduates to acquire the technical mastery and entrepreneurial skills, enrich their intellects and spark their creativity.

Chapter 6 : Foundation Building, Cooper Union – PBDW ARCHITECTS

Cooper Union's Foundation Building is an Italianate brownstone, and the first structure in New York City to feature rolled-iron I-beams for structural support; Peter Cooper himself invented and produced these beams.[11].

Chapter 7 : The Cooper Union Library: Foundation Building

Foundation Building, Cooper Union The Foundation Building, designed for Peter Cooper by Frederick Peterson, was an Italianate palazzo that had a formality befitting Cooper's idea of his institute as an instrument to honor and elevate its beneficiaries.

Chapter 8 : New York Architecture Images- Cooper Union Foundation Building

WHEN Peter Cooper spread the mortar for the cornerstone of the Foundation Building on September 17, , he simultaneously established a great new American industry and protected the fortune that is still providing free education to "the youth of our City, our country, and the world."

Chapter 9 : Category:Cooper Union Foundation Building - Wikimedia Commons

IDC Foundation funding will create the IDC Foundation Art, Architecture, Construction, and Engineering (AACE) Lab at Cooper Union to serve as a catalyst for integration across disciplines. Building on existing cross-disciplinary initiatives at Cooper Union, each school's strengths will be integrated around projects of 'making' that create.