

The Public Realm

with Andrew S. Dolkart

CIVIC BUILDINGS

A City Hall to Rival Philadelphia's

Civic buildings were important from the very, very beginning in New York. The Dutch built a very impressive *stadt* house (or government building), which was built right on the waterfront and was a building that was larger and taller than all of the buildings around, a symbol of the importance of the government in New Amsterdam. And the same thing occurs through the colonial period. Federal Hall, or what later becomes Federal Hall, is built as an early government building on Wall and Broad streets. It is built at a very important site where it could catch the vista up Broad Street to Wall Street.

And even in the early Republic, as New York was beginning to grow into the largest and wealthiest city in North America, civic government buildings were very important. And in the early nineteenth century, when New York was still not the largest city in America, when Philadelphia was still a larger city, a new city hall was needed. And New York civic leaders decided that New York needed to have one of the great civic buildings of America. They wanted to build a new city hall that would rival any government building in Philadelphia.

And so a competition was held in the first years of the nineteenth century for a new city hall, which was to be built in the commons. And this was the first public building in America that was built within a landscaped setting.

So right away the building was set off with a large open space in front of it, so it

would be especially prominent.

The Winning Design

The competition was entered by a number of designers from New York and from elsewhere, some of whom were professional architects and some of whom were not. The winner of the competition was a design submitted by two architects, John McComb Jr., who was born in New York and is often said to have been the first professional architect born in New York, and a French immigrant named Joseph-François Mangin. They did not work together often, but together they put together this design, which was one of the most sophisticated public buildings in America in the early nineteenth century, a building that was very French. It was probably Mangin who had the most to do with the exterior design. The building was built very much to this design, although the cupola was changed a little bit and the sculptural detail along the roofline was never done.

But it is a very three-dimensional, very sculptural building that was meant to draw attention to itself, even though it's relatively small, to have a sense of monumentality to it.

The building has arms at either end that reach out to you, and it has a very strong vertical central emphasis, something that's very common on French buildings, and this central emphasis is then capped by the tower.

You can see the three-dimensional quality of the building, with the arms and the stairs moving out to sort of draw in the viewer. This is, after all, City Hall. It was a public building, and the public was invited to come in. So you wanted the public to feel welcome. And they're almost embraced by this building.

It also has an arcade on the first floor that continues, also a very French idea, continuing all across the façade.

And a portico that is there to shield you from the sun, shield you from the rain, and also make a transition between the park outside and the luxurious interiors.

The building actually is not the original structure that you see. The façades are not the original. The building was built out of marble from Westchester, with a rear

façade that's brownstone. Now one of the great legends of New York is that the brownstone façade was done because they didn't think anybody would ever live farther north, so they thought well nobody would ever see the rear façade, and therefore they could do it in brownstone rather than marble.

This is a lovely story. It has absolutely no truth to it, because by the time City Hall was built people already lived farther north. And so people would have seen the rear façade right from the very beginning. But it was a cost-cutting measure. The brownstone costs less than the marble, so brownstone was used in the rear.

The stonework on the façade deteriorated very badly. And as New York City grew, there were various proposals in the nineteenth century and in the early twentieth century to either demolish City Hall and replace it, or move it someplace else.

But none of these ever happened, and so finally in the 1950s, when the façades were so badly deteriorated, molds were taken of all of the original ornamental details and the original stonework was removed and it was replaced with marble from Georgia. And that includes the rear façade. The rear façade is now marble and no longer has that brownstone look.

The only place where original stone survives is the ceiling of the portico, and so this is where you can actually see what the color of the stone was. They did a pretty good job of imitating this, but nonetheless the walls are now from the 1950s.

Inside City Hall

The interior is among the most lavish and underappreciated in America from the early nineteenth century. It is an extraordinarily sophisticated design, both in its ornamental detail and in the manner in which you are moved through the space, so that you are channeled to the public areas and not to the private areas of the building.

The building was built for all of the city government. It included the office of the mayor, it included courts, it included the meeting room of the Common Council, so all the city government offices were in the building. And the public was welcome in

the courts and the Common Council chamber, but not in the private offices and in the mayor's office. And the mayor's office and the private offices were on the first floor, and the public spaces were on the second floor.

You walk into the building into a very grand entrance vestibule with marble walls (and this is the original stonework). And as you come through the front door you look straight ahead through a series of arches, to a very beautiful stair. And you are drawn immediately from the front door to the stair, because you're not welcome on the first floor. There are narrow passageways where you can turn left or right to get to the mayor's office or to the other private offices, but you don't even notice them from the front door. What you notice is the stairway, and you're drawn straight ahead to one of the most spectacular stairways of the early nineteenth century.

It is a double stair that is unsupported except at the base. The stair treads are cantilevered out of the wall, and they curve up beneath a spectacular dome that's supported on Corinthian columns.

Brooklyn's City Hall

New York City Hall was not the only major public building that was erected in the early nineteenth century. As Brooklyn begins to grow as a separate city there was often a rivalry between New York City and the city of Brooklyn. And Brooklyn was often trying to do things that were bigger and better than those in New York City. They usually failed at this, but there were often attempts to do this.

And in the 1830s Brooklyn decided that they needed their own city hall, and the idea was that it would be bigger and grander than New York City Hall. They started construction on this and ran out of money. Construction stopped. And in the 1840s it started again, and an architect named Gamaliel King designed one of the most prominent Greek-revival buildings in New York, a building that also established the significance of the civic realm in the city of Brooklyn.

At the time this was built Brooklyn was still a relatively small but rapidly growing city. And the City Hall was really much too big for what they needed, but there was this image that Brooklyn would grow into a great city and would need a great city

hall. It was designed in a very fashionable, very impressive Greek-revival style, and it was placed at a very crucial site on Fulton Street, so that everybody who was getting off of the ferry and was commuting home along Fulton Street would see Brooklyn's City Hall from a very far distance.

And so like New York's City Hall, the site was very carefully chosen to add to the sense of grandeur of the building. It had a cupola on top originally, just as City Hall in New York did, but the cupola burned in the 1890s and the present cupola is an early-twentieth-century replacement for that.

Tweed Courthouse

There was not a tremendous amount of investment in other civic buildings in the early decades of the nineteenth century. This was not a period of large-scale civic bureaucracies, and so the civic realm didn't see a responsibility in investing in large-scale buildings.

The first major civic building that was built after City Hall in New York City was the New York County Courthouse, which wasn't begun until the early 1860s. So until then all of the government functions were in either City Hall or in less prominent buildings that were either purchased or built nearby.

But after a debate as to whether City Hall should be replaced, it was decided that rather than replace City Hall, the courts would be moved out of City Hall, and a new building would be erected to the rear of City Hall on Chambers Street. And that was the New York County Courthouse, designed by a prominent architect named John Kellum, which is popularly known today as the Tweed Courthouse. This was a courthouse that was paid for out of a tremendous amount of graft going to Boss Tweed and his Tammany Hall political ring. Although tainted by its graft connections, it really was an extraordinary building. It was built entirely out of marble that was quarried in Tuckahoe in Westchester County, what was known in the nineteenth century as white marble, and the building has recently been cleaned and you can see why it was called *white marble*.

It was designed in the fashionable Italianate style, with impressive deep cornices and sculptural three-dimensional window enframements.

The plan echoes that of City Hall. It has the portico, it has the stairs, it has the arms reaching out, so in a sense it reverses the plan of City Hall to create a sort of mirror image of that building.

EARLY PRIVATE BUILDINGS

Snug Harbor

Much more common in the early decades of the nineteenth century were privately funded institutional buildings. Since the city did not invest in education or in social service, it was private groups that did this. And so some of the great institutional buildings of the early nineteenth century are those that were built through private philanthropy.

Sailors' Snug Harbor on Staten Island, one of America's greatest Greek-revival-style institutional complexes, was a private philanthropy that was built as a safe, snug harbor for retired seamen, and was originally supposed to be on Washington Square but was moved to the north shore of Staten Island and had income that derived from rents from the Washington Square property.

This was designed in the 1830s by the very prominent architect Minard Lefever, and was designed to create this grand institutional image for Sailors' Snug Harbor.

Cooper Union

Cooper Union, a free school to train the children of the working class in engineering and mechanics and other industrial trades, so that they would go out and make their mark in the Industrial Revolution in America. Cooper Union was designed in 1859 by a German immigrant architect named [Frederick] Peterson, who was using the fashionable Italianate style and using brownstone on the façade, but structurally was extraordinarily innovative, because it was one of the first buildings to use rolled steel beams manufactured by Peter Cooper at his foundry in Trenton, New Jersey, so in a sense it's seen as a forerunner of the skyscraper because it, for the first time, is using steel in the building.

It also was built with an elevator shaft, although Otis had yet to perfect the passenger elevator. It was planned with the shaft and the elevator was to be put in

later. Unfortunately, the early plans for elevators were for round elevators, so they put in a round elevator shaft, but once the elevators were manufactured they were rectangular, and so they had to build a separate shaft to actually put in an elevator. There is an elevator in the round shaft today, but it's not the original one.

CENTRAL PARK

The major civic investment in New York, the major government investment in New York before the Civil War, was in the creation of a great urban park. And there are many people who think that Central Park is the greatest man-made object on Manhattan Island. And it's important to remember when you're looking at Central Park that it looks natural, that it looks like it's a natural landscape that's been here for thousands of years, but it is an almost entirely man-made environment. And part of the brilliance of the design is that most visitors to the park have no idea that this is a carefully planned landscaped environment.

There were no major parks planned in the Commissioners' Plan of 1811; there was no need for parks in the relatively small city of 1811, a city where if you wanted to go out into the wilderness it wasn't very far away. You could walk out or take a carriage and you were out in the wilds.

But as the city grew, especially as large numbers of poor immigrants came to New York in the 1840s, there was a movement which begins with the very wealthy for New York City to create a great urban park. And the city government agrees to the idea of an urban park, and starts looking around for the appropriate site.

Greensward Plan

Initially, the idea was to build the park on the East River waterfront, but the landowners on the East River were not very happy about this idea. And so the city began looking elsewhere and finally decided on the land between Fifty-ninth Street, 110th Street, Fifth Avenue, and Eighth Avenue. Eighth Avenue is what's now Central Park West.

And in the 1850s this land is purchased in two separate groups of purchases, with the idea of creating a park. So the city owns the land for the park, they hire a staff,

largely of Irish immigrants, to work in the park, and Frederick Law Olmsted is hired to manage the park workers, but there is no design, there's no plan for a park.

And finally, in 1858, the city decides to hold a competition for a park design. And the competition was to be an anonymous competition, and each design that was submitted was given a name. And the design that won was the Greensward Plan. *Greensward* is a wonderful nineteenth-century term for a lawn.

And the Greensward Plan won. And lo and behold it was the design of Frederick Law Olmsted, who was already employed by the park, working with the architect Calvert Vaux. And it's probably pretty clear that the judges knew which Olmsted's design was. But nonetheless Olmsted and Vaux's design for Central Park is an extraordinarily brilliant design, and clearly far and away more sophisticated than the others that were submitted. And you can make a comparison between a few that survive or others that were described.

Olmsted and Vaux

Frederick Law Olmsted came from a middle-class family, he was very well educated, and he didn't know what to do with himself. He traveled a lot; he traveled in England and had seen eighteenth-century English parks and gardens. He had traveled through the South and had written a very early antislavery tract. He was an experimental farmer on Staten Island. And he fell into landscape design. He becomes the father of landscape architecture in America, but he wasn't trained for this and he didn't plan for this. But he had a brilliant mind, and an understanding both of landscape and planting and also a wonderful way of selling himself and his ideas, and he became enormously successful.

And he teams up with Calvert Vaux, who was a much more sophisticated, trained architect. Vaux was an English immigrant; he had been trained in architecture and design in England. He was very familiar with English landscape design, and the two of them together were able to create an incredibly brilliant landscape that is almost entirely man-made. With the exception of a few of the rocks, which are natural, and some forested land to the north, it is a man-made creation.

In fact, the area that was chosen for Central Park was, as one person noted in the nineteenth century, a "pestilential swamp," and one of the reasons why real-estate

interests didn't complain too much about all of this land being taken out of potential development was that it was a very unpromising area for residential development because it was very, very swampy; it had a number of small shantytowns, some with squatters, some with people who actually owned the land, some were immigrants. There was also an African American settlement in what's now Central Park.

But it wasn't one of the most beautiful areas in New York. So this was the area that was chosen, and Olmsted and Vaux very carefully designed an incredibly varied landscape. It basically is lawns, bodies of water, forests, and rocks with some paths, but it's the way these basic elements of grass, water, trees, and a few buildings and paths and rocks were juxtaposed in so many different ways that creates the brilliant design.

This is the Sheep Meadow, which is the largest lawn, an undulating meadow, which is screened from the city. At the distance there's this screen of trees, and of course this park was built at a time when few buildings rose more than four or five stories, so the trees were designed to block out the city; you were supposed to get away from the city when you came to the park.

Now of course today buildings around the park are much taller, so you don't get this effect. But you can imagine the effect of the trees blocking out the city. And here's the lake with the Ramble beyond, the major forested area. And so these are the basic elements that were used to design the park.

But the various landscaped elements create a series of separate rooms, and you move from one room to another. And these rooms are very small. And you connect from one room to another via undulating paths, but you never see where any path is going when you're walking through Central Park, there's always this issue of mystery and surprise, so you're being drawn from one landscape environment to the next, from one body of water to a forested area, to a meadowed area. And you have to choose where you're going to go and how you're going to get there as you go along these undulating paths through the park.

Park Structures

There are a series of built structures in the park, mostly designed either by Calvert

Vaux or by his assistant, Jacob Wrey Mould, another English immigrant architect. And these built elements were designed to blend in with the landscape. They were picturesque buildings within a picturesque landscape; they were designed to be part of the whole environment. And they are painted in natural colors, earth-toned colors-greens and browns and yellows and golds were used. They're almost never white, which was not considered an appropriate style for landscape buildings.

This particular building is the Dairy, a building where mothers could come and buy fresh milk, and was designed using stone that appears to grow out of the landscape and beautiful wooden elements, recently restored. And the other major built elements are bridges and tunnels through the park. One of the most brilliant aspects of the Central Park design is the series of different pathways. There are four transportation systems in the park. There's a series of carriage drives, which are now automobile drives. And these carriage drives undulate all throughout the park. And there are pedestrian paths that meander through the park. There is a series of bridle paths for horses, and a series of what are known as transverse roads that run through the park.

These systems often parallel one another, but they never crossed each other at grade. They always went over and under each other on bridges and tunnels, and the idea was that you would never have to cross a road. If you were a pedestrian you would never have to worry about the carriage; if you were a carriage driver you'd never have to worry about running into a pedestrian. So anytime today when you have to cross a road as a pedestrian, it means that something has been altered in the original Olmsted and Vaux plan.

The bridges and tunnels were also designed to blend in with the landscape, to be one with the landscape, so that they appear as a kind of natural growth through the landscape.

The most brilliant aspect of Olmsted and Vaux's design were the transverse roads. The one thing that the city required of all the designers who submitted to the competition was that four roads run across the park to connect the East Side and the West Side. Although these neighborhoods had not yet been developed, the city understood that they would be developed, and there needed to be a way of getting across the city. So at Sixty-sixth Street, Seventy-ninth Street, Eighty-sixth Street

and Ninety-sixth Street the city required that roads go across the park.

All the other designs placed the transverse roads at grade level, which means that the park would be divided into five separate units, and that you would have to cross one of these east-west roads as you moved through the park. But what Olmsted and Vaux did that was so brilliant, that seems so obvious today but was such an innovative idea, was that they sunk the roads below the level of the park, put bridges across them and then landscaped them very, very heavily, so that you wouldn't actually see the transverse roads, and you wouldn't know that they were there, so the park would be one continuous environment, and you would be moved through the entire park and never know that there were these crossroads.

The Mall and the Castle

There is one formal element in the park, and that is the element called *the Mall*, which is where people could come and promenade, and they could show off their finery, and other people could sit at benches and watch them under rows of beautiful elm trees, creating a spectacular canopy above.

And as you stood on the Mall and you looked north along the Mall your eye would stop at a mock medieval castle, known as the *Belvedere*, which stands at the top of a hill in the Ramble, the major forested area of the park.

This mock medieval castle was designed as a folly to draw your attention and to draw you down the Mall towards the Bethesda Terrace. The idea of creating a mock medieval castle as a focal point in a landscaped setting was something that was done in eighteenth-century picturesque gardens in England, and where mock medieval ruins and mock medieval castles would be constructed. And both Olmsted and Vaux were familiar with this eighteenth-century idea.

One of the most unfortunate things in Central Park in the early twenty-first century is that the trees in front of the Belvedere Castle have grown up so that you never can see this castle. So this very, very crucial element of the Central Park design, one of the most important vistas in any American park, is now hidden.

A Naturalistic Park

So you moved down the Mall towards the Belvedere, and you come to the Terrace, the most carefully planned architectural feature of the park, and the symbolic heart of the park, because the detail in this terrace, designed by Vaux and Mould, tells you about what the park is all about.

Central Park was designed as a naturalistic park. It is supposed to feel like you're out in nature, and you're supposed to be able to experience the seasons in New York, so that in every season of the year the park will change. But also the park had another meaning.

In the nineteenth century there was a tremendous amount of antiurban feeling in America. There was this view that the city somehow corrupted people, that the true American spirit was out on the farm and out in nature. Thomas Jefferson was very suspicious of cities and very much in favor of a more agrarian life.

Central Park was designed as this naturalistic environment where urban dwellers could go and commune with nature, and could become better citizens. They would be cleansed of all of the evils of urban life, and by communing with nature they would go back out into the city as better people.

And this is all very evident in the ornamental detail that was chosen for the Bethesda Terrace. There is extraordinary stone carving on the terrace and the stone carving reflects on nature in New York City. You can trace the year in nature in New York through examining the sculptural detail that is designed for the terrace. And it was Jacob Wrey Mould who was responsible for this very naturalistic and extraordinary carving.

It starts with early spring at the base of the terrace with a bird sitting on a nest with eggs, indicating new life in the spring. And then moving up and down the stairs of the terrace you have spring, summer, fall, and winter.

And you have large panels of birds and plants. This is the late spring, early summer. And every one of these plants is identifiable. It is extraordinarily naturalistic. The stone carvers who were responsible for this created some of the great late-nineteenth-century ornamental detail anywhere in America.

You can see the quality of the detail. This reflects a lot of the theories of John Ruskin, who both Vaux and Mould were very influenced by, who believed that the sculptors should be given leeway to use their artistry and freedom to create one-of-a-kind designs, and that every little detail shouldn't be planned by the architects.

And the sequence ends with birds on bare branches. In the fall you see geese migrating, and it creates a wonderful feel for nature. And so that you can experience nature in the park and you can see it exemplified here on the terrace.

The one major piece of sculpture in the park is the Bethesda Fountain, and this fountain also summarizes the ideas of the curative power of the park.

This sculpture, which was designed by Emma Stebbins, a very successful woman sculptor of the second half of the nineteenth century. She designed a sculpture for a fountain that was designed by Calvert Vaux. And it's the angel Bethesda. And in the book of John there is a story of an angel coming down to the Bethesda Fountain in Jerusalem and troubling the water, that is, touching the water and the water moves. And if you touch the water after that you would be cured of all that ailed you.

So this angel here has water bursting out of her feet, and the water pours into a series of fountain basins and then into a very large basin where the water is always in motion, and you can touch the water and be cured. So it symbolizes the curative power of the city. And in fact, it's a very powerful image. A few years ago the Pulitzer Prize-winning play *Angels in America*, which is a play that deals with AIDS, has its last scene at the Bethesda Fountain. And the last scene is a very optimistic scene about cure. And this image of the curative power of the fountain was used very, very powerfully there.

If you look in the book of John today you won't find the story of the angel Bethesda. This was a well-known story in the 1870s when this was done. And people would have understood what was being discussed, or what the symbolism was of this sculpture. But in the late nineteenth century the King James Bible was revised, and some passages that were deemed questionable were removed, and among them was this story. So although it was a well-known symbol it disappears from the Bible.

Prospect Park

Olmsted and Vaux went on to design a series of other parks, not only in New York but all across the country, both together and independently. And they considered their greatest masterpiece to be Prospect Park. Brooklyn, of course, rivaling New York City decided that they, too, needed a great urban park, and Olmsted and Vaux were commissioned to design it. And they felt that all the problems that they had with Central Park, the transverse roads and other things, were not involved with Prospect Park. The landscape, the undulating landscape, was more promising in Prospect Park, and they created, using the same elements that they had used at Central Park, they created a great masterpiece.

And this is the Long Meadow in Prospect Park, the largest open space in New York, the largest lawn in New York, which is actually much larger than is evident in any image because it curves and undulates, so you can actually never see the whole Long Meadow all at once, so you have to explore it to really experience the whole thing.

And here, too, they used this whole series of bridges and tunnels to separate the carriage drives, the bridle paths, and the pedestrian paths.

NEIGHBORHOOD BUILDINGS

It was in the second half of the nineteenth century that civic architecture really begins to flourish in New York, as the civic bureaucracies begin to expand, as the school system, the fire system, the police system are professionalized. And so suddenly you need buildings to house new fire companies and new police departments.

So you get a major, major expansion of the civic realm in the neighborhoods of New York. And for the first time civic buildings are appearing in residential neighborhoods in New York. And since these were a reflection of the civic realm in the residential neighborhoods, there was a conscious effort by the city to make these buildings prominent and beautiful.

And so fashionable styles were used, handsome materials were used, and so city

buildings in the residential neighborhoods become a very, very important part of the New York streetscape.

Schools

The school system expands enormously, beginning in the 1860s and '70s, and especially at the turn of the century as more and more immigrants are coming. And there is an effort to Americanize the children of the immigrants by teaching them American values in the school system. You get huge numbers of public schools being built in residential neighborhoods.

This is the former P.S. 71 in Williamsburg in Brooklyn, which was designed in 1888 by the Brooklyn Board of Education. And it is a very fashionable three-dimensional French-inspired building with a beautiful mansard roof with an iron cresting at the top.

At the turn of the twentieth century, the idea of the high school begins to develop, something we take for granted, but the idea of the public high school was a relatively new idea. And extraordinarily impressive high schools are built, one in each borough.

And this is Curtis High School on Staten Island from 1904. These high schools were almost invariably designed in a collegiate Gothic style, a style that resembled the educational buildings at Oxford and Cambridge, and had come to symbolize education. And that's very evident at Curtis High School.

Firehouses

The fire department expands out into almost every residential neighborhood. Firehouses were relatively small buildings, and they housed not only the fire trucks and the horses that pulled the fire trucks in the late nineteenth and early twentieth century, but also housed the firemen who lived for long periods of time on the upper floors of these buildings.

And most of the Manhattan firehouses of the late nineteenth century were designed by the architectural firm of Napoleon LeBrun and Sons, whose work we've already seen at the Metropolitan Life Insurance tower. And they designed these very beautiful buildings in many different styles.

This particular example in Greenwich Village on West Tenth Street is an elegant

Romanesque-revival building with a cast-iron base because you used cast iron because it was very strong, so in case the fire engine bumped into the ground floor it wouldn't destroy the building, with water cast in as a detail, so that there's water cascading in on this firehouse to symbolize, of course, the importance of water to fighting fires. And then upstairs brick and granite and terra-cotta used in a very elegant manner.

This is the Brooklyn Fire Headquarters, a massive Romanesque-revival style building designed by Brooklyn's most talented late-nineteenth-century architect Frank Freeman, one of the great masterpieces of the Romanesque revival in New York, in 1892, with a tall tower that not only could be very visible to the citizens as a symbol of the importance of the fire department, but also could be used as a fire lookout.

Police Stations

Police stations also become very important in the residential neighborhoods. And sometimes the choice was made to design them in a sort of mock medieval manner, to look like a medieval fortress, a protected place where you could believe that the citizenry was being protected out of this building.

And this is one of the most whimsical of these mock medieval police stations. It dates from the 1890s; it was designed in Bushwick in Brooklyn by another very, very important Brooklyn architect, a man named William Tubby. And it almost is a sort of Disneyland-looking version of a medieval castle. You can almost imagine people standing on the roof with their crossbows guarding the citizens of Bushwick with this extraordinary sort of primitive Greek temple in the front. It's a really curious and wonderfully whimsical juxtaposition on the building.

Libraries

By the early twentieth century an addition was made to the buildings of the civic realm in residential neighborhoods, with the advent of the public library system. When Andrew Carnegie gave several million dollars to the New York Public Library to build a series of branch libraries out in the residential neighborhoods of the city, and especially in the poorest residential neighborhoods of the city where people

could not necessarily afford to buy books.

Many of these libraries were designed by McKim, Mead, and White, the leading architectural firm in America by the early twentieth century.

This is the Hamilton Grange branch on West 145th Street, which was designed by Charles McKim in 1905, and is a small-scale great masterpiece.

These library buildings are always three stories tall, with an adult library on the first floor, a children's library on the second floor, and work rooms on the third floor, and they're modeled on Italian-renaissance palace modes.

And here you have a beautiful rusticated façade that is a façade with blocks of stone, with deep channels between them, and very elegant stone and iron detail, including details with books, that say something about the use of the building.

EXPANSION OF THE PUBLIC REALM

Staten Island

The design of civic buildings during this period culminates after the creation of Greater New York, with the formation of Greater New York in 1898, that is, the merger of the city of New York with the city of Brooklyn, and the towns and villages of Queens and Staten Island, you have an expansion of the bureaucracy. For one thing you needed a borough hall in every borough. And although Brooklyn's City Hall became Brooklyn's Borough Hall, Staten Island did not have a borough hall, so a site was acquired right by the ferry terminals so that it would be highly visible to people commuting in and out of Staten Island, and the very prominent architectural firm of Carrère and Hastings was commissioned to design it. One of the partners lived on Staten Island, so they were the appropriate architects for this.

And in 1903 Carrère and Hastings designed one of the great civic buildings as a symbol of the creation of Greater New York, and the importance of Staten Island to the new city, using a seventeenth-century French architectural design as its model.

Wedding the Public and Private

This is the period when it is the institutional realm that is really expanding in New York at an enormous rate. And some of this was private institutions, and some of the expansion was on institutions that were a blend of public and private investment.

Many of New York's great institutions—the New York Public Library, the Metropolitan Museum of Art, the American Museum of Natural History—are public-private partnerships where the city was responsible for paying for the construction of the buildings, but all of the material that's inside these city-owned buildings is owned by private foundations, and so that you have this wedding of the public and the private to create great institutions.

In the late nineteenth century and the first years of the twentieth century, these institutions were expanding at an enormous rate. New Yorkers, especially well-educated and wealthy New Yorkers, who saw that they were taking Western civilization into the future wanted to recreate the great European cities that they had seen. Many of these wealthy Americans had traveled, they had been to London and Paris and Rome and other European cities, and when they visited these European cities what was it that they saw and visited?

Well, they saw great museums and great libraries and great botanical gardens and great zoos and great opera houses, and they were determined that New York would be a great institutional city and that they could recreate these great cultural institutions of Europe in New York. And so they began to either establish or pay for the expansion of institutions in New York.

And between the late 1880s and the early twentieth century, you have the establishment of the New York Public Library and the construction of its spectacular building on Fifth Avenue and Forty-second Street. The Metropolitan Museum of Art and the American Museum of Natural History, which were relatively small institutions, expand enormously. You have the expansion of not one but three great university campuses. Columbia, New York University, and the City College of New York all built enormous new institutions. The New York Botanical Gardens and the

Bronx Zoo are established. The Brooklyn Museum expands enormously, and the Brooklyn Botanical Gardens is established.

The Paris Opéra

Many other institutions are built as part of an enormous expansion of the institutional realm, and as part of a desire to recreate the European city in America.

And beyond this, these institutional buildings, as well as a series of government buildings, were designed stylistically to recreate what was built in Europe, to rival the great buildings of Europe.

So in order to understand this, we need to look at one of these great buildings in Europe, one of the buildings that American architects and American patrons saw when they either went and traveled in Europe, as many Americans did, or when they studied at the *École des Beaux-Arts* in Paris, as many American architects did, and that was the Opéra in Paris. The Opéra was one of the great nineteenth-century construction projects in Paris, and it was the type of building that Americans saw and wanted to recreate in their cities, especially in New York.

This is a great sculptural, three-dimensional structure. It has end wings that project out, and it has this huge sort of cushioned domed roof that rises up. Your eye is never still when it looks at this building. And this building was visible down a great boulevard, so it was very important within the fabric of the city.

Not only is the massing of the building very three-dimensional and sculptural, but the building is filled with sculpture. But this is not sculpture just for the sake of having ornament on the building; it is allegorical sculpture. Many different sculptors worked with the architect to create this ornament on the building, and it says something about the use of the building.

So, for example, this is a statue of Music, and you have an allegorical figure of Music holding a lyre and surrounded by other figures playing pipes or playing a violin, so this is symbolic of what's going on within the Opéra.

When you go inside this building, typical of a Beaux-Arts-inspired building, you are carefully channeled through the space. The interior is laid out in an extraordinarily

dramatic way so that you move from space to space and you are moved through the space by the architects so that you are taken where somebody else thinks you should go.

You move through the space not really with a great deal of free will, because you're being channeled very carefully from dramatic space to dramatic space.

So you enter the Opéra through a relatively small vestibule, and then you burst out into this spectacular stair hall, and you are carefully channeled up the stairs, through a whole series of public promenades. And although this is the opera house, it really was all about seeing and being seen. And the public areas take up more space than the actual opera house does.

And so you're carefully channeled through these lushly designed spaces that are filled with artwork. And again it's allegorical artwork.

There are painted ceilings and mosaic ceilings with allegories about the arts and about the grandeur of France, in this case. And besides the allegorical detail and the careful planning of the design, one of the key elements that is involved with the creation of a successful building like the Opéra, which is going to be imported into America, is this idea that artists and craftsmen would work together to create a great unified building.

Now of course the architect was at the top there choosing what the allegories would be, hiring the architects and the craftspeople that would be involved, but the unity of architect and sculptor and mural painters and mosaicists and metal workers and stone workers and furniture designers all coming together would create the great unified building.

Appellate Division Courthouse

Nowhere is that more evident in New York than at the Appellate Division Courthouse on Madison Square. This is a relatively small building in comparison to the Opéra, but it takes the ideas that were seen at the Opéra and it uses them to create this incredible little masterpiece in New York.

This was designed in the 1890s by an architect named James Brown Lord, and Lord was familiar with these French architectural ideas, and the building, although small,

is a very three-dimensional sculptural building with pedimented, columned porches projecting out on both façades. And then it is filled with sculpture, and the sculpture is allegorical.

At the top of the building are figures representing the history of law, Moses, Hammurabi, and other figures. And in fact originally there was a figure of Muhammad, but when Muslims complained that you're not supposed to have lifelike images of Muhammad, this statue was removed. So there's one vacant space on the building today.

Elsewhere on the building there are allegories of law, allegories of justice.

Many different sculptors worked on this building. And the most prominent sculptor to work on the building was Daniel Chester French, so he got the most prominent site, the pediment over the front entrance. And this sculpture here is by a second-line sculptor named Ruckstuhl, so he gets a not quite as prominent site. And a third range of sculptors did the smaller figures, the figures of law at the top. And this is very typical that there'd be a hierarchy of sculptors working on the building.

Then you go inside this building and every single detail is very carefully planned to create a unified environment. Everything was designed for this space; the furniture was designed by Herter Brothers, the marble was very carefully chosen. There are mural paintings on the walls in the vestibule, and each wall was done by a different mural painter.

So again you have many different artists working, and they're all allegories. Here's an allegory of law protecting mankind. And then when you get into the courtroom there's a stained-glass dome, there's spectacularly carved woodwork. And other mural painters were at work designing allegories. In fact, in the courtroom the most prestigious mural painters of the day did some of the painting here.

The New York Public Library

Probably the greatest Beaux-Arts building, and these are referred to as Beaux-Arts-style buildings, probably the greatest Beaux-Arts building in America is the New York Public Library. I would stand this building up against any great Beaux-Arts monument in France.

The New York Public Library was one of the greatest civic ventures in New York. New Yorkers wanted a great library, a library of international status that would reflect very well on the civic virtues of New York.

But New York didn't have a great library. New York had a few libraries that were privately owned that the public could go into during limited hours-the Astor Library, which is now the Public Theater on Lafayette Street, the Lenox Library, which stood where the Frick Museum now stands.

In the 1890s the Astor Library and the Lenox Library merged together with money that was left by Samuel Tilden, a railroad lawyer and politician. In his will he left his fortune to the creation of a public library.

And so in the 1890s the New York Public Library was founded, and the city gave it one of the most prominent sites in New York, the site of the distributing reservoir on Fifth Avenue between Fortieth and Forty-second streets. The reservoir was no longer needed, because most of the population had moved farther north, and so this becomes the site for the new library.

And it's one of those rare sites in New York where you actually have a street vista. Forty-first Street-as you're moving west along Forty-first Street-it dead ends on Fifth Avenue right at the center of what's now the entrance to the New York Public Library. So like the Opéra, you could have a building that fit into the city with a great vista.

The library was established and it had a relatively small collection. But there was tremendous optimism in New York that although New York did not have a great library it could someday have a great library. So the idea was to build a huge building that could house a great library. A competition was held for the library, and it was won by the relatively young architectural firm of Carrère and Hastings.

Both Carrère and Hastings had studied at the École des Beaux-Arts in Paris, and they were very familiar with French architectural ideas. And they took the ideas of the Opéra and other public buildings and adapted them for New York to create this

great masterpiece.

The building extends over two full blocks. It's built out of marble from Vermont, and what's interesting about it is that it's a grand and imposing building, a building that was to reflect on the greatness of New York and the greatness of this library, or at least what they expected would be a great library. But it's also a public library; it is also a library that was planned to welcome the public. In fact, it is the only public library to this day, of all the great libraries of the world, it is the only library where anybody can walk right in and ask for a book without having to apply for permission to use the library.

Inside the Library

The challenge for Carrère and Hastings was, How did you create a building that was both welcoming and a grand symbol of the city? And they solved this problem in a most brilliant way. After you've reached the piazza you go up a series of flights of stairs with gentle landings, and then you go under three great arches. But they're not overpowering arches. Instead these three enormous arches project out towards you, and then in a sense are drawing you into the building.

So they're not overwhelming you, they're not intimidating you and saying you're not welcome here. They're drawing you in, they're welcoming you into the library. And so it is both a monumental structure and a welcoming public library.

You walk in through the doors into this enormous welcoming vestibule. And in the original design of the building you would stand at the front door and you would be overwhelmed by the grandeur of the space that you were in, but if you looked straight ahead you looked through a public gallery to a door in the distance. And that door led into the book stacks. Now the public wasn't welcome in the book stacks, but it's symbolic that the books are there and that your vista is towards where the books are being stored.

And unfortunately there are exhibits now in this newly restored gallery, and they always put something right in the middle of the vista. So you never really see what Carrère and Hastings were intending here.

You walk into this great marble lobby and the main public rooms are either the

gallery on the first floor or the catalogue and reading rooms which were placed on the third floor. And they were placed up there on purpose so that they could get the most amount of natural light, and that they would be farthest from the noisy street.

In a typical Beaux-Arts way, the interior is designed to channel you up to the public spaces on the third floor. So there are these two enormous staircases to either side which you begin to move up.

And as you're going from the hall up the stairs you get to the second floor, which is mostly the offices of the library. So there aren't a lot of public spaces on the second floor, so there are no grand spaces that would make you want to linger on that floor. Instead, the stairs draw you right up to the third floor, where you enter into a grand third-floor lobby, and from there you enter into the series of ever-grander public spaces, the catalog room and the reading room, which were lavishly detailed.

Carrère and Hastings designed practically every detail; they designed the tables, they designed the chairs, they designed all the ornamental detail in the library.

Also typical of a Beaux-Arts building is it's filled with allegorical sculpture that says something about the use of the building. You have fountains flanking the entrance that are symbols of truth and beauty. Above the entrance there are statues representing poetry and romance and history and other things that you can research inside. And your entry is flanked by a pair of lions, which are traditional symbols of library and learning.

So this building exemplifies the ideas that were brought from France and uses these ideas in a most sophisticated manner.

Grand Central

Other grand Beaux-Arts-inspired buildings were also appearing in New York. And in fact, New York has the largest collection of great Beaux-Arts masterpieces.

Pennsylvania Station was another one of the greatest buildings from this era, also one of the greatest buildings in America ever demolished.

And so you no longer can experience this sense of grandeur at Pennsylvania

Station, but you can still experience it at Grand Central Terminal, which is the masterpiece of the architectural firm of Warren and Wetmore. And Whitney Warren was also a Beaux-Arts-trained architect.

This building was the Vanderbilt railroad's main entry into New York. And they wanted to build a building that would symbolize the greatness of the New York Central Railroad, and also to be the great gateway into New York. And it was also built as a rival of Pennsylvania Station.

The Pennsylvania Railroad, which had a long history as a patron of great architecture, was building a new railroad station in New York that would bring its trains into Manhattan for the first time. So now the New York Central Railroad, which traditionally was the only railroad that actually came into Manhattan, was going to have a rival. So they needed a work of architecture that would rival McKim, Mead, and White's Pennsylvania Station, and so they commissioned the architects Reed and Stem, railroad architects, and then later added Warren and Wetmore to design this building.

An extremely beautiful building and a very interesting engineering feat as well. It's very French, very three-dimensional building with allegorical sculpture right in the center; right down your vista along Park Avenue is this sculpture that centers on a clock, and clocks of course are very important symbols at a railroad station, which runs on schedules.

And rising above the clock is Mercury, the god of commerce, and Mercury is flanked by Athena and Hercules. And so you have sort of brains and brawn creating the great railroad.

You enter, like at the New York Public Library, like at the Opéra, you enter through a series of ever-grander spaces, and you're carefully channeled through the entrance, into the great waiting room, and then into one of the most colossal spaces in New York, this great vaulted space where you buy your tickets and where you go to get to the trains. To this day one of the great spaces in New York, capped by a mural of

constellations in the night sky, lit up by little light bulbs, and beautifully detailed.

The building is a terminal, not just a station. The New York Central trains end here. And so there are a number of interesting innovations that dealt with both the trains and the fact that this station is right in the heart of the city, and it blocks Park Avenue.

And so as part of the construction among the innovations are the fact that you can move through this station without ever going up or down a stair. So there's a whole system of ramps that take you through, which seems such an obvious thing to do in a train station, but nobody had ever done it before.

The station also has a double layer of trains, suburban trains on the lower level and long-distance commuter trains on the upper level. So structurally you had to deal with these two trains.

There was also a system had to be devised for turning the trains around. And so you're in this very cramped terminal area, but the architects and the engineer William Wilgus devised a method of looping the trains around so that they could actually go out of the station, which was also very, very innovative.

And most importantly was the fact that this terminal needed to be part of the greater whole of New York. And they didn't want Park Avenue just to stop. There was a realization that having Grand Central right on Park Avenue would inhibit the growth of the city, and that it would be very difficult to get around New York because Park Avenue, which in the original Commissioners' Plan was Fourth Avenue, would stop at Forty-second Street.

So William Wilgus devised a system whereby roadways go above Forty-second Street and around the station, and dump you out north of Grand Central Terminal, so that Grand Central is now a part of a growing, living city.

The Custom House

Another one of the great Beaux-Arts buildings was the major federal installation in New York. The federal government didn't build a lot of buildings in New York. But one of the most important federal buildings anywhere in the country was the

Custom House in New York, because before the advent of the income tax, the federal government relied in large part for its income from custom duties that were paid in the port of New York. New York was the great port city, and for many years about three-quarters of the federal government's income came from the custom duties paid in New York.

So in the 1890s when the customs service had outgrown its earlier custom houses on Wall Street, a new building was needed. And the federal government purchased one of the great sites in New York, right at the foot of Broadway at Bowling Green, right opposite the port, to build a great new building.

And a competition was held for the design, and all the great New York firms entered the competition-McKim, Mead, and White, Carrère and Hastings, Francis Kimball, J. C. Catey, others we've talked about-entered the competition, and it was won not by any of these New York firms, but by Cass Gilbert from St. Paul, Minnesota.

And the reason why Cass Gilbert won was the fact that this competition was organized by the Department of the Treasury, which was responsible for the construction of federal buildings. And the supervising architect of the treasury was James Knox Taylor, also from St. Paul, Minnesota, and Cass Gilbert's former partner. And although they held a competition, the judging was fixed; the judges that were chosen were chosen basically to vote the way James Knox Taylor wanted, and so Cass Gilbert won the competition.

New York architects were not happy about this. But fortunately Cass Gilbert was also an extraordinarily talented architect. And he did move his offices to New York and later went on to design the Woolworth Building and many other important buildings in New York.

Although Cass Gilbert did not study architecture at the *École des Beaux-Arts*, he was very familiar with French architectural ideas, and designed one of the great monuments of Beaux-Arts design for the Custom House.

It is a very three-dimensional, very sculptural building. You can see the columns projecting out and the mansard roof rising up. And on top of that it is filled with sculptural detail that says something about the building, either there are symbols of

the United States or there are symbols that deal with world trade, or that deal with the sea. There are dolphins, there are Neptune's tridents used as ornament. There are keystones on the major first floor that are the heads of the ethnic peoples of the world, which say something about world trade. There are symbols of Mercury, the god of commerce; in the column capitals there are heads of Mercury.

Along the roofline there are sculptures that are allegories of the great seafaring nations in the history of the world, beginning with Greece, Rome, and Phoenicia, and here a doge representing Venice and Queen Isabella of Spain. There's Peter Stuyvesant, the last Dutch governor of New York, representing Holland. And it ends with England and France.

Most significantly in the primary spot, the most important sculptor was chosen-again Daniel Chester French was chosen-to design the four continents: America, Europe, Asia, and Africa. And this is some of the great public sculpture of the late nineteenth, early twentieth century. These were actually carved in the early twentieth century.

And beyond being great works of public sculpture, if you read these works of sculpture, they say a lot about a certain worldview in America in the early twentieth century. This building was begun in 1898, which was the year that America became an imperial power. This was the year of the Spanish-American War. All of the new American colonies-the Philippines, Puerto Rico, Cuba-were all islands. And so they all deal with the water and trade and so this whole notion of the world and the continents and a kind of imperial vision is evident in America, especially among a certain upper class of people.

And if you read the sculptures here you can see this imperial worldview. Europe and America flank the entrances; they're in the most significant spot. And it's no accident that Europe and America were chosen to be in this spot.

Europe is a regal figure sitting on a throne that becomes a sailing ship in the back, and she's filled with symbols of knowledge and learning and travel. There are symbols of the great European powers; there are books, and there's a globe of world exploration.

And in the back is a shrouded figure of ignorance that's sort of been left behind by Europe's rise to world power and greatness.

America is the only one of the four allegorical figures—all of which are women—[America] is the only one that's in motion. She's striding forward, carrying a torch of liberty, in her right hand, and her left hand is protecting the worker, who is a man symbolized by a symbol of Mercury. There's a wheel with wings on it, which symbolizes Mercury.

So she's protecting commerce. And there are symbols of America's agriculture. There are tobacco and corn and symbols. There's an American eagle and there are some pre-Columbian symbols. And as she strides forward she's leaving an Indian in the background, who looks up sort of quizzically, as America is striding forward into the future.

Asia is a royal figure who's in a religious trance. And she has a little Buddha statue on her lap, and her throne sits on the skulls of slaves, and bound slaves are bowing down to her. But there are cultural symbols here because there was a view that there were rich cultures in Asia, even if they were cultures with what would have been considered pagan religions. But all is not lost here because in the background a cross rises up. And this was a period of tremendous American missionary activity in Asia. This was the period when large numbers, for example, of Presbyterians were going to Korea, a reason why today there are so many Korean Presbyterian churches in America. In fact, the earliest Korean missionaries from America were sent by the Lafayette Avenue Presbyterian Church in Brooklyn.

And so there's this whole notion that the culture of Asia could be westernized as Christianity came in.

At the other far distance is Africa, which is a naked figure that's sleeping, this notion of the sleeping continent. And she rests on the ruins of a sphinx, the ruins of a past civilization, and there are no cultural symbols because at this time in the early twentieth century there was this vision that there was no culture in Africa, so there could be no symbols. So basically you have this sleeping giant continent that was waiting to be aroused and to become a cultural powerhouse.

So this says a tremendous amount about a worldview. And it's interesting to look at this in different levels. The building not only has sculpture, but beautiful metalwork, and when you go inside there are murals and extraordinary marble work. And then in the 1930s during the Depression, the Treasury Department sponsored art projects, and the great American muralist Reginald Marsh did a whole series of murals about passenger liners entering into New York Harbor, which are in the great custom hall, a great oval room, another one of the great public spaces of New York.

SMALLER SCALE BUILDINGS

The Bronx Zoo

It wasn't only for huge buildings that these French-inspired forms were used, but for smaller-scale civic buildings as well, as is evident at the Bronx Zoo, another one of these European-inspired institutions that was established in the late nineteenth century, and uses French architectural ideas for its buildings. And the original buildings designed by Heinz and La Farge, the same architects who designed the original subway stations, were a quadrangle of buildings that culminates in the Elephant House, the most important building at a zoo, so it gets a grand dome, but typical of Beaux-Arts buildings, the sculpture says something about the use of the building, so that you have this wonderful animal sculpture on the building. You have a rhinoceros keystone in the center, and two giant elephants to either side.

Immigrant Palaces

But even for the most modest civic buildings a sense of architectural grandeur was used. This was a period in the early twentieth century where there are a number of civic construction projects in the most densely overcrowded, poor, immigrant slum areas of New York.

The construction, for example, of public baths, and also the creation of small parks in the city, which often have small play buildings often also incorporating public baths.

When these buildings were built, the city didn't envision these as cheap buildings. There was this view that architecture could be an ennobling experience, that good architecture would help to create better citizens among the immigrants. And so very

prestigious architects were hired to design these small-scale civic buildings in these slum areas.

And this is the Hamilton Fish Park Play Pavilion, which was designed in the early twentieth century in one of the most densely overcrowded sections of the Lower East Side. And the park was created, and Carrère and Hastings designed this small-scale but incredibly grand and monumental building, a symmetrical building focusing on this great arched entrance, which was a form borrowed by Carrère and Hastings from the Petit Palais in Paris. So they're taking one of these monumental French buildings and they're making it a much smaller, more modest building, but still a grand building, for one of the poorest immigrant areas of New York.

City College

This was also the period of the great expansion of educational institutions. And so the city established its own university system, a way of training men from the working class, and it was a free institution, and it was specifically planned as a counterweight to the more elitist Columbia University and New York University. It was originally located on Twenty-third Street. And as the number of students-and it was all male students at this time-increased, they needed more space. And in about 1897, land was purchased on the heights overlooking Harlem. And a competition was held for a design of the campus, and it was won by George B. Post, one of the leading architects in New York. And Post designed alternate plans, one of which was classical and one of which was Gothic. And the City College trustees chose the collegiate Gothic design.

The collegiate Gothic was seen as an appropriate style for the new City College because it was the style associated with Oxford and Cambridge, and had become popular for elite American institutions. So by building a collegiate Gothic campus, City College's trustees were saying that the sons of the working class could receive just as good an education here as they could at Princeton or Harvard or other elite Ivy League schools.

The buildings are built out of Manhattan schist, which is the local bedrock of New York, and it was quarried here on the site, and this gray stone is then trimmed with very bright white-glazed terra-cotta. And the terra-cotta ornament is among the most spectacular that was created in the early twentieth century. It's filled with

whimsical gargoyles that say something about the use of each one of the buildings.

The buildings were laid out in a very carefully done plan that is a quadrangle. So again, like Oxford and Cambridge, you have this collegiate quadrangle plan, and it has a very grand and impressive austere look, and then when you look more carefully at the buildings you get this contrast between the austerity and grandeur of the buildings and the whimsicality of the detail.

And these ideas that we've been talking about extend well into the 1920s and 1930s for public and civic buildings. And we could look at many examples, but here is just one example, which is the City College system expanding and now building a college for women students, because City College was just for men, and so Hunter College, now Lehman College, was built in the Bronx in the 1920s and 1930s.

And here you can see, for example, the gymnasium of the old Hunter College, and it too is a collegiate Gothic building. In fact, it's modeled on Kings College, Cambridge's Chapel.

Works Projects

During the Great Depression in the 1930s most construction stopped, especially construction that was paid for privately. But the government continued to build, often as works projects. And although there was not a lot of money to expend on what would have been considered extraneous ornament, a lot of these Beaux-Arts-institutional ideas continue in a more refined manner on buildings of the 1930s.

This is evident when New York City built a courthouse and civic structure in the Bronx, a monumental classical building without the freestanding classical columns, and filled with huge sculptural groups that say something about law and justice. And also when the federal government was building post offices all over the country, but in New York designing very simplified classicized designs, as on the Twenty-third Street post office—a very refined modern-classical building, which takes some of the ideas we've been talking about in through the 1930s.

Rockefeller Institute

Construction slowed during the 1930s, and during World War II it stopped. During this period many of the great European modernists, the masters at the Bauhaus,

escaped Europe and came to America and changed the whole idea of what architecture was. By now rather stale Beaux-Arts curricula at American architectural universities is thrown out and in its place a whole new interest in European modernism develops, which we saw when we were discussing modern office buildings like Lever House and the Seagram Building.

And the same thing becomes evident in institutional architecture. In fact, in the institutional realm, some of the most spectacular postwar buildings appear, some of the most dramatic and expressive buildings are erected during this period.

The classic European modernism of the Bauhaus, which was exemplified in the corporate buildings of Lever House and others, is most evident at the expansions of the Rockefeller Institute on the East River, which were begun in 1957. And the Rockefellers hired one of their favorite architects, Wallace K. Harrison, to expand. And Harrison was one of the leading proponents of modernism in New York, and he designed a complex that included four buildings.

You can see two low, flat-roofed buildings, a domed building, and a higher laboratory building.

This landscape of formally planned trees and abstractly designed fountains and planting beds was to be one with the design. And at Rockefeller Institute is one of the few places where the landscape has been maintained, and in which today you can still see the juxtaposition of modern architecture and modern landscape.

The interiors of the buildings also take the properties of natural materials, wood and stone, and plasterwork, and juxtapose them with artwork to create light-filled interiors in which students and faculty at the institute would feel relaxed and would want to spend their time teaching and researching.

Dan Kiley's landscape, here you can see, is a very important part of the building. You have the domed auditorium, office, and classroom buildings, and water, and a very crisply designed landscape.

TWA Terminal

There was, during this period, though, not only an interest in the classic Bauhaus

modernism, but other kinds of modern ideas also begin to come to the fore. A lot of them in institutional buildings, in this case a more commercial but also somewhat civic structure, the TWA terminal at the city's great airport, at what was then Idlewild Airport, now Kennedy Airport. TWA commissioned the great architect Eero Saarinen to design a new terminal, and Saarinen, taking the new technologies of concrete and designing a spectacularly carefully planned engineering feat to design an airline terminal that looked like an airline terminal should. It looks like it's about to take off; it looks like a giant bird. And it uses the new technologies of concrete in an extraordinarily expressive manner to create the drama of this terminal, with the head of the bird as the sort of canopy under which you go before you go inside, and light streaming in. And this was designed in the late 1950s. It was begun in 1957-just at the beginning of jet travel-and more than any other building came to symbolize the romance of the jet age at Kennedy Airport.

Unfortunately, as airline travel has changed over the decades, the building became increasingly busy, increasingly altered, and increasingly obsolete.

New York University

Smaller buildings using the same expressive use of concrete also appear in New York. New York University undertook a major expansion in the mid-1950s, designed by Marcel Breuer, one of the architects trained at the Bauhaus, who came to America during World War II and established an office in New York. And more than any other architect perhaps active in New York during this period, Breuer had a feel for the properties of materials, and juxtaposes natural materials and man-made materials in a most dramatic and expressive manner.

And you can see the Begrisch Lecture Hall here, rising above a natural stone wall. Natural stones are used to create the base wall and then concrete that's patterned-it's cut into geometric shapes-rises up almost as if it's going to shoot off the ground, to create this centerpiece for a new science campus at NYU.

MODERN MUSEUMS AND CONCERT HALLS

The Whitney

Breuer's most famous building, and one of his great masterpieces, is the Whitney

Museum of American Art, which was begun in 1963. The Whitney Museum had been founded several decades earlier by Gertrude Vanderbilt Whitney as a place where American art could be shown. But it never had an identity of its own. It was originally in a small building on Eighth Street in Greenwich Village, and when it outgrew that building it moved into a building next door to the Museum of Modern Art. And you could actually enter the museum from the Museum of Modern Art. And most people saw the Whitney as an adjunct to the Museum of Modern Art.

And in the early 1960s the Museum of Modern Art told the Whitney that they wanted to use the space, and the Whitney was going to have to leave. And so they chose to build a new building, but they wanted a building that would instantly give the museum a symbol, that it would be seen as a separate institution, and one that would be a destination point that people would want to come and visit.

So Breuer designed a building that is really interesting because it clearly stands out from its surroundings. It's different from anything else. It's a reversed or upside-down ziggurat, that is, it's a stepped pyramid that's sort of turned upside down. But it also is an incredibly contextual building.

The color is similar to the color of the brownstone row houses next door, the height is very similar to the height of nearby buildings, and Breuer uses a concrete wall at the side of the building to separate the building from its neighbors, so that this was a building that would be part of the community but separate from the community, and would be a separate institutional entity within the community.

The building is an incredibly sophisticated structure and one that you have to walk through very carefully in order to appreciate exactly what Breuer was doing to create this great masterpiece.

As you walk along Madison Avenue at Seventy-fifth Street, a concrete canopy projects out over the sidewalk, and you're walking along the street and the canopy sort of draws you into the building. Now you've already been drawn toward the building because you have these windows that are projecting out and sort of winking at you on the street as you're going down.

But as you're moving toward the entrance to the museum, the canopy ends, and

you can then look up, but you're not under the sky anymore, you're now under the steps of the museum. So you're sort of being engulfed by the museum. And if you look straight ahead it's not a stone wall but a glass wall, and so there's a sense of transparency. So you're drawn into the glass-walled lobby.

You go up one flight of stairs and there's a window looking out at Madison Avenue. And it's the last time that you're going to have a connection with the world outside. And nothing is more beautiful in this building than the stair itself.

And here more than anyplace else this use of natural and man-made materials comes to the fore. You have cast-terrazzo stairs with little insets, so that your foot will glide very gently into the stair. And you have concrete walls. But the walls have been hammered, they're bush-hammered so that the top layer of the concrete, except at the base, the top layer of the concrete has come off, and now you have this rugged textured concrete, which contrasts then with the incredible bronze and teak of the stair rail.

When this museum opened, Ada Louise Huxtable, the architecture critic of the *New York Times*, said that the stair was the best work of art on view.

The Guggenheim Museum

The Guggenheim Museum is such a spectacular and such a dynamic building that it creates its own environment. It has nothing to do with the environment of residential Fifth Avenue, yet it creates a world unto itself with the dynamic spirals of the ramp on which the art was to be viewed.

The building was designed to be a pristine white building so that it would stand out from the park across the street, and was designed to be the most dynamic building on Fifth Avenue, to be a contrast to the very staid rows of apartment buildings on Fifth Avenue. You'd have this respite of this dynamic swirling museum.

The building has been altered somewhat, and to my view seriously marred, by the addition of a new wing in the 1990s, where if you view the building now from the north it no longer reads as a freestanding dynamic entity, but as having an armature that's holding it up.

The Gallery of Modern Art

These new modern ideas, ideas that use European modern ideas or American-grown modern ideas, as in Wright's building, begin to be challenged in the late 1950s and in the 1960s by a return to an interest in traditional architecture, a way several architects begin to think about how can you design a modern building with a traditional vocabulary.

And that's quite evident at a very controversial building, the Gallery of Modern Art, on Columbus Circle, that was designed in 1959 by Edward Durell Stone, an architect who had been a modernist, one of the architects of the original building of the Museum of Modern Art, was now returning to an interest in more traditional forms, and he uses a traditional Italian Carrera marble and a series of Renaissance arcades on this building for a museum that was to house traditional art.

And although many people hated this building when it was built and many people have continued to criticize the design of this building, it's a very important building for what it says about the debate that was going on in architecture, whether the strictures of unornamented modernism were appropriate or whether what was appropriate was an adaptation of traditional design for modern buildings.

Lincoln Center

Cultural institutions in particular seem to go for this more traditional idea, as is evident at the Gallery of Modern Art, a very endangered building.

And is even more evident at Lincoln Center. A very traditional group of buildings, three main theaters set around a very European-inspired piazza with a fountain in the center. And each one of the main buildings-the New York State Theater, the Metropolitan Opera House, and what was originally Philharmonic Hall, now Avery Fisher Hall-how these buildings have very rhythmic arcades or colonnades on the façade, using a modern interpretation of classical and Renaissance architecture, using Italian travertine, a very traditional material for the designs.

Here at Avery Fisher Hall you can see the rhythm of the columns, but they're modern columns, they're not Doric columns or Ionic columns or Corinthian columns, they're a modern version of the column. A building designed by Max Abramovitz, which at the beginning of the twenty-first century there's a great debate as to

whether this building should be demolished on the one hand, or should be declared a landmark on the other hand.

The interiors, too, are very traditional in these buildings, so that at, for example, the New York State Theater, which has the greatest of all the interiors at Lincoln Center, it's a great promenade like you might have found at the Paris Opéra. It's a great meeting place for people who are going to the opera or going to the ballet at the New York State Theater; dressed in their finery, they can promenade around and be seen and watch other people. And this is one of the great mingling spaces in New York.

The Rose Center

The idea of using architecture as a way of defining an institution, which is evident at the Whitney Museum and at the Guggenheim and at Lincoln Center, is something that's very, very prominent throughout the twentieth- and into the twenty-first-century design of institutional and public buildings [and] is still with us. This is most evident at the Rose Center for Earth and Space, the new planetarium at the American Museum of Natural History, a masterpiece by James Stewart Polshek and Partners, which opened on the millennial eve in the year 2000, a building that uses transparency and geometry to create an image for the Museum of Natural History.

The museum has a whole history of commissioning important works of architecture that have symbolized the building; in the late nineteenth century it had a great Romanesque building that symbolized the museum. By the 1930s the Roosevelt Memorial triumphal-arched entrance on Central Park West was a symbol of the building. And then at the dawn of the twenty-first century this geometric sphere set within a transparent cube becomes a symbol. And it uses traditional ideas, the cube and the sphere, but in a very, very modern way, using the latest in glass technology, using what's called *water white glass*, which is for the first time glass that is almost 100 percent transparent, so that you can see the globe inside and you can see the planetarium and the sculptures of planets, and of course you will be welcomed in, it draws you to come in to the museum.