An Urban Rehabilitation proposal for the

west side of Manhattan "Centro Delle Arti" core of a sensorial walkway

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The character of Chelsea

Chelsea is a multi-facet interesting neighborhood on the west site of Manhattan along the Hudson River, just north of Greenwich Village, stretching from 14th to 30th St and from the river to Sixth Avenue towards the east.

The mixed character of Chelsea —residential, commercial and industrial— developed in mid Nine teenth Century since the very beginning of its urbanizat.on: on one side it was poised to become a quiet and decorous familiar residential neighborhood with some culturally momentous institutional buildings, like St Peter's Church, built in Gothic Revival style according to the British arch tectural fashion of that time, or the General Theological Seminary, which represented the first university campus in New York.

On the other side Chelsea had a natural vocation as a transit area from Jersey City, situated just across the river, to Midtown, where a growing number of offices, stores and other kinds of activities were developing. With the diffusion of boats powered by steam, a growing number of people started to be ferried to Chelsea every day: they arrived in the morning to go to work and left in the evening coming back home. Also a lot of cargoes came across on barges. Since 1850, after the construction of the Hudson River Railway and a large freight yard at 11th Avenue, other people and goods had arr ved by the trains that ran along the coast. All that favoured the development on the waterfront, mainly west of Tenth Avenue, of various activities for services, merchandise processing, and transportat on, as well as the installation of large markets, like those for meat, fish or flowers.

Towards the end of the century, these transit functions extended enormously when Chelsea became the main marit me port of New York, taking

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advantage of its favourable position on the wide final course of the Hudson. That caused a burst of industrial, commercial and trucking activities, but at the same time it enhanced a process of social transformation and environment decadence in the entire neighborhood.

About ten years after World War II, the importance of passengers transportation by ship suddenly fell down with the development of commercial intercontinental air transportation. A decade later also maritime goods transport was transferred to Jersey State, for the new big container ships required service areas not available in Chelsea.

To fight against waterfront abandonment and significant degradation of housing conditions, a number of rehabilitation programs and housing plans started, fostered by Federal and State Laws for urban rehabilitation and fiscal incentives granted by the Government. However, in spite of an important construction activity even on a large scale, and the transformation of a number of manufacturing buildings into residential lofts, Chelsea has managed to keep its character as a vital, mixed district. Residential areas, now renovated, remain surrounded and interlaced with industrial and commercial areas, while the heterogeneous social and economic fabric of its population gives stability to the whole neighborhood.

Land use

From this point of view, Chelsea can be divided into three main areas: the western area, beyond Tenth Avenue, for manufacturing uses, where transport activities, warehouses, factories and laboratories are concentrated; a central area, between the Seventh and Tenth Avenue, mainly residential and commercial; and the eastern area, between the Sixth and Seventh Avenue, for commercial and manufacturing uses, comprising shops, some residential lofts and a new group of industrial services.

The land use differentiates Chelsea from other neighborhoods of Manhattan because it is much more variegated. It is a consequence of its peculiar history and also of the fact that it remained classified for "unrestricted uses" until the second Zoning Resolution of 1961. Under the first resolution only a few blocks around Pennsylvania Station had been designated as business districts and blocks below 30th Street between Eighth and Ninth Avenues as residential districts.

Today the predominant zoning is "light manufacturing" which accounts for about 70 percent of the area. Light manufacturing districts allow industrial, commercial and a wide range of retail uses: in general residential uses are not allowed, while industrial uses have to respond to strict performance requirements.

Lastly, the third zoning resolution of 2000 introduced the first mixed-use district, residential and manufacturing, on 23rd St between Tenth and Eleventh Avenues. It was a strong innovation in planning principles, because residential uses were strictly prohibited in manufacturing districts in previous zoning regulations. This change was made possible by the appearance of new businesses and light industrial activities that are much less invasive, from an environmental point of view, in comparison with traditional activities.

Today the residential area is much more extended than in the past and includes and surrounds a fine historic district. It is contiguous with two manufacturing zones and encompasses a number of commercial uses.

One of the main concerns of the inhabitants has always been the possible impact of new constructions on the typycally ninteenth century scale and urban design of the residential area. Its lowrise structures are in fact a special resource of the neighborhood and many streets have gracious rowhouses with small scale and bulk, regular setback from the streetwall, and stoops and front-yards, which gives Chelsea its unique template and quality characteristics. While probably underestimating the needs for preservation in the area, the Landmark Preservation Commission has recognized that over 30 percent of the buildings are of landmark quality or of architectural significance.

Nevertheless, due to the low-rise and small bulk constructions, well below regulation limits, Chelsea has a high potential for development, particularly in the manufacturing and commercial zones.

Social aspects

A basic aspect is that people of many different ethnic groupes have been living in Chelsea, from Dutch descendants and other European immigrants to African, Asian, American Indian, and more recently Hispanic and East-European people.

Another tract caracterizing Chelsea population, especially in the past, was the presence of a large group of seamen and dockworkers. This brought to the creation of strong unions, from the National Maritime Union to the International Longshore's Association, to the Teamsters, who manned the trucks which picked up the freight. Later on, many other associations arose to fight for bettering the life conditions and more recently also to preserve historic memories of the neighborhood.

After a slight drop between 1970 and 1980, the resident population appears regularly increasing, with shifts in age and ethnic composition. The White population has become older and has been partially replaced by minorities, in particular Hispanic and Black ones. While the large majority remains White, a quarter is Hispanic, 10% Black and small minorities are those of Asian, American Indian and other origins. The majority of people are long-time residents.

In 1985 there were in Chelsea about 27000 housing units classifiable in three major groups: market rental housing, included rent-controlled and rent-stabilized apartments; privately owned housing, such as cooperatives and condominiums; and low- to moderate-income housing, which includes publically aided housing and single room occupancies. Only a minority of people lived in free "market rental" housing.

With the new housing units added, often high priced dwellings, newcomers have become affluent young families and young professionals, many belonging to gay and lesbian communities, so that local economy has gained new impetus.

Nowadays, a good deal of people have jobs that can be classified as "white-collar", in particular, professional, technical, sales, administrative; among these are included a significant number of creative jobs that can be associated to the arts field and make more than 10 percent of the entire workforce.

That has also given a new drive to that special character of the neighborhood linked to arts, entertainments and leisure, which Chelsea had already showed in its gilded era, at the end of ninteenth century, when theaters and other attractions had spread out from Broadway to West 23rd St and along Sixth Avenue. Then at the beginning of the twentieth century, before moving to Hollywood, movie industries had installed their studies here, using old warehouses as production studies, and later on song writers and musical editors had set down in the so-called Tin-Pan Alley, with their studies concentrated along 28th St from Sixth Avenue to Broadway

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In the last decade, off Broadway theaters, dance studios and musical clubs have again flourished throughout the neighborhood, while along the river bank large entertainment facilities have found a convenient site.

Economic aspects

For New York as a whole, Chelsea had in the past and still has in our days an important role for freight transport and storage due to its vicinity to the Holland and Lincoln tunnels and port structures through which freight from and to Port Elizabeth[1] is transported.

It represents a nodal area for supplying goods to Manhattan and its functions are not limited to freight receipt and storage, but also to perform many processing and conditioning activities. Moreover, with today's trends towards customized products and more and more short product life, the importance of a fast delivering has increased, so that stocking areas are to be very close to the final destination.

Some of the old manufacturing activities are now declining. Printing, garment manufacture, sewing machine and mechanical repair shops, not only are under the pressure of technological obsolescence and foreign competition, but they are also uncapable of sustaining continous increases in rents. Often they worked for companies that have been relocated in other regions in the country or abroad and they were simply forced to close. But apart from trucking and warehousing, always flourishing, there are activities, like producer services, which are in a constant growth: in particular, architectural and graphics firms, advertising agencies, artist's and photographer's studios, computer software houses. Many of these services have moved to Chelsea in the last years, for local rents have been growing but still remain lower than in other Manhattan areas. Loft buildings offer favorable characteristic for these kinds of activities, because of their large spaces and high ceilings. They are particularly suitable for artists, who are now permitted by new zoning regulations to install together their studios and residences in loft apartments in some of the light manufacturing districts.

Moreover many of these new activities can be located as well below as above residential uses, thus pushing to introduce important changes into regulations in order to permit coexistence in some districts of commercial and residential uses in the same building.

Retail shops are located mainly in the southern and central area of Chelsea, their customers being mainly neighborhood residents. Some shops have been restructured or renovated acquiring a new luxury look and some have attracted upper class clientele also from outside. Chelsea seems remote to most of New Yorkers, but it enjoys a good public transport network which makes it easy to reach it from other neighborhoods.

Also the fur industry, flower market, and antiques commerce have found a niche in the new Chelsea.

Significant has been the growth of arts galleries, both in number and importance, many of them transferred here from Soho and Tribeca in restructured large warehouse or parking lots, creating a real new city center for contemporary arts.

In conclusion, there has been a decline in manufacturing and industrial uses, which have been mainly replaced by growing commercial and service sectors, specifically high-tech firms, the arts and entertainment industry, and commercial business. Businesses have relocated mainly in those areas where higher is the concentration of loft buildings, particularly east of Ninth Avenue, where significant employment levels in services, fiscal insurance and real estate, retail and wholesale trade are reported.

To the west of Tenth Avenue, an area with a large number of open uses and low-rise buildings, employment densities are lower, with a mix of low intensity auto-related activities and entertainment enterprises

Infrastructure, extensive building and open spaces, comprising freight yards, warehouses, factories, rail lines, and piers conformed the physical character of a large part of Chelsea and indirectly of all the neighborhood from the beginning.

In a sense, the neighborhood can be seen as a legacy of the city's late nineteenth century past, as a residue of transport industries of New York, a situation that remained largely unchanged until very recently With the changes underway Chelsea shows now the potential to become again, through a somewhat different approach, a vital center for the century just started.

A Short history of Chelsea

The history of Chelsea is quite peculiar and in many respects is linked to the Clarke-Moore family, which gave it the imprinting for a decorous place to live but later on also started the industrial exploitation of the waterfront. Chelsea was originally a stretch of land along the marshy bank of the Hudson where some Algonquin Indian tribes were settled. The Dutch West Indies Company which had its settlements in the southern part of Manhattan, named Nieuw Amsterdam, acquired the area from the Indians to install there its bowery. Then various territories, including this land, were given by governor Peter Stuyvesant to his sustainers to be transformed into farms. In 1664 the Dutch colony fell under British power and was renamed New York, in honor of the Duke of York. About in 1680, one of the British governors enacted the "Royal Patents" which re established old owners rights on lands north of the town, and the area was assigned to a Dutch family which kept it until 1750.

At that time a retired British officer Captain Thomas Clarke, purchased from the Dutch a 94 acre tract of land, which he named Chelsea Farm in memory of his native home in England. He lived there until the American Revolution broke out, leaving his property to his daughters together with a legacy of English, middle-class customs and aspirations. His son in law, Mr Moore, a very influential personality in New York at the beginning of the ninteenth century, managed to preserve the unity of the property and left it to his own son, Clement Moore. The nephew of the Captain, after making a donation of a part of the estate to the Episcopal Church for the ground of St Peter's and the General Theological Seminary, started the urbanization of the vast area in 1830, creating to this end the Moore Estate, together with a friend.

The urbanization was implemented under the Grid Plan, the general urban planning established in 1811, which divided Manhattan in a regular grid of Avenues and Streets.[2]

1. Port Elizabeth in New Jersey is a major port of entry for imports and exports to and from the United States

2. The "Commissioner's Plan", generally known as "Grid Plan" for its grid structure, was adopted in 1811. The axis of the grid were made by 12 avenues 100 ft. wide (about 30 m) running along the length of Manhattan for about 20 km, and by 155 streets, 60 ft wide (about 18 m) and about 4 km long, which crossed perpendicularly the avenues. Rectangular blocks 200 ft (about 61 m) by 600-800 ft. (about 183 244 m) were created, each one divided in building lots 25 ft by 100 ft, so giving the possibility of an intensive exploitation of the land. The plan had a large effect on successive experiences of urban planning and was culturally motivated as an expression of the new American democracy

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According to special covenants in the leasing or selling contracts laid down by the Moore Estate, the houses were built in brick or brownstone with a particular care to their architecture: 2 to 4 story row houses stepped-back from the streets, with a stoop and a front-yard at the entrance, many of them closed by cast iron railings.

One of the most famous row in the entire New York became London Terrace on the 23rd Street, a line of elegant 4-story town houses in Greek Revival style, with columns on the facade and a large front lawn, inspired from similar rows in London.

Around 1850 the Hudson River Railroad constructed along Tenth Avenue, close to the waterfront and the piers, together with a large freight yard at the 30th Street. When the urbanization of Chelsea ended, about in 1880, the district consisted of a center with residential streets and avenues, a large area along the river and to the north edge essentially used for industrial activities and an area to the south and towards Sixth Avenue mainly commercial.

In the 1880s there were many millionaires in New York who had their luxury houses built along Fifth Avenue. Many big department stores opened doors along Sixth Avenue[3] and Chelsea became one of the most attractive neighborhoods of New York, with fine houses, theaters, shopping centers.

Famous actors and writers frequented its restaurants, theaters and hotels, among which Chelsea Hotel, today a landmark of the United States. The most luxurious type of residence hotel in New York City at the time of its opening, it was a 12 floors Victorian Gothic red brick building, with wrought iron balconies and internal iron and brass stairwell. It was later transformed into a hotel.

Until 1900 the only means to connect Jersey City to New York was transportation by ferry boats. In the rush hours ferry terminals were prey of chaos and movement in the city was beset by the enormous number of cars and pedestrian traffic. Six main railways served 40 piers for freight barges along the Hudson bank and 41 ferry lines carried 625,000 people every day.

In order to alleviate the difficulties of transportation, elevated railways were constructed, one opened in 1871 along Ninth Avenue, and another along Sixth Avenue.

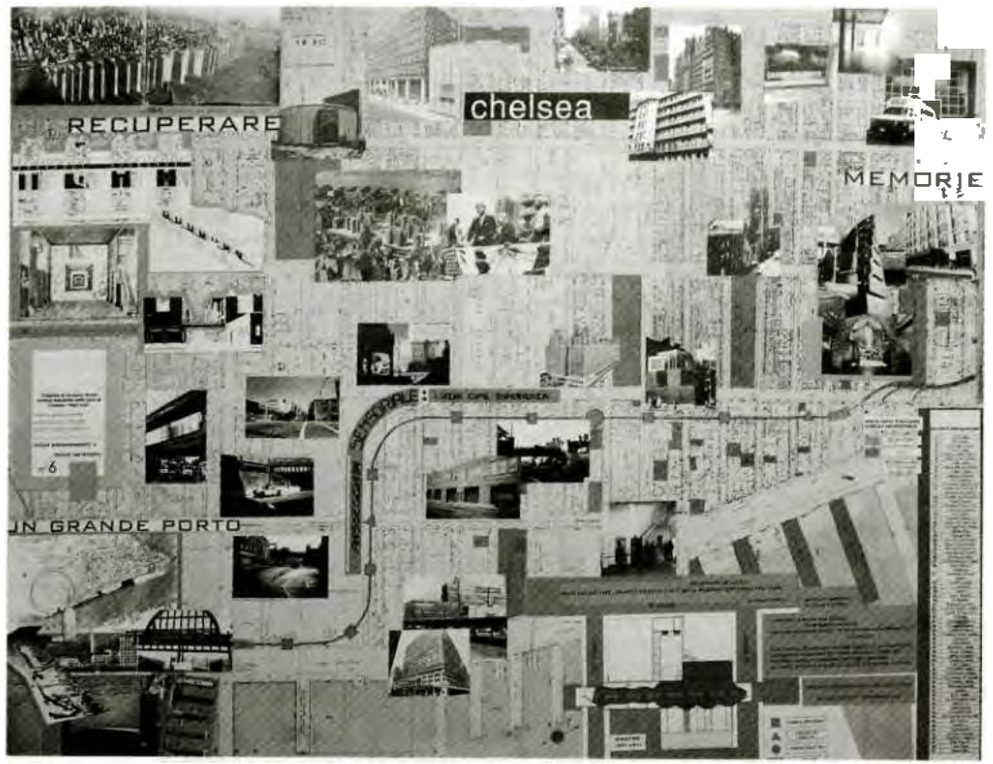
At the turn of the century with the breakthrough of new technologies, like electricity, subways, and suspension bridge construction, eventually New York found a long term solution to its problems of transportation.

Just at that period of time, new magnificent port structures were under construction at Chelsea, with a row of nine ocean liner piers capable of receiving modern luxury transatlantic liners, like the Mauritania and the Lusitania, that the New York Times greeted on the day of inauguration, in 1910, as the most remarkable urban planning realization of the time.

They were designed by the Warren & Wetmore Architects, and replaced old port structures as well as the ferry terminal at 14th Street along the waterfront with a row of two story buildings with precious pink granite facades. In the buildings, company and ticket offices were located, together with finely appointed foyers and waiting rooms. Over the piers there were two story sheds, the first for freight and trucking and the second for passengers.

In 1911 the Chelsea Piers were the destination of Titanic on her maiden voyage, which had the well known dramatic end. From Chelsea also sailed

3. Their facades were lined with the characteristic cast iron decorations, remains of which can be admired mainly in Soho historic district.

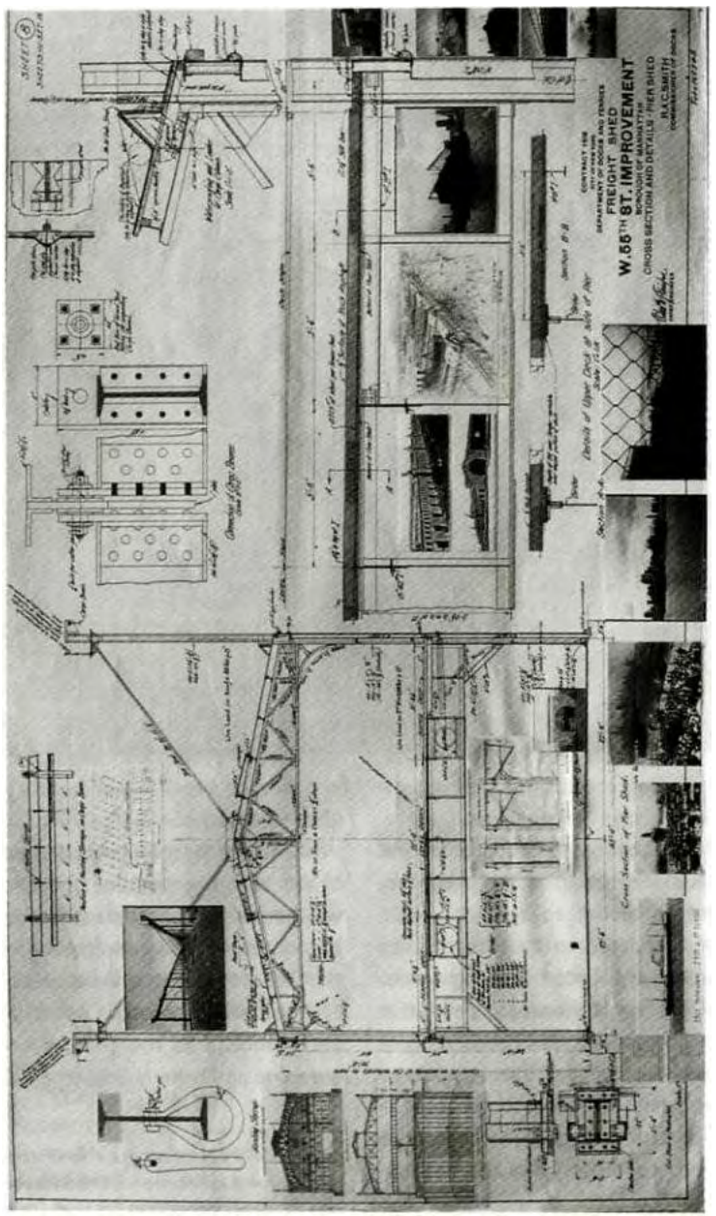


the troops for the First and Second World Wars and there arrived the acclaimed participants to the Berlin Olympic Games in 1936.

Together with the famous and the rich, the liners carried also thousands and thousands of immigrants. From 1880 to 1920, many million people arrived in New York, the majority landing at Chelsea: most of them were just in transit, but many found accommodation in the neighborhood, at least temporarily.[4]

Around 1910, two other important structures were built in Chelsea, the Central Post Office and the Pennsylvania Station, both designed by McKim, Mead & White, one of the most celebrated architectural firms of New York. The realization of the Pennsylvania Railway terminal was the nucleus of a very big railway construction and electrification program from Harrison, in New Jersey, to Queens and was terminated two and a half years before the Grand Central Station. It included the construction of two one-way tunnels under the

4. To house all this people a large number of tenements were built. For instance, around 16th St. over 1500 tenant-house, housing more than 43,000 residents.



Hudson, utilizing new technologies. The station, designed for a dayly flow of 250,000 people,[5] was built as a monumental access to the city, in Imperial Roman style, with a Doric colonnade and a magnificent main concourse with steel and glass vaulted ceilings.

But things started to change. The creation of immigration slums, the degradation of old row houses, the presence of elevated railways with their steel supports and the noxious emissions from the trains, the congestion of streets, all caused a sharp depreciation of real estate values in the neighborhood. Department stores moved northward and the theater district transferred to Times Square. Then, after the realization of subways, the elevated railways were torn down, and for a decade or two Chelsea became an important center for film production. The Famous Players of Adolph Zukor were in a warehouse at 221 of 26th Street, in 1914 Mary Pickford played "Tess of the Storm Country" in an old armory, and at 520 of 21st Street Reliance and Majestic Studies promoted Wallace Reid and Florence Hackett popularity.

At the end of the 1920s a phase of renovation started in Chelsea promoted by real estate developers,[6] but it was very soon stopped by the Great Depression. A couple of big projects had the time to be completed, the new London Terrace and the Starrett Building, while a park was realized at the end of 23rd Street.

The old brownstone row of London Terrace, home of many artists and according to an architecture writer "the most old and interesting private dwellings of Manhattan", were demolished and replaced with an apartment complex. According to the builder, Henry Mandel, one successful developer of the time, it was the bigger apartment building in the world and could lodge more than 4000 people.[7]

Also the 19 story Starrett Lehigh Building was probably the bigger warehouse of its time. It was an enormous 2.5 million square-foot building and represented the first attempt to combine a ninteenth century rail-freight terminal with a twentieth century trucking facility: fifty four railroad freight cars could be handled simultaneously at its loading docks. It was designed by architect Yasuo Matsui who followed the Bauhaus concepts, in particular in the horizontal window-wall design.

5. Its demolition in 1963 was judged the worst vandalic act in American history of architecture. The New York Times wrote that the passing of the station confirmed the demise of an age of opulent elegance and the prevailing of real estate value over preservation. The Pennsylvania Station, rebuilt underground in the same place, is still the most busy station in the States, serving more than 310 000 riders on an average weekday, and about 735 trains.

6. Under the new rules established by the Zoning Resolution of 1916 in response to overwhelming development in Lower Manhattan. This had been caused by steel beam construction techniques and improved elevators breakthroughs which freed builders from technical restraints that had traditionally limited building height. The ordinance established two kinds of regulations: the separation of uses in the different districts and restrictions in the bulk and dimensions of buildings. For that reason it is considered by historians the first general zoning regulation in the United States. The adoption of this ordinance —after more than twenty years of debate over overbuilding— was not the consequence of estethic or planning considerations, but rather of the negative effects that new buildings had on real estate values in the glibouring constructions. The resolution specified three categories of uses: residence, business and unrestricted; moreover it introduced the concept of "envelope", an external limit for building structures at different floors, in order to permit sunlight to reach the street and lower floors of nearby buildings. In general terms it was prescribed a vertical height above the sidewalk (for distances 90 ft for streets and 150 ft for avenues in Midtown) and above that height the building had to step-back according to a plane running up from the centre of the street. A tower of unlimited height was permitted over one-quarter of the area. This concept and the resulting "wedding-cake" constructions became a distinctive characteristic of New York.

7. Eventually, H. Mandel went bankrupt and lost all his property.

Around 1930 the West Side improvement program was also launched. It included the High Line, the West Side Elevated (Miller) Highway (now demolished) and the Henry Hudson Parkway, north of Clinton. The High Line was an elevated rail structure for freight transport: it aimed mainly at eliminating and replacing the dangerous railway which ran at grade along Tenth Avenue and had caused so many fatal accidents. This new line ran along the west side of Manhattan, parallel to Tenth Avenue, crossing many buildings, and with various connections to many warehouses. It linked the freight terminal located near the Holland Tunnel with the 30th Street Yard, continued on to the 60th Street Yard, and then went north until Spuyten Duyvil. The first section was opened in 1934 and permitted to abolish 105 at-grade intersections between freight cars and urban traffic.

Chelsea houses continued to deteriorate because owners didn't want to spend anymore for their maintenance and entire blocks were transformed into slums, so that, according to a journalist, in 1939 the neighborhood had fallen down to one of the most lurid reputations in America.

After a period of frantic activity during World War II, with troops and materials sailing for the front, port activities declined very rapidly. Main reasons were the development of new passenger intercontinental airlines, which brought to an end ocean liners operation, and the diffusion of the new big container-ship, which required large service areas not available in Manhattan, so freight shipping was forced to move to Jersey harbours, the other side of the Hudson River.

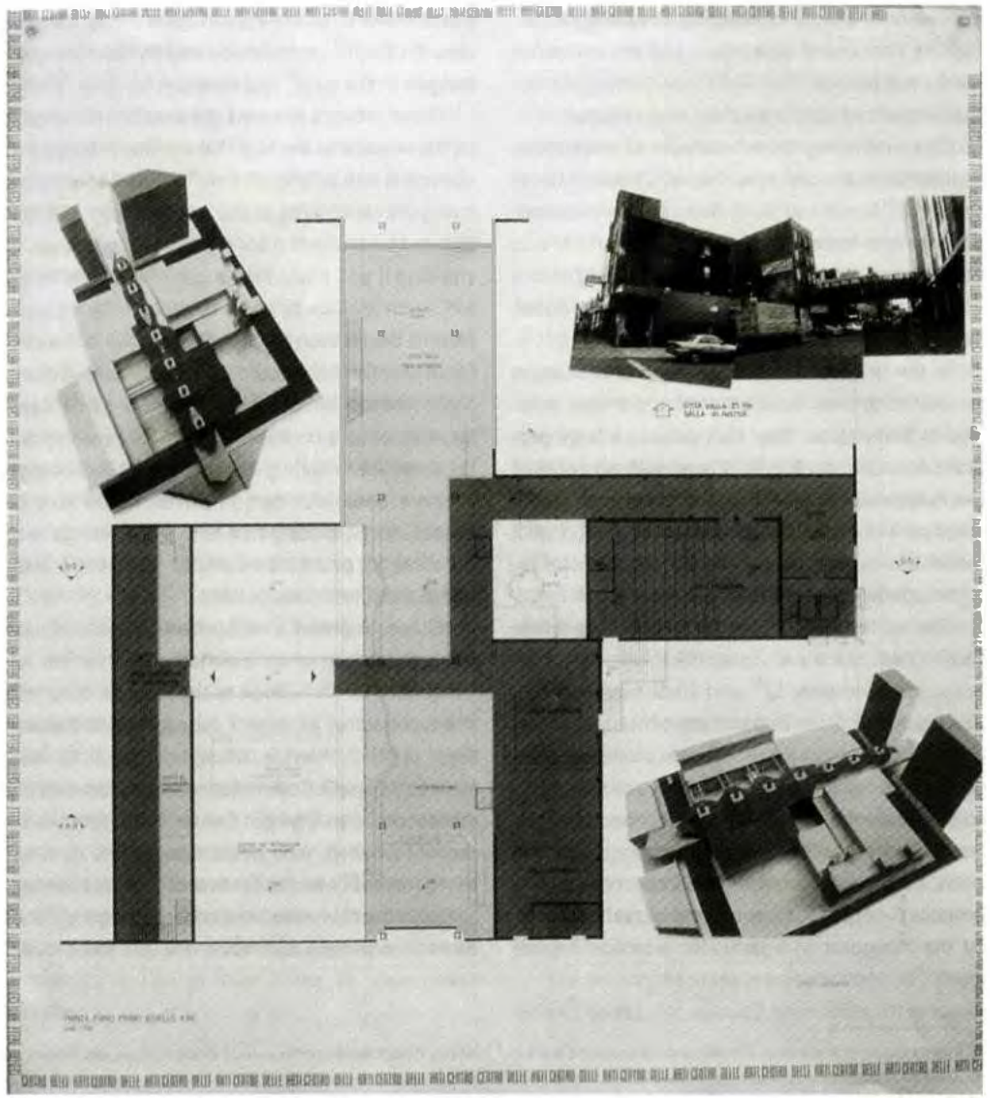
Around the Fifties a new urban renovation phase was launched, initially with a program of publicly funded housing, in the frame of West Side Urban Renewal Plan. The Elliot Houses were one of the first post-war realizations of the New York City Housing Authority. Other projects were the Chelsea Houses and the Fulton Houses. They were carried out in collaboration with the Committee on Slums Clearance.

In 1961 a new Zoning Resolution was enacted which brought many innovations and in particular the "tower in the park" concept.[8]

An outstanding application of principles underlying the new regulation was the construction of Penn South, a complex of 2820 apartments in ten 22 story buildings distributed on a vast area from 24th to 29th streets. It was a co-operative effort of the International Union of Ladies Garment Workers and was designed by Herman J.Jessor Architects. Inaugurated in 1962 by President J.F.Kennedy, it is reputed the best example of lecorbusien architecture in New York.

Then, from the first 1970s, various private rehabilitation projects of row-houses were realized with the aid of fiscal incentives. Also many manufacturing buildings in the raw fringes of Chelsea

8. It was largely based on theories and principles that architects and planners had put forward during the Twenties and Thirties, included the "tower in the park" concept of the Modernism. It responded also to new needs brought by car traffic, new construction techniques and greater requirements of population. It introduced a substantial different vision of the city and in a certain way it was in conflict with the traditional texture favouring block building and open spaces. The ordinance specified all possible uses in the different districts, divided in three main categories (residential, commercial, manufacturing) together with bulk and density requirements and parking areas. The dominant parameter to control building height and bulk was the FAR (*Floor Area Ratio*) which became as a matter of fact the sole instrument for urban planning in the Seventies and Eighties. The "tower in the park" principle encouraged the construction of tall buildings set back from streetline as height and floor area bonuses were granted in compensation for the provision of free openspace.



that were in a state of real abandonment, attracted the interests of developers and were transformed into residential lofts, or converted for businesses and light manufacturing activities.

One interesting recent example of renovations and restorations design is that of Chelsea Market (West 15th Street and Ninth Avenue), a one million-square-foot former bakery building, which was transformed by architect Jeff Vandenberg into a food wholesale and retail market, and as headquarters for some leading media companies.

In the last few years other important changes happened to the Chelsea waterfront. It was included in the Hudson River Park project, a large program founded in 1986 for the reevaluations of all the Hudson coast. Plans also started to improve the small park at the end of 23rd Street and to connect it with the Hudson River Park, with recreational facilities, pedestrian and bicycle paths.

The old fashion port was in a state of complete destruction, but 4 piers (piers 59 through 62, between approximately 17th and 23 Streets) survived. The New York State Department of Transportation included the area in a development project and leased it to a private enterprise, the Chelsea Piers. They transformed the piers into a sports and entertainment complex, with athletic facilities, a swimming pool, basketball and volley ball courts, a sailing school a variety of commercial and recreational uses. At the inauguration a journalist recalled "the important and beautiful construction along the port area on Twelfth Avenue admired by so many passengers in the past" and now lost for ever.

Other projects involved the possible conversion of the remains of the High Line. It was proposed to convert it into a light rail line,[9] in order to improve transport capabilities in the western part of Chelsea, or to transform it for recreational purposes. In this case it was envisioned a sort of a "street in the air", with a walkway and a bikeway, offering sight lines to the Hudson River and back toward the center of Manhattan. It could be tied to activities along Tenth Avenue that could open outdoor garden, restaurants or cafe on the High Line, made accessible by some low-intensity transportation technology. A more ambitious option envisioned a row of houses, incorporating new and old buildings with an elevated pedestrian corridor compatible with recreational and cultural uses.[10]

Other proposed development projects include the construction of an elevated park over the rail yards from Ninth Avenue to the Hudson River and the extension of Number 7 subway line to the area west of Ninth Avenue. Moreover, the 2012 New York City Olimpic Committee recently proposed the realsation of an Olympic Center in the northwest corn of Chelsea, with direct subway and commuter rail access between Tenth and Twelfth Avenues.

With the new mixed-use zoning category,[11] that allows commercial and residential uses to be mixed within the same building on different floors, and complete conversion of industrial districts to residential uses, an extension of the residential areas are expected, together with the development of a full range of offices and light activities, like dance and production studios, art galleries, and high technology firms.

Description of the project

From the urban environment study and historic analysis carried out, some important elements can be retained. Chelsea is a much vanegated neighborhood, but its fundamental characteristics are linked to three main aspects. First, harbour functions with the bunch of support activities arosen on the waterfront, which had such a strong impact on its history and can be lived now in the collective imaginary, as well rooted, entrenched reminiscences. A second aspect is the rich railway and transport network, in particular the elevated railway, with their direct effect on the street life. The third one is the presence of a vital, energetic social life, often hard life, but also open to arts and cultural seeds and enjoyng entertainment and play There is also a forth element that can not be forgotten, namely the existence of an Historic District and of "bourgeos" residential areas, which in the intention of its first real estate developer should have attracted the rich and the upper class, but became home of a mixed population from lower to upper class people.

From an urbanistic point of view there are two main axes: the waterfront, from the Hudson to Tenth Avenue, and the 23rd Street, the widest of the streets, which runs from Broadway to the piers and represents the principal road crossing the neighborhood about at mid distance from its northern and southern limits.

An interesting feature of the waterfront is the remaining section of the High Line, the elevated freight railway which served a series of warehouses along Tenth Avenue, transporting goods from and to port terminals. Built around 1935, it was active for a relatively short period and since 1980 has remained closed. The main reason of its rapid decline was the development of highways and car tunnels under the Hudson River These new opportunities displaced goods transportation from rail to truck, with the consequent relocation of deposits and factories away from New York - relocations that were also due to the reduction of bulk shipping in favour of containers shipping and to the decline of Chelsea port activities.

As we have seen, there were different options to restore and re-use the High Line, from light transportation to pedestrian pathway, but all of them were dropped. The pressure for development by owners whose lots were crossed by the railway was strong, and many tracts of the railway were incorporated step by step into single lot restructuring programs, and demolished.

The section still in place extends from 14th Street to 34th Street, for about 2 kilometers. In general,

9. A light rail is a modern version of trolleys and utilize vehicles that can be operated in a flexible way, in tunnels, on elevated lines and at grade on city streets It is an appropriate choice where traffic speeds are slow and high frequences are needed.

10. An example of these was the project proposed by Steven Holl Architects in which the site and structural foundation of a series of house, called "The Bridge of Houses", was the existing superstructure of the rail way It was foreseen to offer a variety of housing types, also determined by the structure capacity and width of the existing bridge associated with an elevated public promenade.

11. In 1999 2000 a new Zoning Resolution was issued by the New York City Department of Planning It reversed the orientation of the preceding regulation and re-established the importance of streetwall with the concept of the "tower on a base". It also confirmed the principe of contextual design and imposed maximum height limits in the different districts, together with tighter bulk constraints, in particular for institutional buildings. Additional controls were placed on zoning lot mergers, and on mechanical space to be deducted from floor area calculations in commercial buildings

For Chelsea it introduced zoning changes for a substantial port on of the residential core, as well as several adjacent commercial and manufacturing districts, in order to provide adequate opportunities for new housing development and to revitalize underutilized manufacturing land For the first time a special mixed-use district was created in West Chelsea

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the land underneath the remaining tracts has been adapted to new purposes and is utilized in a number of ways, as structure of small commercial and industrial buildings, or for vehicles parking or storage.

It is to be underscored that this old line represents the last, only remains of all the New York elevated railways network.

Other features of Chelsea are spotlighted by recent changes happened in the neighborhood, especially those related with social mix and the constant growth of entertainment and cultural activities.

As we have seen, many manufacturing buildings in the fringes of Chelsea, were left in a state of real abandonment, but their vast spaces and high ceilings were very attractive for various artistic and light activities.

As a matter of fact during the last two or three years there has been a kind of invasion in Chelsea: more than 150 new art galleries have opened their doors, creating "the most significant change in the geography of the New York art world since the advent of SoHo".[12]

Two examples are the Dia Center for the Arts (on the West 21st Street and Eleventh Avenue), housed in an old big warehouse, and the Center for Creative Arts, Media and Technology that found a convenient location in the Starrett Lehigh Building.

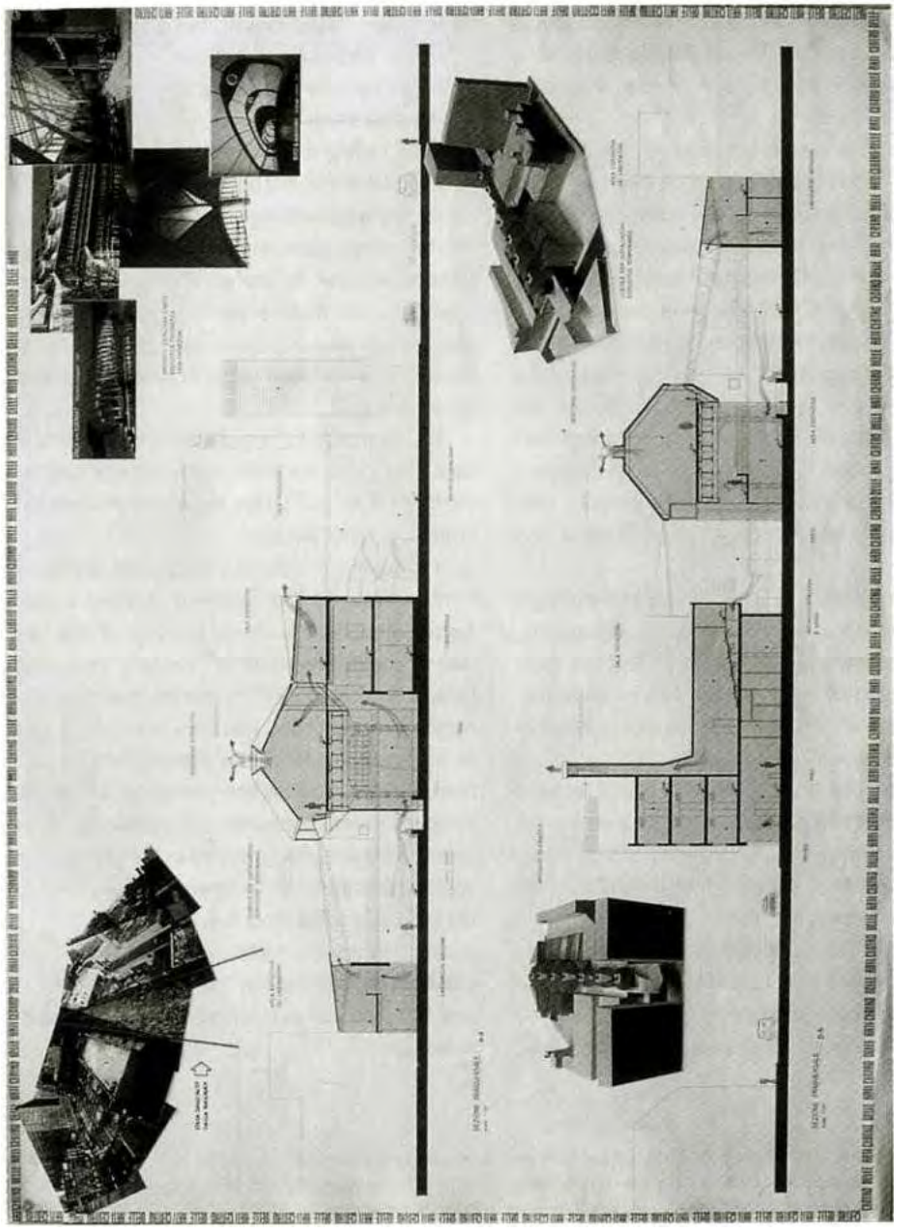
In other restructured building, other kinds of activities have been developed, like at Chelsea Market. In this case, a distinct retail concourse was created on the first floor, following the path of the original railway used in the past to transport foods from the Hudson River docks to different departments of the bakery. Quite interestingly the unique industrial qualities of the structures were maintained, utilizing recovered industrial materials from the building and other sites during redevelopment.

These considerations brought to concentrate the attention on the possibility to restore the existing section of the abandoned High Line and to transform it in a pedestrian pathway pointed by different art and light activities, and on a more specific level, to convert an old building and the railway superstructures existing on a specific lot in the proximity of the 23rd street into an art center.

From an architectural point of view, what retained our attention was the fact that in Chelsea many original and significant buildings have been built: from the elegant classical row of the old London Terrace, the cast-iron department stores, and the opulent redundant old Pennsylvania Station or Central Post Office, to the imposing structures of new London Terrace and the Bauhaus Starrett Lehigh Building. There are many other interesting buildings like those of the National Maritime Union, with a sloping front wall of white tiles and huge portholed windows, or the different buildings of the Fashion Institute of Technology, which was for Manhattan an architectural achievement of the twentieth century as representative as the General Theological Seminary had been for the nineteeth century.[13] While, in a sense, we could say that Chelsea has been a place of architectural experimenta-

12. See David Rimanelli, "Chelsea passage-Paula Coper."

13. The FIA complex is composed of six buildings built between 1959 and 1977. Three buildings were built by De Young, Moscowitz and Rosenberg Architects: the Administration and Technology Building with facades incorporating aluminum panels and gilded window frames; the Auditorium, inspired by works of Brasilian architects Oscar Niemeyer and



tion, on the other hand, apart from a few big buildings, what characterize more the neighborhood is its small bulk constructions, its human level environment.

So, the idea was born to recover the old High Line and to create along it seeds that can grow and improve the quality of life, revive curiosity, reestablish and enrich people relations, a "passeggiata sensoriale" (promenade of senses), a walkway of the five senses. Its aim is to revive a place, to bring to new life the emotional impact settled in the sensorial memory of men and womens of the neighborhood —"a vast harbour... Millions of immigrants... Social and cultural relations and confrontation and exchanges"—. And the project goes to the search of everyone's hidden memories, with the hope to incite to open-mindedness and dialogue.

Each single situation wants to rediscover the joy of making, tasting, hearing, smelling and watching, and they culminate in the Centro Delle Arti (Arts Center), heart of the pathway, place of encountering for all the neighborhood, a ways mindful of social diversity and the art world.

The track floor of the old High Line is restored and converted into a pedestrian pathway, with many connections with the street. Along this pathway, south and north of the art center, a number of activities are installed:

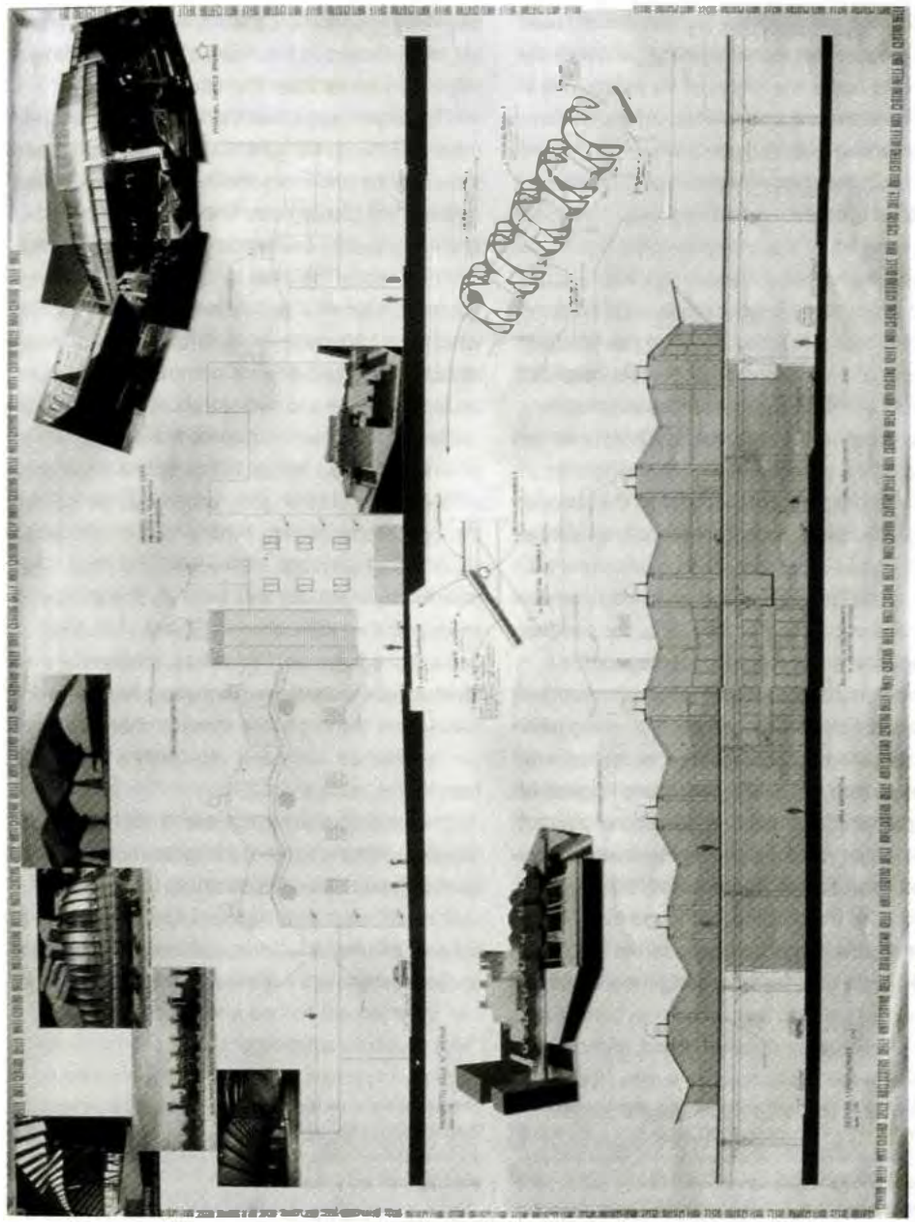
- herbariums, where people can grow herbaceous plants, or just look at and smell herbs and spices, and flowers and perfumes;
- music laboratories, where people can listen to hits, folks and classical music, but also to the sound of the harbour and old luxury ships; or local bands can play and record their works;
- food retail shops and cafés, where tasting specialities, having a light meals or snacks, or enjoying soft drinks, tea or coffee, and meet people.

At mid way, walking along the High Line, you find the central place, the art center equipped with laboratories open to professionals and amateurs, where you can make a search in the documentation area or amuse yourself watching the works shown in the exhibition rooms or watching old photos or movies

The lot chosen to be transformed as an art center is irregular, it has three entrances: the main entrance on West 24th Street, the others on West 25th Street and Tenth Avenue.

It is situated, in proximity, on east side, just across Tenth Avenue, of the imposing 16-story London Terrace apartment building, but also of the long row of handsome, mid-19th century three-story houses, erected on 24th Street by Philo Beebe, a neighborhood builder, that have been designated as landamarks in 1970. It is also just a block away from the busy, elegant and diversified 23rd Street, so rich of historic memories. On the west side, the Starrett-Lehigh Building, as well as the Chelsea Piers Sports & Entairtenment are two blocks away Chelsea Market is some more away.

Apart from the particular conformation, the ground is characterized by the tract of elevated railway that runs across the property along its whole extension.



Alfonso Reidy, enclosed in a shell like a modern sculpture; and the tenth story Nagler Hall, characyer zed by cruciform concrete elements. Three more buildings were added: a sixt-story Laboratory, the Shirley Goodman Resource Center, and the David Dubinski Student Center. They were designed by De Young Architects as an adaptation to New York of Brutalism architecture

In 1945 the owner of the lot, the son of Italian immigrants, built here a small building, just beside the High Line, to house the offices of his trucking company [14] The rest of the surface was used by the company as a parking area for trucks and vans. They were kept mainly in the open air but part of them also under the overhead structure of the railway. Nowadays the only thing left of this enterprise is the sign board on the external wall near the main entrance.

The building is made of concrete small blocks. It is two-story high, with the office on the first floor and a store on the second floor. Since a couple of years the first floor has been rented to an art gallery, while the rest of the property has being occupied for many years by a garage and a car repairing shop.

The rusted iron and bolt structure of the abandoned elevated railway represent the predominant element of the property. Year after year, many sheds, facilities and equipment have been added to the over structure and everywhere in the site, so the structure appears now in a state of complete degradation.

The design choice was to take the opportunity of ot characteristics and to convert the trucking company offices and parking area in an art center, with complete recovery of existing structures cleared of every improper additions. From a traditional point of view, this project could appear somewhat arbitrary given the small size of the area and the generally low qualities of the buildings along the river

However, the existence of one of the last tracts of the old High Line, together with the site special geometry and location, make this place quite suitable to be chosen as the heart of the urban proposal, and to house there the art center.

The project scope was then defined: to realize a multi-purpose center where artists could work and show new art tendencies and to create a space where residents and tourists could find remembrances of old Chelsea as well as orientation for new development.

The proposal foreseees to divide the lot into three spaces functionally both distinct and interactive, which can operate in an autonomous way when needs. To this end one main entrance is foreseen on Tenth Avenue and two entrances on 24th Street.

Functional choices arise from the objective to offer at a glance a limited but complete expenence of the vast world of arts, which can be gained through a research area (with a multi-media archive including a library, and videos and short films collections), a working area (with studios and workshops), and an exhibition area (with show rooms, and annexed services, like offices, a cafeteria, etc). This function is developed in the central part of the site, where the High Line runs, so that its spaces can be reached easily and separately from workshops or the research area.

The rehabilitation project follows the highly etherogeneous character of the neighborhood and the site itself, and diversifies the three functional areas utilizing different building typologies. The interventions on existing structures, additions, integrations and reconstructions were made according to functional requirements and the principles of bioclimatic architecture.

The choice of a natural climatization of the complex (with consequent reductions in energy consumption costs and CO_2 emissions) was the basis for all the design solutions.

From this angle, an important role for summer air cooling is played by open spaces, so that the north-west side courtyard has been retained. To the same end, the added overstructures have been removed and a patio has been created as a connection unit between the archives building and the exhibition area.

The core of the intervention is represented by the integration of a tract of the High Line, reconverted to exhibition pathway, with the former office building which sides the railway.

On the first floor, partly underneath the High Line, different units are located, namely the main entrance hall, a cafeteria, management and offices, and an exhibition area. They are characterized by a long water basin and cooling water walls, which are partially transparent and permit to see works shown in the courtyard.

Other exhibiton spaces are situated on the second floor of the pre-existing building, which keeps a distributive function between different complex buildings. These spaces overlook the floor below and are connected by suspended galleries to the laboratory area passing over the courtyard, and to the projection room situated in the archives area.

The track floor, now a part of the pathway, includes exhibition stages and presents a modular roof which extends onto the existing adjacent building, as a junction element.

The laboratory area, closing the courtyard on the west side, has a double height. On the second floor there is another gallery which has an exhibition function too and is connected to the other areas of the Center.

The archives building has a direct access from Tenth Avenue. It includes an electronic archive (on two storys), the archive of art catalogues, videos, and short films (on the second floor), and the projection hall with a foyer.

The metal structure of the railway has been valued and utilized as bearing structure of the elements which sustain the roof, in the laboratories and exhibit on areas.

A series of pair of metal portals realized with I-beams with different heights and spans, give the rhythm to the exhibition pathway. They form a sequence of "ruled surface" double pitch roofs characterizing the internal space, which encourage a natural ventilation by convection through the wind aspiration chimneys installed on top of each pair of portals.

Air at low temperature, which forms in the courtyard, is further cooled when passes over the long water basin. It enters the exhibition area on the first floor and becoming warmer rises through grates reaching the High Line floor, then it is exhausted through vents opened in the roof. Similarly, natural ventilation in the laboratory building is obtained by the double height and upper openings in the outside wall.

Natural climatization in the projection room depends on two high ventilation stacks through which stiled foul air is exhausted, drawing fresh air from the opposite patio, through ventilation grilles in connection with a vacuum under the seating. The archives are ventilated by a system of inlet - outlet air vents, connecting with the stairwell, acting as a ventilation tower by exhausting grilles situated on top.

14. David Ducchini, the owner of the lot arrived in Manhattan in 1910, at the age of 10, at the newly inaugurated Chelsea Piers, together with his parents. They came from a little village in Tuscany where they were farmers, and they found lodging not far from the lot. At the very same piers and time arrived from Italy also my grand-grand-father. He met just on the other side of the Hudson his future wife, who had arrived in the States with a Red Cross mission from Switzerland. I want to acknowledge my father, and my friends, Natalia Indrimi and Claudio Fantone for their encouragement and advice.

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