POLITECNICO DI MILANO
LEONARDO
LAND SCAPE ARCHITECTURE

DANCE CENTER IN SAO PAULO

RELATORE: PROF. DAGLOIO LAURA
NOME: ILAN JULIO GOLDIN
MATRICOLA: 735032
ANNO ACCADEMICO: 2010/2011

INDICE

The city of Sao Paulo

Towards the area

Theatre meets architects

Wining public space

Technical consideration

Contemporaneous articulation.

28. The Belém Cultural Centre ,Vittorio Gregotti and Manuel Salgado
29. the design of theaters: models from the past and issues for the future
30. Frank Gehry :the Los Angeles Philharmonic/The Disney Concert Hall
31. Sound as material. Architecture as scenery Sound.

The space of the show

32. Space is changing
33. Between the organization and the management

The transparency

34. The Noir Pavilion of Rudy Ricciotti
35. The Pavilion serpentine, Toyo It

Bibliography

Introduction

Brazil is a federation composed of twenty-six States, one federal district (which contains the capital city, Brasília) and municipalities. States have autonomous administrations, collect their own taxes and receive a share of taxes collected by the Federal government.

South America map - countries

Sao Paulo overwhelms the senses with its sheer size. With over 10 million inhabitants, it is the world's third largest city and the largest in South America. Sao Paulo's attraction lies on its people and its vibrant cultures.
Brazil's most modern , cosmopolitan city with her shear of museums which are among the finest in South America, it's entertainment and nightlife have for years attracted some of the best performers in the world.

Brazil map - districts

065The states and the federal district may be grouped into regions: Northern, Northeast, Central-West, Southeast and Southern. The Brazilian regions are merely geographical, not political or administrative divisions, and they do not have any specific form of government.

São Paulo

São Paulo is the largest city in Brazil, in fact it is the largest city in the southern hemisphere, and the world's 7th largest metropolitan area. The city is the capital of the state of São Paulo, the most populated state in Brazil.

Metropolis São Paulo – municipalities

city of São Paulo neighborhoods

The city has many landmarks, such as the Paulista Museum, the neo-gothic Metropolitan Sé Cathedral, the São Paulo Museum of Art (MASP), the Monumento às Bandeiras (Portuguese for Monument to the Flag) and Niemeyer's Ibirapuera Bienal Complex; and more recently the Octávio Frias de Oliveira Bridge (Estaiada Bridge) in the South Side.
The Paulista Avenue, in the center is the city's most important financial center. The city is home to the São Paulo Stock Exchange, or BOVESPA, the Future Markets, and the Cereal Market Stock Exchanges, the second largest stock exchange in the Americas. São Paulo has been home to several of the tallest buildings in Brazil, including the Mirante do Vale Building and the Italia Building.

Paulista Avenue from above.

With an estimated population of 11,037,593 residents within an area of 1,523 square kilometers, São Paulo is the most populated city in the Americas. The city also lies at the center of the heavily urbanized São Paulo metropolitan area, with an estimated 19,889,559 people in 2009 over 7,944 square kilometers, is the largest metropolitan area in the nation. São Paulo metropolitan area is ranked as the second most populated in the Americas.

The city is home to a large number of local and international banking offices, law firms, multinational companies and consumer services. Although a modern face had emerged in São Paulo's and better areas by the 1930s were created, larger portions were basically unchanged.
São Paulo had lacked any city plan before 1889, and no zoning law was passed until 1972. Indeed, well into the 20th century much of the city retained a colonial aspect, with narrow unpaved streets, shabby buildings, and a few old churches of Jesuit and Franciscan styles.

Despite its many problems, São Paulo remains a business hub for Latin America. Having prospered first with the coffee industry, and later with industrialization, in the early 21st century it expanded into the tertiary and the services sector. Its huge market (over 20 million people in greater São Paulo) is a magnet for multinational corporations. Thanks to events such as the Arte International Bienal Fair and its reputation for hosting innovative music concerts, it has become a cultural center as well. Economic growth and exportation of goods has lifted employment and wages. The murder rate has dropped by almost a quarter since its peak.

Geography

Sao Paulo Is situated below the tropic of equator on the tropic of Capricorn.

Physical setting - São Paulo is located in Southeastern Brazil, in southeastern São Paulo State, approximately halfway between Curitiba the Capital of Paraná State, previously part of São Paulo State and Rio de Janeiro, formerly capital of Brazil and now capital of the State which bears the same name. The city is located on plateau that is part of the Serra do Mar (Portuguese for "Sea Range"), itself a component of the vast region known as the Brazilian Highlands, with an average elevation of around 799 meters (2,621 ft) above sea level, though at a distance of only about 70 kilometers (43 mi) from the Atlantic Ocean.

Climate of the region

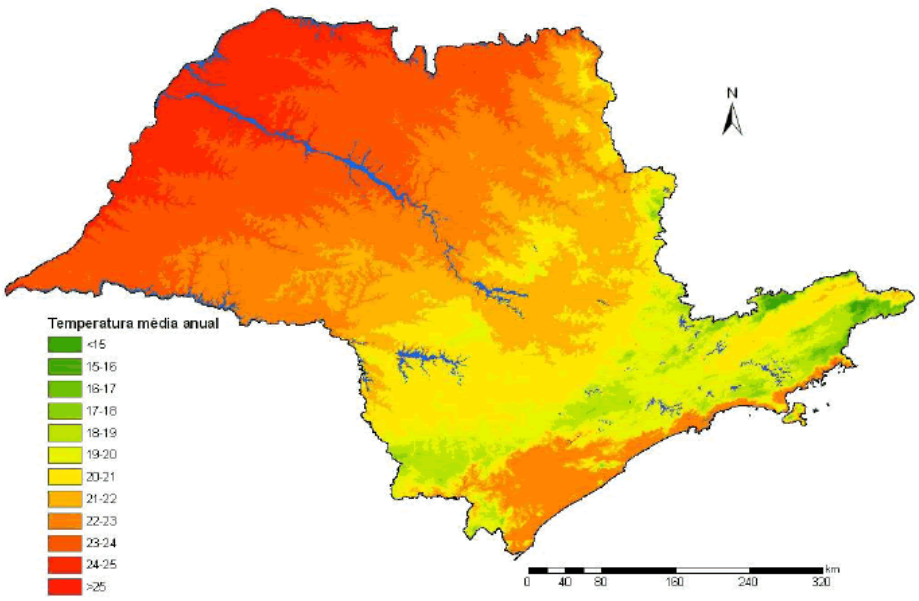
The mild climate and abundant rainfall permit a multitude of tropical, subtropical and temperate plants to be cultivated.

São Paulo has a monsoon-influenced humid subtropical climate (Cfa), according to the Köppen classification: In summer, temperatures are between 17 °C (63 °F) and 28 °C (82 °F), and 32 °C (90 °F) on the hottest days. In winter, are between 11 °C (52 °F) and 23 °C (73 °F), and 6 °C (43 °F). On the coldest days.

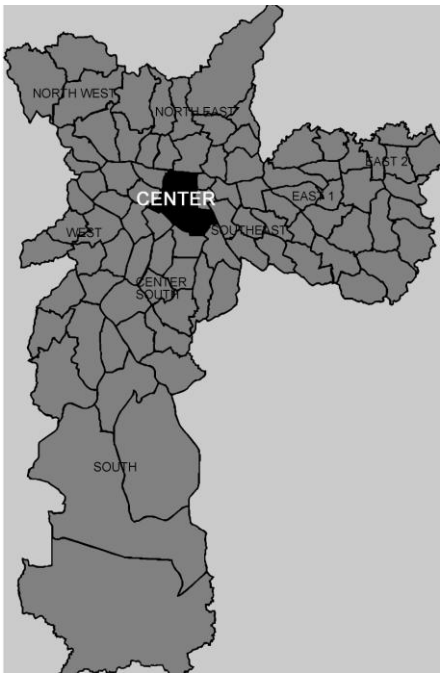
The highest temperature recorded was 35.3 °C (95.5 °F) November 15, 1985. and the lowest recorded was −2 °C (28.4 °F) in August 2, 1955, and in the same day was recorded −3.8 °C (25 °F) unofficially. The average temperatures throughout the year are similar to those of Sydney and Los Angeles.

The Tropic of Capricorn, at about 23°27' S, passes through north of São Paulo and roughly marks the boundary between the tropical and temperate areas of South America. Because of its elevation, however, São Paulo enjoys a distinctly temperate climate.

Rainfall is abundant, amounting to an annual average of 1,454 millimeters (57.2 in). It is especially common in the warmer month's average of 219 millimeters (8.6 in), and decrease in winter, average of 47 millimeters (1.9 in). Neither São Paulo nor the nearby coast has ever been hit by a tropical cyclone, and tornado activity is uncommon. Snow flurries were reported officially only once, on June 25, 1918. During late winter, especially August, the city experiences the phenomenon known as "veranico" (Little summer), which consists of a bout of unusually hot and dry weather, sometimes reaching temperatures well above 28 °C (82 °F). On the other hand, relatively cool days during summer are fairly common when persistent winds blow from the ocean. On such occasions daily high temperatures may not surpass 20 °C (68 °F), accompanied by lows often below 15 °C (59 °F).

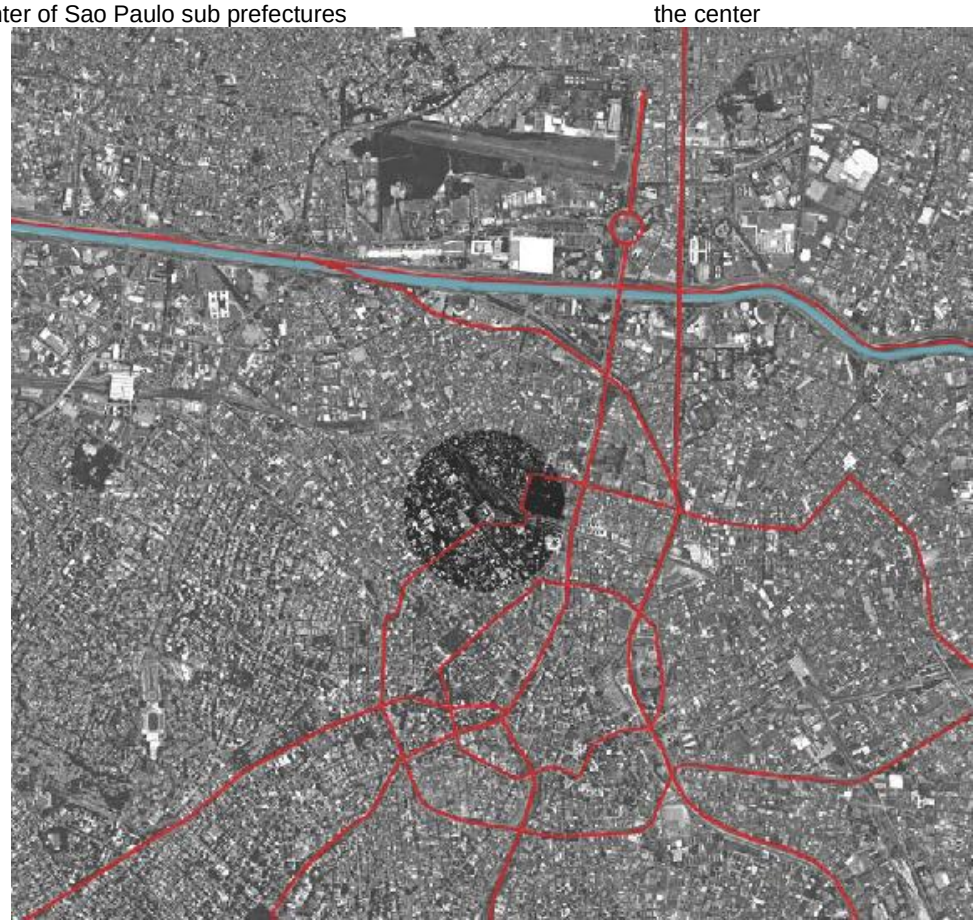


urban context
the downtown sao Paulo



The center of Sao Paulo sub prefectures


the center


Main road system

Area of the project

The center of Sao Paulo was once the noblest area of the city, but had bee deteriorated and now has showing great potential for transformation. The facilities, the quantity of services and trade can be an engine for the region to upgrade and reengage the uses that were abandoned in the mid-twentieth century. The reasons which led to deterioration over the years are related to the urbanization process of the city and its subsequent metropolis.
With the Implementation of the railroads that started in 1865 with the Railway, the access of rural properties to the capital and to the Coast became much easier. The coffee trade was strengthened and the city became an attractive option for coffee growers for living in." The construction of the railroad changed the relationship of space and time and capacity relations in the province of Sao Paulo, creating a new geography", in which the pressure of immigration and the arrival of growers slaves to the capital led to the swelling population of the city. With the end of slavery, changes of work organization have taken place and the use of manpower employed on contract has begun. Due to the seasonality of the rural work, the workers remained part of the year in the city and the population grew from 30,000 inhabitants in 1870 to 240,000 in 1900 (PMSP, Environmental Atlas). This new geography was also present in the agrarian structure of the city, until then formed by the colonial mansions and churches in the historical center and the farms in more remote regions.

With the arrival of the train, it became possible to bring to the construction areas building material necessary in order to reproduce here buildings built in Europe. The first palaces in Sao Paulo were built in the old quarter Finca Maua, purchased in 1872 by a German that had Struggle for populate it around 1882 to 1890 and called the new district of the Champs Elysees. The rectangular patterns of wide boulevards opposed to the spontaneous traces of the historical

center have indicated a new form of city growth: in the subdivisions were built the houses most luxurious of the city, near the train station and historical center. One of these mansions was used as the headquarters of state government in 1915, the Palacio Elias Clark, who became the Palace of the Champs Elysees.

The arrival of the railroad also attracted the installation of factories in its vicinity, and naturally began to appear public housing around it. The workers' villages, which until then were restricted to the edges of the old center, naturally, moved to the new central contributing to population growth, which "quickly surpassed all scales and promoted the degradation and changing appearance of the city ". The center was dedicated for commerce and offices, which occupy the new building 6-10 storey mixed with the existing houses. The homes of middle class occupied the highest buildings that were being built in the center.

At the same time, some neighborhoods southwest of the central area, yet separated, have begun offering the housing conditions that the elite have being losing in the center. The mansions in the center vacancy rates begin to rise, indicating the beginning of deterioration.

In addition to population growth and migration of large public works, especially of the road system, began to take place. Transport by tram could no longer meet the new expansion areas of the city, prompting the city to invest in public transport buses. Also the automotive industry started to grow; individual transport by car became popular. Thus, the rails were replaced by tires, and access for more distant sites was facilitated by the road system that has been developed. In 1910, the Project Grands Boulevards, a professor at the Polytechnic School, defined the outline of three broad avenues linking the historic center to the Champs Elysees, the Municipal Theatre to the Luz station and the Santa Iphigenia at Arouche Square. This project started the trend of expanding roads which was consolidated with the Plan of Prestes Maia Avenues in the 1930s, based on radial roads.

In that way, the central region was used as a function of articulation and a road network pass of a metropolitan scale, at the prejudice of accessibility to the areas traversed. The creation of arterial roads and expressways, connected by bridges and viaducts, was imposed on the urban fabric. Among them were extended the John and Duque de Caxias and opened up to Rio Branco Avenue, of local character, and the diametrical north-south and east-west and central rod of metropolitan character. The goal was to open up the urban fabric for the movement of the car and release the center of congestion so the region could maintain its tertiary function, but this activity was already weakened in that space, shifted to the southwest (PMSP, Environmental Atlas). The center was cut by the residual gaps and by areas that was arising. The diffusion of the automobile as a means of transport was a novelty that brought implications for urban space: public spaces become outdoor parking and traffic and environmental pollution, degradation factors were represent in the center. "It was a period admittedly

copied from the American model of the metropolis. Sao Paulo has experienced large-scale degradation and the concentration of users.

In the 1960s, the districts of Santa Iphigenia and the Champs Elysees had suffered degradation, which began with the slums, the prostitution, the consumption and trafficking of hard drugs. Activities so far concentrated there started to leave, due to traffic congestion and use. The region was therefore less attractive to the formal housing market and there was a sharp drop in residential function. Even the governor abandoned the palace of the Champs Elysees and moves to the Morumbi neighborhood in 1965.

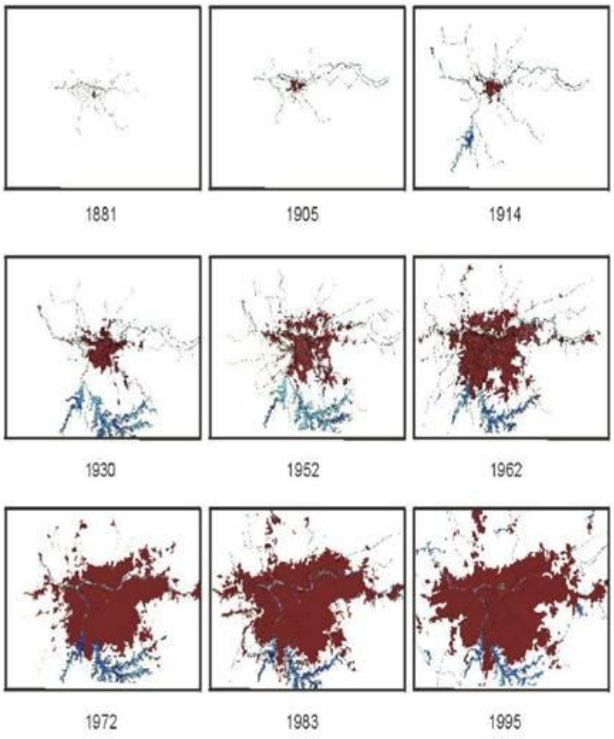
"The Cracolândia existed since 1990 and it is a refuge, not a physical space delimited. So has the Cracolândia, now has New Cracolândia, soon will have the New Cracolândia II, III, IV, will have a lot of Cracolândia because the Cracolândia not confined to one space. "

Crack addicts gathered at the site of the old bus station.
Cracolândia (for derivation of crack) is a popular designation for a region in the center of Sao Paulo, near Avenida Duque de Caxias, Ipiranga, Rio Branco and Rua Maua Casper Libero, which historically has developed intense drug trafficking and prostitution.
Recently, the Municipality of São Paulo launched a program called New Light to promote the reconfiguration and redevelopment of the area. Among the measures proposed, there is tax breaks relating to property tax, to stimulate the reform of the facades of buildings of market value less than $ 300 000. [3]
Since 2005, the city closed down bars and hotels linked to drug trafficking and prostitution, and removed the homeless increased policing to inhibit drug use on site.Hundreds of buildings have been declared of public utility, in an area of 105 square meters, and are being evicted. The program's goal is to make the area attractive to private investment, paving the way for real estate companies.
Critics of the program, however, indicate its character hygienist, noting that the renovation of buildings, squares, parks and boulevards is not accompanied by actions targeting the most vulnerable groups living or working in the area - being summarily expelled. The homeless are removed, the work of collectors of recyclable material is hindered and the users and crack users (many of them children and adolescents), prevented from meeting site, are forced to wander the neighborhoods, in flocks,aimlessly. [4

In 1957 attemps were made to control land use in central lands, with the aim of inducing small density and prevent slums and typologies such as kitchenettes, which are multiplied at that time. The maximum permitted density was 600 inhabitants per hectare, and the coefficient of utilization was 4 for residential use and 6 for tertiary (MALTA; NAKANO; ROLNIK, 2004). But in 1966, was released in June the coefficient for any type of use.
The administration of Mayor Faria Lima, 1965-68, was marked by major road

works, including the first two subway lines, in conjunction in Sé. But the development of mass transport did not proceed according to demand. Again was enhanced accessibility to the centrality of the automobile, with pathways leaving the city historical center.

In 1972, the regulation of land use began to have a specific law: Zoning Law. Despite being a breakthrough with regard to concerns about urban growth and environmental quality in city areas, the recovery coefficients determined reiterating the type of occupation already bound and privileged by the road system. The definition of the Residential Zone proposed for the central region offered no benefit for the housing market in relation to residential areas which are consolidated into new areas of focus. In 1980s, the road improvements for better movement of the car continued. The works were concentrated in the southwest quadrant, consolidating an array of residential occupation of a high standard, the concentration of the tertiary sector, trade and services, financial sector and corporate headquarters. The town hall (Erundina - 1989-92) based transportation on buses with terminals support in the center - Terminal Dom Pedro II, Bandeira and Princess Elizabeth – searched to develop a housing policy for low income in the center. This action of the administration thought to deal with the reality of the changing profile of users, the new sources of talent and dynamism acquired by the center.



evolution of Sao Paulo

The exodus of the economic sectors with the greatest weight to other regions reveals the logic of building the city. New centers are created when the old ones

are exhausted, concentrating income and pushing poverty to the periphery. This happens since the first half of the twentieth century, when the Centre had exceeded its dominant role. Trade and services that existed there changed their characteristic, and now serves a population with low purchasing power. These new consumers and users in the region accessed the area with public transportation, and occupied spaces relegated by the dominant sectors. The popularity, along with new formal and informal activities that have developed actually indicates a new economic vitality. The center became the periphery of the new centers in the Southwest, but retained his role as a center for the periphery of the metropolis.

At the end of the twentieth century started a debate on the state of degradation of the central region and possible interventions to reverse it. The debate proposed by some segments of the private sector strategy was to pressure the government to make some changes in the occupancy and zoning laws, making possible the resumption of the center for those who had abandoned him. the private sector was represented by an association of companies with common goals: the association Viva o Centro, established in 1991. After this initiative, the city created the Pro-centro in 1993, management by Maluf, which was a program of urban regeneration and functional central area.

In the city hall of Celso Pitta, the program continued with similar objectives and strategies, although the Center Rebuilding Plan was renamed again .the name was changed with the change of management, when funding was approved by the BID. With the funds available, some actions have started being implemented in the management of Marta Suplicy, who had to give in to conditions imposed by the bank.

While at the same time that they thought in a rehabilitation plan, onerous grant were created which can be applied in some perimeters of the city determined as an Urban Operations. The money generated by the sale of the building potential is applied to infrastructure improvements in the area of operation. As this instrument depends very much on the market interest in construction, it is necessary that the area have attractions that will ensure the profit in the future.

The Urban Operation is therefore a public-private partnership for the development of certain areas in the city. So also runs the Urban Grant, who will soon be applied in the Urban Requalification Program of New Luz.

All these plans have the processing center as a condition of holding a public-private partnership, which is a "shared management" with the government. That way, the private sector has great power to intervene in public space, a signal and assumed weakening of state. The way of urban interventions is undefined, since the market has no obligation to promote social welfare, and is not interested in taking this position, which competes with the State.

SAO PAULO'S ARCHITECTURE

The architecture of the twentieth-century Brazil is often represented by the work of a man (Oscar Niemeyer) or two cities (Rio de Janeiro and São Paulo).

From the Auditorio Ibirapuera of Oscar Niemeyer and powerful Latin America Memorial by Lina Bo Bardi "box art" MASP, some of the most popular sites inspiring examples of modern architecture offered by the city São Paulo. But the city's passion for the bare steel and concrete minimalism certainly does not end there.

Everyone is somehow connected to the "Escola Paulista", a highly influential generation of architects who grew up between military dictatorship and rebel Communist influence, then rebelled at the end of 1960, established themselves in the years 1970 and 1980 and, finally, Wave Design inspired another dawn of the new century.

MASP. Lina Bo Bardi

Unique, hotel. Design- Ruy Ohtake

MUBE, paulo mendes da rocha 1988

Copan Building, Oscar Niemeyer

SESC Pompéia, Lina Bo Bardi

Querosene House, grupoSP.

Harmonia_57, riptyque

FAU USP Vilanova Artigas

la Box House ,Yuri Vital

Panama House , Marcio Kogan

government intervention in downtown sao paulo

Despite the concern of the government in the state of the center since the 70s, intervention programs were launched only in the 90s. The private sector, represented by the Association Live the Center, made a strong pressure to do so. In the 90s the concept of global city arises. In the current phase of capitalism, where financial capital is very mobile, the cities entered into a competition to attract investment. The city needed necessary symbols which identify it as a safe place to invest; it must impose a strong image, which is achieved easily through Culture. So monuments were built and cultural facilities that provide worldwide visibility to the city. Urban space becomes a spectacle, and other concerns become secondary. In Sao Paulo, the cable-stayed bridge (Ponte Octávio Frias de Oliveira) over the Pinheiros River was an example of the construction of a symbol.

the cable-stayed bridge (Ponte Octávio Frias de Oliveira)

Built in the current financial center of Sao Paulo, the Berrini region, the bridge became a monument because of its aesthetics and grandeur of its dimensions. Its construction involved the removal of slums and generated controversy about the fate of its residents. One of them may be in HIS (social interest habitation) buildings to be built, but with not enough units to give for everyone.

The transformations that are taking place in the city center are also included in the creation of “city-show”. As in the case of cable-stayed bridge, the Dance Theatre will be an engine of change in their surroundings. According to the programs for the area, the private sector will have great power to intervene in the

center through public-private partnerships. With the use of instruments such as the Urban Lease, the state is absent, admittedly, and leaves it for the market the role of producing urban space.

The first program launched by the City was Pro-centro ,in 1993, to enhance the dynamic economic and local real estate , by attracting private investment and encouraging the installation of tertiary activities. So it could change the patterns of use and occupation of the land and reverse the degradation process. Demand created by the Association Viva o Centro (live the center) newly founded, the project had four lines of action:

- information and urban management.
- Social economic and environmental growth.
- Infrastructure.
- Urban revitalization.

The goal is to attract residents and users with higher income and the financial capacity to maintain their properties and the general pattern of the central area. The gimmick for this audience would be improvements to the urban environment, made with public funds. To achieve the desired result, sought to address the four issues they considered more serious: environment and landscape deterioration, difficult access, circulation and parking, obsolescence and inadequacy of housing stock; deficiency of personal safety and property.

Viva o Centro Association was therefore essential for the consolidation of a dominant idea of revitalizing downtown areas, based on shared principles of local management - the public-private partnerships. Harvey uses the word "governance" or the phrase urban entrepreneurialism, to refer to the relative autonomy that local authorities take on the weakened state.
In the next administration in 2001, the Procentro changed its name to the Center Rebuilding Plan, and creates eight sub-programs that would be engines for the desired transformations:

- walking downtown.
- work downtown.
- live downtown.
- Discover.
- Preserve.
- Invest.
- care and govern the center.

They involve the improvement of public spaces, restoration of buildings of historic value and encouraging its use tourism and education, creation of infrastructure, user support center (parking, locker, restrooms) as a way to improve the areas of trade and services; spatial itinerant trade, job training and income generation for street dwellers / scavengers; urban projects in large urban areas, encouraging private investment; rehabilitation of vacant buildings for housing; HIS(social interest habitation); interventions in slum improvement . Their lines of action represented an improvement on the Pro-centro, because they addressed the problems of the center of a broader spectrum, with more structural

solutions. However, the funding necessary to put the project into practice only came out in the next administration in 2003, when Rebuild the Center was renamed Program Action Centre.

To approve the financing, the BID has imposed requirements that reveal the expected character of the program. The coordination of the project should be assigned to a shared urban management, and not to EMURB. It was created by the Center Development Agency, a partnership of private sector with the EMURB, to ease and streamline bureaucracies.

The program is based on urban-cultural interventions as a stimulus to change in the profile of use and occupancy. Their lines of action are: reversal of property devaluation and recovery of the residential function, transformation of economic profile and social, rehabilitation of the urban environment, transport and traffic. Its realization requires private investment.

Since the early '90s, it was established that it is necessary to upgrade the center and change the user's profile, which does not touch the structure of problems. With the departure of low-income population, for example, housing issues do not cease to exist. They only are away from the city spectacle; it must maintain an image of reliability for the investor. It is not enough to build equipment if there is no concern with the environment and access to them. One must think of a structure to support the facilities, to encourage their use and to link the moving living or working population in the region. A diversity of uses should be encouraged for people to attend the facilities and take ownership of them and the public spaces. If users identify themselves with the site, contribute to their conservation, the social meaning of equipment increases.

THE AREA OF INTERVENTION.

the old center - area of intervention

the region have one of the largest concentration of the city cultural spaces; the Pinacoteca, the Pinacoteca station , the museum of the Portuguese language and the sala di Sao Paulo
The main facilities in the neighborhood are sala de Sao Paulo, the Pinacoteca Satiation , the sacred college Coracao de Jesus, In addition of the terminal Princesa Isabel and the Luz station.
With the extention of the metro lines and of the train lines, will be passing thru the station more then 4 milion people a day.
Despite abundant infrastructure the density of the neighborhood Is low.
There are few buildings over three stories high and the degradation takes out the possibility of living there.
The large concentration of tenements is a sign that there is a lake of apartments in the area of the center where there is access to facilities, services and jobs.

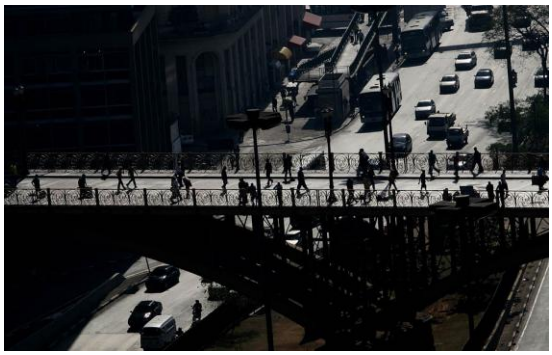
Governor old headquarters

luz station

Pinacoteca

julio prestes train station

The history of Rua Santa Iphigenia dates from the late eighteenth and early nineteenth century when it was opened. In 1810, she represented had appeared on old maps of the city, but still no name. At that time she began at the Plaza of Santa Iphigenia ended in Victoria Street today. However, his name is attached to the church of Santa Iphigenia. At the site where today stands the Church of St. Iphigenia should already exist, since 1720, a small chapel.
With strong commercial vocation, Rua Santa Iphigenia housed in the early twentieth century, several of the best fabric stores, furs and women's hats. His clientele consisted mostly by wealthy families who lived in the then fashionable district of the Champs Elysees.
Reference electrical equipment, the first stores began to emerge between the years 1940 and 1950, which were gradually taking the place of the famous fabric stores, due to the emergence of television and appliances.
On site you can find a plethora of products ranging from lighting to articles, through electrostatic as portable TV monitors, high definition home theaters, stereos and video to computer items.
Today Rua Santa Iphigenia is much more than a commercial center of reference in the field of electronics, she brings to the center-edge products, with prices always have to be the best in Brazil. And that advantage is because retailers buy direct from the manufacturers and in very large quantities.
Santa Efigenia strees connects directly to the Viaduto do cha


The Viaduto do Chá

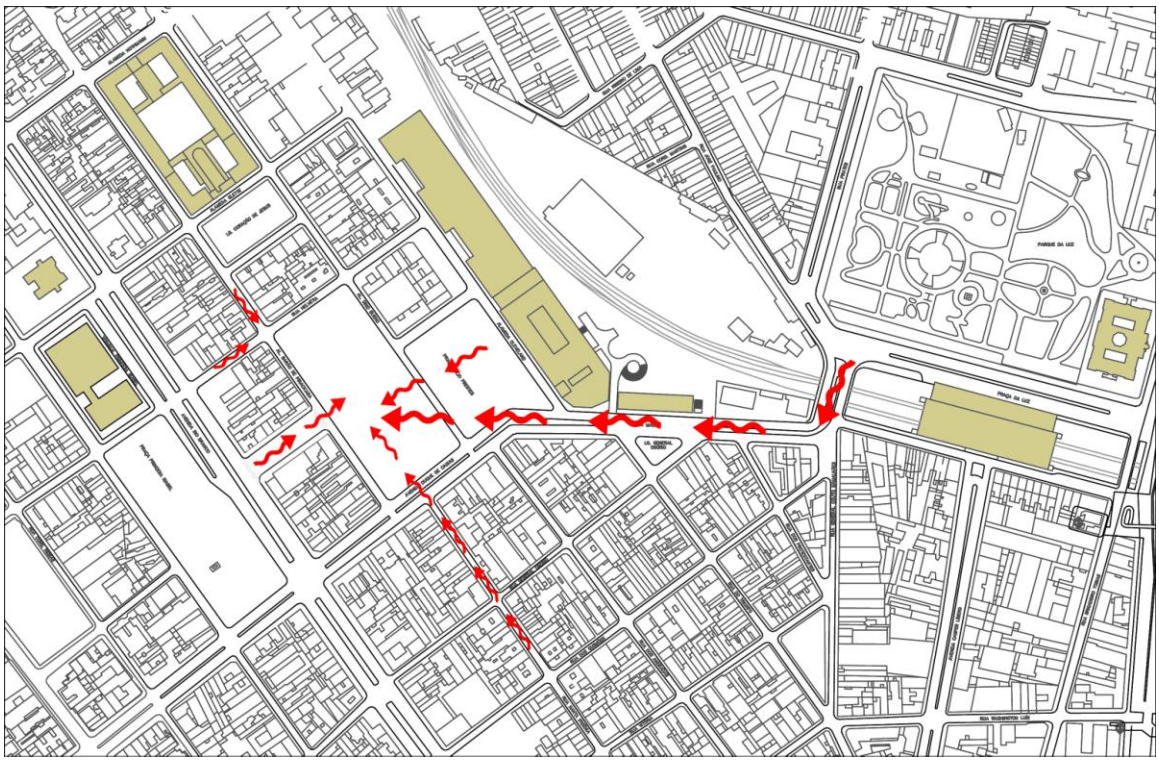
At this famous site visited is the first viaduct in Sao Paulo in the Anhangabau valley. It is located at Rua Barao de Itapetininga and connects the older part to a newer segment of the city. The viaduct was originally made from the very late 1800's the first bridge built in the city.
and presently as time has changed became concrete instead of steel.
Alongside the Viaduct is a very huge building which houses a shopping center called, Light. It has over two hundred different stores there. There is said to be over one million people per day who come through this area.

"The Cracolândia existed since 1990 and it is a refuge, not a physical space delimited. So has the Cracolândia, now has New Cracolândia, soon will have the New Cracolândia II, III, IV, will have a lot of Cracolândia because the Cracolândia not confined to one space.

Crack addicts gathered at the site of the old bus station.
Cracolândia (for derivation of crack) is a popular designation for a region in the center of Sao Paulo, near Avenida Duque de Caxias, Ipiranga, Rio Branco and Rua Maua Casper Libero, which historically has developed intense drug trafficking and prostitution.
Recently, the Municipality of São Paulo launched a program called New Light to promote the reconfiguration and redevelopment of the area. Among the measures proposed, there is tax breaks relating to property tax, to stimulate the reform of the facades of buildings of market value less than $ 300 000.
Since 2005, the city closed down bars and hotels linked to drug trafficking and prostitution, and removed the homeless increased policing to inhibit drug use on site. Hundreds of buildings have been declared for public utility, in an area of 105 square meters, and are being evicted. The program's goal is to make the area attractive to private investment, paving the way for real estate companies.
Critics of the program, however, indicate its character hygienist, noting that the renovation of buildings, squares, parks and boulevards is not accompanied by actions targeting the most vulnerable groups living or working in the area - being summarily expelled. The homeless are removed, the work of collectors of recyclable material is hindered and the users and crack users (many of them children and adolescents), prevented from meeting site, are forced to wander the neighborhoods.

A television, a rare piece in the homes of the 1970 Sao Paulo, also stood out in the old terminal; as one of the first public places to receive this facilities, the building often attracted people that just wanted to watch football matches on TV.
"

OBJECTIVES



The objective of the project is to intensify the use of the facilities and of the public aera of the neighborhood Campos Eliseos.
By creating a dance center in the area with public space that can be use by the people of Sao Paulo.
The new building will be made transparent giving a view of what is going inside creating a dialog between the school and the street.

The Old Bus Terminal will host the Dance Theatre of Sao Paulo

The building, which served as the bus terminal between 1961 and 1982, will be transformed by 2014 into the Dance Theatre of São Paulo. The terminal received up to 2,500 buses per hour. Criticized for bringing crime, pollution and drug dealers since its inauguration on January 25th, 1961, the old bus station in São Paulo, opposite Julio Prestes square, began demolished at the end of March. The demolition is the first step toward building the Cultural Complex Luz, which will host the Dance Theatre of São Paulo. The demolition should be completed in October and the works will begin in January 2011. The expected opening of the complex will be in 2014.

The old terminal, closed in 1982 and whose building was expropriated in 2007 for R$ 34 million, was the scene of controversy. Since the first month of operation it was registered an immediate increase in crime in the region. A television, a rare piece in the homes of the 1970 Sao Paulo, also stood out in the old terminal; as one of the first public places to receive this facilities, the building often attracted people that just wanted to watch football matches on TV.

The Cultural Complex Luz - whose project, designed by foreign architects, was criticized by the Institute of Architects of Brazil (IAB) and was subject of controversy with the Ministry of Culture - will have three theaters, the largest one with a capacity of 1750 spectators, and will host the headquarters of the Dance Company. There will also be dance school, library, auditorium, Cafeteria, shops, a big size square and parking for thousand vehicles.

Cultural Complex Luz - Jacques Herzog and Pierre de Meuron.

The Luz neighborhood, which sometimes is called by the name of Cracolândia – a degraded region do to the sale and consumption of drugs in the center of Sao Paulo.
The proposal to make culture a key focus of stimulus for the revitalization area In early July, was reported a preliminary study prepared by the firm Herzog & De Meuron, hired by the agency. Only a plaza will separate the building of the Júlio Prestes Station - designed by Christiano Stockler das Neves, in which ten years ago Dupré entered the Sala São Paulo - the cultural complex which, according to the secretariat, will definitely put St. Paul on the route of major projects international architecture.

The invitation of Herzog & De Meuron, hired by recognized expertise, among other reasons, came after the British companies TPC Theatre Projects Consultants, also at the invitation by the secretariat, have defined the profile of the future complex and detailed program for each item. Their technicians have studied and analyzed the city to get to the right proportion for the unique theater.

From this study, the secretary selected international firms of architects who might be interested in developing the project: Norman Foster, Cesar Pelli, Rem Koolhaas and Herzog & De Meuron. "We wanted to provoke a scandal in Brazilian architecture. In a good way, says the Culture Secretary, Joao Sayad. Even holders of the Pritzker, Oscar Niemeyer and Mendes da Rocha were discarded, according Sayad, since they already had other projects in the city. In evaluating the secretary, the architecture of Foster, Pelli and Koolhaas makes your projects easily recognizable anywhere in the world, while that of Herzog & De Meuron shows are always innovative and unusual.

The decision provoked, if not scandal, at least one shock in the architectural

environment of São Paulo. On one hand, some advocated the hiring of the Swiss, for their admired architecture. Others countered, challenged not the work of the architects chosen, but of the way used for choosing, arguing that it would be fairer to carry out an international competition.
With the terms of the preliminary study of the TPC in his hands, Sayad points one room on the plant and says: "Here will be the Secretaries Office. To reach him, people will only have to cross the square Júlio Prestes (the secretariat headquarters is in the building which also houses today the São Paulo hall) and walk the ramp that marks the main entrance of the complex".
From the lobby, you can go to a dozen of environments, which are distributed by approximately 95 thousand square meters of built area. Among others, the set will include three theaters: one for dance and opera, with 1750 seats, the other for the theater and concerts, to 600 spectators, and an experimental room, 450 seats.

The concept to the design by Herzog & De Meuron was to mix and to match as many activities as possible, bringing to the building the dynamic metropolis. The project has four floors (and average height of 23 meters) of which you can not make a external define reading of the facades hierarchy.

The approach used is by projecting a suspended square consisting of a set of interlocking blades in both directions, which is part of the green areas that proposes to double the surroundings.

"Our goal is to create a cultural space, well located and easy access to the population, close to the subway and train lines. St. Paul deserves a great

architectural landmark and this complex play that role, " Sayad says.
The estimate resource for the construction of the complex is 300 million reais, part of which is sought through funding from the Interamerican Development Bank (IDB).Herzog & De Meuron should receive for his work about 8.5% of that total, representing almost 26 million. The department predicts that the work will begin in the second half of 2010.

ARCHITECTURE AND THEATRE

Our time is characterized by the construction of new buildings for music, theater, and dance. Often these buildings are made full of symbolic values and complex expectations because one of the ways in which a society defines itself projecting for its future value. At the same time, we suffer a fracture between the world of architecture and the performing arts, which have never been as distant as in recent years.

The Project of performing arts building shows a period and a place where different forms of expression, different space for acting, narratives of communication - different instrumentation and techniques are confronted with the aesthetic and expressive research of a specific community.

The uniqueness of this process is difficult to reconcile with the specialist fragmentation of professional competence. The uniqueness and complexity of architectural design for the theater can't bear deficiencies and imbalances, and also can not tolerate a division between form, function and technology.
The result is a difficulty relation between the protagonists, if not an actual fracture. Considering buildings and new built halls there is almost always facing a general loss of the optimal ratio of volumes between the audience room and those of the stage.
From this difficulty, this seems to be the focus of difficult relationship between the architectural technical designs to that of the performing arts, resulting myriad of absurdity.
To illustrate: voices poorly audible or, conversely, too much noise, stages difficult to use because of structural limitations, the wall in the wrong place and the variable most frequently ,reduced flexibility in the use of the stage, dressing rooms located at distances absurd.

The reflection of this little dialogue between the world of the performing arts and architecture is often known in dissatisfaction for both those who design a theater and the one who work in, as well as in the audience: in this context, the dissatisfaction generates frustration and mortification of artistic and creative abilities.
The theater is constantly in transformation. Transformation that deals with variety of performing languages as much as the public expectations: the building project theatrical needs, today more than ever, the concourse for many players.

Protecting the imaginary

Over the centuries the building of the stage was subject to constant changes. All kinds of transformations dramatically intensified in the last three centuries and in particular throughout the twentieth century, which are the reflections of social changes of artistic creative, the evidenced of the variety of genres, the plurality of language and changing forms of the scene. For centuries, the transformation of theatrical spaces the adaptation of the architectural structure intern and extern of the theater were secured by a fertile correspondence way of thinking between artists and architects, both are arts and craft figures linked by a common sense of doing. The theater of the past almost always shows evidence of a positive proximity way of thinking. Idealizing, as if architecture had always been ready and able to return to a “provisional “and dignity form for scenic arts.

Many figures who work on the synthesis between architecture, functional organization and optimization of visual and acoustic conditions through the study of optimal plan of the theater, the curvature of the ceiling, materials and lighting. Today splitting the figures and skills, architecture and theater continue to imply a common purpose; the one like the other invents its own public. Setting it up as a subject which has not been given yet.
The architect who is the director, composer, and choreographer create the conditions for communication and new forms of life. The ways in which it may exist and be develop by the imagination. The plan anticipates something that still does not exists, behaviors and attitudes to be invented: theater and architecture arouses the new in form of words, spaces, sounds, Gestures, thoughts. The indissoluble relationship between architecture and theater is an ontological vision that safeguarded and enhanced appreciated in all its potential.

A well built theater is a theater that in its planning, the questions about what kind of show and how it would be presented where carefully asked!!!

THEATRE DESIGN

A theater presents one of the must difficult design task for an architect because it combines the need for a technically perfect space with the necessity for allowing fantasy and dreams to happen. The elusive theatrical experience at its best is a tenuous combination of a good production and surroundings that do not overwhelm it; a void that is limited enough in scope to allow the willing suspension of disbelief to occur.
In the admittedly subjective selection that follows, which is far from comprehensive, this silicate balance has been addressed in various ingenious ways, and in addition to that general overarching concern, and five distinct sub-themes are represented in this sampling.

Among these is acoustic performance, which has come to preoccupy theatre designers more than ever before, mainly because of the predominance of computer modeling in analyzing the various aspects of sound. Raul Barreneche has describes this significant shift that has taken place in caustic science as follows:
Ten to fifteen years ago, the main caustic consideration for the theatre designers was reverberation - the length of time required for sound to decay in a room. Reverberation is dependent on room's volume and shape, as well as material finishes. Now, practitioners are playing attention to building geometries and other acoustic concepts such as loudness, clarity, intimacy and envelopment, which contribute to the overall sound of a theater

The result of this shift has been a marked preference for the rectangular "shoe box" hall which reflects sound laterally, shallower balconies that prevent sound from becoming trapped, and harder sound reflective surface that promote aliveness .lateral sound has added richness and fullness, adding to the impression of envelopment that Barreneche (acoustic performance) refers to. This is deemed so desirable today.

The most direct application of this change is the Disney Concert Hall in which the restrictions imposed by the shoe box configuration prompted Frank Gehry to compensate by applying free flowing curves to mask it. Strips of paper added in collage –like fashion to the scale model of the hall, designed by acoustician, allowed the architect to redress the aesthetic balance, and the final translation of that collage into physical form has been the cause of a representational revolution that is brilliant and problematic at the same time. The ground gained here by the Gehry office is result of the exercise of the architect's prerogative, an endangered quantity in the extensive collaboration now required by increased technological sophistication.

The architect as the final creative impetus, entering by necessity into a collaborative relationship of fine balance, and yet retaining some degree of autonomy. Many of the larger examples show the extent of the success of this

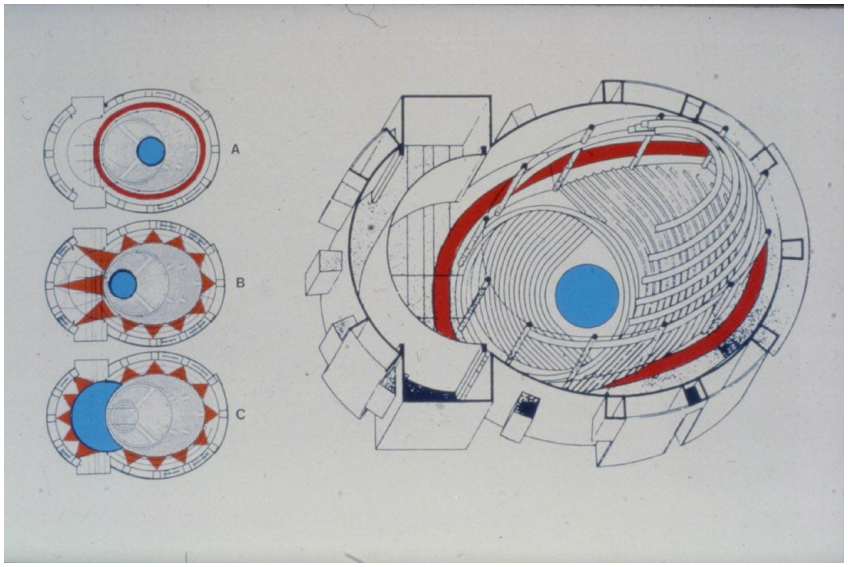
exigency, a new role for architects , although obviously not an uncomfortable one for professionals now increasingly accustomed to work as part of them

BAUHAUS stage fright

Walter Gropius had written that the architectonic problem of stage space had particular significance for work at the Bauhaus. 'Today's stage, which lets the spectator look at the other world through a window, or which separates (itself from him) by a curtain, has almost entirely pushed aside the central arena of the past. Gropius explained that this earlier 'arena' had formed an invisible spatial unity with the spectators, drawing them into the action of the play. In addition he noted that the 'picture-frame' deep stage presented a two-dimensional problem, while the central arena stage presented a three-dimensional one: instead of changing the space of the action, the arena stage provided an action space, in which bodies moved as sculptural forms. Gropius's Total Theatre was designed in 1926 for the director Erwin Piscator, but owing to financial difficulties was never actually built.'

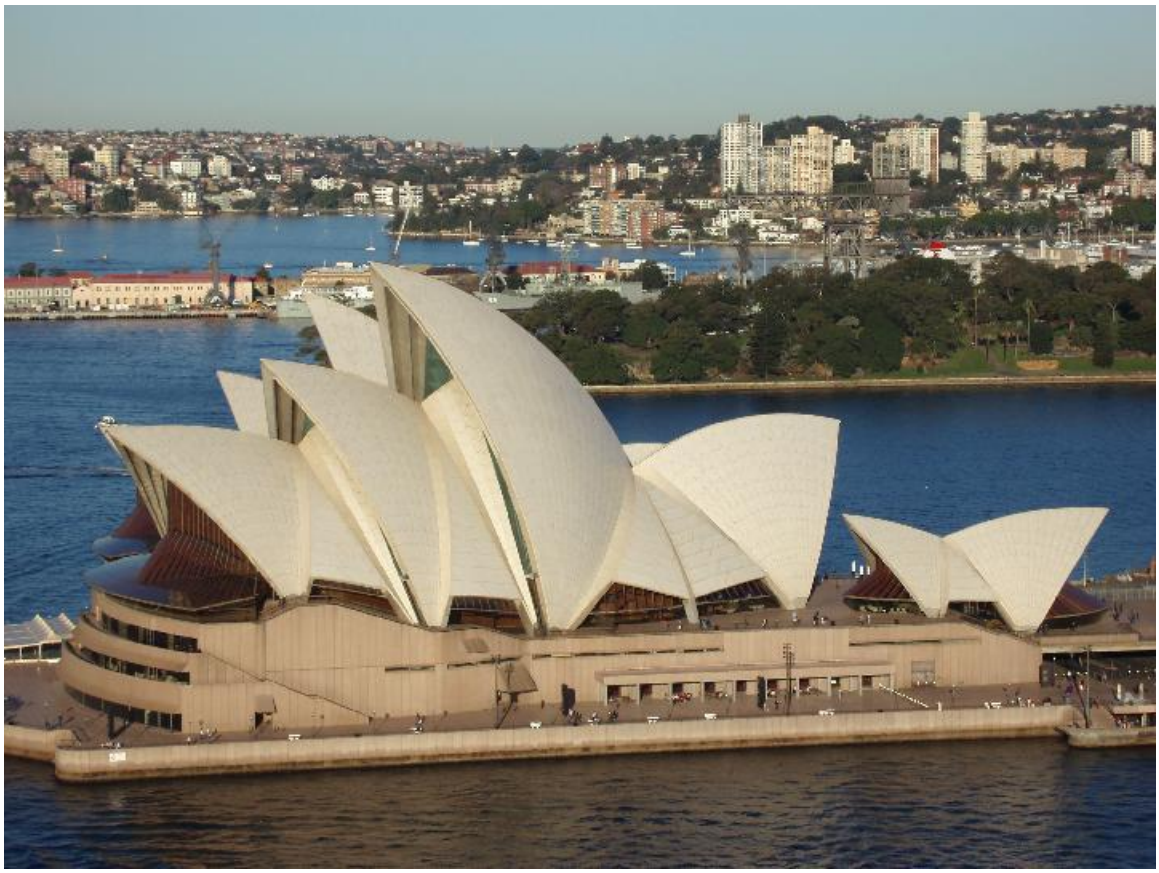
The modern theatr.

In the late twenties date back two well-known projects, both unfulfilled, promised to be out two of the biggest stars of the avant-garde theater of the time that Walter Gropius for Erwin Piscator and the one of Barchin and Vachtangov fot mejerchol'd .The two projects, as we shall see, are similar and outlined as theaters dominated by a system of rotary stages to allow different configurations of the space, particularly the use of a central scene which are distributed around the "circle" of the audience seats. In the one of Gropius, which dates to 1927, a Centers circles system allows a continuous variation of configurations, giving shape to an exciting theatrical space, explicitly conceived as a stain and functional project Piscator a "political theater". Even outside the distinctive character of the building doesn't show any representative device, but an aesthetic mechanistic appearance.



Total Theatr –Walter Gropius

Even the most spectacular examples succeeded, as the theatre of Alvar Aalto in Germany or the famous Sydney Opera House Utzon of Denmark, have transformed the physiognomy of the city where there are built - just think in Sydney, although they tried in every possible way to refuse the project .

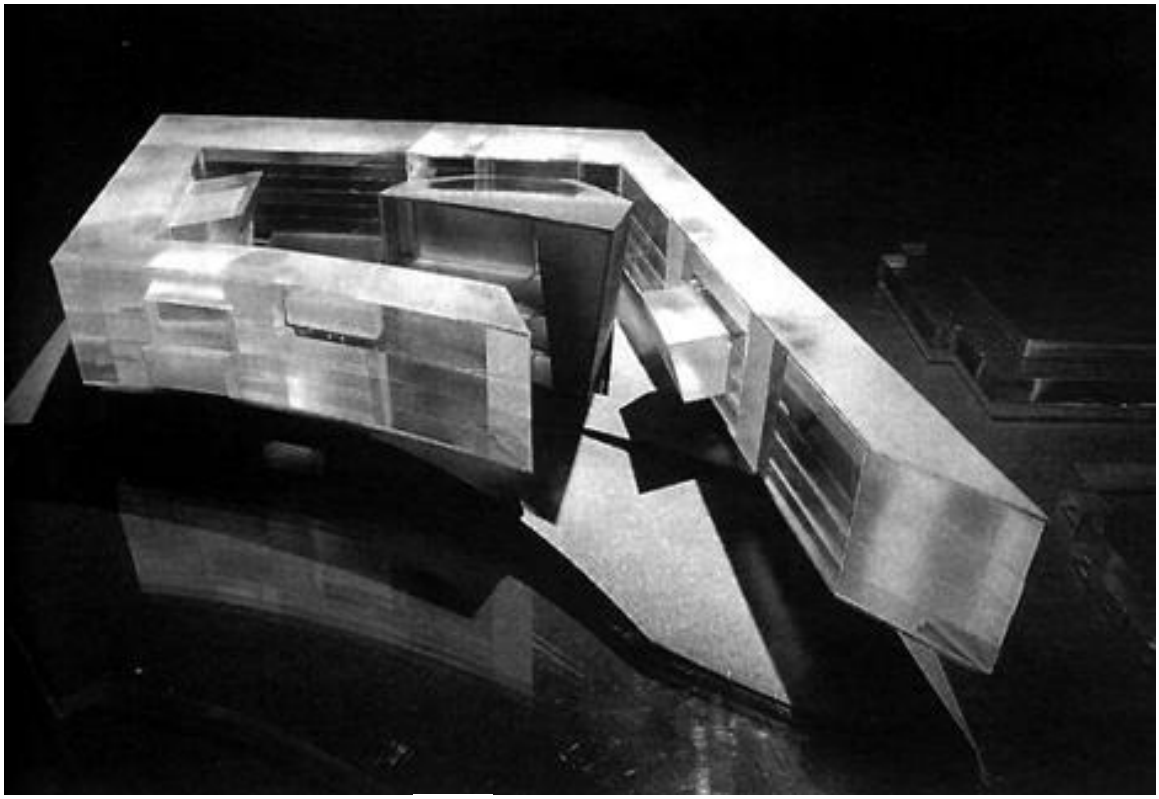


Sydney **opera house** concert

It did not led for new ways of producing it or new conditions of the theatrical event space of its "experience". The stages have become increasingly complex, increasingly high stage towers, side, rear stages and under stage should allow the installation of more contemporary shows, essential solution especially for a musical theater repertory, as commonly abroad. But the system of space, the hierarchical access order, the foyer and the different levels halls had remained virtually unchanged just as the practices and procedures of the "implementation" of theater show.

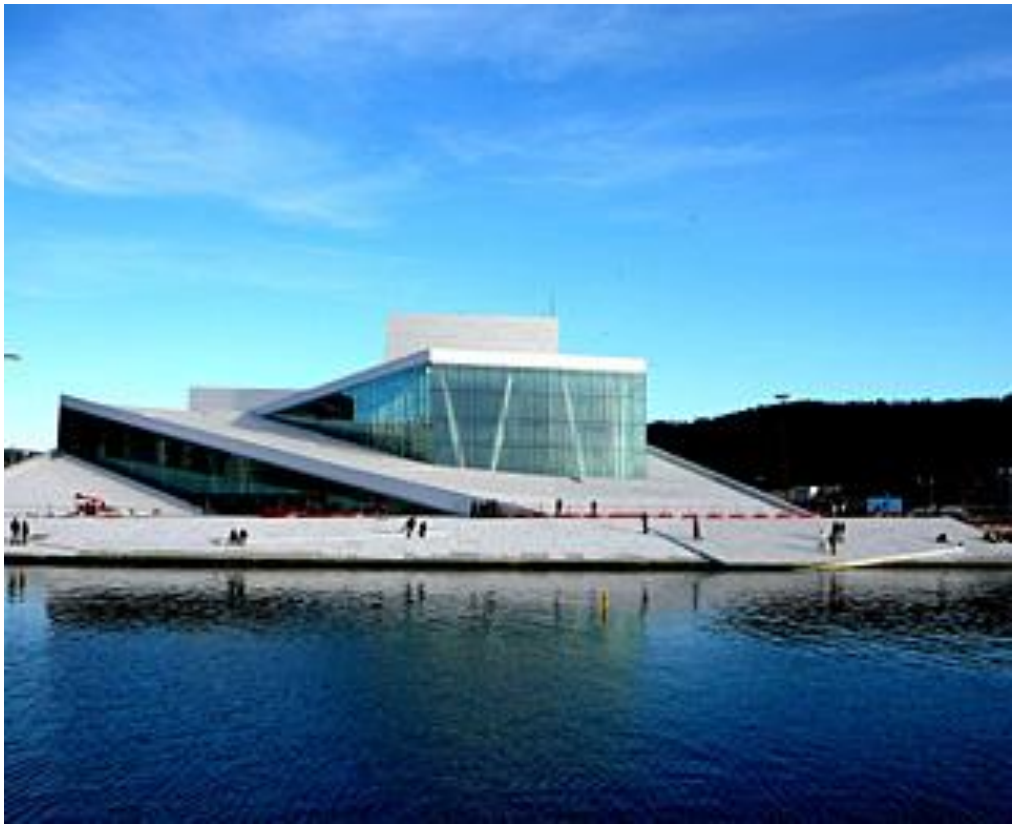
In recent years numerous new theater buildings are built after international competitions in which participates the best and most representative of the architectural culture of todays. It happened in several European cities like Oslo, Copenhagen, Dublin, Milan, St. Petersburg, Grand, but also in distant China, Guangzhou or Beijing. In Barcelona, Venice and Milan were rebuilt or renovated historic theaters, even in this case the intervention of the acknowledged masters of architecture as Ignesi de Sola Morales, Aldo Rossi and Mario Botta.

For example, the results of the competition held in 1999 for the new Opera in Cardiff, England. Zaha Hadid Was declared the winner. This is particularly difficult in terms of planning, a building with open courtyard that surrounds the volume, the deformed hexagon of the auditorium and encompasses the scenic tower, creating a square, spectacular, opens on one side to Cardiff Bay. But the large auditorium for the public, with one thousand nine hundred places, merely to interpret the disposal by a conventional opera house with two rows of the audience gallery, just as this model describes the specifications of the leading theater consultants.
The Hadid design was called the Crystal Necklace by some in the media However, the project failed to win financial support from the Millennium Commission, the body which National Lottery, refused to fund the project as it considered it to be financially risky


Opera in Cardiff, England. Zaha Hadid- model

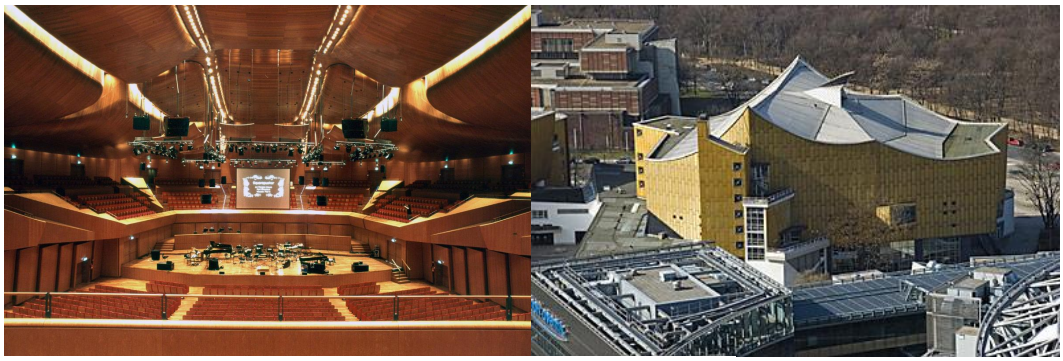
At the same competition appeared also Norman Foster, one of the most influential designers of today. he had inserted the theatric device this time more akin to the Broadway Theater model (with three tiers of galleries surrounding the audience), inside of a glass involucres shaped as a piece of spheres, which thus produces a spectacular closed volume interstitial space between the theater and the transparent skin of glass. This theme of transformation of the traditional system in the foyer of a semi spectacular landscape that surrounds the theater building itself seems to have become a recurring theme in newer projects.

We could continue, for example, with the unconventional design of the new theater Oslo's Snøhetta group, winner in 2000 of an international competition which had participated in two hundred and thirty architects. Overlooking the old port docks, therefore intended to contribute to urbanization of a deserted area of the Norwegian capital, the plan for Snøhetta provides two auditorium and a theater, the big one with one thousand three hundred and fifty and the small one with four hundred spectators, embedded in a small size space that, like a hillside, grow out form the ground and leans toward the stretch of water front.
Even in this case, however, is the explicit choice of conceiving large auditorium in similarity of the great nineteenth century tradition, with a horseshoe optimized Plant in terms of tone and structure including the complex stage


theater Oslo's Snøhetta group

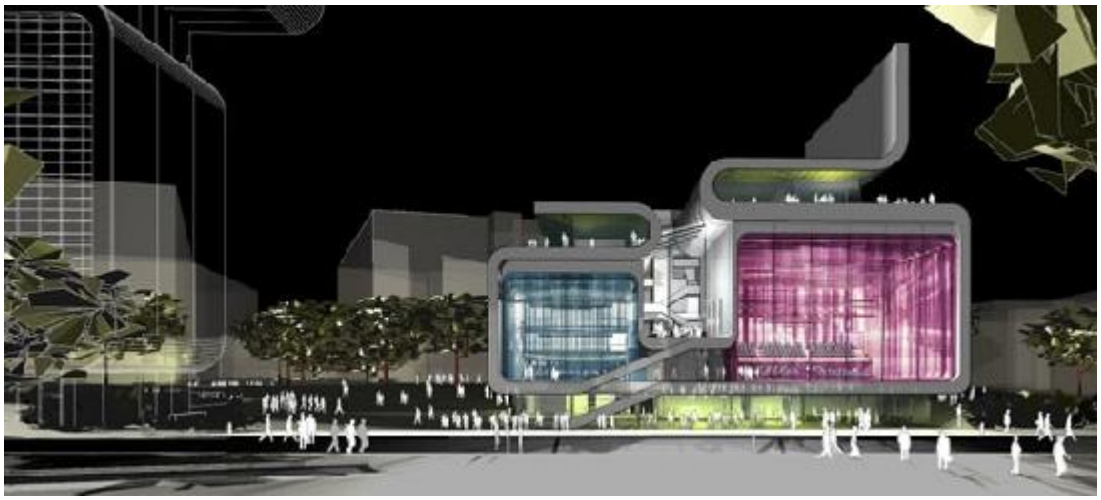
We must look elsewhere in search of some innovative stimulation, Proposals that express or at least suggest the possibility of devising ways for producing of theater by the public, so they can enjoy a different experience.
In the sixties the German Hnas Scharoun created in Berlin, a new project building for the Philharmonic, an extraordinary and legendary musical space: a large tent in which the public have balconies all around the podium, with an effect of extraordinary spatial involvement proximity between audience and performers almost tangible, and of course with all the control problems resulting acoustics.
By Scharoun until the recent Walt Disney Concert Hall by Frank O. Gehry, Los Angeles, numerous attempts have been made to reproduce the extraordinary

experience of musical space of the Philharmonic, guided by acoustic rules, considered ideal, the "box" of the Musikverein rectangular Viennesed

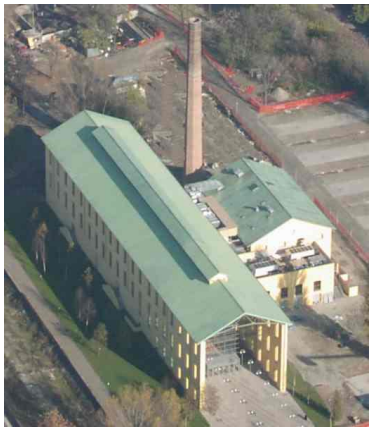


Hnas Scharoun the Philharmonic in Berlin the inside and the out side

Same way was used by young architects from Foreign Office for the BBC Music Center in London, whose auditorium has a large window overlooking the back of the room offering the public space of the city the "secret “of its activities. The same idea Renzo Piano have used in the new auditorium of Parma and Rem Koolhaas in the very new music center of Porto in Portugal.



BBC Music Center in London, Foreign Office



Renzo Piano auditorium, Parma

A few years ago Koolhaas had tried a similar solution in a small New York theater, the Second Stage Theater overlooking the teeming life and Times Square. The theater situated in an existing commercial building, with its large windows along both sides overlooking the street, the architect has inserted into the first floor, the steps for spectators and the stage, providing only a heavy curtain around the perimeter. In this way, the theatrical event can close himself in his traditional isolation or establish gates to the city and its surrounding life, not only incorporating the views of Times Square in the theatric "scene" but also. Conversely, transferring the theatrical drama happening in the panorama swarming street

Same way can consider similar the approach taken by the New York firm Diller Scofidio + Renfro for the most recent draft of the Renovated Lincoln Center. Here the permeability between theater and the city is ensured not by the materiality of the transparent glass , but from that the modern technology of virtual communication: cameras systems and large screens installed outside that plays what is happening in the internal closed spaces on the stage in real time (or a recorded).

New York Diller Scofidio + Renfro Lincoln Center before the Renovation

New York Diller Scofidio + Renfro Lincoln Center after the Renovation

THE SQUARE

The Square has always been a very significant fact of life of a city; it is a symbol, or a flag. Some cities are remembered by the name of their main square without having been ever visited

The square was always the stage of life of a community. It is the place where it is represented; it is also one of the mirrors most sincere and secure way of life, characteristic attitudes of the madness and fashions of a society.

The square can be

- A place to stop and enjoy the sun or the alternative to a house too close or too empty
-A place to display works of art, or an ideal place for the market
- It’s the place where private emotions can turn into mass demonstrations or large celebrations, expressions municipal pride.

The square, as shown in previous poetic words, is the privileged place for meeting, exchange, where culture and history merge as the Aristotelian idea of security and happiness that a city must be able to offer its inhabitants.
To over come the difficulties of the necessary composition of human relations and city planning, more easily confined spaces are made: shopping malls and places of consumption for exchange, where everything is sold and everything can be bought on this pedestrian plazas, play areas for children with the result that is in fact denied free opportunities to socialize (you point the way and not on the stop) or the contact with surrounding an the open space, the garden or square that can be given only by them.

Modern architecture today aims to use technology which extends beyond the objectivity of needs, arrives to meet the subjectivity of individuals want to create more free and new. The virtual reality replaces the reality by giving a deceptive appearance, modifiable, temporary, we are satisfied with today.
The square is designed as a flexible, easy to modify depending the events it hosts. The design of fixtures is designed in away to provide additional services for various occasions and events.

In fact it seems that the theme of "square" references to the theme of "community", because the square has always been the place where the community meets, where the dynamism of social life is made up of relationships, relationships in flux, personal involvement.

The word "piazza" refers to social, lifestyle, philosophy ... I wish, however, the question to affront is on the disciplinary side specific architecture, in which the historical meaning of the term seems belong to the common cultural heritage: the Greek world, gradually through the Roman, medieval, baroque renaissance 'er

the piazza, as a subject of design, in the last thirty years again became the topic, marked a new attention for the quality of life.

The first condition for qualify a place today as a square ii has to be pedestrian: access, location, use, limited only for the people.

Projects designed for a square, then, will be the qualification of a place: the positivist conception of as empty is been replaced with the will to realize an area of content.
The traditional square have an endogenous function, defined in the formation process, coupled to a building or identified with enslaved use
The square today hardly ever have a specific function ,it depends on a building or monument. The purpose is to design a meeting place, aggregation, attractiveness, but the goal of the project is now the square itself. The place where the community gathered for a mass collective function, replaces a space in which individuals act. One area, however, qualified by a unified design.

The project research for the new squares today focuses on the quality designed to be attributed to space.
It is a wide research containing within element of local history, symbols, references, intellectuals, or sculptures, fountains, buildings and trees.
The square as a place of synthesis, a place that sometimes as surplus or a sense of utopia

Beaubourg square in Paris

strategically located in the heart of the old historical Paris.
less then one kilometer from Notre Dame cathedral, the piazza Beaubourg have ,since the completion of Gorges Cultural Centre Pompidou by Renzo Piano and Richard Rogers ,an unmatched popularity in the capital of French. Though it may appear at first sight a bit poor and not so attractive - especially if you compare it with the powerful figurative architecture that it presents - you can not deny that, of all public spaces and social scene are traditionally in the square.
The definition of outside space is explained with a few elementary ingredients: Parvis -a slight slope that seems to channel the crowd in ravenous mouths of the great culture machine: a "cut" was designed in the Parvis creates a second gradient, with different inclination, from access to the premises located underground, granite paving used with a grid of cross-banded blue and white stone geometry. And in the bottom - beyond the three pairs of Hatches (vents for underground environments) that ostensibly repeats the technological language of the Pompidou Centre.


Plateu beaubourg a parigi Pompidou center di Renzo Piano e Richard Rogers

In general plan accompanying the Executive project for the solution to the slope finally provided a division of the area in base of the activity: a play area equipped with bleachers and a small podium;
a series of pavilions of square forms for cultural and commercial Activities , a children's playground, a large pentagonal tent Destined for bars, a small exhibition center and a corner garden.
Beyond the formal configuration of the various possibilities of the cultural center and the esplanade street art it always remained true to its original use: to be a

flexible open space to serve the communication.

The absence of any preliminary subdivision makes it possible to fill the square from time to time, depending on the needs, relying on temporary structures and alternated scenery, Fashion Runway, concerts, fairs

Plateu beaubourg a parigi Pompidou center di Renzo Piano e Richard Rogers

The complex of Broadgate in London

In wide-ranging changes in central London, "the square" , as a vital center that as a project theme , seems to be remained alien to the interests of planners and architects.

Broadgate in London square

A rectangular square closed on all sides by buildings, starts from the Finsburg Avenue to Wilson Street through the pedestrian ways. The surface in the center of the area is lowered in respect to the edge around it, which is signed with stairs. The margin of the square in the same height of the external road block and of the second square. On the surface are located benches made of marble as resting places, in the shad of specifically planted trees. A sculptural

imperialistic group Segal reproduces figures of passers-by seem inviting to precede into the second square.

Rockefeller Center temporary installations

A circular building is use as a diaphragm between the two squares. The second square is shaped as an amphitheater. It is surrounded by a three floors commercial structure with porches overlooking the square down. The central platform has been designed to allow different uses to imitation of Rockefeller Center, in winter and plans for the use as ice rink and in summer to host musical events. Some sculptures by Richard Serra and Jacques Lipchitz soon were placed in the passage which joins the square with the Finsburg Avenue.

Rockefeller Center ice rink

Rockefeller Center

Originally known as Radio City is a complex of buildings which was develop in the midst of the Great Depression. Initially the complex consisted of 14 buildings, the 70 story (RCA building being the tallest).

A Modern masterpiece, Rockefeller Center is one of New York's central gathering spots for visitors and New Yorkers alike. A prime example of the city's skyscraper spirit and historic sense of optimism, it was erected mainly in the 1930s, when the city was deep in the Depression as well as in its most passionate Art Deco phase. Designated a National Historic Landmark in 1988, it's now the world's largest privately owned business-and-entertainment center, with 18 buildings on 21 acres.


View from the Empire State Building

The entire complex goes from the Fifth Avenue between 49th and 50th streets. The builders purposely created the gentle slope of the Promenade, known here as the Channel Gardens because it's flanked to the south by La Maison Française and to the north by the British Building.

The Promenade leads to the Lower Plaza, home to the famous ice-skating rink in winter and alfresco dining in summer in the shadow of Paul Manship's freshly gilded bronze statue *Prometheus.*

bronze statue *Prometheus*

The area where the Rockefeller Center is located was originally planned as the new location for the Metropolitan Opera.

The design of the complex was created by the American architect Benjamin Wistar Morris. His plan, influenced by the Grand Central Terminal Complex included a landscaped garden and a monumental Opera House as well as tall office towers, shops and terraces. The buildings would be connected by a series of bridges and walkways.

However, the stock market crash of 1929 caused the city to abandon the ambitious project. Rockefeller then launched a plan for a corporate complex to house the new radio and television corporations. Radio City was born.

To lure tenants during the Depression, all efforts were made to ensure efficient use of the available floor space. Thanks to the setbacks each office was assured of natural light. Other assets were fast elevators, air-conditioning and excellent underground connections to the subway.

The Rockefeller Center features an observation deck on the GE Building with panoramic views of Central Park and the Empire State Building.


Top of the Rock

By 1940 Radio City, which became known as Rockefeller Center consisted of 14 buildings, located around the central sunken plaza, the Lower Plaza. The plaza, best known for its very popular skating rink, is connected to Fifth Avenue via a pedestrian street decorated with statues and flowers. This street is known as the Channel Gardens. From here you have a nice view on the sculpture of Prometheus and the GE building.
The Channel Gardens are flanked by two six-story buildings with landscaped rooftops, the British Empire Building and La Maison Française. Another important building in the Rockefeller Center is the *Radio City Music Hall*. When built, it was the largest indoor theater in the world with a seating capacity of around 6000 people.

Rockefeller Center - known as a 'city in the city' - is an exceptional example of civic planning. All buildings share a common design style, Art Deco, and are connected to each other via an underground concourse, the Catacombs. The complex is nevertheless well integrated in the city of New York, especially along Fifth Avenue.

ACUSTICS Richard cowell

Theatre is itself a collaborative art and our sense of sound is an essential part of it. From the moment we approach a theatre, the opportunity to use sound to influence our mood is there. We know that our designs must serve the performance al least, but, more than that; they need to offer opportunities for performers to stretch their medium and enhance the quality of the event. The acoustic design depends on collaboration, and the most important collaboration occurs when mutual support is given between professional disciplines so that acoustic designs enhance the architecture and vice versa.

The client

At the crucial early stages, although we need to understand what our client believes is wanted, we also need to inform and persuade them of the full potential of the sound in and around the theatre. Conflicts of building use, usually rising from commercial pressures, normally require the provision of flexibility. The acoustic design then becomes problem solving at the expense of creativity. Agreement on a first use which is serves by real excellence is the result of collaborative art.

The size of auditoria needs an early discussion with all parties. Simple limitation by distance, the perception of facial expressions, tends to control size, as the loss of direct sound with distance can be mitigated to some degree by powerful early reflections to support the human voice. Techniques of amplification allow much larger theatres.

Controlling the aural environment

Integration of acoustic into design into the building grows better as the acoustician grows strong enough to challenge the design professional of different disciplines. This particularly true where the acoustician is working to protect the performing environment by noise control. We are familiar with the need for mass and stiffness in structures – to exclude noise – which very often conflicts with the structural engineer's concept of an elegant structure, but there are more extreme examples.

For the protection of a theatre from railway vibration , the Birmingham Symphony hall, for instance , not only is a rapport with the structural engineer essential, but also of isolation of the building services, railway engineering and impact of building isolation on architecture. All involved are also learning fast about the fundamentals of physics, and its impact on the building. This experience is invaluable on the subsequent occasions it arises. The consequence of repeated collaboration usually results in significant technical and procedural advance.

Basic form

The basic form of a theatre calls for close discussion between architect, acoustician and theatre consultant .Although heavily influenced by size; the integration of architectural acoustical and theatrical concepts is the seed of excellence.

Background sound
In the area of building services, there is an interesting balance to be struck in establishing background sound targets for theatres; the pregnant pause can gain drama in effective silence. Equally distracting noise will punctuate this silence more easily.
Background sound should be adjustable, just as the temperature and lighting is controlled. In the future we may expect that ambient sound in theatre will be much better controlled than it is today.

Focal point in acoustic design
From examination of acoustic within concert halls, it soon becomes clear that theatre itself is essentially a product of a fundamental collaboration, between the performer and audience. By arrangement, this collaboration has already spread to many other formats, with the acoustician finding focal points for collaboration. The seating in theatre usually offers the largest single area of sound absorption and no needs careful assessment and acoustic testing. The increasing use of air supply below ,or form within seats, to serve economic air displacement systems requires a close collaboration with the building services engineer to balance air – flow and noise control/ these days researching this and related areas leaves no excuse for disturbance by noise form air conditioning.
Balconies, boxes and their fronts are another crucial area of theatre design. Apart from an obvious need to control excessive overhangs – even allowing for virtually undetectable acoustic enhancement system – the orientation of trays of people to assist sound distribution is fundamental. The constriction, solidity, transparency, decoration and shaping of balcony and box fronts bring acoustics and the character of the space face to face.

Integrated design
Perhaps the most potent yet modest display of the acoustician's collaborative art is the absence of obviously acoustic components. There has been far too much acoustic "junk" applied to theatre interiors, usually representing a failure to make the design work efficiently, bringing an integrated performance from the construction.
If architect wants to shout "this is acoustic" so be it, but usually this id not so. Theatre is littered with trials of strength between architects and acousticians. Sadly, there are few beautiful integrated designs.

Multi-purpose use
A feature of multi-purpose use is often the need for a variable absorption. After decades of "hanging out the washing "and moving parts which are never moved, as nobody knows how to use them properly, this is an area which needs a great deal more focus. It may be to suggest that contraction of single purpose theatre could be just by the catalogue of architectural failure associated with variable absorption alone, but at the same time, with many other reasons for failures in multi purpose theatres, it adds a powerful argument. Three building for the price

of one is impossible if the variable absorption is so bad that no format delivers a good result.

The future

The future for sound in the theatre is exciting: offering expanding opportunities to transform human emotions with sound and light in ways which we have only begun to develop in this century. This may well transform theatre beyond all recognition. A new collaboration is in view. the impact of audio- visual system on theater design is in its infancy , and in the age of choice and unparalleled available controls, the participant in theatre may experience much more interaction the electro-acoustician will develop designs with communication specialists.

Performers will use new media to produce new forums of collaboration.

Perhaps the most interesting acoustics question to arise now about the future is the extent to which high quality sound will be desired. Society of the nineties is not well educated to listen, by this I mean really listen rather than just hear.

A fundamental respect for high quality of sound depends on education now. How many clients and theatre architects are clear even about how quiet a theater should be and able to explain reasoning? Reliance on acousticians is not good enough. They need to collaborate in debates aimed at higher quality. There are such exciting opportunities awaiting theater designs use our aural senses to the full.

The sound is simply a matter of reflection.
We must be aware of the acoustic feature of the materials, their Reflection and modalities identified for sound diffusion. In order to control the acoustics of a space we must also know how to control sound transmission.

The current obsession of architects for open spaces and the flexibility is amazing. The theater is a building that turns to the outside. The first project concerns the design of the **Rem Koolhaas music house in the city of port, opened in April 2005.** The directive wanted symphony hall used for performances with fifteen hundred seats. The architect designed rooms facing outwards.

The Casa da Musica works vertically. The auditorium is set high in a precision-moulded white concrete building. Upon entering you ascend a fantasy staircase of aluminum steps taking you up to and around the main auditorium with its huge rippling glass walls open to the sky and the city. It has a smaller performance rooms wrapped around both sides of the main auditorium, and overlooking it through giant internal windows.

The interior sound is protected by the foyer that acts as absorbing noise system. The 1,300-seat auditorium is suffused with daylight from the two walls made entirely of glass, a singular oddity in the music world as glass scatters sound in random directions. But Koolhaas claims to have overcome the problem by making the glass ripple in tightly curved folds, and setting two glass sheets a distance of one meter apart insulating the hall from exterior noise. The result is ingenious and beautiful.


music house in the city of port, Portugal, Rem Koolhaas ,

Flexibility and different uses were keywords, but without giving anything that might affect the quality of the symphonic music. In a result any additional specific provision for the theater had to be somehow adapted to these priorities

Hall_1 - Located in the 4th floor - is the public nerve centre and heart of the Casa da Musica. With an area of 1100 m2, it houses 1238 people and a stage that takes 110 musicians and a choir of 143.

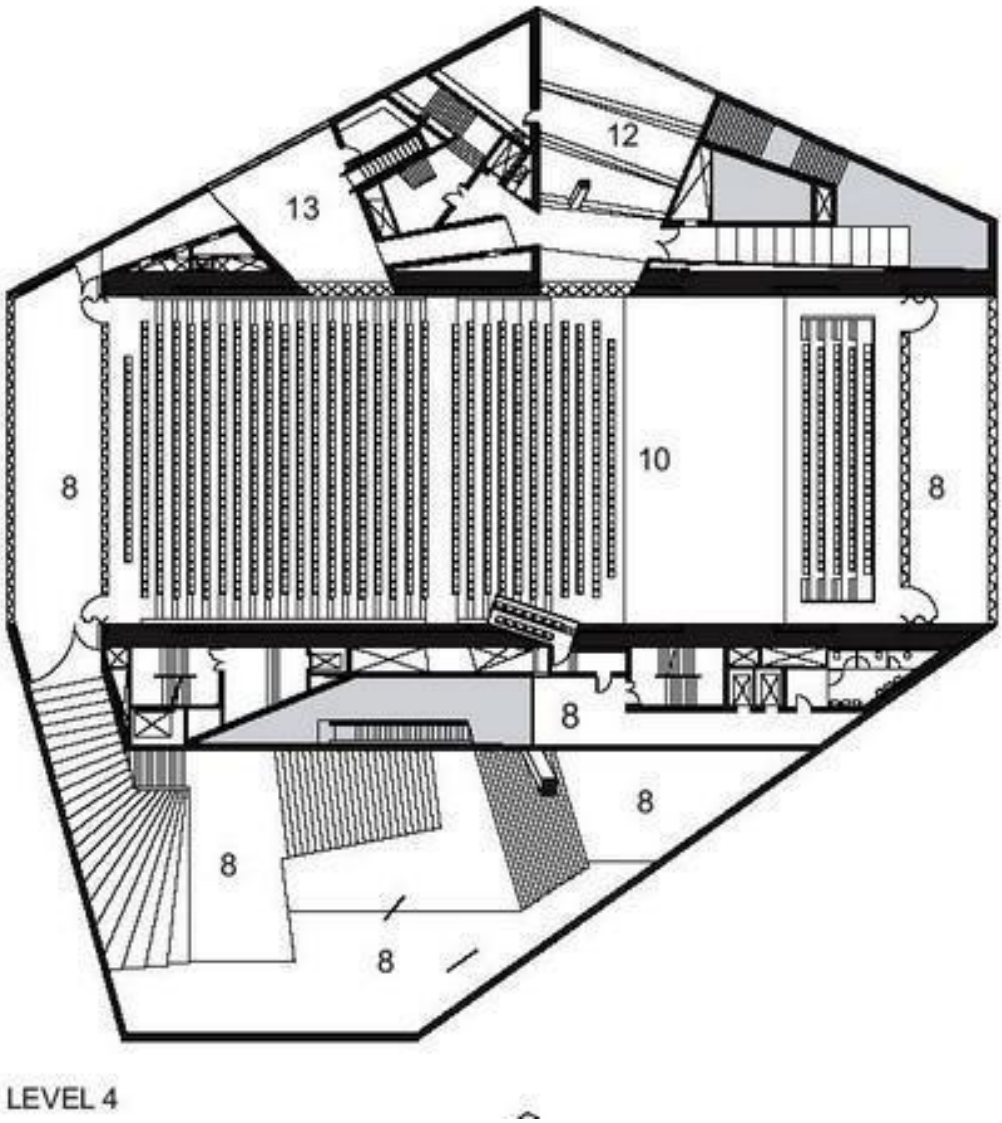
The sloping orchestra seating also has two boxes with a capacity for 26 people. Consistent with the principle of transparency from its very conception, this enormous rectangle opens up to visual communication with the other public areas of the building, with parts of the sidewalls in glass and two large glass walls, one behind the stage and the other behind the audience.
Inside, the silver and golden tones are a frank and intentional contrast to the light from the surrounding glass.

The superb technical and acoustic qualities of Hall1 make it the privileged stage of major musical events in the city of Porto.

Hall 2 is smaller, where the key word is multi-use. The floor is flat, with no fixed seating, and has a capacity of 300 people seated or 650 standing. It possesses optimized, natural acoustics, light and sound infrastructures. The lack of structural rigidity is the functional key: the mobility of the stage and the audience areas means that different atmospheres can be created in line with the event, be it a jazz, fado or electronic music show, a recital or a DJ session.
a Variety of smaller events.

To ensure the Casa da Musica has a total of 10 rehearsal rooms of various sizes that occupy a total area of 700m2 giving the resident and guest artists what they most need – comfort and an excellent working environment. The two largest rooms on floor (-2) can hold groups of between 20 and 100 and are equipped with its own “régie”, so as to function as recording studios. The building has 6 more underground rehearsal rooms and another 4 on the first floor.

The Casa da Musica currently has three bars for concert halls, which are open every day with different opening hours. The problem of parking could never be ignored and the Casa da Musica has a three-storey, underground car park, with a capacity for 700 vehicles and direct interior access to the building.
Other advantages that the Casa da Musica offers are the number of areas and foyers that allow for a limitless qualities of the sound some research were required. For example, designed and acoustic performances of shape glass have been studied, as well as the acoustic behavior of curtains and lighting. To solve this type of problems is no longer sufficient to use classical design methods used in the concert hall. Glass, for example, at one point and was bent on a form is created in computer as in laboratory scale models.



Plan of the music house in the city of port, Portugal, Rem Koolhaas

The stage is positioned lower than the glass; the impact of sound goes always diagonal. This is why the architect decided upon using curved glass.
Thanks to the sound Requirements for insulation the auditorium was built as a box within another box: The outer box has concrete walls three feet thick, the inner is a floating plate of concrete with a plaster coat. Supporting the glass to inner Panel was almost impassable, so the architect had designed it to be sustained by the outer box that gives some distance from the inner glass wall.

This century has seen an architecturally frantic attempt to escape from the tyranny of the notorious "shoe-box" that remains, for the specialists (including our own) the best guarantee for perfect acoustics.

Where Sharoun was still able to avoid the rectangular form in Berlin, Gehry in Disney Hall yields again to the inevitability of the old prototype. Through its very stability, it is hard to make it part of the contemporary world.

Most cultural institutions serve only part of a population. A majority knows only their exterior, only a minority knows what the feel like inside.

By dividing the program in collective spaces and serving spaces - vertical transport, facilities, offices, storage, etc. - the building is both clear and mysterious - the diagram becomes architectural adventure.

Representation

The processes of theatrical representation are representative in two ways, from one point of view as a reality of the theater building as architectonical significance and from anther point of view the representation of text .In addition, the theater, like architecture, is a collective practice where lyricist, actors, directing, lighting, sound and scenery must converge in a single work. these two arts are measured with the question of place and context in the spatial and sense of timing, but for a play the place is in any way the architecture, even if it is an improper architecture, not built for the theater specific purpose, as well as for architectural representation of dialogue of the context (not just in perception but more broadly historical sense) is one of unavoidable content which opens a dialog in a project.

The theater as a building in the city, is like a monument has with a certain capacity for collective representation, so it is in continues reinterpretation of its urban and social role, even in contradiction with original function. The theater as a building that has a special urban responsibility not only as particular type of building but for its articulated connections and hierarchies in the urban system: it marks a place collectively significant, although the events often invite you to think of many theatrical spaces, perhaps most places in the city.

The models of the theater, after all, are quite a few: the Greek, the Roman Theater of the early centuries, the medieval piazza in which the scene is the same urban space, the Globe, the Palladio Theater, the Italian theater of the seventeenth and eighteenth centuries. The German of the second half of the nineteenth century, the total theater of the modern movement, one of nature technologies large rock concerts, and finally the film theatre.
The stadium model is actually traced to the ancient Coliseum.

The Royal National Theatre

One of the United Kingdom's two most prominent publicly
funded theatre companies located in London .
The theatre presents a varied programs, including Shakespeare and other international classic drama; and new plays by contemporary playwrights. Each auditorium in the theatre can run up to three shows in repertoire, thus further widening the number of plays which can be put on during any one season.

The Royal National Theatre at night

The National Theatre building houses three separate auditoria:
The Olivier Theatre is the main auditorium, and was modeled based on the ancient Greek theatre at Epidaurus; it has an open stage and a fan-shaped audience seating area for 1,160 people. An ingenious 'drum revolve' (a five-storey revolving stage section) extends eight meters beneath the stage and is operated by a single staff member. The drum has two rim revolves and two platforms, each of which can carry ten tones, facilitating dramatic and fluid scenery changes. Its design ensures that the audience's view is not blocked from any seat, and that the audience is fully visible to actors from the stage's centre.
The Lyttelton Theatre has a proscenium-arch it is designd to accommodate an audience of 890.
The Cottesloe Theatre is a small, adaptable studio space, designed by Iain Mackintosh, holding up to 400 people depending on the seating configuration.
The riverside forecourt of the theatre is used for regular open-air performances in the summer.

The National Theatre's open-air performance

The National Theatre's foyers are open to the public, with a large theatrical bookshop, restaurants, bars and exhibition spaces. Backstage tours run throughout the day, and there is live music every day in the foyer before performances.

The style of the National Theatre building was described by Mark Girouard as "an aesthetic of broken forms" at the time of opening. Architectural opinion was split at the time of construction. Even enthusiastic advocates of the Modern Movement such as Sir Nikolaus Pevsner have found the *Béton brut* concrete both inside and out overbearing. Most notoriously, Prince Charles described the building in 1988 as "a clever way of building a nuclear power station in the middle of London without anyone objecting". Sir John Betjeman, however, a man not noted for his enthusiasm for brutalism architecture, was effusive in his praise and wrote to Lasdun stating that he "gasped with delight at the cube of your theatre in the pale blue sky and a glimpse of St. Paul's to the south of it. It is a lovely work and so good from so many angles...it has that inevitable and finished look that great work does."

The National Theatre's. *Béton brut* concrete

Despite the controversy, the theatre has been a Grade II* listed building since 1994. Although the theatre is often cited as an archetype of Brutalism architecture in England, since Lasdun's death the building has been re-evaluated as having closer links to the work of Le Corbusier, rather than contemporary monumental 1960s buildings such as those of Paul Rudolph. The carefully refined balance between horizontal and vertical elements in Lasdun's building has been contrasted favorably with the lumpiness of neighboring buildings such as the Hayward Gallery and Queen Elizabeth Hall, and is now in the unusual situation of having appeared simultaneously in the top ten "most popular" and "most hated" London buildings in opinion surveys. A recent lighting scheme illuminating the exterior of the building, in particular the fly towers, has proved very popular, and is one of several positive artistic responses to the building.

projecting a theatre points to consider.

Based on these models variants feigned have been generated, developing passion for "improper" entertainment places.
Firs, apart from a financial crisis from chronic high building cost, the new major European theaters are similar by some common needs. First they must be adaptable to a wide range of presentations, from concerts to opera, ballet to electronic music; they must accommodate effectively a range that includes Handel or Wagner, Gluck or Stockhausen. Moreover, the type of play must be able to be pieced together, in reasonable limits, the philology of the historical conditions that produced a certain play.
Second, it must provide sufficient number of seats, Proportional with the demand, capable to stimulate a wide new audience, possibly with the size limit of a natural flexible sound and equipped with electronic equipment.
Thirdly, it seems necessary to make the theatrical machine efficient enough to produce or host a high number of shows per year, but without becoming too complex to not occupy the entire space of the building. It seems difficult to balance with excessive technical complexity and rigidity of the mechanisms, and therefore of the theatrical spaces.
Finally there is the managerial problem that severely affects the functions, not only do the plays, but the logistics and accessorial services of increasingly important for the efficiency of the system. All these factors make the body very flexible and therefore are often in conflict with the attempts to renew the theater, is causing a different relationship between audience and actors (for example by flexibly placing the show in the center or in different places of the theater space), the limits of the stage space has been renewed, involving the entire room and even all around the architectural body in idea of representation of the play. All this gives at least three different perspectives: the listening, the randomness and the timeline.

The Belém Cultural Centre
Vittorio Gregotti and Manuel Salgado

A new cultural center, to the west of the Praça do Império, was opened in 1993. It consists of a conference center and two concert halls with 400 and 1,500 seats respectively. A parking lot and restaurants are included in the ultra modern Centro Cultural, which was designed by Vittorio Gregotti and Manuel Salgado.

The Belém Cultural Centre located in the Lisbon, is the largest building with cultural facilities in Portugal. The center includes some very complex areas such as an auditorium for opera, ballet, symphony concerts and congresses, high security meeting halls, and a 7,000 m² exhibition area. Also located in it is the Jacques Delors European Information Centre.

The Belém Cultural Centre has 140,000 m² of construction area and was prepared in a very short period (1989-1992). The client of the project was the Portuguese State through the Ministry of Culture. Completed in 1992, it occupies a total of 100,000 m² and is the work of architects Vittorio Gregotti and Manuel Salgado;.

The architect designed for the construction five modules - Meeting Center, Performing Arts Center, Exhibition Center, Hotel Zone and Complementary Equipment. They built the first three modules, respectively, the Meeting Center, the Center of the Performing and Exhibition Centre, with on going procedures for the completion of the remaining building.

The Belém Cultural Centre

The Belém Cultural Centre

The Meeting Center was designed to accommodate congresses and meetings of any kind or size, using equipment and quality finishing. The structure also include the general services of the center, several shops, a restaurant, two bars and two open garages.
The second building, the Performing Arts Center is the Epicentrum of the cultural and artistic project. Three rooms of different sizes equipped to accommodate different types of shows, from film to opera, ballet theater or any kind of musical genre. The Grand Auditorium has a capacity of 1429 seats, the small auditorium has a capacity of 348 seats and the Rehearsal Room holds 72 seats. Finally, the exhibition center consists a set of qualified exhibition areas spread across four galleries that Host exhibitions of plastic arts, architecture, design, installation, and photography. Shops and a café complete the structure, which also includes a space for the processing and storage of works of art.

The Belém Cultural Centre occupies an area of 97 thousand square meters, distributed in six acres separated by two internal streets and joined by a walkway which creates continuity with the Empire Square, denying the traditional separation between the interior and exterior. It is a small city, with gardens, ponds, bridges, ramps, streets, squares, corners, where he stands by his nobility, the Museum Square.

The design of theaters: models from the past and issues for the future

The great danger today is that the architecture of good theater are increasingly becoming corrupted because of the combination of two factors: Administration who want architecture as an icon for their city rather than a theater that works, and architects who want to create monuments. This as already happened in the past. In the end of the eighteenth century Boullee and Ledoux proposed utopia universal theater-sized planetary. Between the two world wars, Walter Gropius and Hans Poelzig planned theaters of enormous size that possess an also mechanics components. Fortunately, for the good of the world theater, in neither case the projects went beyond the drawing board .Nowadays, however, such projects are actually carried out: large theaters, with perfect visibility and well-equipped boxes, but whose nature and form of which reduce, rather than enhance, the human dimension of the performer, who must achieve long distance. Moreover, the function of internal and often compromised by the sculptural form of the building as a whole.

Frank Gehry was surrounded by acoustics experts and theater consultants all over when he made the fantastic home of the Los Angeles Philharmonic and the Disney Concert Hall in 2003.

The Disney Concert Hall The Los Angeles Philharmonic

The exterior and the interior were designed by Gehry, as both have achieved a spectacular success, despite they seem to have little in common, also the work of acoustics experts and consultants to create theater space dedicated to performance which was crucial for achieving the architect vision.

The complex forms of exterior walls require a massive departure from Gehery's usual approach. Computer, uses to calculate the curves of the clay models in automotive design, were adopted to replace the tedious and partially accurate graphic projection currently employed by the office.
Using probes connected to a console, designers were able to transfer the curves and folds of the concept model directly to the computer screen, conveying all the information needed to accurately map the cladding panels :originally this was to

be Frence Limestone but cost restriction have necessitated the use of metal sheets . Since this breakthrough, Gehery's buildings are less fragmented, with smoother sweeping surfaces.
The two thousand four hundred seat auditorium, within this computer calculated wrapper, closely follows the necessary acoustical parameters with every effort made to achieve a feeling of intimacy. The orchestra is surrounded by wooden seating blocks and additional timber forms added inside the perimeter for visual and acoustic reasons augmenting the sculptural aspect of the interior .skylights and large window of the back of the hall will allow natural light to enter during the performances held during the day, contributing to the open atmosphere that Gehry wants to convey.

Related to a project which lasted for fifteen years, the costs had increased. Since Stuart Donnell, the dean auditors of North America, says that in cases of buildings dedicated for arts more fifteen percent is added to the overall budget in if the architect in charge is of international reputation and that is even before seeing the project. This he calls is the "postcard" facto. This is the necessary price for building an icon that politicians hope will promote and renew their city.

It is difficult to explain how this distance between theater and architecture joins together .one factor is the deception of functionalism: if the architect provides comfortable seats and a perfect visibility for the public so the public falls asleep a theatrical performance experience obtainable is only available at the cinema.

Sound as material.
Architecture as scenery Sound.

The issue of the relationship between music and architecture, today more than ever, inevitably develops along some preferential directions that emphasize the polymorphic and problematic nature of the same subject.
First, the development of musical language and compositional project during the twentieth century shows a constant tendency to use the architectural space in a manipulative and expansive way, particularly through the establishment of a polycentric vision of the event and its acoustic reverberation in the environment. The music from the early years of the twentieth century, reads the executive space drawing the diverse morphology, where the sound source you have in other positions than traditional acquired and consolidated of the classic-romantic tradition.

So, by Charles Ives (a modernist composer) forward, this is the first finding of absolute importance: the space of the music is made of a musical project that takes under consideration the architectural dimension between the elements with syntactic characterization and content.
Secondly, and consequently, the music of the twentieth century and of our time gradually widens its attention to the theme of the functional compositional space, and an architectural vision for the organization of sounds. Not only space as an environment in a new way to occupy and to expand, it becomes a structural element of the compositional process, but the organizer dimension of sound is enhanced by a new value, right from the thought of as a sound as material, as grain, as texture can be manipulated down to the deepest composition level. On this level of reflection and research deals the complex issue, the relationship between music - space today, from the new technologies applied to the sound: the electro acoustics, the computer and the multimedia.
Thirdly, the Twentieth century enhances and encompasses in the "artistic" dimension both the infinite horizon and the acoustic basin of the sonorous landscape.
This is a complex subject, which implies a breaking of conventional boundaries between what is music and what is not. The fluidity of the boundary between inside and outside , between space of the composition and extra-musical space, a number of problems are raised also and above all in view of the idea and the realization of an architectural space for music.
Fourth, as a synthesis of the last three issues, the space for music in the twentieth century and today above all, reflected the complexity of the topic itself: a suitable space for music shows a difficulty in relating with different point of view of the discourse. Architecture will be asked to provide a space capable of Lead the sound in the environment, to manipulate and build environment and sound together, to intercept the osmotic fluidity between inside and outside, traditional composition landscape and unlimited external Sound scene reality.

In this interpretation the theme music / space, or music/ architecture, has becoming a difficult subject, perhaps improper, that shows more bounds and walls then expansive potential and liberating.

To think today of the issue of the auditorium or of the theater, for example, is pretty complex and problematic, it seems a really old discourse, of rearguard and reductive respect the lines of expansion the presence and organization of sound in space "other" then sound diffusion. In other words, the multiplication of musical genres, the proliferation of performing contexts, of
music consumption and especially of the media make it a difficult task for the architect if this remains anchored to an obsolete model, basically eighteenth century model, but with proper makeup and aesthetic devices it can transformed to make the volume and the quality of sound better.

The auditorium is then constrained to chase (and adapt, to Imitate, in an imperfect way to recompose within itself) the articulated ramifications of the media potential and of the virtual panoramic sound, acoustic environments generates in an original and direct way of the technologies developments and the artistic trends, of listening and Performing locations; sound made parks, unused factories used for rave parties, discos, sound installations designs patterns of domestic music and domestication by surround technology, exploration of multimedia even the most commercial film in order to find new ways of listening and absorbing in the film theatre.

Space is changing

The concert hall is changing and the space of music is changing with it the changing characteristics of the songs that require special compositional absorption mode, reverberation, and sound diffusion. The space of the music is becoming an unstable place disposed to flexibility, to transform from time to time, to infinity potential, for the music and with the music.

However, we need to point out that flexibility is needed to satisfy a bit all, to make the concert hall like the chameleon that imitates and simulates without fully satisfying anyone: for sure not classical music (already complicated by historical and stylistic ramifications and segments) for sure not jazz and pop-rock (which require differential performance conditions, of caustics , of watching and listening to be accepted in a satisfactory way), not the multimedia and the contemporary installation art's, not the musical theater not the opera or the ballet, needs deep space irreducible to other models. Of course, the architecture today thinks mechanical and sophisticated technologic bubble, for closed isolated artifacts, distanced from reality. But the amount of music and musical situations that live that prosper and grow outside of that bubble is imperfect and far more extended and articulated . This should be taken into account by music the architecture. Today we must think and plan an auditorium or theater for music perhaps as an urban place, the city, the metropolis, with all its different components arranged to be musicalized and theatrialized. To think today of a sound park, or of a "symphonized metropolis " is a far more difficult task but more promising, more productive and stimulating.

Renzo Piano
Parco della Musica Auditorium, *Rome 2002*

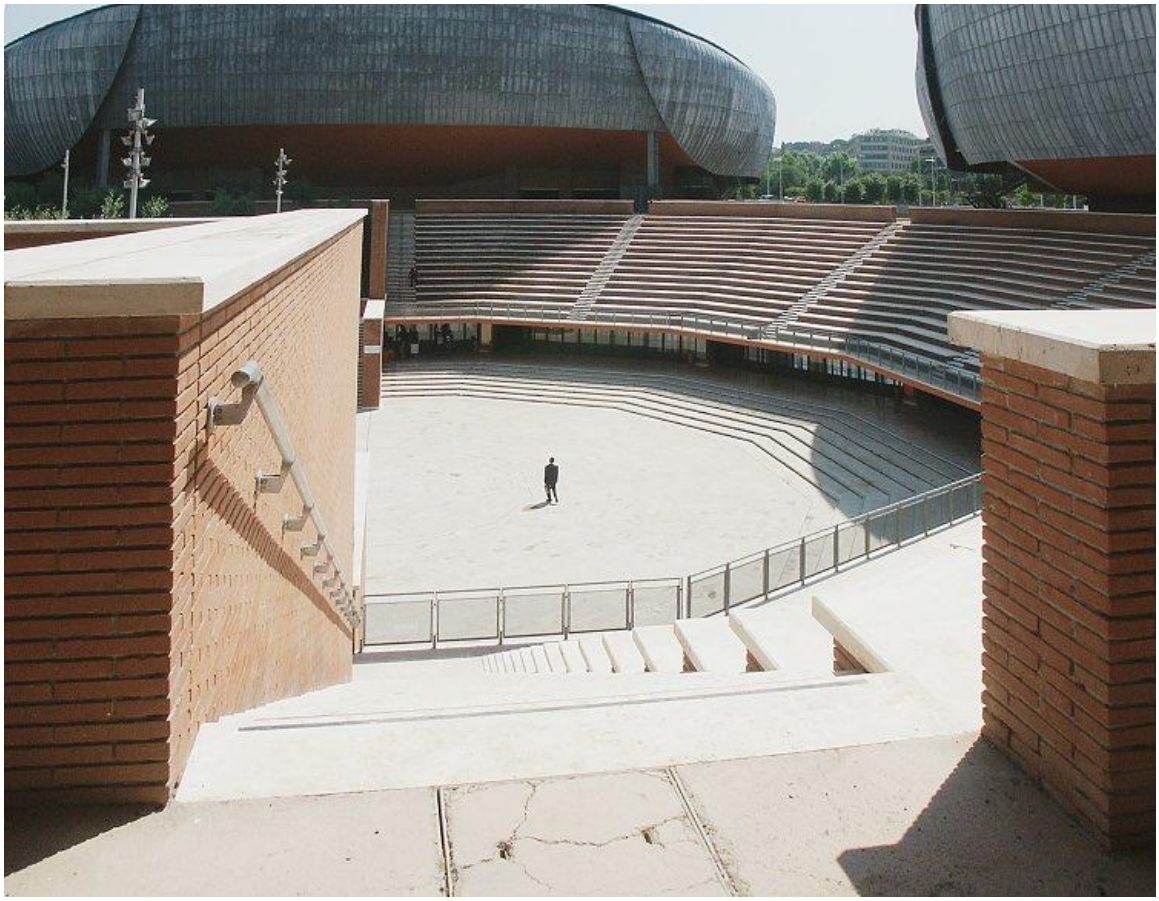
Auditorium Parco della Musica
It was in September of 1995 that building started on the new Auditorium in Rome, on a project by the architect Renzo Piano. This work include three singular constructions (three halls) of different sizes, embedded in a large wooded park in harmony with the surrounding scenery.


Parco della Musica Auditorium ,roma

Born within a more extensive project for launching culture in Rome as well as enhancing urban culture, the Auditorium was intended to attract the public here by means of this sophisticated medium. The idea was to combine all the various

functions usually available in an urban and extra urban environment in the same place.
These three halls have different features able to meet with the requirements of all type of music. They are: the Santa Cecilia hall - for symphonic concerts with choirs and large-sized orchestras; the Sinopoli hall- with greater acoustic flexibility where the stage and seating may be adjusted according to the requirements of the performances; the Petrassi hall– even more versatile for more up-to-date genres, theatrical pieces and films. A further multifunctional space has been planned for the Theatre Studio, the more technical Studies 1, 2 and 3, and the foyer.

In the heart of the Auditorium, there is the Cavea, an outdoor amphitheatre with seating availability for 3,000 spectators. This area leads to those areas open to the public. Here you will find areas where conferences, debates, meetings and activities related to didactics, studies and research take place. Their focal point is the multifunctional nature of this enterprise.


Cavea, an outdoor amphitheatre

The Foundation Musical of Roma is in charge of managing this area and its purpose is to uphold modern music of the highest level apart from art, theatre, dance and cinema.

Flexibility:
The three “music boxes” are structurally separate buildings for maximum soundproof. The largest concert hall has been designed for ultimate volume quality, while in the middle concert hall; this can be achieved according to the performance’s requirements through an adjustable stage, ceiling, and seating. The three planes of the smallest concert hall (two sides and one above) that form the stage can be completely opened, allowing its size to be modified based on demand. Adjustable panels for maximum reverberation


The largest concert hall

This new city of music is the largest multifunctional complex in Europe, and one of the ten largest ones in the world, gathering together all genres and artistic expressions. This is a brand new monument added to the historical constructions of the city. Its success is marked by over four million visitors taken at the end of December 2004
Program:
Large concert hall with 2,700 seats; intended for symphony concerts
Medium concert hall with 1,200 seats; intended to house a large orchestra with choir, ballets, or contemporary music
Small concert hall with700 seats; intended to house operas, music Room, baroque concerts, theatrical performances, and symphony orchestra concerts
Open air amphitheater with 3,000 seats; multi-use

The volume of the theater

Clearly the problem of space is absolutely significant, because every entry is like to "live" or in some cases even “occupying a space”. The first dimension of the theater, therefore, is very elementary.
When you enter a theater, you enter a volume, this volume has a shape, often has history, very often this form it is pretty inhospitable. often the story of the volume is oppressive, and therefore is and always will be, a work of resistance for already given volumes, because of that creating new volume from scratch is an utopia .nevertheless, to address this type of battle is inevitable and necessary at the same time.

a volume that should be rather than a world, an environment, a volume that does not bring with it an overwhelming weight of memories, that's why usually an historical setting is not good for a type of theater that is not a repertoire and therefore has no relations with what happened before in the rut of tradition.
For this reason, to give a practical example, it is very difficult to put up a show at an Italian theater, as they are extraordinary and wonderful devices.
In this theatre in which the spectator, when he enters, he recognizes a pre-existing structure, and therefore there is not neutrality.

The responsibility of the architect is: to allow a current continues between the tribune and the stage. This continues current is formed the observation of the spectators, the instantaneous community which is created from the intimate of each viewer. It is proper the space between one intimacy and another that creates this special community for that exact moment.
The theater is certainly a place of reinterpretation in its social strength. So the architects have a very difficult task, very important, namely precisely to ensure the continuity of energy between the grandstand and the stage, this is their job, their invention, their art. This report should be ensured, as a given mathematical data. On the other hand, architects must take into consideration the needs of the contemporary theater, which is evolving. They must think of this dynamism, not as a final form.

Between the organization and the management

the subject of the relationship between architecture and theater is complex. The architecture has a client that he have to respond to ,he should produce a stable and secure system, a definitive form of a theater in a specific historical moment, it has to be simultaneously the point of arrival and mediation of various guidelines ; artistic, political, economic, social , lifestyle, fashion and taste. Theater and architecture are an irreconcilable relationship from one hand, the artist’s looks for something new, a theater which does not exists, from the other architects must plant something that will remain unchanged over the centuries

The Noir Pavilion of Rudy Ricciotti

A dance laboratory France

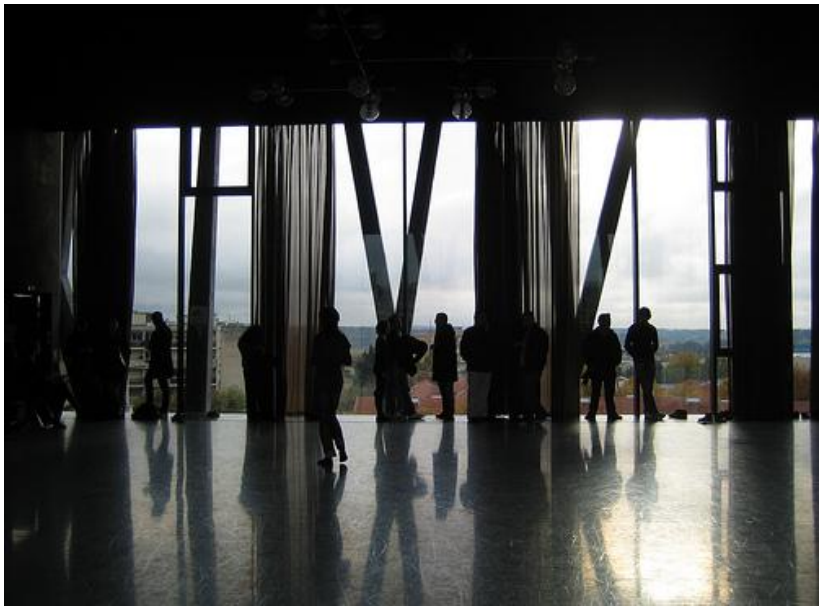
Rudy Ricciotti designed the "Black Flag" theatre in Provence, France in 2006. Winner of the Grand National Prize for Architecture, Ricciotti's design has been described by Angelin Preljocaj (dancer and choreographer) as "a frame of iron and concrete dressed in a skin of glass."

The Noir Pavilion of Rudy Ricciotti

The cube contains contemporary dance which is reflected in the exciting structure, exposed structure that give the possibility of glazing inside.
The black concrete bars encasing this performance and rehearsal space for the Ballet Preload are meant to evoke dancing and movement. Called the Pavilion Noir—"the black pavilion"—the minimalist structure opened in 2006 and was a finalist for the Mies van der Rohe Award the following year. The building's glass exterior provides glimpses of dancers at work in the studio.
“I am opposed to the opacity of the workplace where the work is dance: for me there must be a total porosity between the environment and choreography creation”. Rudy ricciotti

This is why the Noir Pavilion is a totally transparent place with a visible structure containing glass that forms a permeable membrane between the outer space, the urban space, and the dancing space. Perhaps it is assort of Supplying Power for the dancers, the most urban art in the world, or because of that movement is a strong urban feature and dance works a lot on movement and space. It is important to be connected directly to the contemporary modern life and this is way it needs to be in the heart of the city and not isolated in peripheral areas. People who are walking down the street can see the dancers while they try or

workout on the bar. Regard to the aesthetic and the architectural setting of the building, also its relations with the context, Ricciotti has succeeded to have a strong sign of artistic.



The Noir Pavilion of Rudy Ricciotti from the inside

The Noir Pavilion of Rudy Ricciotti structure

3 thousand square meters on 8 levels containing 4 dance studios and a 378 seat theatre with a 17x15 meter stage. This challenging project was built on a tricky site: a very narrow lot bordering on a big flight of stairs, in a seismic zone with a water table emerging close to an underground theatre - all on a very tight budget! Not an easy task, especially considering that theatre is close to a noisy railway line. For these reasons the architect decided to build a structural facade in which

cement and glass are the key materials. Blackened concrete branches form a design on the facade, but their layout is essentially determined by precise calculation of the building's structural and stability requirements.
The branches make the resulting composition dynamic, arranged vertically in some places and diagonally in others, with the addition of big glass windows looking out over the building’s interior and its surroundings. By night, the contrast between the transparency of the glass and the black cement creates a particularly evocative image for the Pavilion Noir, with a weave of pillars and girders that seem to want to protect and preserve the interior. The building lets people see what it happening inside, emphasizing the spectacular nature of the activities it hosts.

As a strong urban and architectural proposal which replies to the functional requirements specified in the program. In this sense this is a masterpiece of architecture, including quality of space, the function and also on the constructive plan.
The idea that the structure is outside it allows having free space.
The proximity between the theater and the rehearsal rooms allows a continuous monitoring on the scene, on the research and the representation.

The Pavilion serpentine
Toyo Ito

it has been built in three months in the garden of Kensington in London.
It has a surface of about 300 square meters, opened on the outer covers an area of Exhibitions meetings and a small Cafeteria.
Like before, the architect experimented with the light aluminum material and he was trying to add a certain transparency to his work, which has been a very important aspect in his career over the last few years.
The structure moves away from orthogonal system, including a sort of grid of beams made of 550 mm wide and flat irons of different widths.
These elements of factory-assembled modules of limited size have been brought and bolted in the constriction site.
At first glance, the structure appears random, but in truth its determine by an algorithm derived from the rotation of a square.
Each piece has a supporting role and at the same time to absorb vibrations so that all the elements are combined to form a complex and interdependent.
The structure is covered with metal and glass plates that form a geometric aspect.

The Pavilion serpentine, Toyo Ito

The sides of the polygons follow the lines of the structure and join up to form

shapes that do not underline or hide the structure.
The lines can not be reduced to simple architectural elements, windows or walls, but they seem pretty decorative elements.


The Pavilion serpentine from the inside, Toyo Ito

The idea was to make visible the architectural relatively basic system, without being rational or uniform.
From this point of view of the Pavilion Serpentine is without doubt a success thanks to the possibility' of unlimited expansion of this abstract image, and the appearance of a square white box, expression of a complex and pure system at the same time.

The project

The project occupies the entire lot. The complex is revolved around a rectangular square which is lowered by 5 meters below the street level surrounding it, creating a safe and protected place for public use. The square occupies 7000 mq The square is surrounded in 3 sizes by built units of different use in the underground level as well as on the surface level. On the north side the square is open towards the Julio Prestes train station with a big sized stare case.
From the stare cases the public can have a good look of what is going on insidee rehearsal rooms.
In addition to the stare case I have located a wide ramp that continue the direction of Duque De Caixas Avenue connecting it to the Luz Station and other important public facilities in that same direction maintaining the continuity.

The design floor is made of geometric pattern consisting grid of 5m and 10m, suggesting stability that is confirmed by the complex articulation of the buildings perimeter.

In the underground

- The building which hosts the small auditorium has a rehearsal room with stalls (700mq).
- An exhibition space with 1300 mq including bathrooms. The exhibition room is open towards the square showing the inside space.
- The administration is connected to the exhibition space and on the second floor to the small auditorium(700 mq).
- Foyer - big auditorium for 1200 seats, dressing rooms and storerooms.
- Foyer – small auditorium 300 seats

In the ground level/street level

- Two rehearsal rooms (400 mq each) with one side made interlay of glass towards the square.
- Two floors music rehearsal room (200 mq) class room.
- Administration with the entrance towards the main street.
- Class room of 200mq
- Small auditorium for 300 seats, with a big window behind the stage showing the show to the square.
- Physiotherapy rooms connected to the lodging built next to it . (230 mq)
- 3 floors student dormitory, lodging for 45 students each one with 15 mq

In the +5 level second floor

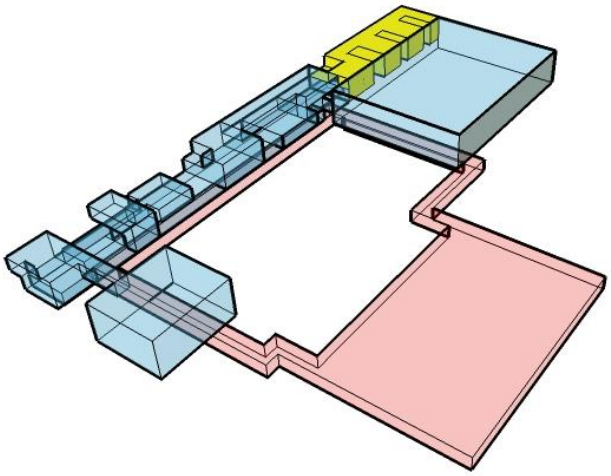
- A big Library of 1000 mq facing the square.

The Leaning “boxes” on the street level are connected one to anther creating transition spaces for the people living or using the complex.

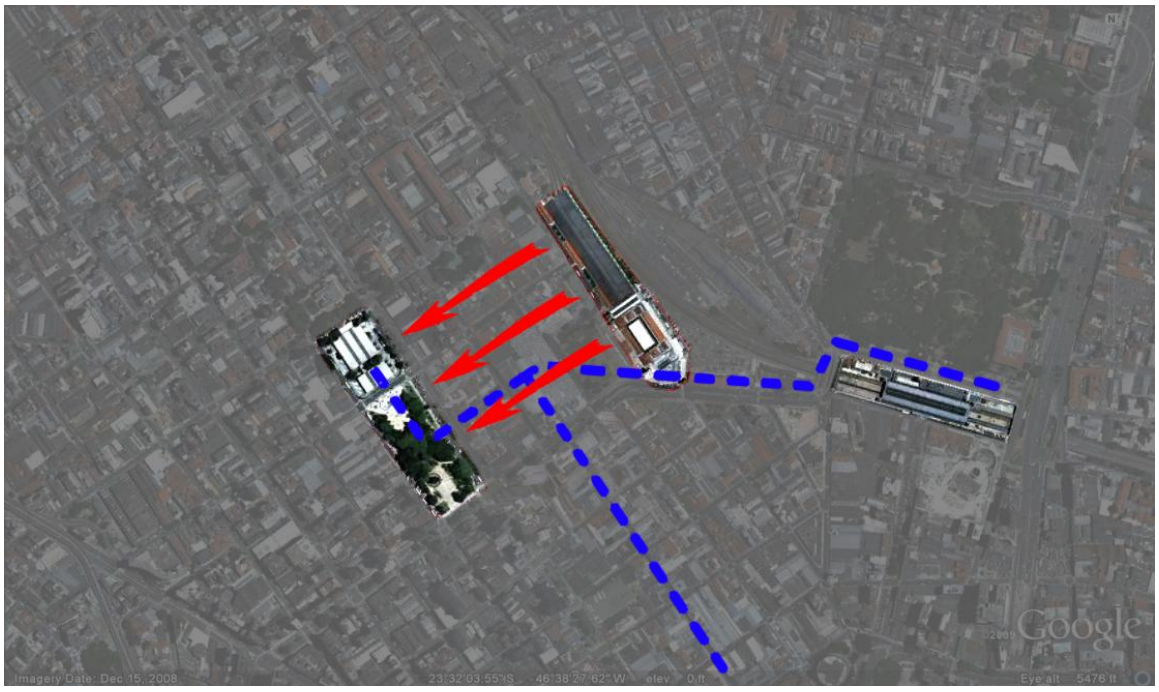
The view form the square allows the possibility to get a close and have a look of what is happening in the public space between the buildings.
The “boxes” sticks out in different distance creating movement inside the complex breaking the linear form of the square.

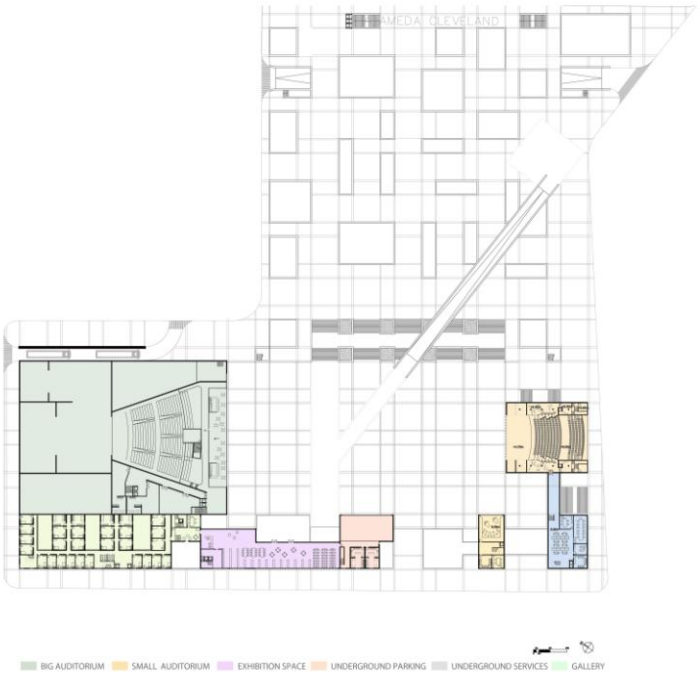
The boxes are Equipped with giant internal windows overlooking it towards the square in the idea of giving the public a glimpse on the inside of the rehearsal rooms.

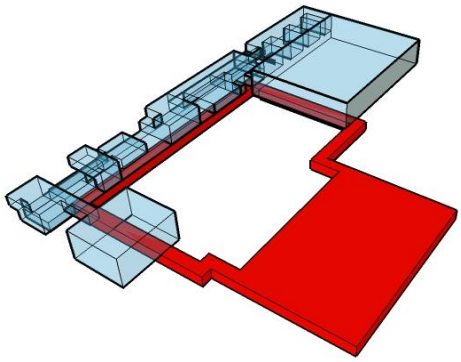
The project main features are the volume sized “boxes” hosting different function. The




Imagery Date: Dec 15, 2008
Google
Eye alt 476 ft


Google
Imagery Date: Dec 15, 2008
23°32'03.55"S 46°38'27.62"W elev 0 ft
Eye alt 5476 ft


BIG AUDITORIUM
SMALL AUDITORIUM
EXHIBITION SPACE
UNDERGROUND PARKING
UNDERGROUND SERVICES
GALLERY



Linked Hybrid / Steven Holl Architects .Beijing, China

Linked Hybrid planimetry

Linked Hybrid, aims to counter the current urban developments in China by creating a new twenty-first century porous urban space, inviting and open to the public from every side. Filmic urban public space; around, over and through

multifaceted spatial layers, as well as the many passages through the project, make the Linked Hybrid an “open city within a city”. The project promotes interactive relations and encourages encounters in the public spaces that vary from commercial, residential, and educational to recreational. The entire complex is a three-dimensional urban space in which buildings on the ground, under the ground and over the ground are fused together. which will house 2,500 people in 700 apartments covering 1.6 million square feet, is a model for large-scale sustainable residential architecture.

bibliography

Antonucci, Denise. Urban morphology and urban legislation: a study of industries and neighborhoods in the city of Sao Paulo in the period 1972 / 2002. " Doctoral Thesis, advisor Professor Maria Cristina da Silva Leme. College of Architecture and Urbanism, University of São Paulo. São Paulo, 2005.
BIDERMAN, Ciro; Grostein, Dora Marta; MEYER, Regina Maria Prosperi. São Paulo metropolis. São Paulo, EDUSP / Printing Bureau of the State of São Paulo, 2004.
BOTELHO, Isaura, FREIRE, Carlos Torres. "Equipment and cultural services in the central region of Sao Paulo." In PMSP / EMURB. Paths to the Center: development strategies for the central region of Sao Paulo. São Paulo, EMURB; Cebrap / CEM, 2004. p.159-182.

COMPANS, Rosa. "Interventions recovery of urban centers: national and international experience here." In PMSP / EMURB. Paths to the Center: development strategies for the central region of Sao Paulo. São Paulo, EMURB; Cebrap / CEM, 2004. p. 24-60.
Filho, Nestor Goulart Reis. Sao Paulo and other cities. Social production and degradation of urban spaces. São Paulo, 1994.
GALVANESE Horacio Calligaris, PINTO Mauricio Faria. "Upgrading the center of Sao Paulo - Cultural Corridor Project." In Castilho, A. L. H., VARGAS, H. C. Interventions in urban centers. Objectives, strategies and outcomes. São Paulo: Manole, 2009. p. 103-129.

- Text written by felipe on Apr 13th, 2010, via Papo Architect http://www.bing.com/images/search?q=S%C3%A3o+Paulo+herzog&FORM=IGRE&qpvt=S%C3%A3o+Paulo+herzog#focal=baf59b8c613c0e352bf1c369ff720269&furl=http%3A%2F%2Fwww.papodearquiteto.com%2Fwp-content%2Fuploads%2F2010%2F04%2Fjacques-meuron-maquete-500x291.jpg

1-2 Piano, Renzo. Architettura & Musica. (Milano: Edizioni Lybra Immagine, 2002) 27.
3 On Tour with Renzo Piano. (London; New York: Phaidon, 2004) 253.
4-5 Piano, Renzo. Architettura & Musica. (Milano: Edizioni Lybra Immagine, 2002) 28.
6 Giovannini, Joseph. “With the CITY OF MUSIC in Rome, Renzo Piano Sets Out Transform Frayed Urban Fabric Into New “Connective Tissue” (Architectural Record Oct. 2003) 121.

Giovannini, Joseph. “With the CITY OF MUSIC in Rome, Renzo Piano Sets Out Totransform Frayed
Urban Fabric Into New “Connective Tissue” Architectural Record Oct. 2003: 116-123
Metamorph : 9. International Architecture Exhibition. New York, NY: Rozzoli Intrnational Publications,
Inc., 2004. 62.
On Tour with Renzo Piano. London; New York: Phaidon, 2004.
Piano, Renzo. Architettura & Musica. Milano: Edizioni Lybra Immagine, 2002. 27-29.
Piano, Renzo. On Tour with Renzo Piano. London; New York: Phaidon, 2004. 253.
Pizzi, Emilio. Renzo Piano / Emilio Pizzi. Basel; Boston: BirkhäUser, 2003. 106.
Renzo Piano Building Workshop. HumlebæK, Denmark: Louisiana Museum of Modern Art, 2003. 106.
Goodwin, Tim (1988), *Britain's Royal National Theatre: The First 25 Years*. Nick Hern Books, London.
Callow, Simon (1997): *The National: The Theatre and its Work, 1963-1997*. Nick Hern Books, London.

http://www.frommers.com/destinations/newyorkcity/A24018.html#ixzz10ZrPFrjh

http://www.aviewoncities.com/nyc/rockefellercenter.htm

Buildings for the performing arts .a design and development guide, Ian Appleton. Second adition 2008