

ENGLISH

English translation by **Paula Olmos**

SANTANDER SEAFRONT: PROJECT FOR THE PRESERVATION OF THE PEREDA WALK AND THE CASTELAR ST.

The project of history versus the project of reality

Bernardo Yzenga Acha

In 1985, the Pereda Walk and part of Castelar St. were listed and included in the Historic-artistic heritage catalogue. This was the culmination of an initiative encouraged by the College of Architects from 1980. In spite of its legal obligation, the town hall did not elaborated a Special Plan until 1995, ten years later. The present article is based on the contents of the mentioned Special Plan.

Most of the urban history of Santander is related to its shore: its changing relation with the Bay waters. It is not a linear, continuous history, without gaps or breaches. There was no really a basic urban idea underlying the diverse historical operations. We just have isolated chapters, some brilliant, some erring, which marked the creation of the city's "seafront". It is a discontinuous, uneven front, made out of juxtaposed fragments, all of them with their own logic, referred to their particular origin.

We will not take advantage of the article to relate the history of the city's South boundary, its maritime boundary. We will not narrate the specific story of each piece in it. But we must mention the origins.

In the beginning, there was a city, a modest, artisan city with a maritime district to the South, located along the steep slopes of a small hill, "la Peña", which bore the Cathedral. Dedicated more to shipping and fishing than to commerce, the city was sustained by its small port, located near the Cathedral's Choir.

When Seville lost its monopoly over transatlantic trade, Santander could begin to exploit its new horizons: towards the hinterland, the sea of Castilla, and towards America. The tiny old port was now too small, it was not adequate for the shipment and loading works. The city was suddenly "old". The new commercial and administrative bourgeoisie did not find this urban context fitting enough. They needed a new symbolic and functional architectural environment for their own self-recognition.

Towards the middle of the 18th century, the city, or better part of its citizens, began to demand a urban planning process aiming at the creation of an expansion modern district. The first project was completed in 1765. The last one, which is more close to the really built structures, belongs to 1821. Just sixty years, in a city which was not a rich one, to create a new space. Not very large but rather significant and influential.

To the East of the city and the port, towards the Bay mouth, a new and deeper dock was built, a linear and modern construction which was possible thanks to a dredging programme, because the slopes were not an acceptable support. Along the dock line, a new area for the management of goods. And also a new urban front with a facade over this dock. A really

European style facade with compact blocks combining warehouses, retail facilities and housing. Behind this facade, just the necessary blocks to define some public spaces, the market, the square. Most of the buildings were erected during the second half of the 19th century, more than 100 years ago. Those facing the sea form the facade of what was the Muelle St. and is today the Pereda Walk. Santander had a new architectural image. Not just a new appearance but also a new substance.

The urban operation affecting the port, of which the Pereda Walk is just the fair face, was a seminal gesture. It was an act of recognition and assurance of the city's new identity. It was, no doubt, the first clear differentiation of Santander, a Cantabrian city, from Castilla.

Posterior operations enlarged this seafront towards the East, creating a facade, with no rear district, which included the mouth of the future Castelar St., just by Puerto Chico (Baby Port).

Architectural Type and appearance

Although the idea was to create a new "space without a past", we can mention some clear precursors to Santander's first expansion. Its urban, dense and orthogonal grid, with compact but relatively small blocks, is rather similar to that of Lisbon, created by the Marquis of Pombal after the 1775 earthquake. We can perceive the echoes of the Baroque modes though mollified by the Northern taste. The first blocks erected appear as isolated and representative buildings more than private and communal fragments of a city. Their demeanor was more taken into account than their organization or function.

The expansion's success modified this initial approach. The first houses, 18th century blocks with their shop and storage room, built with "the best materials" (stonework, brickwork, oak and roof tiles), were subsequently transformed into or replaced with new structural types more close to the community housing block. New floors were raised, the fenestration was increased, the facades modernized with balconies and bow windows, the different floors specialized, and the internal arrangement modified in order to accommodate generous staircases and skylights. In any case, these operations, in spite of their diverse style, did not affect the high quality of the district. This condition was maintained even in the blocks erected during the present century which prolonged the city's seafront.

But a few years of "desarrollismo", made the seafront forget its origin, its symbols and its former status. The "sixties" were terrible. Without the least regard for their neighbors, new and higher in-fill blocks began to break the seafront skyline.

Gradually forsaken by the old bourgeoisie



and neglected by the new one, the buildings of the expansion district began to decay and receive slight and not so slight architectural attacks. The commercial ground floors were abandoned, the roof terraces, occupied by new constructions. The facades were capriciously modified. In a rather timid way in the beginning and most outrageously as the transformation proceeded. The interiors were devastated. Its logic and use ravaged. Great flats were divided into tiny lodgings. The skin and the profile of the buildings felt the pressure of all these changes. The process was completed with replacement operations undertaken without the security net of a solid culture.

The project of history versus the project of reality

In any case, the old dame, preserved much of her humiliated dignity. These old buildings, somehow humbled but still erect, need more care than surgery. The new Special Plan would provide it.

The key point was to understand the whole district as a built object, as a complex piece of architecture.

The main aim was to overlook decay and go back to the origin. A careful research work in the archives, discovered the authors and building processes of many pieces. We could count on the original projects. So we almost attained the real original "project" of the whole thing, the project of the Pereda Walk, and its subsequent transformations.

Most of it had been originally designed by different hands but with similar aims, for a similar clientele. It was possible to identify some common features. The initial severe forms, the quality marks identified with certain materials and certain structures and the coherence of the first transformations revealed significant keys for the interpretation of the whole. The original object was rather respected in the first refurbishment works, whose functional and ornamental features were rather coherent with the preexisting structures. Latter modifications were not so careful.

The visible reality differed from what our archives revealed. Not the volumes, but the details. The "real object" was not anymore the designed object reflected in the historical documents. It was necessary to undertake a detailed comparison of both. We needed the "project" of reality.

After trying several modes of representation, in an attempt to find the adequate graphic tools to maintain a neutral and aseptic position towards the objects

represented, we undertook the detailed drawn reconstruction of the built reality in the way of a new project. Each facade belonging to each block was drawn at the same scale and, thus, the Special Plan revealed the "real project". The result was an homogeneous representation of an heterogeneous reality.

The solution to our problem would be in the comparison of both projects, the historical and the real one.

Preservation and refurbishment: a (partial) transformation project.

To preserve: protect what exists, avoid future attacks. To refurbish: recover the use of what is not useful anymore, including the destruction or transformation of what made it useless. That was the main aim of the Special Plan, not the only one but the basic one.

Taking in account the historical common features of the buildings, their common composition, architecture, construction, dimension, ornamentation, figuration etc... the different facades of the diverse houses and blocks were analyzed as individual designs, identifying and listing their particular elements. These were classified as: characteristic, integrated or inappropriate.

Meanwhile, the different works and modifications proposed were also regulated and classified into recommended and/or feasible. There was a kind of conceptual bridge drawn between these two categorizations.

The project would have been deficient if it would not had included the surrounding spaces, the non-volumetric elements. That is why we also dictated a new exterior urban design and furniture for both the Pereda Walk and the Castelar St., hoping that our proposed image would affect and transform the reality.

The final result of all this careful research can be considered a partial transformation project: a project because it identifies the necessary works, partial because it cannot cover every possible beneficial transformation nor can it assure the effectiveness of its proposals.

A somewhat bittersweet project, probably efficient for future preservation purposes, probably too impotent to guarantee refurbishment. The support of the Town Hall, creating a funding and management programme to encourage the necessary cleaning and restoration works on the facades, is not enough. That is just act on the skin, the architectural epidermis. It is good but more than that is needed.

An architectural project, a feasible project,

must be designed with the idea of making it real. It needs a concrete location, a concrete time and grounds. In order to become a reality, it needs a client, a person, a social group, a public or private institution who orders it, assuming the project's grounds. A feasible project does not want to be a mere possibility, just partially realized, according to the interests of a real estate market which is, most probably, hostile to it. A refurbishment project does not want to be a compulsory tax, for those who really want to do another thing. It wants to become a positive statement. In relation to these facts, we must distinguish different parts and groups in our area.

The first one includes the more or less recent housing blocks which are being currently and undisturbedly used that way. These bear no contradiction. This group does also include some singular cases of buildings, as the Santander Bank, which either maintain their original use or have been subject to a careful and coherent refurbishment that has adapted them to a new institutional function. For this group, the Special Plan means to be effective in the future. But there is not much to do about the past. There are not enough resources to guarantee the recovery or transformation of their "inappropriate" elements.

The second group includes the buildings or parts of buildings, specially upper floors, which are not liable to maintain their original residential use and which are currently being occupied by the tertiary sector. Their situation cannot be completely controlled but normally, the scale and needs of the new uses are rather compatible with the former structures and the requirements of partitions, ventilation, lighting etc... tend to be less demanding and therefore easily answerable without drastic

transformations in facades and roofs.

We can even affirm that, as this kind of functional change tends to increase the market value of the buildings affected, it is usually possible, in this kind of operation, to support the restoration and refurbishment works aiming at the removal of the inappropriate elements. If it is well managed, the Special Plan can be rather effective in these cases.

But there is a third group which is almost untouchable. Buildings in which the current residential use is being replaced by a lower scale residential use: flats divided into apartments, complete floors fragmented into tiny lodgings. In this group, a rather abundant one, the Plan must work against the current. This kind of transformation implies in itself an "inappropriate" architectural approach. The old demagogic polemic will be invoked: the Plan is a hindrance, stops the initiative, etc... The discussion will be terrible (or the results sad) if the cause is not stopped, if we do not frustrate this inappropriate changes and replace the old functions with others more convenient to the characteristics of the buildings we want to preserve.

We will have to face this problem in the historical seafront of our expansion district, and also in other areas not affected by the Special Plan.

The true refurbishment of such a significant architectural unit, must go far beyond the preservation or recovery of its mere appearance. It is not a question of look. We must recover or either invent specific and coherent contents for our urban blocks, our architectural pieces, in their own environment. We must make this proud symbol proclaim its pride in being what it is, in having such origins, in bearing such significance. We must recover sensible architecture and forget about consumption building. ■



the area which left the residential city, to the South, somewhat abandoned.

The development of this urban-port space during the twenties determined the destruction of the San Cristobal Castle, the main citadel in a defensive system which had been progressively absorbed by the port facilities and of which we have slight but valuable vestiges. It did also result in the creation of the Plaza de España, a real gateway from the sea, just by the Plaza de La Candelaria, the historical meeting point with the city.

The extension, during the thirties, of the primitive main dock and the construction, during the sixties, of a new commercial wharf towards the South, creating a 360x120 m esplanade just by the "Plaza de España" (the connection wharf) implied the complete congestion of the city's seafront, now occupied by the port facilities.

As it has happened with other historical ports, the changes occurred in the maritime transport systems has resulted in the dereliction of certain areas. Either because of their scarce depth or the lack of space. These abandoned areas become a real no-man's land, with a marginal usage, and need a urgent transformation to make them compatible with their urban surroundings; in this case, an expensive and stylish district with a highly developed commercial and services area.

These were the circumstances when the Port Authorities decided to act. The main aim was to ensure the expansion of the city towards its lost seafront while maintaining the port activity in both wharfs. There was also a clear intention to make the whole urban operation economically feasible by reserving significant spaces for commercial and recreational uses, offices and hotels. The port authorities decided then to organize an international competition by invitation issued to several renowned architects and urban planners.

So, during the month of July 1997, once the competition brochure devised, the institution summoned:

- Arata Isozaki & Associates (Japan)
- Office for Metropolitan Architecture. O.M.A. (Rotterdam)
- Foreign Office Architects Ltd. (London)
- Herzog & De Meuron Architekten (Basel)
- Cruz y Ortiz Arquitectos (Seville)

who, after learning about the competition regulations and aims, decided to accept the offer.

The competition was designed to select, from the different entries, the most appropriate proposal, in order to use it as a reference for a

future masterplan which should dictate the arrangement of a platform, owned by the Santa Cruz de Tenerife Port Authority and located in this same Santa Cruz de Tenerife Port (Tenerife, Canary Islands), extending from the maritime station of the Anaga Dock to the mouth of the Barranco de Santos, in the Los Llanos Dock, known as Connection Wharf.

The competition entries should include solutions aiming at the integration of both port and city, coordinating the necessities related to the port activities (accesses, road connections, service byways -heavy vehicles traffic-, substructures and facilities, nearby docks -with diverse functions-, passengers terminal, shipment and landing, loading and unloading etc.) with the opening of the city towards the sea (Anaga Av., Plaza de España, Maritime Av.). The means employed would be the succession of adequate spaces occupied by leisure, entertainment and retail facilities, connected by pedestrian and car routes, and diverse open spaces. All these elements should contribute to the urban arrangement of the future maritime front of Santa Cruz de Tenerife.

The brief did also establish that the Jury would evaluate the integral solution: the connection with the urban fabric, the spatial and architectural quality, the transition between the city and the sea, the quality of the designed facilities and open spaces, the logic and clarity of the general arrangement, the precise and correct solution given to the port specific requirements, the rational organization of the diverse traffic currents - pedestrians, cars, light and heavy duty vehicles, parking lots -, the technical and economical feasibility, the self-coherence and future commitment of the works submitted.

During the following months and until december 1997, the teams received ample information, both technical and administrative, about the work which they were expected to carry about. Representatives of each team could visit Tenerife and were received by the competition authorities in order that they would identify the site and the circumstances of the area, clarify any doubt and learn about the aims and hopes of the city.

In June 1998, as it was stipulated by the competition schedule, the Port Authorities admitted the works handed by all the teams, except the Arata Isozaki and Associates one who declined to take part for internal professional reasons and lack of time. The works submitted included, according to the competition brief, both graphic and written documents and also scale models of the different proposals.

Santa Cruz de Tenerife's connection wharf masterplan competition

The port authorities at Santa Cruz de Tenerife supervise all the general interest commercial docks, that is, the Estate port network, within the West Canary Islands, including the Santa Cruz de Tenerife, Los Cristianos, Santa Cruz de la Palma, San Sebastián de La Gomera and La Estaca ports. They must manage the territorial development of the docklands and solve the problems which appear in the contact area between these old ports and the modern cities born around them, as a consequence of their own activity and strategic position; usually the capital cities of each island.

In the case of Santa Cruz de Tenerife, the port of a capital city to the whole province, the mentioned contact occurs along a 10 km. seafront in which the deep waters, the abrupt profile and the dense traffic (13 millions of tons and 1.5 millions of passengers a year) establish rather characteristic and difficult conditions.

The problems derived from the mere activity of the port, the necessity to protect the security of the area, the frontier character of the site, with all its police and customs control, the dense traffic of both people and goods, the pressure derived from the real estate development within the city, the concentration of the administration services (a consequence of its being a capital city), all result in the formation of a maritime line which is a congested center of all kind of traffic and activity. A fact which, in urban planning terms, has restricted the civil use of the only maritime front of the city.

The "Plaza de la Candelaria" was the historical meeting point between the sea and a city which precisely grew out of this same spot. It was also the meeting point for the diverse port traffic currents. The presence of the docks, located to the North, fostered a kind of commercial and administrative development of

Following the established schedule, the jury was summoned on the 8th of July 1998. The members were:

1. Honorable Mr. Luis Suárez Trénor, chairman of the Santa Cruz de Tenerife Port Authority as Presiding Member.
2. Honorable Mr. Adán Martín Menis, president of the Tenerife Isle Council.
3. Honorable Mr. Miguel Zerolo Aguilar, Santa Cruz de Tenerife Mayor.
4. Mr. Manuel Fernández del Castillo Massieu, Civil Engineer, Manager of the Santa Cruz de Tenerife Port Authority.
5. Mr. Jacques Hondelatte, architect, Grand Prix d'Architecture de France, replacing and representing Jean Nouvel, architect selected by the Port Authority.
6. Mr. José Luis Mateo Martínez, architect selected by the contenders.
7. Mr. José Ramón Navarro Vera, Civil Engineer, replacing and representing Mr. José Antonio Fernández-Ordóñez, from the Civil Engineers College.
8. Mr. Ramiro Cuende Tascón, architect, representing the Tenerife section of the Canary Islands College of Architects.

Mr. Virgilio Gutiérrez Herreros, architect selected for the purpose by the Santa Cruz de Tenerife Port Authority, acted as secretary, being the institution's advisor in all the competition matters. The architects Mr. Francisco González Reyes and Mr. Arsenio Pérez Amaral were also present as translators.

There was a public presentation of the different entries performed by the contenders themselves in front of the jury. The order was as follows:
Wednesday, 8th of July, 1998:
17:00 p.m. - Office for Metropolitan Architecture, with the presence of Rem Koolhaas and Joshua Ramus.
19:00 p.m. - Cruz y Ortiz Arquitectos, with the presence of Antonio Ortiz.
Thursday, 9th of July, 1998:
11:00 a.m. - Herzog & De Meuron Architekten AG, with the presence of Jacques Herzog and Christine Binswanger.
13:00 p.m. - Foreign Office Architects Ltd., with the presence of Alejandro Zaera and Farshid Moussavi.

The first award was for HERZOG & DE MEURON "because their solution complied, in a very satisfactory way, with the competition requirements. For their correct interpretation of the problems and needs of both the city and the specific area of the competition, and for their clear, powerful and flexible arrangement proposal".
The Jury did also mention the interest of the other works submitted, pointing out the following aspects:

FOREIGN OFFICE:

"We estimate the precision and the quality of the work as a whole, as well as the contents and formalistic approach to the articulation between the city fabric and the port space. We must mention the extensive use of green spaces as a means of organization and the offering of interesting ideas about economic management and feasibility of the operation. This Jury recommends the Public Administrations to

invite the team to take part and collaborate in the development and transformation of the future maritime front".

OMA:

"We must appraise the integral urban concept of the solution. We specially estimate the proposal included in the project under the name "Bar Code", for the area of the Los Llanos Dock".

CRUZ Y ORTIZ:

"We find a laudable respect for the port significance. A simple solution which is

precisely based on the idea of the port as a human work. A flexible proposal with a high architectural quality".

Jacques Hondelatte, José Luis Mateo, José Ramón Navarro and Ramiro Cuende Tascón, all members of the Jury, congratulated the Santa Cruz de Tenerife Port Authority for the exemplary organization of the whole procedure and the uncommonly correct approach it had showed to solve the problems of a usage change in this kind of seafront spaces. ■

Maritime traffic control towers

Maritime Rescue Plan (1994-1997)

In 1994, the Ministry of Public Works, Transport and Environmental Issues, devised the "National Plan of Special Services devoted to the Rescue of Human Life in Sea and the Fight against Contamination in Maritime Areas". The plan had the following aims:

- Coordinate the operations of the diverse groups currently working in searching labors, rescue of human lives and fight against contamination in maritime areas. These were being controlled by the diverse local and national public administrations and private institutions.
- Organize a new system for the control of maritime traffic, covering the whole Spanish coast, by means of the establishment of new Regional and Local Coordination Centers.
- Improve the existing means assigned to rescue and anti-contamination operations and train the specialized personnel in charge of the coordination and management of both searching and rescue operations and anti-contamination maritime campaigns.

This plan included a new prevention system aiming at offering a rapid response in case of any incident related to maritime rescue or anti-contamination operations. Among other aspects of the plan, we must mention:

- The creation of a new net of local and regional rescue centers, under the supervision of a National Coordination Center for Maritime Rescue.
- The basic functions of these Maritime Traffic Control Centers for the Coordination of Rescue and Anti-contamination Operations are:
 - Vigilance and Prevention of maritime accidents.
 - Vigilance and control of maritime traffic.
 - Coordination of Maritime Rescue plans.
 - Control of and fight against maritime contamination.
 - Control of maritime activities and port emergencies.
 - Maritime security notifications to the local fleet.
 - Information and support to Maritime Administration or other public or private institutions.

Among the many Rescue Coordination Centers built from 1994, we must mention those

designed by Luis Serrano Castañer in Gijón, Valencia and La Coruña, and those by Luis del Rey in Algeciras and Almería.

GIJÓN

Architect: Luis Serrano Castañer

Client: General Bureau for Merchant Marine
Contractor: UTE. Ferpi-Peninsular de Contratas
Consulting Team: Estudio Integral de las Artes, S.L.
Location: Breakwater No. 2, Musel Port, Gijón.

On the 30th of September 1993, H.M. the King of Spain inaugurated this building, erected in a record time with the most advanced technology. With a clearly symbolic design, it aims at representing the hope of the people of Gijón and the whole province of Asturias in a splendid and vigorous future built over a present rationality.

Three rational, orthogonal floors accommodate the Captaincy and create the socle of a 62.5 m. column crowned by a futuristic body with a 6 m cantilever. This column houses the maritime rescue coordination rooms equipped with the most sophisticated and modern systems.

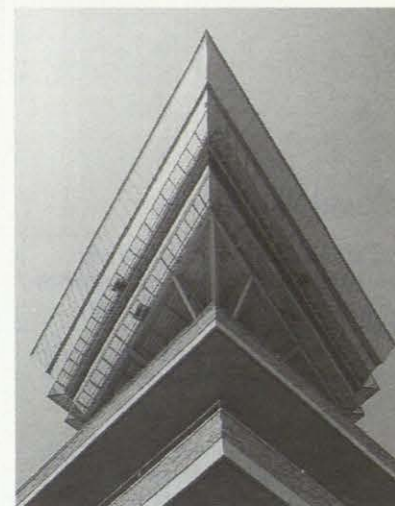
The large cantilever elements talk us about projection towards the horizon, openness towards life, weightlessness, to break with the quotidian bounds, the constraints to imagination.

The head-body presents a North-East orientation (aligned with the dominant winds and drawing the geometric axis of the Gijón port). Thus, it ensures the visual control of any movement taking place not just in the immediate maritime area but also out at sea. From La Coruña to Bilbao, within a radius which encompasses the Nordic countries.

The cylinder, which encloses the vertical communications system of the whole building, is also an structural element which absorbs the stress produced by the wind forces hitting the upper crowning. Its core is void and presents two openings at each level. It also contains the necessary services and facilities of the building.

The front part of the building is dedicated to communications and technology. The rear one is opened towards the port and the city's population.

The panoramic elevators, interior staircases, emergency stairs and the different



accesses to the building provide it with a certain functional and industrial aesthetic which makes it match in a perfect way with the Musel Port.

Systems and Materials

The building's general structure is made of reinforced concrete, protected with a priming and two epoxy based paint coats whose color matches with the visual environment.

The lower floors are enclosed by concrete block masonry walls (split type).

The glass used here is double 6+8+6 glass with a reflective layer.

The upper floors have glass walls with double 12+8+10 glass with a tempered reflective outer layer (12 mm.), a gas cavity (8 mm.) and a thermic inner layer (10 mm.). The glass is provided in trapezoid sections, which converge towards the structural shaft's maximum momentum point.

The roof is a sandwich board surface with an outer skin of galvanized pre-coated sheet finished with an epoxy based paint coat. All the metal exterior elements, railings, emergency stairs and exposed structural members present this same finish.

VALENCIA

Architect: Luis Serrano Castañer

The simple programme of this building, erected in a large site inside the Valencia Port precinct, allows the use of basic criteria such as the economy in its design. So we have tried to devise a high performance building with a small budget, trying to obtain from the architectural process, a kind of visual synthesis of the Mediterranean spirit.

The Mediterranean was the sea which allowed the spreading of the Western culture. It was the melting pot in which the Cartesian rationality and the spirit of the seaside nations were combined. Mediterranean means rational, cheerful, ingenious and balanced.

We have a volumetric composition. A balanced mix of cubes, which will accommodate the different uses, is the basis of the spatial arrangement. The functions included in the building's programme are grouped according to their inter-relationships, defining clearly visible and separated cubes.

Inside the Captaincy and Control Center we can perceive the different treatment of each cube, although there are intermediate auxiliary zones which can alternatively serve each specialized area.

Functional Organization

Captaincy. It has three levels with large exclusive use areas and a small sector which can be shared with the Control Center.

Ground Floor.

Shared use: central vestibule; information desk and general security control with independent accesses to the Captaincy and Control Center.

Exclusive Use: main vestibule, maritime inspection area, maritime traffic area, general archive, toilets, services rooms.

First Floor.

Shared use: small foyer in front of the elevators which are basically serving the tower but which are also the disabled' access to the building's facilities.

Exclusive use: public foyer, captain's office, second captain's office, meeting room, secretary room, administrative area and



maritime security and contamination fighting area, toilets and services rooms.

Second Floor.

Shared use: elevators' foyer.

Exclusive use: multi-functional hall, offices, storage rooms, hallway and toilets.

Third Floor.

Terrace, air conditioning plant.

Functional Organization

Maritime Traffic Control Center.

Ground Floor.

Shared central vestibule; independent foyer, elevators, heliport, rescue equipment storage rooms, dressing rooms and toilets.

Fourth Floor: elevators' security exit.

Fifth Floor: staff and maintenance services.

Sixth Floor: resting room, crisis and supplementary control rooms, toilets.

Seventh Floor: control room, offices, equipment, toilets.

Eighth Floor: terrace, glass-cleaning cable-cars, elevators motor room and plant.

Ninth Floor: elevators motor room terrace and plant.

LA CORUÑA

Architect: Luis Serrano Castañer.

The General Bureau for Merchant Marine organized an architectural competition by invitation for the construction of the Maritime Captaincy and Maritime Rescue Coordination

Center in La Coruña.

The "Estudio Integral de las Artes, S.L." consulting team was awarded with the first prize and commissioned to elaborate the project under the supervision of the architect Luis Serrano Castañer. The team contemplated a double aim.

They wanted to comply, in a faithful way, with the building programme devised by the General Bureau for Merchant Marine for the Maritime Captaincy and Maritime Rescue Coordination Center.

But they also wanted to design a real monument. A monument erected by the Merchant Marine as an homage to the many victims of maritime accidents all over the world and specially in Galicia.

In a time of architectural eclecticism and with the previously mentioned idea in mind, we chose the rationalistic approach as the project's leit-motiv.

Reason is the basic attribute of the human being. It aims at the classification, inter-relation and organization of concepts.

The building programme was therefore divided into two conceptual blocks which experienced a vertical development.

There is the Maritime Captaincy block, a public service, near the access and a raised rescue block, which is orientated to the men and women working out at sea. It is raised in order to dominate the horizon with the best possible visual control of the La Coruña shore.

There is the high speed elevators shaft which also accommodates high technology services, electricity and electronic ducts and the access and emergency staircase shaft, with the other services (water supply, drainage, air conditioning, fire protection etc...).

This functional arrangement suggested the structural organization adopted. Two vertical shafts support two prismatic blocks.

The Barrié de la Maza breakwater is a real material axis projecting the city towards the marine horizon. The building is located with the idea of reinforcing this horizontal axis by means of a vertical landmark.

So we already have the building. We just need a ground floor access body, facilities and an intermediate floor to connect all the services.

The two vertical shafts surpass the highest block and contain, at this level, the telecommunications aerials and equipment. The building is a large gateway connecting the ocean and the city of La Coruña.



ALGECIRAS

Architect: Luis del Rey

The building for the Maritime Captaincy and the Local Rescue Coordination Center (CLCS) in Algeciras will be located in a site called Saladillo, inside the port precinct.

The construction project includes both institutions as separate dependencies with different entrances and yet subject to the same control system.

The building programme for the Maritime Captaincy of Algeciras will be as follows.

The site is located inside the port precinct and is actually used as parking lot during the Strait Crossing Operation. There are just two entirely public access roads to it, as the rest pass through the port control system. So, we have designed a linear building in order to interfere as less as possible with the parking lot usage and selected, as main access, the most uncluttered road.

Both the Maritime Captaincy and the CLCS will have their own private parking space. There will also be a public parking lot and a protected heliport.

We have also devised independent ground floor entries for authorities from the Home Ministry (Civil Protection Corps) and the Foreign Affairs Ministry.

The construction of the Maritime Captaincy and the Local Rescue Coordination Center (CLCS) in Algeciras was dictated by the "National Plan of Special Services devoted to the Rescue of Human Life in Sea and the Fight against Contamination in Maritime Areas" (PNS), approved by the Government Council on the 11th of march 1.994 as part of the Rescue Centers Programme.

The Rescue Coordination Centers defined in the brief are classified into the following categories: National, Territorial, Regional or Local. The Algeciras center is a Local one.

The building is three storeys high except on its southern extreme, where the CLCS Tower is located. We have both tried to comply with the area masterplan and yet build a clearly nautical image. We have, in any case, two differentiated parts: the Maritime Captaincy, with its offices and facilities and the Rescue Coordination Local Center.

On the ground floor, level 0.00, we find the private parking and the auxiliary dependencies serving the different facilities within the building.

On the first floor, we have the main access, the Captaincy vestibule, porter's office, information desk, switchboard, open access office area, chief officer department, open access inspection area, chief inspector department, inspectors' offices, secretary, toilets, general archive and store.

There is also an independent gateway to the main vestibule of the Local Coordination Center.

On the second floor, we have the offices of the Maritime Captain, with his own waiting room, an administrative ancillary office and a meeting room. We also find the administration department for the navigation area, the Section Officer Bureau, archives and toilets.

The Maritime Captain offices and those of



the Center Main Authority, to the South of the building, are connected at this level.

And regarding the building techniques and finishes selected, we must say that we have tried to maintain the previously mentioned ideas. That is, we have chosen the diverse materials according to their chromatic appearance. The main body of the building is exposed concrete work with equally grey rendering.

The metal window frames will be anodized aluminum with a matt white finish. The remaining metal elements on the building facade will present a black Oxiron paint finish. The glass used throughout the building facade will be smoky, specially around the Control and Crises rooms.

ALMERIA

Architect: Luis del Rey

The building is located in the Eastern Dock of the Almería Port.

The General Urban Plan for Almería and the Port masterplan, determined its basic volume.

The construction of the Regional Rescue Coordination Center (CRCS) and the Captaincy in Almería was dictated by the "National Plan of Special Services devoted to the Rescue of Human Life in Sea and the Fight against Contamination in Maritime Areas (1.994-1.997)".

The building has a total built area of 2361.61 m².

We have designed, according to the urbanistic restrictions of the area masterplan, a linear building crowned by the CRCS Tower.

The building is three storeys high except on its southern extreme, where the CRCS Tower is located. We have both tried to comply with the area masterplan and yet build a clearly nautical image, with the extreme piece, the tower, facing the sea as a real giant "Figurehead". We have, in any case, two differentiated, though internally connected, parts: the Maritime Captaincy, with its offices and facilities and the Regional Rescue Coordination Center.

On the ground floor, level 0.00, we find the private parking and the auxiliary dependencies serving the different facilities within the building.

On the first floor, we have the main access, the Captaincy vestibule, porter's office, information desk, switchboard, open access office area, chief officer department, open access inspection area, chief inspector department, inspectors' offices, secretary, toilets, general archive and store.

There is also an independent gateway to the

main vestibule of the Local Coordination Center.

On the second floor, we have the offices of the Maritime Captain, with his own waiting room, an administrative ancillary office and a meeting room. We also find the administration department for the navigation area, the Section Officer Bureau, archives and toilets.

The Maritime Captain offices and those of the Center Main Authority, to the South of the building, are connected at this level.

The different storeys of the Regional Center accommodate the Crises Room, cabins, Control Room, Platform over the Control Room, Radar room and aerial level.

And regarding the building techniques and finishes selected, we must say that we have tried to maintain the previously mentioned ideas. That is, we have chosen the diverse materials according to their chromatic appearance. Thus, the building will be completely clad with a sand-colored stone which, at the socle level, will match with the breakwater blocks of the Eastern dock.



The metal window frames will be aluminum with a matt reddish finish. The remaining metal elements on the building's facade will be red coated. The glass used throughout the building facade will be smoky, specially around the Control room.

The outside paving will be hydraulic non-slipping tiles. The inner floor finish will be white Macael marble with the interior joinery and framing finished with a navy blue coat. ■

Ceuta Port maritime station

The Context

To the West, an immense void, where the world ends, probably in a legendary, mysterious and terrifying Great Abyss.

To the East, old Gods, old worlds, old times.

The "Fretum Septem", to the South, among the froth, the mist and the Sun, over the rocks, you can envisage a wall, parts of which are rosy, others golden and others of a dark and deep green, as the remains of the old serpentine stone quarry of Sarchal.

Ceuta, which has witnessed the campaigns of other men, the thinking of other days, the glories and defeats of other lands, contemplates now the progress of the 1859 Romantic War, the establishment of the Port Council, the opening of the Tetuan Railroad and the dictatorship of a simple "varas" corporal, Primo de Rivera.

In 1926, Franco, the chief of the africaners, takes a ship bound for the peninsula. The leader of the Rif, Abd-el-Kril, has surrendered and finished his campaigns in Ceuta... Africa was kept away, in Dessau, to the North, a School of Architecture was inaugurated.

The Base

The port is the space of engineering. The expression "engineering of a city", refers to a certain capacity to build a paramount technical space.

Ceuta port is a storage space built as a technological ocean. A structured net of channels creating the first indispensable web to cover and conquer a territory. The gateway for Spain to penetrate North Africa.

It is a space for provision, a fixed spot which will give place to a new spatial arrangement. A real city just for storage and transit.

There will be an engineer, a military engineer, dominating all these spaces.

The old citadel, fortified according to Vauban's principles forms a clear contrast with the linear image of the dock expansion.

The first means rejection, the other, shelter.

Once the cruel, unjust and useless North-African war ended, we can perceive a new figure emerging in the boundaries of the Atlantic desert. Ceuta port, as a post-war phenomenon, is part of the new scene, a structure attached to a city which tends to occupy the sea.

The port will be the city's first expansion outside the walls. Its largest and most dignified space. Its real High Street. Specially when, pompously ornamented with triumphal arches, adorned ships and portable altars, it would receive the king, Alfonso the 13th. He came in 1927, for the opening of the Southern Dock (10), as a thirsty man who thinks to perceive a source which is only real in his imagination.

This new platform, 510 m long and 60 m wide, is a real appendix to a port which will remain as the house of the waves, where the light, the color and the perfume of the distant Atlas is reflected. The new platform is the prolongation of the Albacar breakwaters, part of the Royal Walls, by the Water Pit, in front of the Christ Bridge and connected to it by means of a long and generous ramp.

Over this significant work of civil engineering, we will have the first valuable architectural example in the Ceuta port.

On this neuter and flat territory, with no architectural references and among anchored ships, a new building will emerge which will transform this space into a unique spot, a real worthwhile view for any traveller.

The Project

The provisional station is rather distant from the city center and this is bothersome for the passengers. There is also the plan to enlarge the Ceuta-Tetuan railway up to the Alfonso the 13th dock. So the Port Council has decided to build a new and adequate station which will also contain the necessary facilities for the customs, carabineers and health services.

On the 6th of June 1929, Mr. Rafael Gallego y Amar, the civil engineer in charge of the Port Works Committee, signed the project for the new "Maritime Station on the Alfonso the 13th Dock".

The most interesting thing about the project is the perimeter, three to four meters wide, cantilever canopy. A top ribbed reinforced concrete slab surrounding the whole construction. There is also the lateral tower, containing the artificial stone stairway ascending towards the second floor terraces. By means of a ladder it is possible to reach from here the clock and the tower ornamental crowning with the radio aerial.

The project's dossier includes some commentaries about the way the works will be adjudged (either by bid or by competition). The term for completion will be twelve months. The document ends up with an agreeable surprise. The engineer wants to acknowledge the distinguished architect, Mr. Andrés Galmés Nadal, for his intelligent support in the project's artistic appearance. A project I have the honor to submit to your Superiority whom I expect will sanction it in a most favorable and speedy way, etc., etc....

The architect

Two quotations and a casual interview led us to the architect Andrés Galmés Nadal.

We found one of this quotations in an article signed by Manuel Gallego, called "Urbanistic Refurbishment in Ceuta" and published in the monthly review "Memorial de Ingenieros del Ejército", in 1926.

The second one belongs to Javier Pérez Rojas' book "Art decó en España".

During the annual reunion of the Architects National Brotherhood, celebrated in Madrid in 1995, I had the opportunity to meet Mr. Damián Galmés de Fuentes, architect and nephew to Andrés Galmés Nadal. A really amiable person who kindly accepted to tell me about his uncle's biography.

Andrés Galmés Nadal.

Born in Manacor (Balearic Islands) in 1896.

Studies:

Baccalaureate: (1906-1913) in the Soria Institute and with the Augustinian Fathers in El Escorial.

Architectural Degree: (1913-1920) in Madrid's School of Architecture.

Professional Career:

He won a competition, in 1921, to obtain a commission as Architect assigned to the Spanish High Comisariat, in the Morocco Protectorate.

In 1932, he gained a new assignment as Census Architect for the province of Cádiz.

In 1934, he was finally commissioned to Balearic, always as Census Architect and settled in Palma de Majorca until his retirement in 1966.

After retiring, he moved to Manacor, where he lived until his decease in June 1970 (he was 74 years old).

So, by age, Andrés Galmés Nadal belonged to the generation of Spanish architects sent by Spain to the Morocco Protectorate from 1913 to 1936.

Galmés, an architect from the 1920 class, stayed in North Morocco for ten years (1921-1931). Leaving aside his official job as Architect assigned to the Spanish High Comisariat of the Morocco Protectorate and as Municipal Architect in the village of Larache, Galmés did also establish a professional practice in Ceuta. From 1925 to 1931 he designed three eclectic and magnificent housing blocks in the old part of the city, in a visible progression towards rationalistic architecture. There were also other nearby professionals working in the same line, as the Municipal Architect Mr. José Blein Zarazaga and other official architects assigned to the Spanish Morocco Protectorate.

He was then summoned by the Port authorities, who asked him to contribute with his artistic skills to the station project. He employed then the same ideas, the same mastery and sensibility he had proved in his residential designs, the reflection of his cosmopolitan conception of the city.

But the port is a place of casualty and chance. A place that has no possible protection against the invasion of the strangest objects, goods, luxury products, trifles from all over the world, arriving at its shore. In the hinterland, people feed themselves, furnish their houses and sow their fields with the offspring of their own country. But, in Ceuta, people's homes are full of what the ships bring to shore. The strangest goods, the oddest individuals populate the stores, the streets and the architects' practices. These become real free ports, privileged territories where you can search for and find the most unusual objects. The land of euphoria and outrage.

This kind of sediment and this kind of land created a really new context which demanded a new, more audacious and radically different attitude.

On the Alfonso the 13th dock, its real foundation, its shipyard, we find a building representing the end of an age. Galmés' building quivers and succumbs under a crowd of assailants.

Some Circumstances of the Project Development

On the 18th of October 1929, the Public Works Bureau of the province of Cádiz, the institution which had to decide about the project submitted, dispatched a document recommending some changes.

Another engineer, Mr. Pedro de Benito, suggested in his addenda (21st April 1930), the following adjustments:

"The restaurant and bar services provided in the building's second floor should be replaced by the more convenient and decent use of offices for the Works Council". The exact distribution of these offices was delayed in order that the works should begin immediately.

The plans were not modified then.

The project for the Maritime Station was then adjudged to the best bidder on the 21st of September 1930. The completion term was established in eight months and the budget amounted to 352839 pts.

About the city

The Royal Order of the 14th of February 1927, which approved the Local Statute obliged the Municipal Council to elaborate a project for the Expansion of the City in four years.

On the 16th of August 1929, the competition brief was finished and sent to be published in the City's Official Bulletin on the 28th of November. Madrid's Gazette and the capital journals "ABC" and "El Sol", did also publish the brief on their 8th of December issues.

The designated Jury included Mr. Antonio Flores Urdanzpilleta, professor from the Superior School of Architecture, Mr. Carlos Ovilo y Castedo, architect selected by the Public Works Delegate in Tetuan, Mr. Luis Lacasa, architect selected by the contenders and Mr. José Blein Zarazaga, municipal architect.

They declared that:

"The only entry submitted, by the architects García Mercadal and E. Foertsch, cannot receive our approval as it is not liable to fulfil the future requirements of our city. We recognize the authors' competence and dexterity but recommend the Municipal Council to open a new competition".

On the 27th of June 1930, the Plenary Session of the Municipal Council declared that the prize will not be awarded and announced a new competition.

The new Jury, designated on the 28th of November 1930, presented the following changes: the municipal architect, who was now incompatible, was replaced by Andrés Galmés Nadal, Luis Lacasa, by Manuel Sánchez Arcas, as architect selected by the contenders and Antonio Flores by Teodoro Anasagasti.

There were seven entries now, and the jury selected three of them, exalting their correctness. These were the proposals submitted by Pedro Muguruza and Manuel Latorre, architects and José Hervás, engineer; Gaspar Blein Zarazaga and César Cort.

Nautical

The Ceuta port was soon the customary shipyard of many transatlantic vessels as the "Roma", "Express of Australia", "Viceroy of India", etc...

There were now two more boats, owned by the "Transmediterránea" Company which crossed the Strait of Gibraltar: the "Ciudad de Algeciras" and the "Ciudad de Ceuta".

The "Ciudad de Algeciras" began operating in February 1927 under the name "Miguel Primo de Rivera".

The "Ciudad de Ceuta" began in September 1928 under the name "General Sanjurjo".

After the proclamation of the Republican Estate, the two twin boats owned by the Transmediterránea Company were forced by the government to change their names.



The other architect

We have already mentioned Manuel Latorre Pastor as one of the contenders in the City's Expansion Plan Competition. Two recent publications do also refer to him as one of the architects sent to the North African territory of the Spanish Protectorate of Morocco.

The first one is the architectural guide to "Tetuan's expansion district (1913-1956)", by Julio Malo de Molina and Fernando Domínguez (Seville. "Consejería de Obras Públicas y Transportes", 1994).

The other, Antonio Bravo Nieto's book "La construcción de una ciudad europea en el contexto norteafricano" (Colección: "Historia de Melilla" No. 5, published by the Autonomous City of Melilla, June, 1996). We have been in constant communication with this author through Mr. José Luis Gómez Barceló, responsible of the Archive in Ceuta Town Hall. The author lives in the city of Melilla and has received a lot of information from Pilar Latorre Álvarez, the architect's daughter who is also a resident there. This information has been recently published in the 17th issue of the Art Bulletin of the History of Art Department, University of Malaga.

Latorre completed his architectural studies in Madrid in 1924, four years after Galmés Nadal and the same years as Gaspar Blein. This latter one was appointed municipal architect in Ceuta in 1926 and was succeeded by his brother José in 1929. This same year, Latorre was designated as Public Works Architect for Tetuan. In 1938, Latorre moved to Melilla, where he stayed until 1943, when he resigned as official architect of the Public Works Ministry. He went to Tetuan, then, where he died at 67, in 1963.

The definitive project. The Contest and its Result.

The first project had been solved in the most practical and mechanical way: the building programme had been divided into parts, these had been adequately distributed and Galmés had rounded the composition with an exterior design as eclectic and vernacular as those of the Seville pavilions for the 1929 Fair. The mentioned circumstances, the necessary reduction of costs and terms for completion and the gradual change in the general sensibility, in search of a new geometry, a new perception, made the Port Council abandon the original project, as a mutinous fleet abandons a wrecked ship.

But they did not know how to swim and, keeping the same previous idea, and thinking

that it was possible to renew the scheme, they just organized a competition, with the works already going on, on site, for the "Revision of the facades for the new Port Maritime Station".

We know nothing about the details of the competition brief, nor about the entries. But there is a certificate from the Port Council, signed on the 6th of January 1934, by Mr. José Núñez Casquete, civil engineer, which says: "among the several projects submitted for the revision of the facades of the new Port Maritime Station, we have selected the one signed by Mr. Manuel Latorre Pastor".

The Boat (the metaphor)

It is not easy to evaluate the extraordinary impact made by the arrival of the great packet boats to the Ceuta Port. We can imagine though, the enormous surprise provoked by such an image. Latorre made use of that imposing image in his work, in a kind of mirror game.

Galmés had just insisted upon the application of the necessary ornament over the surface of the engineer's programme. Latorre, who was a good friend and admired him, just condemned his excess of ornament, not his taste. In any case, he was living, like the rest, the changes brought by the Republic and decided to join the modern and embrace the new thought, the new images arriving at Ceuta on the pages of the European reviews. He designed a building midway between the comical statement and the harsh impact. Because the architectural world has always been interested in this game of images, duplicates and likenesses, Latorre submitted his project to the Port Council as a real "mise en abyme" (the reduced reproduction of the story's plot inside the very story). But his image was not just a fragment of a boat, as Aizpurua's in San Sebastián. He really made the whole unit, a complete boat, as the Summer Residence of the Ts'ing-ch'ing dynasty, a boat-building, anchored in the watery mirror of the Summer Palace, located at a distance of 4 Km. from Peking, during the second half of the 18th century.

His design adopts the functionalism of, say, Cicero in "De Orate III", and also assumes the concept of "character", recovered by Quatremere de Quincy in 1788, who expressed it in terms of "talking architecture". But, in Luis Lacasa words, we are more close to an over-expressive Le Corbusier. The building sails as a boat, between two poles, the Futurist metaphor (its movement and form) and the Cubist syntax (its stillness).

When a real boat is anchored by our building, it becomes a mere fictitious duplicate, autonomous and somewhat terrifying. From

mirror, it becomes a mirage. And this doubling experience, the confrontation with its model, just results in something frightful. The visionary design becomes a delusory reflection.

The naval machine, a mirage of the real one, seems to have a fleeting life; it is a volatile and capricious likeness which can either be fused with itself, being so close to the original or appear as something strangely autonomous.

We can perceive two logical itineraries in the metaphor: the literal allusion to an explicit image and the vague evocation of an ideal, beyond it. In Latorre's building we find both possible interpretations in a most contradictory way and the result, instead of a metaphor, seems to become a joke, a riddle.

Latorre had to work with a previous material, already designed, already on site. He acts as a deconstructivist and destroys, stone by stone, the original design. He analyzes and dissolves it. He is an architect who knows how to unbuild what is already built. And, although this is not the basis of deconstruction, he works on the architectural metaphor to create his own rhetoric. He makes use of the old Greek concept of "Mimesis", underlying the whole history of art and architecture, and tries to look at things in different ways, reproducing a visible image of reality, searching for new ways of expression in the world of machines and their geometry. But he never breaks with convention to design a new form. He does not make use of the diverse mechanisms of abstraction in order to surpass a basic mimesis. The constant presence of both sides of the metaphor in his drafting papers, with explicit and conscious parallelisms, becomes a real hindrance, and the functional machine becomes a simply symbolic machine.

The differences between the two projects reveal the lively debate and the transformations suffered by the Spanish architecture in such a short period of time. The first project is clearly the offspring of a somewhat refined traditional regionalism belonging to the devastated old Regime; the new one, with much of an ironic and sarcastic approach, is based on a misunderstood renewal of pure rationalism. It reverses the previous sophistication, which produced a series of educational images, and embraces the easy topic by dressing the building up with a superficial and frivolous maritime character. The result is pure plagiarism, because everything that is not tradition is plagiarism.

This professional trick, widely used in the past, had somehow disappeared into oblivion. Our architect recovers it, because it was part of his repertory. His work, though (welcoming the hairless and terrified soldiers who had been assigned to Africa) when finished, when completed, will be something with no roots, no memory, no grounds.

The building is, nevertheless, capable of incorporating art deco elements, as the chimney, though it was built ten years after Le Corbusier's Esprit Nouveau. It belongs to a crossroads that is possible to conceive either as a starting point or the end of the road. It is a terminal building, an anchored transport node which eliminates meaningless ornament,

exploits the aesthetic values of flat and empty surfaces and makes use of portholes and railings as striking images, embracing the lay creed of the first rationalism.

The geometric block, with its large cantilever, an stupid temple dedicated to wait, to hope, where souls are emptied by mere bore and melancholy. It has no reference. There is no metaphor. It bears no figurative expression, no indirect speech.

A building which is a correct metaphor, demands the intelligence of the observer to unravel it. In that case, there is a mimetic

allusion to a certain exterior reality which is replaced by an indirect and oblique vision bearing strange connections with the original. Metaphors imply enigmas.

In ancient ages, the metaphor was considered an ideal likeness. Latorre's building is old. He does not prove able enough to exploit the connections. He does not even make an attempt to discover the logic of the building and then establish a relationship between terms. He does not present a thing as if it was another one. He indulges in the comical and ridiculous. It is vulgar architecture, a mere tale. ■

Epilogue

"Crisanto... did not tuck up his sleeves because he had tattoos from the Ceuta prison. Anyone would be able to tell the time he had spent there, and the prison brigade to which he belonged.

Those from the veteran brigade, from the beginning of the century (released felons under sentence of death), had a bat over the head of the naked woman.

Those from the recent brigades, a plane."

(Sender, Ramón J. "Cabrerizas Altas". Biblioteca de Melilla. Melilla, 1990.

In the artificial geometry of this frontier land, Galmés was a veteran, Latorre a newcomer (newly-found).

The Macià Axis

The General Urban Planning Bureau and the Catalan Land Institute wanted to accelerate the construction of the Macià Axis, already undertaken by the city hall, by means of the acquisition of the necessary land. We also wanted to join the Sabadell City hall in its effort to consolidate the city as an important center within the dynamic region of "El Vallés". This area, including two different "comarcas", has a settled population of 835000 people, with other transient 350000 people coming and going around it. So we have an strategic urban center with a highly developed economic activity, even for a European level. I am mainly talking about its urban character and not just about its financial importance, which makes it comparable to other European cities as Grenoble, with 153000 inhabitants or Geneva, with 170000. Because it is not just the dense population which makes of a city what it is but the quality of the territory which it commands, the economic activity generated by it, the life quality and opportunities offered to its inhabitants. This was, from the beginning, our main aim.

Our second interest was to take part in a project which was to transform a city by means of touching a clearly neuralgic point within it, and make it in a radically different way as is usually done. We thought it was a fundamental project for Sabadell. And now, we think it can be a paradigm for a new approach in Catalan Urban Planning. We were then and are still now witnessing the polemic destruction of our inherited cities, with the withdrawal of the economic activity towards peripheral areas that take advantage of the new transport infrastructures which tend to sever the old nuclei. We thought this operation could recover the city center and, in due time, strengthen the position of Sabadell's historical core. That is, we thought

it was an opportunity to stop the decentralization process imposed to the tertiary sector. The tertiary activities have historically been linked to the development of urban centers. But much of this sector was beginning to emigrate to the city outskirts. This process tended to disjoin the city fabric and precluded any future resurrection of Sabadell's urban dynamism, as this kind of activity attracts others. This process affects the industrial sector but is specially harmful for the services sector. Because the present industrialization processes depend more and more on a dynamic tertiary sector, as many of the functions formerly performed by the industry are now being undertaken outside it. The development of a puissant services sector is basic for industrial investment, because it is the only way to reduce costs; not just distribution costs but also production and employment costs.

All this aims were possible with the creation of a great 40 Ha park within Sabadell's center. It has been an outstanding task. It was an important improvement which proved fruitful in a moment of economic recession. A urban context diminishes the effect of an economic crisis which is much more harmful without the support of a city. Although it is widely accepted that the rural areas are less affected by economic depressions than the great cities, it is also true that middle size or even great cities with an adequate structure are less affected than disordered cities of any size. Industries cannot prosper in cities without a developed complementary sector. Because any recession implies that families just depending on industry have no other resources. In the same way, a small village depending on a single industry can be completely ruined if that enterprise experiences a delicate situation. In Catalunya we have many examples of cities

developed around a single industry which had many problems when these were closed. So we need well structured and strong cities in which a sectorial recession would never be so dramatic, where there will always be other economic activities going around.

We must also mention another aspect of our collaboration with the General Urban Planning Bureau. Here, we have tried a new approach to what is called "public-private accord" in urban planning affairs. This well-known concept was mainly developed by the American economists and applied through the Reagan administration policies, according to which it was necessary to leave the development of the city in the hands of private interest. During the eighties, this new way of urbanistic private-public "parteneriat", as the French call it, has been widely discussed. In the Macià Axis we had, from the beginning, an interesting example of a new approach to all this, as the relation of forces and the type of investment was clearly established in the first stages. There has been a really public administration not a business management. We have tried to make the better of the public funds while encouraging productive investment in the area.

The Macià Axis, in Sabadell, has become a significant example of what we think this type of accord should be. First of all, it reveals that the public sector must act as the real administrator of the whole operation. Must maintain a strong position and an active role and not let the private partners make all the decisions while the public authorities just facilitate the bureaucratic proceedings. But it also reveals the necessity for the private sector to join this kind of operation. Because, sometimes we find that public authorities tend to avoid this kind of collaboration. It is true that the public sector must bear in mind the interests of the whole population, as a community. But our example has proved how it is possible to lead a correct public-private management in which both agents should cooperate and help each other. In our case, the private sector has been able to maintain the conviction that the works would be finally carried out.

I remember how, in the first stages, we

were always asked about the certainty of the opening date for some access to the Macià axis or some link with the motorway, etc.

We were always able to give precise dates and assure the completion of the works. And this means that the public sector was working in a completely new way that would make possible the visible results.

We have invested up to 27000 million pesetas and we plan to invest 26000 more. The results are obviously, rather evident both for Sabadell and its surrounding territory. The new direct access from the motorway to the Catalunya square has been a dynamic agent in transformation of the whole area. The same happens with the Zamenhof beltway. If we can manage to make the Creu Alta area join the process, the spreading of the dynamic effect into the old center will be unstoppable and this part of the city will have much more opportunities of development than other centers which have not received such an investment.

To sum up, I would say that, from the point of view of the Catalan urban planning, we must mention three significant aspects.

First. We have devised an important territorial policy based on the development of a middle size city. If this process would be repeated throughout the country, it would contribute to the creation of an structured urban net within Catalunya that would avoid the problems of great congestions, promoting social cohesion and the sense of community. The importance of this phenomenon is something basic.

Second. We have tried a new approach to intervention within the city rather different from previously adopted policies aiming at the transformation and refurbishment of our urban areas.

Third. Our specific model for the public-private accord can be very interesting for other cities which are currently trying to find new solutions for their urbanistic problems.

Eight years ago, we had just open fields, with no visible axis, facing long and slow expropriation proceedings. We hope that, in just eight years more, we will enjoy the completed works of the Macià axis and see its beneficial effects on the old city of Sabadell. ■

City of the arts and sciences (Valencia)

Architect: Santiago Calatrava

Project Term: 1990-91

Completion Term: 1998 Hemisferic

The Arts Palace

The Arts Palace and its surrounding dependencies are located to the South-East of the city of Valencia. In a site limited by the old berth of the Turia River, the Moreras Walk going to Nazaret and the Saler highway and the streets Tomás Montañana and Hermanos Maristas.

As can be seen in the general plans, it

occupies the west side of the city of the arts and sciences, which includes three significant buildings: the palace, the hemispheric theatre or Planetary and the museum of sciences.

The main building of the Arts Palace presents a double aim: it is a multi-auditorium and a urban landmark, which will enliven and consolidate the area and become a symbolic image, a kind of new monument for the city of Valencia.

In this sense, the building is conceived as a real icon, a great sculpture which will house a certain functional programme.

This programme includes two large spaces:

- The main and central hall, basically an opera theatre but which can be used for ballet and other theatrical performances.

- The chamber music hall, which can be used for plays and orchestra or lyric recitals.

So the building will house a main auditorium with a capacity for 1800 seats and a smaller chamber music hall, for 400 people.

The building structure is based on four inclined and tapered concrete supports, beginning at a -7.00 m. level and creating a kind of imaginary rectangle.

The main hall is the seminal element in the project, both as its formal and structural core. With its 1800 seats, it occupies the center of the building's structural support generated by curved surfaces and interior white concrete boxes, which form a visually powerful epidermis.

In the building's structural system, we can distinguish a more or less conventional structure and the double curvature surfaces. The conventional structure comprises floors and bearing walls transmitting loads to the foundations.

The structure of the large curved surfaces and massive lateral elements plays a significant role in the building's structural scheme. These support most of the building. In fact, the curved surfaces present bottom ribs, as arches which support the building's intermediate floors.

The stepped hall is formed by means of a double slab with an inner "plenum", supported by a perimeter wall and other intermediate lower walls which reduce the total span.

The main material used throughout the building will be white concrete. It will be present in the large structural supports. Formwork will be made with dovetailed 12 cm. wide, brushed timber planks.

The "trencadis" will be the second material in the building. It will be carefully assembled with pieces of a radius no more than 8 cm. in order to accommodate the gradual change in the disposition of the fabric and facilitate the adjustment between the different surfaces.

Hemisphere-Planetarium

The city of the arts and the sciences is located in a site limited by the final section of the River Turia berth and the Saler highway.

The lot on which the Hemisphere will be erected is more or less regular rectangular of 200x1300 m, with a total area of 26000 m². It is placed between the Museum of Sciences and the Arts Palace.

The Hemisphere-Planetarium building is placed on the East-West axis of the City of the Arts and Sciences. It is flanked by two lateral, 200x60 m., water pools to the North and South.

The building has three differentiated bodies: to the East, we have the offices building, with the stores and cafeteria. At the -11.00 m. level, first basement floor.

In the center, we have the sphere under the roof which houses the auditorium and the projection rooms: that is the Hemispheric Movie Theatre and the Planetarium which occupies, from the second basement (-15.00

m) to the second floor (+0.00 m.)

The main building emerges between both pools as a real turtle shell, with a fixed, opaque, central section and two transparent lateral sections, with mobile elements which act as parasol pieces and gates.

This ovoid roof encloses an inner sphere.

The building has a reinforced concrete structure. The roof is metallic. It has slurry walls and significant depth slabs as foundations. The sphere is made of reinforced concrete, a material which closes the rear part of the sphere and advances through the floors and the inclined beams of the stepped seats.

The metal roof is supported by five arches with a box section whose extremities rest on reinforced concrete tripods.

These arches are connected by means of laminated elements and curved box-beams.

Orient railway station (Lisbon)

Architect: Santiago Calatrava

Collaborator: Andres Caride

Project Term: 1993

Completion Term: 1998

The Orient railway station is the gateway to Expo '98, the world fair which will open in Lisbon on 19 May 1998. It forms the core of a scheme that transforms the entire Olivais District of Lisbon. The Orient Station is destined to become one of Europe's most comprehensive transport nodes: high-speed, Intercity and regional trains will connect here with local-service, metro and train networks. The station facilities are complete by a bus station and parking for approximately 2000 cars.

The station and adjoining exhibition site are located some five kilometres to the north east of the city centre, between the railway line and the banks of the River Tagus. The setting includes the dilapidated Olivais Harbour - a former sea-plane base on the Palha de Palha n the Tagus basin - and bordering areas.

Santiago Calatrava's entry to the invited "Estacion do Oriente" competition, held in 1993, went well beyond the original brief: his proposal defined the urban-planning structure for the entire area, a response that not only convinced "Parque Expo '98" - the organisation representing the various parties involved - but also Lisbon's urban planners (whose design for the area at the time of the competition was still in its embryonic stages).

Orient Station creates a link: this bold and elegant scheme cuts through the 9-meter railway embankment and thus, from both the transport and visual point of view, connects industrial and residential districts that have until now been severed. In the design, Calatrava shifts the station up to the exhibition site, some 200

Museum of the Sciences.

The museum buildings is located towards the end of the City of the Arts and Sciences.

As the great pavilions of the historical exhibitions, it is a linear building generated by repeated modules along the selected site. The lateral ends of the symmetric building act as real lateral supports to the inner modules, as buttresses. Thus, the building appears as a great roof supported by a glass transparent facade to the North and an opaque one to the South, both adapted to their particular sun exposure conditions, according to the orientation of the city of Valencia.

The building's inner structure which is externally just a great roof, includes an spectacular play of platforms suspended from five great concrete "trees" whose branches

support the mentioned roof. The concrete structure consists of transversal, 10 m. wide, modules which create the two main levels (+0.00 and +10.40), with an intermediate mezzanine level (+5.20).

This structure comprises reinforced concrete planes, separated 10 m., resting on two lines of foundation trenches separated 32.80 m., with lateral 8 m. cantilevers. From these buttresses begins a secondary 30 m. cantilever structure, which covers the exterior walk reaching the river old berth.

The tubular structure of the roof is supported by the modular reinforced concrete lattice of the South facade and by the "trees".

The North facade is a curtain wall, made up by 10 m. wide modules. The structure is built by metal tube arches, on which lightweight metal ribs supporting the glass panels rest. ■

Generously proportioned, clear and straightforward pedestrian zones form the circulatory link between the various transport modes, while the bus station, with its sweeping glass roof, adjoins the station immediately to the west. Retail stores and office buildings are grouped around a focal point to the east: namely, Expo '98's West Gate.

Orient is not Santiago Calatrava's first station: with Stadelhofen in Zurich, he demonstrated his feeling for urban structures, as well as his dynamic approach towards the restatement of urban spaces within an historical context; his airport-station in Lyon is a sculptural symbol for a site set in a no-man's-land; and Spandau station draws a parkland into the city. With Orient, Calatrava has created an urban centre at the water's edge and, in a contemporary form, restores the importance that the railway station once commanded. ■

