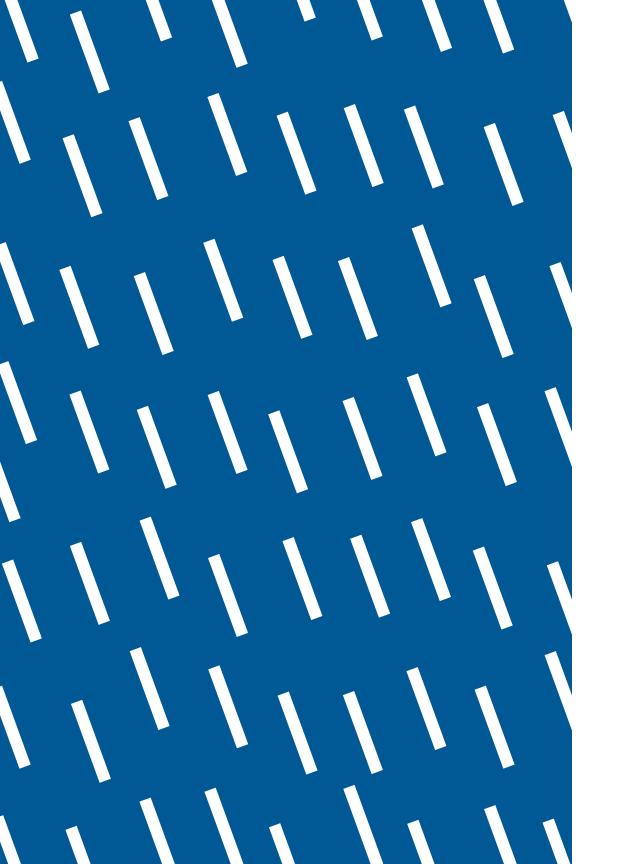
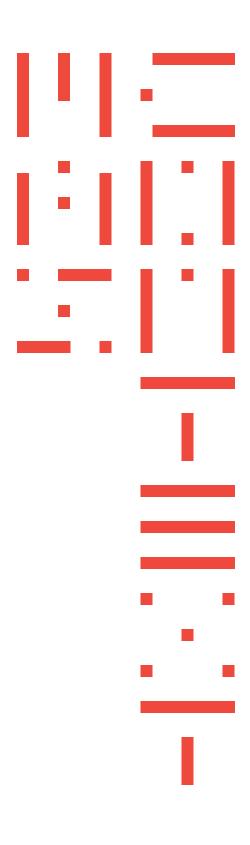
Ibon Areso, Diana Balmori, Eduardo Belzunce, José Luis Burgos, Cini Boeri Architetti, Carlos Copertone, Juan Luis de las Rivas, Luis Diaz-Mauriño, Patxi Eguiluz, García de la Torre Arquitectos, Juan García Millán, Iker Gil, IDOM, JAAM, James Stirling Michael Wilford & Associates, Koldo Lus Arana, Elena Martínez-Litago, Ruth Mayoral López, Meneo, NO.MAD, Aitor Ortiz, Lucía C. Pérez-Moreno, Fidel Raso, Tomás Ruiz, Juan Sádaba, Diego Sanz, Patricia Sanz Lacarra, Koldo Serra, Alfonso Vegara, Yosigo, Zaha Hadid Architects, John Zils.

MAS Context Issue 30–31 **Bilbao**





MAS Context Issue 30–31 **Bilbao**



MAS Context is a quarterly journal that addresses issues that affect the urban context. Each issue delivers a comprehensive view of a single topic through the active participation of people from different fields and different perspectives who, together, instigate the debate.

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Welcome to our Bilbao issue. This issue explores the remarkable transformation of the city and the goals and needs driving it. Through insightful essays, personal photo essays, failed projects, exceptional successes, and open interviews, this issue provides a comprehensive look at a metamorphosis whose scope and complexity goes far beyond the construction of a single renowned building.

Exploring the City You Grew Up in

Introduction by Iker Gil, Editor in Chief of MAS Context

This is an issue that I have had in mind since we founded MAS Context in 2009. After publishing the book Shanghai Transforming in 2008, a natural continuation would have been to explore the transformation of Bilbao, the city I grew up in and a metropolis that has gone through one of the most remarkable undertakings in the past few decades. Probably because of the overexposure of the city in the media over the previous decade, it didn't feel that it was the right moment to publish the issue. However, in many instances, I thought the essays published outside the city had been misconstrued or oversimplified, most focusing exclusively on the Guggenheim Museum, and that there were many other aspects that needed to be discussed to understand the scope, needs, and goals of the transformation. Having these "extra" years to publish the issue has provided the opportunity to clearly observe the evolution of Bilbao and enjoy long conversations with residents about the impact of the changes. Time has helped to identify agents directly involved or affected by the transformation, learn from the different projects, and understand nuanced aspects often overlooked vet inform the work done, sometimes decades later.

So why publish the issue now? Three specific circumstances make it an appropriate moment to focus on Bilbao, to understand its transformation, and look forward to its future. First, in 2017 the Guggenheim Museum will celebrate two decades since opening its doors, and much has happened since October 19, 1997. The city has continued to change since that day, completing many urban, infrastructural, and architectural interventions. Second, the global economic crisis had a local effect on Bilbao, challenging its economic model and the structure used to fund the ambitious projects. No longer a viable structure for the future, the city needs to explore new models to continue its evolution. And finally, the transformation of the Zorrotzaurre peninsula, an area of 70 hect- involved in the issue, from those who have ares with a master plan by Zaha Hadid Architects, has kicked off. The first two tangible steps have been the start of the work to open the Deusto Canal, that will turn the peninsula into an island, and the construction of the first bridge, the Frank Gehry Bridge, that connects it to the Deusto neighborhood.

history and transformation of the city, this issue features contributions by those who have had a direct involvement with it, whether

leading the process or closely witnessing it. Most of them local residents, the list includes public officials, urban designers, architects, landscape architects, photographers, historians, and a filmmaker, among others. They provide an invaluable perspective, from the city's past as an industrial power followed by its steep decline, to the transformation during the last three decades into a service city. It is an ongoing, ambitious, and complex effort to position the city regionally and internationally. Ultimately, we want this issue to provide a relevant tool to better understand the past and present of the city as well as to think about its future and build upon its strengths without losing its identity.

Finally, I want to thank the many people contributed their work to those who have scoured the city archives and gone above and beyond to find the information featured in the issue. It was a daunting effort and we are very thankful for their commitment and generosity.

As an issue conceived and completed To provide a comprehensive look at the from a profound love for the city that I grew up in and has shaped my way of looking at the built environment, I hope it helps others learn about, understand, and appreciate the city.



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Chronology

11

Campos Elíseos Theater, designed by Alfredo Acebal and Jean Baptiste (façade), opens.
The Port of Bilbao reaches the sea with an extensive water area being sheltered by the Santurtzi Breakwater and the Secondary Breakwater at Algorta

1904

José Antonio Aguirre, first president of the Provisional Government of the Basque Country, is born

Baldomero Villasante Anchústegui becomes Mayor Pedro Bilbao Arrola becomes Mayor

Altos Hornos de Vizcaya is formed

· Banco de Vizcaya (Bank of Biscay) is founded

Astilleros Euskalduna is founded

· Gregorio Balparda de las Herrerías becomes Mayor

Gregorio Ibarreche Ugarte becomes Mayor

· José Horn Areilza becomes Mayor · Eugenio Martínez Sevilla becomes Mayor · Federico Moyúa Salazar becomes Mayor

Public laundry on San Mamés Bivd, designed by R. Bastida, opens Plan for the extension of the Ensache designed by Federic Ugalde

· Doña Casilda Park opens · Molinos Vascos building, designed by Federico Ugalde, opens Basurto Hospital, designed by Enrique Epalza, opens

Chronology

Alhóndiga, designed by Ricardo Bastida, opens

1909

· Luis Allende House, designed by Leonardo Rucabado, opens Bilbaina Club, designed by Calixto Emiliano Amann, opens

Atxuri Station, designed by Manuel María de Smith, opens Project for the Iberian-American Exhibition San Mamés stadium, designed by Manuel Maria Smith, opens

· Julián Benito Marco Gardoqui becomes Mayor

Ricardo Power Zabala becomes Mayor
Fernando Villabaso Zabaleta becomes Mayor
Mario Arana Mendibil becomes Mayor
Poet Blas de Otero is born

· Iralabarri neighborhood, designed by Federico Ugalde with Enrique Epalza and Pedro Peláez, is built

The Ramón de la Sota Houses, designed by M. Ma de Smith, open

· Mugica School, designed by Ricardo Bastida, opens

Ollerias Schools, designed by Pedro Ispizua, open Partial Road Reform of Inner Bilbao designed by Secundino Zuazo Arenal Bandshell, by Pedro Ispizua, opens

·Juan Francisco Arancibia Lebario becomes Mayor

· Gabino Orbe Usandebaras becomes Mayor

· Rufino Laiseca Oronoz becomes Mayor

Justo Diego Somonte Iturrioz becomes Mayor
 Federico Moyúa Salazar becomes Mayor

· Mariano Aróstegui Ugarriaza becomes Mayor

Carlton Hotel, designed by Manuel María de Smith, opens La Unión y el Fénix building, by Tomás Bilbao, opens

1929 Adolfo González de Careaga Urquijo becomes Mayor Athletic Club wins the Spanish football league Ernesto Ercoreca Regil becomes Mayor Athletic Club wins the Spanish football league

Writer and poet Gabriel Aresti is born

Pablo Barrera Ozámiz becomes Mayor
Athletic Club wins the Spanish football league
Manuel Frías Enciso becomes Mayor

Ernesto Ercoreca Regil becomes Mayor Athletic Club wins the Spanish football league José María de Areliza y Martinez Rodas becomes Mayor

José María González de Careaga y Urquijo becomes Mayor José Félix de Lequerica Erquiza becomes Mayor José María Oriol Urquijo becomes Mayor

1940 1941 Joaquín Zuazagoitia Azcorra becomes Mayor · Tomás Pero-Sanz Zorrilla becomes Mayor

Athletic Club wins the Spanish football league

Tiger building, designed by Pedro Ispizua, opens Regional Plan for Bilbao supervised by Pedro Bidagor Ensanche Market, designed by Germán Aguirre, opens Albia Gardens, designed by Pedro Ispizua, opens

Bailén high-rise, designed by Manuel I. Galíndez, opens 1946

Office building on Diputación/Arbieto Streets, designed by Rafael Fontan, opens Naviera Aznar building opens Abando station, designed by Alfonso Fungairiño, opens The Begoña Elevator, designed by Rafael Fontán, opens

ARCHITECTURE

García Rivero Schools, designed by Pedro Ispizua open

Project for Urban Extension by E. Segurola and M. Odriozola

Solokoetxe housing development, designed by Calixto Emiliano Ribera Market, designed by Pedro Ispizua, opens Amann, opens

The Equitativa building, designed by Manuel I. Galíndez, opens · Luis Briñas School, designed by Pedro Ispizua, opens

La Aurora Headquarters, designed by Manuel I. Galíndez, opens

Deusto Bridge opens

La Merced Bridge, designed by Manuel Gil de Santibañez, opens

Arenal Bridge opens

The City Council Bridge opens after being bombed in 1937

Santa Marina Sanatorium, designed by E. Mª Aguinaga, opens

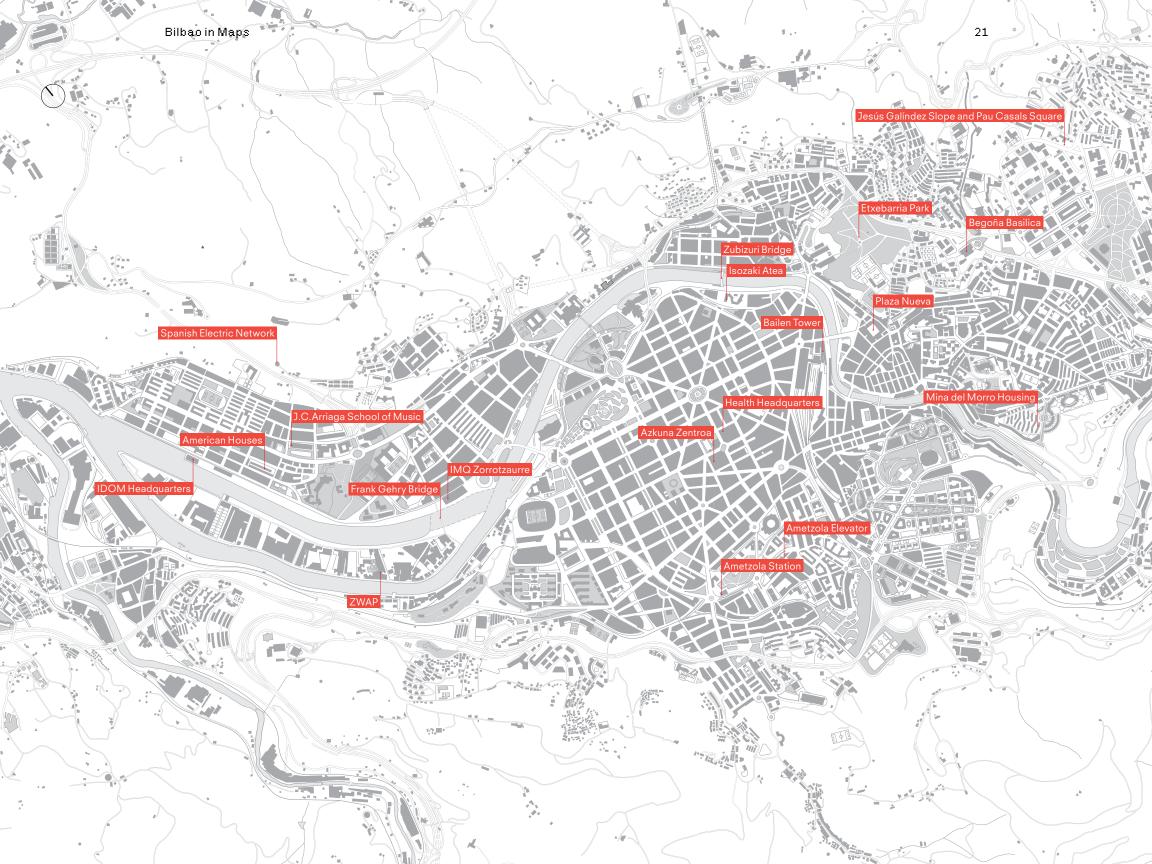
Fine Arts Museum opens

1945

1948

	950 Santander Bank, designed by Mnuel I. Galíndez,	l by Mnuel I. Galíndez, opens
	1951	
	1952	
	1953	nolished) opens
Athletic Club wins the Spanish football league	1956 The South stand of San M	San Mamés opens
· The crane "Carola" is installed in the Euskalduna shipyard		
· Lorenzo Hurtado de Saracho Arrequi becomes Mayor	1958 · School of Engineering, de	Seguros bilbao neadquarers opens School of Engineering, designed by Jesús Rafael Basterrechea, opens
	1961 Greater Bilbao Regional Plan	an
. "Más allá de Bilbao," directed by Raúl Peña, is the first short	1962 The North stand of San Mamés opens	amés opens
Javier Ybarra Bergé becomes Mayor	1963	
	1964 "La Rana" bandstand, desi	"La Rana" bandstand, designed by C. Sans & F. Candela, opens
	. Greater bilbao Kegional P. 1965	an
· Nueva Forma Magazine is founded	1966	
· The Bilbao Bizkaia Water Consortium is founded		Carmen Church, designed by Francisco Javier Ortega, opens
· Pilar Careaga Basabe becomes Mayor	•	using development opens
		in Gran Via opens
	•	Iberdrola addition, designed by Francisco Hurtado de Saracho, opens
	1972	nes obens
T		
. The high-end furniture and design shop Mosel opens	1974 The Vizcaya Amusement Park opens - MOSEL shop, designed by Cini Boeri, opens	ark opens y Cini Boeri, opens
Jose Luis berasategui Golcoecnea becomes Mayor Filmmaker Koldo Serra is born	•	Etxezurr housing buildings opens The Outer Abra is sealed with the building of the breakwater
· Eneko Atxa, chef of the 3-Michelin star Azurmendi, is born	1976 at Punta Lucero 1977 Miraflores Bridge opens	
·The first Aste Naausia (Bia Week) is organized		
Marijain becomes its symmetrical and a construction of the constru	1978	
Comprehensive Sanitation Plan for the Nervión River	1979	
	1980	
· José Luis Robles Canibe becomes Mayor	1981	
· Athletic Club wins the Spanish football league · Bilban and other areas suffer a devastation flootling	1982	
One worker dies and two are critically injured during	1983	
the demonstrations in favor of Astilleros Euskalduna Athletic Club wins the Spanish football league		=
		James Stirling and the Provincial Council of Biscay sign a contract to design a the Abando Passenger Interchange
	1986	
Jose Maria Gorordo Bilbao becomes Mayor		
· Banco de Bilbao and Banco de Vizcaya merge · Astilleros Euskalduna closes		Foster and Partners wins the competition to design the subway
. "Place # 21" installation by Brian Eno is exhibited at the Alhóndiga المربق	1989 Strategic Plan for the Revi	Strategic Plan for the Revitalization of the Metropolitan
Joseph Maria Duraberta Maria Decornes Mayor Alhóndiga is declared an Artistic Monument	1990 The Vizcaya Amusement Park closes	ark closes
· Josu Ortuondo Larrea becomes Mayor · Bilbao Metropoli-30 is founded	1991 Frank Gehry wins the com	Frank Gehry wins the competition to design the Guggenheim Museum
· BILBAO Ría 2000 is founded	1992 Work on the Outer Abra extension starts	ktension starts
José Luis Ugarte completes the Vendée Globe, a round-the-world	1993 The conference "Arquitec	The conference "Arquitectura para Bilbao" is organized by BII BAO Ria 2000 at the Museum of Fine Arts
single-narided (solo) yacırı race	1994 Red Eléctrica headquarter	s, designed by Andres Perea, opens
· The first civil wedding takes place in the Bilbao City Council	· Bilbao General Plan 1995 · · · · Metro Bilbao, designed by	Foster+Partners, opens
· Altos Hornos de Vizcaya closes		
· Bilborock music venue opens in a seventeenth century church	•	ao opens
· Athletic Club celebrates its centenary	•	Euskalduna bridge opens Zubizuri Bridge, designed by Santiago Calatrava, opens
		enter and Concert Hall, designed by
	•	F. Soriano & D. Palacios, opens Work on the light rail starts
	,	
CITY	ARCHITECTURE	

Chronology







1900-1983

The end of the nineteenth century and the early twentieth century witnessed the rise of Bilbao as an economic power within the Basque Country and Spain. Mining, shipbuilding, and other iron industries led its economy for several decades and attracted large numbers of inhabitants to the growing city. The global decline of the steel industry in the mid-1970s and 1980s collapsed its economic model, creating severe urban, social, and environmental consequences. This process would culminate in the catastrophic flooding that took place on Friday, August 26, 1983.



When the Guggenheim Bilbao Museum opened its doors back in a now surprisingly distant 1997, it had a series of immediate effects. By becoming the built and published equivalent to Led Zeppelin's "Stairway to Heaven," allegedly the most played song by radio stations around the world, it catapulted Frank Gehry into the top of architectural stardom. It spawned an innumerable amount of copycats who tried to replicate its success and the effect it had on the economic regeneration of the city where it was located. It even went as far as appropriating the brand, replacing, in the collective mind, that which had been "the real" Guggenheim Museum for almost 40 years: Frank Lloyd Wright's iconic New York counter-ziggurat.



From the point of view of a local, the most a city around." Other than mixing its facts remarkable aftermath was to suddenly put Bilbao, once and for all, on the international map, just by erecting a single building. Before that, the city's presence abroad had been mostly limited to the sports pages of the newspapers, popular among soccer enthusiasts due to the idiosyncrasy of its local team. Among its few media merits, we could barely count the honor to provide a title for "The Bilbao Song" in Bertolt Brecht's 1929 musical "Happy End", and its appearance—as a word—in two plays by William Shakespeare, The Merry Wives of Windsor, where it gave its name to a sword, and in Hamlet, where it defined a type of shackles.¹ Perhaps, filtered by Tolkien's lexical erudition and admiration of Shakespeare, it had a role in naming the first inhabitant of Middle Earth. Usually, however, Bilbao's presence in the international news had been due to much less favorable reasons: as the biggest city in the Basque country abroad, Bilbao's name had been tarnished, since the 1970s, by the disfiguring light of terrorism, which defined its outer and inner image for decades.

However, even if the museum did unquestionably make Bilbao's regeneration into a worldwide phenomenon, within the process of regeneration it might have been the icing on the cake, though it was never designed to be its flagship. Rather than the crown atop Bilbao's refashioning, it was a happy, unexpected, and most certainly welcomed media success that helped boost and publicize a much larger scale operation of reinvention of the city that had been under development for almost two decades.

A 2013 column in The Economist claimed that "[t]he opening of the Guggenheim Museum in Bilbao in northern Spain in 1997, 20 years after the Pompidou Centre, shows how an imaginatively designed museum commissioned by an energetic mayor can help turn

a little (the museum was not commissioned by any 'energetic mayor,' much less by the late Mayor Iñaki Azkuna, who was elected two years after the its opening, but by the Basque Government itself), the article falls in the all-too-common trap of presenting the regeneration of the city as a consequence of the construction of the museum. It fails to mention that the Guggenheim itself took place amid a cathartic process of reinvention of a city desperately trying to survive the last stages of its industrial past. A small fourteenth century city located in the Gulf of Biscay, Bilbao had historically benefited from its strategic location and the abundance of iron deposits. Turned into a commercial node, with commercial connections with England and the Netherlands, the city also took advantage of the availability of water, undergoing a heavy industrialization process throughout the nineteenth century and early twentieth century that made it the economic capital city of the Basque Country. Ship construction and other related industries soon joined steel production and so, long after the local iron resources had been exhausted, Bilbao's industrial tissue kept expanding. Industry prompted an exponential growth that transformed the city and its surrounding areas into a one million person metropolis, and this situation lasted well into the last quarter of the twentieth century. Then, the 1980s arrived, and everything collapsed.

In its better years, Altos Hornos de Vizcaya (AHV), the gigantic city factory that produced Bilbao's steel employed some 13,000 workers. In 1980, when the restructuring of the steel sector started, 11,000 still worked there, and the indirect jobs generated by its activity surpassed 40,000. However, heavy industry was doomed in Biscay. In the 1975-1985 period income rates had a spectacular decrease in the Basque Country's industrialized areas, and throughout the 1980s AHV entered an accelerated process of dismantlement, with a cascade of early retirements and the shutdown of the smaller related enterprises. This was not an isolated event. In 1985, Astilleros Euskalduna, the large shipyard in the Nervión River located in the heart of the city, finally closed its doors, after almost a year that those of us old enough to have lived it remember as a continuing series of demonstrations and riots, with workers entrenched in the warehouses, student groups joining the revolts, gunfire, policemen rallying the facilities, and train cars being welded onto their rails.4 Meanwhile, the enterprise that had monopolized ship construction in Spain from the 1900s onwards, the Spanish Society of Naval Construction (known as La Naval), located backto-back with AHV a few kilometers down the left riverbank in Sestao, absorbed Euskalduna's exceeding workers, while trying to deal with its own inevitable decline.

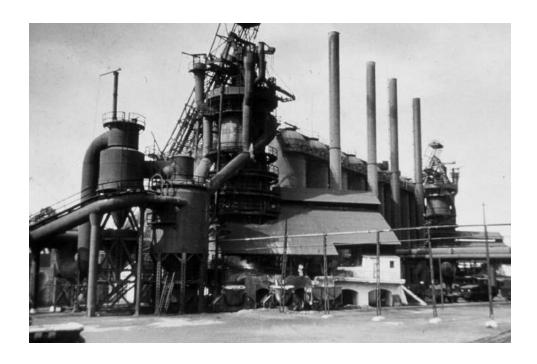
If in 1950 Spain's shipbuilding industry had a worldwide market share of 1.2%, in 1960 it had grown to 2.5%, and by 1970, it had raised to 4.7%, with Sestao's enterprise as the main engine of this growth. In the 1970s, it ranked fourth in terms of production, only behind Japan, Sweden, and Germany, and bearing a strong presence in Latin America and Africa.⁵ In 1978, however, those numbers suffered a drastic decrease: in the status quo of the new world, characterized by the emergence of other economies, the Basque shipyards ceased to be competitive, and the firm entered a process of decay that rapidly destroyed the much larger industrial tissue of the Bilbao area which depended upon it. Meanwhile, La Naval began a slow death in a process of progressive slimming down and successive ownership changes. The industrial tissue was rotten, and the need for a total

rethinking of the economic substratum of the metropolitan area of Bilbao area was a need that could not be postponed any longer. In fact, an entire revamp of the very body and image of the city was needed, and it had actually started long before the Guggenheim Museum and even before the crisis itself, when, in the mid-1970s, the first traces of what would later become Metro Bilbao, Bilbao's railway system, were outlined.

Bilbao had always been an infrastructural city. As a city enclosed by hills and communicating with the sea by a river that ran at the bottom of a long and narrow corridor, the Bilbao metropolitan area progressively grew into a sort of linear city folded unto itself, with all its communication problems but without any of its advantages. Originally, the municipality of Bilbao was built in the only flat land to be found around the river, almost 10 miles away from the river mouth. On the riverbanks, a rosary of small villages started filling the narrow strip of land all the way down to the sea, progressively climbing the surrounding mountains as industries appropriated the lower lands, ultimately turning the whole corridor into a dense, constricted metropolitan area that connected Bilbao with the sea as an umbilical cord. On both sides of the river, a dense network of industrial facilities granted Bilbao the same endemic disease that has traditionally affected all port industrial cities: to live oblivious of the waterfront, in this case embodied by the Nervión River, the true Port of Bilbao.

This aggravated some of the effects of Bilbao's 'folded linear city' nature: With the riverbanks full of factories and shipyards, the river itself had to be navigable all the way up to Bilbao (Euskalduna was located inside the very city), which prevented the construction of connections between both sides. Until 1983, when the Rontegi Bridge, rising more than 40 meters above the high









tide line, was opened to traffic in Barakaldo, the only connection between both riverbanks between Bilbao and the sea was the beautiful but painfully slow and low-capacity Vizcaya transporter bridge that linked Portugalete and Las Arenas, located at the very mouth of the river. Any other exchange had to be done via the myriad small boats that crossed the river. For practical purposes, however, facing points of the river were, as in the analogous linear city, miles apart, even if just separated a few hundred feet in reality. All this fostered a physical—as well as class—division between the two banks, and also spawned an infrastructural duplicity: railways and roads run on both sides of the river, usually located at the riverside, thus making the breach between the city and the river even deeper.

The opening of Metro Bilbao in November 1995, roughly two years before the Guggenheim was completed, signaled the beginning of a new era for the city, symbolizing the new persona of the former industrial enclave. The infrastructural renewal had already started in the late 1970s, when the A-8 highway was extended past Bilbao's beltway down to the river mouth. However, the construction of the subway, a project in the minds of Bilbao's officials since the early 1920s, was the cornerstone of Bilbao's new (self) image and spirit. When the first announcements about its actual construction, after years of rumors, finally broke the news, many—myself included-disregarded it as an unnecessary, excessive, redundant, and clearly out-of-scale operation in line with the bombastic attitudes Bilbao's inhabitants display in the jokes told in other parts of Spain. Twenty years later, it is, with 87 million travelers a year, the most heavily used transportation system in Biscay. But, even more importantly than that, Bilbao's sleek, superfluously beautiful, and comfortably redundant subway marked a change of mentality for the city. Historically

a coldly efficient, cost-effective, and grey industrial city, Bilbao experienced for the first time the charms of the new route that was being constructed for it: from a production machine to a charming business, touristic, and cultural city.

Endnotes

- bilbo ('bɪlbəʊ): /noun/ (plural) -bos, -boes/ (formerly) a sword with a marked temper and elasticity./ Word Origin: C16: from Bilboa, variant (in English) of Bilbao, Spain, noted for its blades.
- 2 "The Bilbao effect. If you build it, will they come?" *The Economist,* December 21, 2013
- The earliest stages of the project were conducted by two different institutions, the Basque Government and the Provincial Council of Biscay, which later created a consortium, the Consorcio del Proyecto Guggenheim Bilbao, to supervise the project. Although the article does not mention him explicitly, it is probably referring to recently deceased mayor Iñaki Azkuna, elected in 1999, who received the in 2012 the World Mayor Prize, as one of the two factors (the other one was the opening of the museum) that turned the city from a post-industrial wreck into "an international centre for tourism and the arts."
- 4 The year 1985 marked the date where ship construction stopped in the shipyard, and the official shutdown was announced. This gave way to a long negotiation and demonstrations lasting until 1988, when an agreement was reached.
- 5 See Jesús Mª Valdaliso, "Nacimiento y desarrollo de la industria naval del hierro y el acero en el País Vasco: el caso de Vizcaya (c.1889-1979)" in Itsas Memoria. Revista de Estudios Maritimos del País Vasco 2 (San Sebastián: Museo Naval, 1998); 307-325.

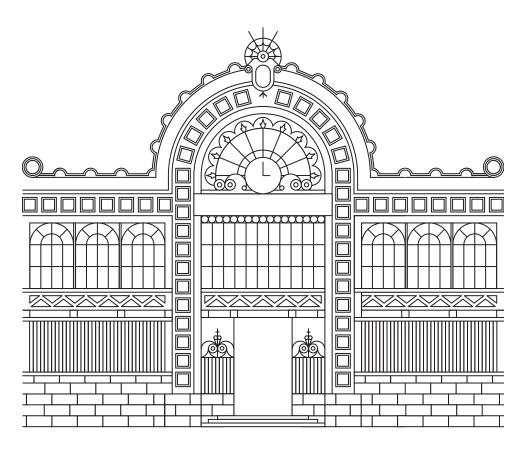
TH CEN-TURY ARCHITEC-TURE THROUGH THE LENSES OF SEWEM PROJECTS

Text and selection by García de la Torre Arquitectos Illustrations by Meneo

Many architects have left their mark in Bilbao throughout its history. Before its transformation in the late twentieth century, luminaries such as Severino Achúcarro, Eugenio María Aguinaga, Ricardo Bastida, Enrique Epalza, and Pedro Ispizua designed remarkable commercial, civic, and residential buildings, sometimes from their private practices and others as head architects of Bilbao.

Francisco J. and Bernardo I. Garcia de la Torre look at seven buildings by seven architects that are paragons of the architecture of the city during the twentieth century.

1902 La Concordia Railway Station



The Concordia railway station opened in 1902 and occupies a strategic location in Bilbao: next to the Estuary, across from the Old Town, and in open dialogue with the Arriaga Theater and its surroundings. It was built according to the original 1893 plans by the engineer Valentín Gorbeña and the 1898 plan by the architect Severino Achúcarro, who designed the façades.

The station is comprised of two separate zones: Concordia (passengers area) and Amézola (goods area), and is the terminus for the Zorroza-Bilbao line. The layout—infrequently seen in the rest of Spain—is a singular example of a fruitful collaboration between engineering and architecture. It borrows from the first English railway stations while synthesizing the style of a Berlin railway station, with its island platform and pithead loading platforms.

The architectural contribution by Severino Achúcarro gives form and expression to the railway station, lending it an urban and monumental personality. A curved roof, crowned at one end with a rotunda, substitutes the canopies that during the age of steam engines covered the track bed. The riveted metal structure is found in the lobby and throughout the building.

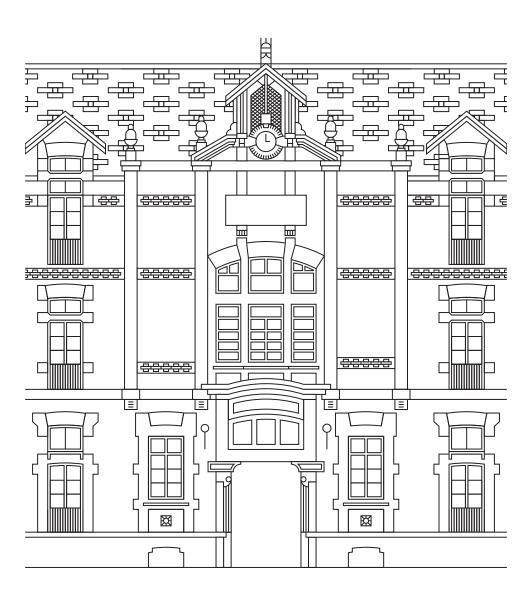
The waiting area, unusual in railway architecture, forms a lookout over the old part of Bilbao and is designed like a loggia with columns upon a stone wall and offices at one end. The façade of the lobby contrasts with the waiting area in a perfectly integrated composition. It has three openings, the middle of which is crowned with a metal and glass fanlight (recalling the Viennese buildings of the time) and the two laterals symmetrically adorned in stone.

The station has undergone several reforms. Architect Yago Bonet Correa restored the station in 1993 to its original essence by prioritizing and revitalizing the lobby, a covered public square providing a pedestrian transit zone between the Old Town and the Ensanche area. He reclaimed the original riveted metal structure and the platform shed, and he added new facilities. IMB Arquitectos completed the final renovation in 2007, restoring some existing elements and providing passengers and passerby with an organized lobby and new commercial spaces.

Severino Achúcarro Mocoroa (1841-1910)

Severino Achúcarro was a key architect and urban planner during the city's transition from the nineteenth to the twentieth century. After receiving his degree in 1866, he participated in the Plan of the Ensanche (Extension of the urban growth area) in Bilbao in 1876. The majority of his professional work was done in Bilbao, in the historical Old Town as well as the newly developing Ensanche area. He participated in the architectural trends of the time: Neo-medievalism, eclecticism, and modernism. The body of his works continues to serve as a testimony to these particularly fertile and creative moments in the history of the city. Some of his particularly unique and noteworthy works include the offices of the Society "El Sitio" (presently the Bidebarrieta Library), the neo-Gothic façade of the Santiago Cathedral, and the La Concordia railway station linking Bilbao and Santander.

1908 Basurto Hospital



The construction of this significant project in Bilbao came at the turn of the nineteenth century when the new community hospital in Basurto replaced the old Atxuri hospital. In the span of the 90 years between the construction of both hospitals, there was a significant change in attitude towards the style of buildings designed to meet similar needs: a strong and compact building in the case of the Atxuri hospital designed by Gabriel Benito de Orbegozo, and separate pavilions surrounded by gardens in the case of the Basurto hospital designed by Enrique Epalza.

The new decentralized plan introduces a model already in use in Europe throughout the nineteenth century that broke with the neo-classical concepts of hierarchical organization. The pavilions are distributed symmetrically upon a central axis. Each side has independent pavilions, each housing different medical specialties. The administrative offices are located in a building at the front entrance of the hospital.

As for the exterior architectonic aspects, Epalza gave the work a popular and domestic style with sloped, colored roofs and wide eaves. The use of ceramic materials such as brick or mosaic tile and the treatment of the façade lends an almost neo-Mudejar style that takes a few steps towards modernism.

Still in use as a hospital, several pavilions have been renovated and new ones have been added following the stylistic guidelines of the original ones, planned by one of the key figures in the cultural changes since the turn of the century.

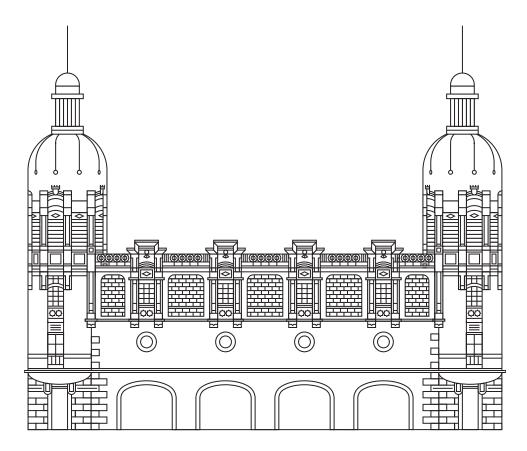
Enrique Epalza Chanfreau (1861-1933)

The majority of his professional career took place in Bilbao, both publicly in his position as the municipal architect and Head of Public Works for the Bilbao City Council, as well as privately during the very interesting period of transition from the nineteenth to the twentieth centuries. In the area of urban planning, he drew up the maps of the city limits and the first proposal for the expansion of Bilbao, the Ensanche. With a great concern for health issues, he shared his knowledge in theoretical articles and in projects, of which the Basurto hospital is one of the most important.

Other noteworthy projects include the residential buildings at the Uribitarte ramps, the La Cruz neighborhood, the expansion of the Banco de Bilbao headquarters in the San Nicolás Square, and his participation in the Iralabarri neighborhood.

20th Century Architecture 41

1909 Alhóndiga Municipal



The municipal wine warehouse occupies an entire block of the Indautxu neighborhood, on the border between the original Ensanche and its later expansion beyond San Mamés Boulevard. This unique and monumental building possesses several remarkable features including the ground floor divided by three wide lanes with elevated walkways for loading and unloading directly from carts, and the careful analysis of the utility of the interior. All of this was done in keeping with Bastida's original concept: the careful design of the exterior and its urban presence.

For the project, he used low-maintenance, inexpensive, and modest building materials such as man-made stone, grey slate, and brick. The building was restored after a fire in 1919. In 1977, the Alhóndiga ceased its operations and the wine stores were moved to a new building in Rekalde designed by Félix Iñiguez de Onzoño. In 1988, the futuristic idea "Cube of Gorordo" was developed to turn the building into a cultural center. Designed by architects Francisco Javier Saénz de Oiza and Daniel Fullaondo with sculptor Jorge Oteiza, it was never realized.

Ultimately, the architectural department of the municipal government and the French designer Philippe Starck designed a proposal to use the building as a cultural and leisure center. Construction started in 2001 and the new facility opened in 2010. The façades have been preserved and, because of their architectonic relevance, they have been carefully restored. Thus, the building preserves its role in the city fabric.

The inside is an entirely different matter, where Philippe Starck gave free rein to his imagination, creating a new urban environment, in essence a stage, a city within a city. The new design includes three interior cubes as well as forty-three columns by

Lorenzo Baraldi. The Arriquibar Square has now become the main entrance to the building. The building, once envisioned by Ricardo Bastida as a large container and warehouse for the new city then being built, is now, a century later, an important center for culture and leisure. In 2015, it was renamed Azkuna Zentroa in honor of the late Mayor Iñaki Azkuna.

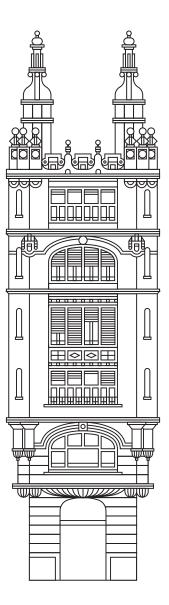
Ricardo Bastida Bilbao (1879-1953)

In 1901, Ricardo Bastida received his degree from the School of Architecture in Barcelona, where he was a student of Domènech i Montaner. It was most likely there that he developed his interest in modernism, an influence that can be seen in his two public laundries on Castaños Streets and San Mamés Boulevard. He was an important figure in Bilbao near the end of the nineteenth century and the first half of the twentieth century, taking different roles as an independent professional. Head Architect of Public Works in Bilbao, Diocesan Architect, Deputy Director of the School of Arts and Trades, and Senior member of the Professional Association of Architects, among others.

He demonstrated a great interest in urban development and issues of function and maintenance of the buildings. He used a variety of architectural languages in his buildings that include the Alhóndiga, public schools in Ribera and Indautxu, the Olimpia Cinema, Miguel de Unamuno Secondary School, and the Urízar Tower residential building.

[&]quot;The style of the commercial building to be located in the center of the city will be designed carefully with detailed work on the façades, making it more attractive than a simple warehouse on the outskirt of our Villa." **Ricardo Bastida**

1919 Ramón de la Sota Houses



The abundance of multifamily buildings dating from around the 1920s signaled a change in Bilbao's residential architecture, at least partly motivated by the second generation of the Ensanche. The exception was Allende family's private property in Indautxu, designed by architect Leonardo Rucabado. The Sota Houses are the best examples of bourgeoisie or luxury neighborhood houses done in regionalist style with Cantabrian mountain-style influences, characteristic of Leonardo Rucabado.

These houses, designed in 1919 by Manuel María de Smith, were intended to recreate the comforts of a single-family bourgeoisie house. The rooms open onto the main façade and the bedrooms face interior patios with kitchens and service areas.

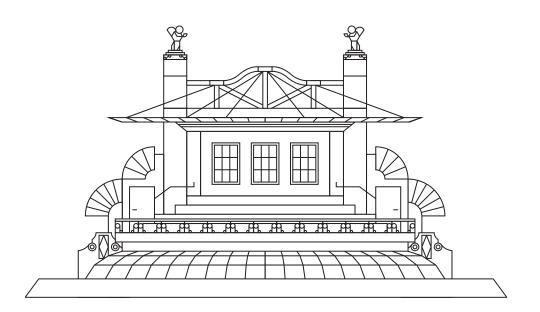
Initially, Sir Ramón de la Sota, a prominent and wealthy layer and businessman, intended to build on the entire block, including a private alley and interior gardens. However, his efforts were unsuccessful, even with a second attempt after the part of the building facing the Gran Via had been constructed.

Manuel María de Smith Ibarra (1879-1956)

Born in Bilbao, Manuel María de Smith Ibarra completed his studies at the School of Architecture in Madrid in 1904. He is the author of a large body of work built during the first half of the twentieth century and developed in a variety of styles, including regionalism, English, neo-medieval, eclecticism, and rationalism.

He left his mark with important works such as the Aortas Palace, the Carlton Hotel, the Sota-Aznar offices, and the Atxuri station.

1923 Arenal Bandshell



Bermeo architect Pedro Ispizua was a prolific architect during his long professional career. A drawing enthusiast, he took pleasure in this project by creating a series of sketches leading up to this unique work: a very expressive round bandshell with overhanging roof.

An initial 1923 design was never built due to financial reasons. The second project by Ispizua, who was Bilbao's municipal architect, was ultimately built replacing a more classical and traditional bandshell.

The new design provided original solutions to the issues of acoustics, function, and construction: a light, overhanging cable-stayed roof allowing spectators to view the entire stage; the use of a metal structure; and the integration of ornamentation. The building is more modern than earlier styles of bandshells, incorporating an innovative and urban look.

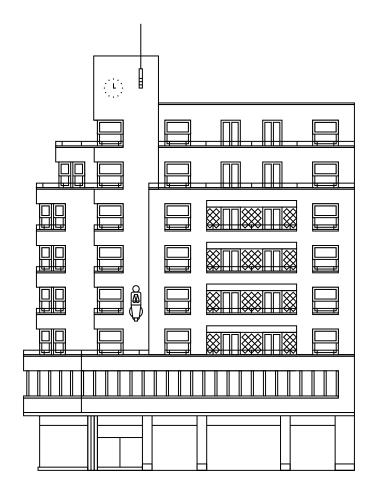
Pedro Ispizua Susunaga (1895-1976)

Perhaps the origins of the unique and productive career of architect Pedro Ispizua can be found in the traditional fine woodworking of his family. He studied under Domènech i Montaner and collaborated with him during his years of study at the School of Architecture in Barcelona.

In Bilbao, he left an important body of private projects and public works, particularly in the school buildings that followed the guidelines established by Ricardo Bastida. The Arenal Bandshell and the Ribera Market are two of Ispizua's most remarkable projects.

His creative genius goes beyond any attempt to reduce his work to the styles or fashions of his era. With time, his talent is earning its proper due with the rediscovery of the unequalled perfection in form found in his work.

1934 La Equitativa Building



Over time, the Ensanche area of Bilbao developed with residential buildings, bank headquarters, and a variety of businesses, including insurance companies like La Equitativa. These businesses sought out prime locations, on the Gran Via or nearby streets, and on several occasions faced onto a minimum of two streets.

The Equitativa is a remarkable project by architect Manuel I. Galíndez. See the interesting and balanced design of its volume, the intelligent delimitation of its spaces, and the detail used in response to construction issues. It is at the same time unique in keeping with its surroundings, a trait found only in a few rare and noteworthy buildings.

As stated by Galindez himself, "On the ground floor, windows have been used all the way across, for better natural lighting, and using the maximum heights allowed by the City. The location has also been the deciding factor in the general layout of the building. Our classic 5-meter chamfer has the common, and almost monotonous, use of symmetry on the corner with an important theme formed on the bisection of the angle of two façades. Towers, turrets, steeples, and lately curved lines have been our concern in similar cases. Reasonably, this should correspond with a certain balance between the streets that form the angle with good vantage points for the chamfer. But in this case, none of theses circumstances apply: the streets are somehow narrow and, above all, the primary views that have to be considered in the study are from Gran Vía, with a straight view of the left façade. And, on the other hand, I think it is even more important that the main views are from the Albia Gardens, straight views of the front façade and angled views of the chamfer facing.

These reasons, along with the ground plan designed using a certain balance between the two sides of the residence have led me to adopt the use, to put it that way, of a double angle.

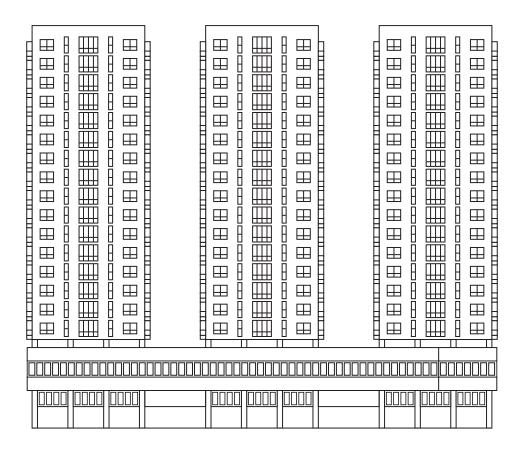
Aside from these reasons, which we could call technical, we have tried to give more monumentality and detail to the façade than that of a residential house, furthermore applying elements not used for a residence, such as a tower, clock, flagstaff, and a large panel for signage. A simple inspection of the façade defends, for the overall design, the use of stone.

The ground plan has no special features, aside from the aforementioned chamfer, although it is a little tight due to the small size of the lot."

Manuel I. Galíndez (1892-1980)

After receiving his architectural degree in Madrid in 1918, Galíndez started as an assistant to Ricardo Bastida in Bilbao. Throughout his professional career, he worked in a variety of trends and styles, including regionalism, neo-Basque, rationalism, and classicism. His great sensibility stands out in three areas: the plans of his projects; the use of materials and textures; and the relationship between his buildings and their surroundings, always ready to offer interesting urban solutions to the city. He collaborated on many of his works with his nephew José María Chapa, also an architect. Although he worked in the Biscay province and in the rest of the country, it was in Bilbao where he left important examples of his creativity in works such as homes on Plaza Arrikibar and Alameda de Urquijo, and buildings for the Equitativa, Aurora Polar, Iberduero, Naviera Aznar, Torre de Bailén, and Banco Hispano Americano.

1975 Etxezuri Apartments



This is one of the last projects of the architect Eugenio María Aguinaga. He explained the work by evaluating its functionality and versatility: "The three towers are equal, using a reinforced concrete grid structure. The apartments are also identical, all with exterior facing rooms and with no interior patio. The staircase, lit via a skylight, is located in the center of the tower so it does not occupy space on the façade. The apartments, approximately 135 square meters, have a guest bedroom that can be used as a dining room with all of the bedrooms having direct access to the bathrooms. The living room is located on the corner with views in two directions. The distribution allows for eight studios rather than four apartments, or a combination of the two, without changing the structure or building systems. The underground parking is accessed by a helix-shaped double ramp (with two turns, entrance and exit, around a central opening), occupying a minimum of space in the floor plan."

The towers are slightly offset on the ground plan and connected by a shared podium used for offices. The façades are finished with panels measuring 90 cm of a light-colored stone veneer.

The building maintains its modern image decades after its construction, a feature found in other works by Aguinaga in Bilbao.

Eugenio María Aguinaga Azqueta (1910-2002)

Born in San Sebastián, he studied in Madrid and spent most of his professional career in Bilbao and the Biscay province. He is an important figure of the post-war era in Bilbao and the architectonic mastermind behind the shaping of the Neguri neighborhood in Getxo.

All of his works demonstrate a mastery of design and construction. Some of his projects include residential buildings on Elcano Street, Gran Vía Avenue, Etxezuri, and Zabálburu, as well as the Galea Golf's clubhouse.

His son Eugenio has followed in the family trade.

[&]quot;The floor plans of the residential high-rises are inspired by Mies van der Rohe's Lake Shore Drive Apartments in Chicago." **Eugenio María Aguinaga**

THE **AMERICAN** HOUSES OF BILBAO

Essay by Patxi Eguiluz and Carlos Copertone Photographs by Carlos Copertone

Until the nineteenth century, Bilbao was a thriving yet small city in the north of Spain with a sheltered port connecting Castile and the sea. Surrounded by mountains all the way around (the city is known as *El Botxo*, the hole), its flat area by the Nervión River was not very extensive, but still big enough to accommodate all of its population.





Industrial Revolution. From the end of the nineteenth century and across most of the twentieth century, the presence of steel mines nearby turned Bilbao and its environs into an important area of steel and iron production. The banks of the river became the second most important industrial axis of Spain, just behind the metropolitan area of dramatic situation faced by many families Barcelona.

The consequence of this buzzing economic activity was the exponential growth of Bilbao's population: from 35,000 people ects a "miracle," but in reality, they were in 1870 to 405,000 people a century later.1 ² Until the Spanish Civil War (1936-39), the process of urban intervention was more or less controlled by programs like Casa Baratas (Cheap Houses) developed along the river basin until 1936 or the creation of workers' housing in Iralabarri related to Harino-Panadera. Those examples epitomize the quest for housing solutions that guaranteed a minimum of habitability for the new population surging in Bilbao.

During the Civil War and the traumatic post-war era, an economic halt took root. However, the opening of the Francoist regime at the end of the 1950s generated one of the most abrupt changes in the recent history of Spain. Called desarrollismo (or tant industrial and economic growth had a significant effect in Bilbao. During that time, planning was unable to address the urban issues that were being generated by complicated orography.

The strong industrial growth that took place after 1959 required an important housing intervention by the government, which resulted in three large urban projects: Begoña, Txurdinaga, and Otxarkoaga.3 It is in this last peripheral neighborhood of Bilbao where a group of architects,

The situation changed drastically after the some of them recent graduates from the School of Architecture, including Juan Madariaga, Luis Saloña, Martín de la Torre, Esteban Argárate, Julián Larrea, and Rufino Basáñez, started to work to fight the proliferation of slums. The invaluable 1961 documentary Ocharcoaga, directed by Jorge Grau, showed in its first few minutes the who were crammed into the hillsides surrounding Bilbao.4

Propagandistic, it called the new projquick fixes with simple construction methods that resolved a social issue yet had no urban or architectonic qualities, creating bare minimum units within a bare minimum budaet.

Rufino Basáñez, who had graduated just two years earlier from the School of Architecture in Barcelona, commented in his 1985 paper Me llamo Rufino Basáñez Billabeitia ("My name is Rufino Basáñez Billabeitia" and later part of his monographic book), "I came back to Bilbao where I practiced the profession in a grim and degrading manner, building houses that we consider shacks. It was a task that ended up depressing me personally."5

It is shocking that the urgency to resolve the Spanish Miracle), this period of impor- such an important urban problem as the proliferation of slums led to building new housing that the architects themselves still considered slums. Despite the bloodyminded Francoist regime, the young archithe strong migration to a city defined by a tects had creative goals that were not met with these first few projects they worked on. Fortunately, once those initial and serious urban issues were solved, the government focused on dignifying workers' housing by building interesting projects.

> In 1963, the Bilbao Council organized a competition to build a 227-unit apartment building in the San Ignacio neighborhood.

Rufino Basáñez, along with his peers Esteban Argárate and Julián Larrea (with whom he had worked in Otxarkoaga) won the competition. Like in their previous experience in Otxarkoaga, the size of the apartments and the budget were tight, but this time this would not be an impediment to anchoring the proposal within the site. create quality architecture.

of the Unité d'habitation that Le Corbusier had built a decade earlier in Marseille. Instead of the singular long linear building designed by the Swiss architect, the proposal by Basañez, Argárate, and Larrea featured three buildings of different heights located in a rectangular block, respondblock surrounded by four streets.

The Unité d'habitation was a city in itself, with a complex programmatic configuration that never worked as well as it was intended. It had a central commercial street located in the intermediate level and communal spaces located on the rooftop. The "Grupo Pedro Astigarraga," as the project is officially known, was, however, less ambitious. Instead of the open space on the ground floor, here we find the more conventional commercial spaces. The rest of the building is dedicated exclusively to housing. Framed between the three buildings there is a large communal space that Modern Movement in the Iberian peninsula. contrasts with the inhospitable void found in Marseille.

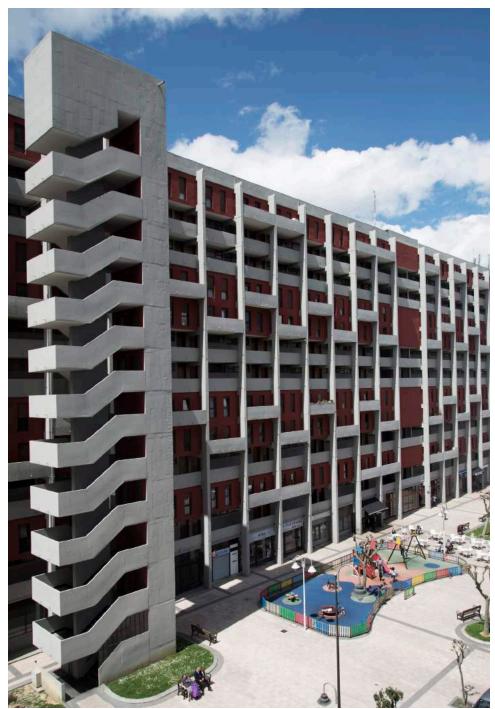
The internal architectural communication was also different between both projects. Le Corbusier proposed an internal longitudinal street that provided access to the units on both sides of a very deep building. In Bilbao, the large corridors that provided access to the units, also duplexed, are located in the exterior of the building, a feature that gave the building the nickname of Casas Americanas (American Houses).

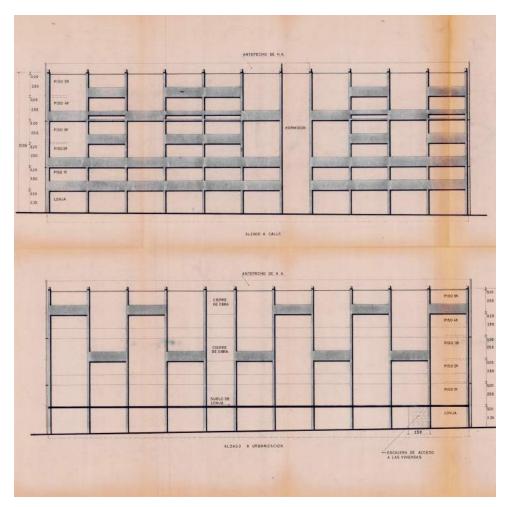
To access these exterior communal spaces, the architects designed an external element removed from the main volume and of bigger height: the stair. It is a sculptural vertical volume that generates an imposing image of light and shadows, visually

The buildings, like the stair, are built out Their proposal was a reinterpretation of exposed concrete. There, the large concrete pillars are removed from the plane of the floor, serving as the support for the guardrails (similar to the brise-soleils of Le Corbusier) that, arranged in an alternating way, generate a compositionally rich façade and a skillful play of light and shadow.

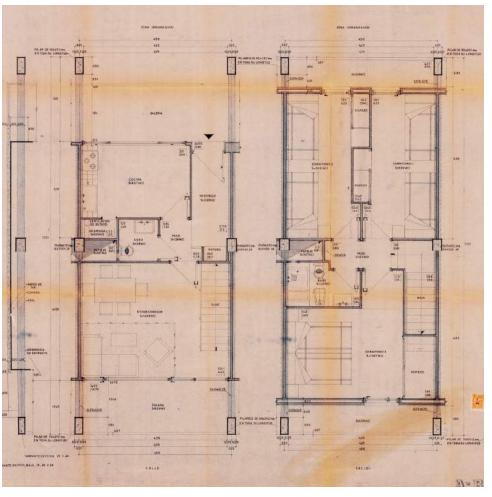
The construction of the Casas Ameriing to the typical urban configuration of a canas was completed in 1968, instantly becoming a radical and unique proposal within the Spanish urbanism of the time. Similar to the Unité d'habitation ("Architects complained that the project violated the ordinances, doctors predicted mental illnesses to future users"), the Casas Americanas have never been understood. They were not understood then, with a society not used to radical housing proposals of this kind, and they are still not understood nowadays, with neighbors surprised that the buildings received awards. The DOCO-MOMO foundation included them in their registry of essential buildings within the

> Since they were completed, and in the following five decades, few social housing proposals built in Bilbao can be compared to the radical and daring projects of Basáñez, Argárate, and Larrea. The Casas Americanas continue to symbolize that social housing of quality architecture can be possible. They are a stroke of genius amid the typical monotony of Spanish residential housing.





Elevations



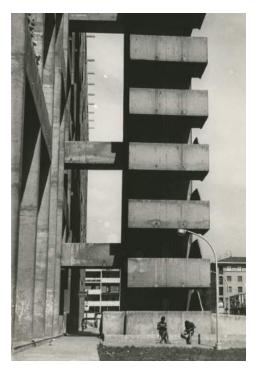
Plans

Endnotes

- 1 Rafael Arturo Ortega Berruguete, "La población de Bilbao: 1800-1870" in Cuadernos de sección. Historia-Geografía 10 (San Sebastián: Eusko Ikaskuntza, 1988): 47-60.
- Censo de población de 1970 por municipios: Bilbao (Madrid: Instituto Nacional de Estadística, 1972).
- 3 Elías Mas Serra, "El Urbanismo del periodo desarrollista en las tres capitales vascas" in Revista internacional de los estudios vascos 50 (2005): 443-491.
- 4 Ocharcoaga, a 1961 documentary by Jorge Grau commissioned by the Ministry of Housing. http://www.youtube.com/watch?v=-sOB0rQ_B0E.
- Dolores Palacios Díaz, "Rufino Basañez,"
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MASCONTEXT/30-31/BILBAO









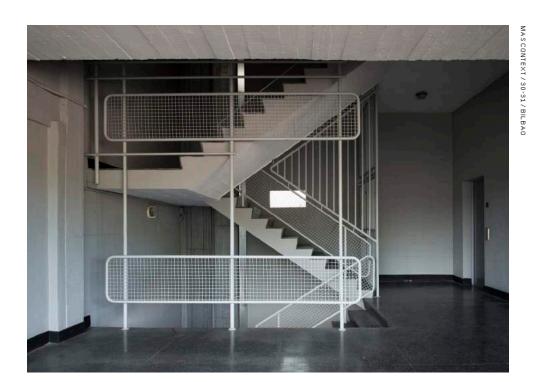


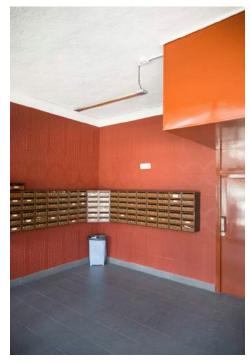
















\SCONTEXT/30-31/BILB



A BASTION OF DESIGN

Project by Cini Boeri Architetti

IASCONTEXT/30-31/BILBAO

Since its founding in Vitoria in 1962 by José Patricio Alvarez de Arcaya, the family-owned company MOSEL has focused on selling great design and high-quality furniture, especially Italian and Nordic creations. José's fascination for design did not stop with the furniture he imported, though, and so in 1974 he commissioned the award-winning Italian architect Cini Boeri to design their new shop in the Gran Vía in Bilbao.

The 1,500 square meter furniture shop, located in a late nineteenth century building, united the ground floor with the basement, creating several areas on the intermediate levels. The two acute triangles facing the street are the front of an internal section that continues along the length of the shop, allowing the basement floor to be visible from the street. Architect Pierluigi Cerri designed the iconic neon sign located in the windows.

The new shop put MOSEL on the international scene, making it one of the most acclaimed furniture stores in Europe. Yet this would not be last collaboration between MOSEL and Cini Boeri. In 1992, she was hired once again to design their new shop in Vitoria.

We want to honor MOSEL and the architect Cini Boeri for their commitment to bringing the best international design to Bilbao, long before the city embraced modern design.





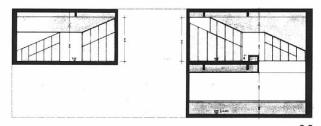
A Bastion of Design 73



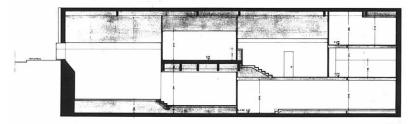






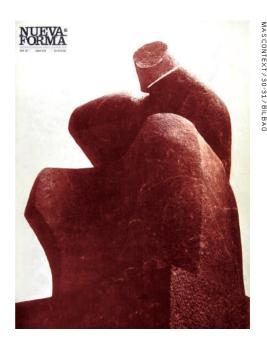


Cross Section



Longitudinal Section

Cover with Jorge Oteiza's "Escultura para la capilla de la Escuela profesional de Buitrago, 1972-73," in *Nueva Forma* 89 (June 1973).



BILBAO AND THE MAGAZINE NUEVA FORMA

Essay by Lucía C. Pérez-Moreno and Elena Martínez-Litago

It was in the 1960s when architects interested in organizing the past had enough historical perspective to present different narratives for Spanish modern architecture. The different books published throughout this decade documented buildings that were clearly influenced by the language of the International Style. Many of these buildings are now regarded as masterful examples of Spanish architecture culture. The main scope of these books was style, with the aim to document-especially through photographs—and demonstrate that modernity was a reality in Spain. At the same time, geographical aspects were latent, but not explicit, in the organization of those books, essentially because of the location of the buildings that were selected to be published. Madrid and Barcelona were mainly the two cities represented, probably because there were only two schools of architecture in those years, one in each city. Therefore, the most relevant journals of architecture were also published in those cities: Revista Nacional de Arquitectura (later called Arquitectura) in Madrid, and Cuadernos de Arquitectura (later called Cuadernos de Arquitectura y Urbanismo) in Barcelona. In 1966, a new magazine of art and architecture titled Nueva Forma was founded. It is remarkable that architects from the Basque Country, and also Navarre, had significant roles in much of its issues. The director and editors of Nueva Forma identified this territory as a third cultural area of Spain, highlighting the history and the architecture of the city of Bilbao.





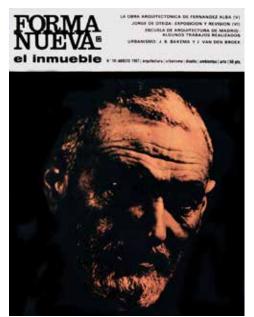




Fig.1 Covers of: El Inmueble 2 (March 1966); Forma Nueva- El Inmueble 15 (April 1967); Forma Nueva- El Inmueble 19 (August 1967); Nueva Forma 23-24 (December 1967-January 1968).

Editors, Title, and Director

new little periodical titled *El Inmueble* that was being run by the Spanish poet Gabino Alejandro Carriedo. Juan Huarte was the son of Félix Huarte, the head of a remarkable family in the Spanish history of art and architecture. They were originally from Navarre, but most of their companies and businesses were based in Madrid. They supported and funded the development of modern art and design in Spain, especially in the 1950s, becoming one of the most relevant families in the country. They sponsored the early work of remarkable Span-Jorge Oteiza and Eduardo Chillida, and the Madrilean painter Pablo Palazuelo, among

others. They also promoted experimen-In 1967, Juan Huarte Beaumont acquired a tal initiatives such as the cinema producer X-Films and the electronic and acoustic had started publishing a year earlier and music group ALEA. The family owned several building construction companies: Huarte & Cía, HISA, and Imenasa. These companies were in charge of the construction of remarkable architectural projects that were later considered masterpieces of Spanish modern architecture, such as the Frontón Recoletos, designed by Secundino Zuazo and Eduardo Torroja (1935-1936), and the housing block Torres Blancas, designed by Francisco Javier Sáenz de Oiza (1960-1968).1 Juan Huarte admired the work of the Italian entrepreneur Adriano ish artists, such as the Basque sculptors Olivetti and the magazine Zodiac, of which he was in charge. Probably inspired by this, Juan Huarte's aim was to establish a similar

kind of magazine in Spain. His new commitment was not only to promote art and arthe media.

During the first year, Huarte's magazine enjoyed several titles. Originally called El Inmueble, it was changed to Forma Nueva-El Inmueble a few months later, becoming Nueva Forma, its final name, in September of 1967. There is not a clear consensus regarding these changes. The original magazine had a section about design, furniture, and decoration titled Forma Nueva. This section grew to become very significant, so its name was included in the title of the magazine. This second title, Forma Nueva-El Inmueble, was problematic due to the existence of Loewe's magazine Forma. It seems that the Spanish regulations at the was also from Bilbao-although working

time did not allow two magazines to share the first word of their titles. Consequently, chitecture, but also their spread throughout the title was changed once again to its final version. Nueva Forma. The subtitle of the magazine was also changed, from "arquitectura, decoración, hogar" (architecture, decoration, home) to "arquitectura, urbanismo, diseño, ambientes, arte. Madrid-Barcelona-Bilbao" (architecture, urbanism, design, environment, art. Madrid-Barce-Iona-Bilbao) (fig.1). Finally, the person in charge of the magazine also changed. The architect Juan Daniel Fullaondo, originally from Bilbao, became the main director of Nueva Forma in September of 1967, lasting until April of 1975 when the magazine finally closed. The fact that Bilbao was included in the new subtitle and that the new director

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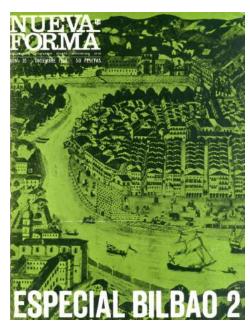






Fig. 2 Covers of the four issues of *Nueva Forma* that analyze the history of the city of Bilbao: *Nueva Forma* 34 (November 1968), *Nueva Forma* 35 (December 1968), *Nueva Forma* 36 (January 1969), and *Nueva Forma* 37 (February 1969).

and living in Madrid—were not anecdotal decisions. Fullaondo and Huarte shared the desire of positioning this territory as a cultural reference in Spain. It was not casual, either, that the cover of the first issue run by Fullaondo was a portrait of the Basque sculptor Jorge Oteiza.

Bilbao, its Architecture and Architects

In June of 1967, Juan Daniel Fullaondo published an essay about Bilbao in the magazine Arquitectura, the main architecture magazine in Madrid. He summarized the history of the urban development of the city as a way to praise and discuss the end of the urban planning for Asua Valley, a new important urban expansion for the city designed in 1962. This article was the starting point for a series of articles later published in four special issues of Nueva Forma, from November of 1968 until February of 1969. Issues 34 to 37 were entirely dedicated to examining the history and the architecture culture of Bilbao (fig.2).

The first chapter of issue 34, "Análisis Urbanístico," (Urban Analysis) documented and discussed the main historical deci-

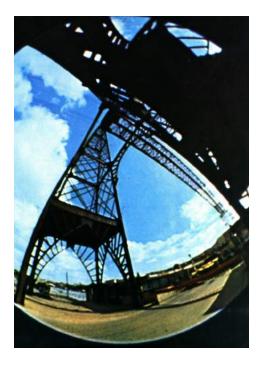
sions of the urban planning of Bilbao, from prehistoric settlements to modern developments.3 Throughout the discussion, Fullaondo highlighted three relevant moments in history that transformed this city: the nineteenth century urban expansion, the "Conferencia de la Bastida" in 1923, and the new plan of 1943, which was directly related with the urban expansion of Asua Valley. Fullaondo's writing not only showed a critical interpretation of these designs, but also questioned previous readings from historians such as Caro Baroja and Leopoldo Torres Balbás. 4 This fact was important so that the readers could appreciate the writers who previously had valued the relevance of the city. In doing so, Fullaondo essentially presented to the reader a maritime city with a remarkable industrial and commercial po-

tential that grew along the Nervión River with mindful respect for the landscape. The second chapter presented an architectural analysis of the city.5 Fullaondo focused on the cultural backwardness of Spain in comparison with the rest of Europe due to the Civil War (1936-1939) and the economical crisis that followed. He also discussed the historicist and eclectic architecture that still persisted in some areas of the country. Nevertheless, he presented an organization of the past using Ortega y Gasset's idea of the "Generation" creating a genealogy of outstanding local architects whose work was essential to understand the development of the city. The writing first discussed the pioneer career of the engineer and architect Alberto del Palacio, who invented the suspension-transporter bridge, the

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Fig. 3 Santiago Amón, "Universo y poética de Alberto del Palacio," in Nueva Forma 60-61 (January-February 1971): 54-55: Alberto del Palacio's suspension-transporter Bridge of Bizkaia (1893): Juan Daniel Fullaondo, "Análisis Urbanístico," in La arquitectura y el urbanismo de la región y el entorno de Bilbao 1 (Madrid, Alfaguara, 1969), 231.

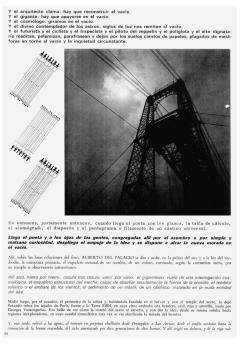


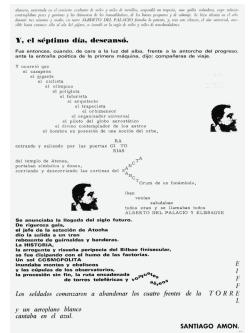
first being Vizcaya Bridge (1893). This design would later influence other engineers. such as the French Ferdinand Arnodin who became internationally renowned because of his cableway bridges. In 1971, Nueva Forma edited a special issue (issue 60-61) about the life and career of Antonio del Palacio, as a vindication of his pioneer yet unknown work. This issue discussed his designs as civil engineering decisions that influenced the landscape of the city, consequently changing the understanding that people had of the Nervión River (fig.3).

In subsequent issues, Fullaondo discussed the career and work of four generations of local architects who shared architecture cultural values. According to Ortega, a generation was a whole group, which is coetaneous and lives in and be-

longs to the same circle. The idea of a generation, therefore, does not imply anything more than these two factors: to be of the same age, and to have some kind of vital contact.6

The second issue, "Bilbao 2," was a wide study about the regional architecture of Bilbao. According to Fullaondo, it was necessary to understand its long tradition due to the relevance of its building construction system used in the architecture built in the city during the first two decades of the twentieth century. Names such as Manuel María Smith, José Luis de Oriol, Ángel Líbano, Guimón Bastida, and Emiliano Ammann were part of this first generation of Basque architects.7 Despite their historical relevance, their architecture was still so influenced by traditional and





regional architecture that they could not regarding architectural culture, as it was the be considered modern architects (fig.4). In contrast, the following generation was quite remarkable due to their clear affinity with the European new architecture.8 Mario Camuña, Secundino Zuazo, Pedro Ispizua, Tomás Bilbao, Manuel Galíndez, and Luis Vallejo were architects who showed a special interest in German expressionism and the architecture lead by Eric Mendelsohn. Among others, Fullaondo highlighted three projects as the most representative of this generation: the houses of Tomás Bilbao in Indauchu (1934), the Briñas School of Pedro Ispizua (1932-1933), and the Equitativa building of Manuel Galindez (1932).

Despite the high quality of the second generation of Basque architects, Fullaondo

case for the rest of Spain. In his own words, "most of the buildings constructed in the early forties [were] not part of the history of architecture."9 Only a few examples could be highlighted for following modern principals. The Santa Marina Sanatorium designed by Eugenio Aquinaga in 1942 was an example of a building that overcame the national and collective interest for historicism (fig.5), looking for international references, particularly in Finnish architecture and the work of Alvar Aalto. Continuing with Fullaondo's genealogy, José Chapa, Francisco Hurtado de Saracho, Álvaro Líbano, and Rafael Aburto would be the following generation, the third generation of Basque architects who mainly worked in the 1950s.10 considered the 1940s as a step backwards All of them could be considered modern















Casa de vecinos y planta en la Gran Via, de Bilbao.



SMITH

El arquitecto Manuel Maria Smith.









EL MAR EN PERSONA

He aqui el mar alzado en un abrir y cerrer de ojos de pastor. He aqui el mar sin sueño como un gran miedo de tréboles en flor . Y en postura de tierra, sumisa al parecer. Ya se van con sus lanas de evidencia su nube y su labor. A la sombra de un olmo nunca hay tiempo que perder.

Crédula exquisita, la oscuridad sale a mi encuentro. Mi frante abriga la corteza del pan que llevo dentro. Cortado a pico sobre un pájaro inseguro.

Y así me alejo bajo la acción del piano que me cose a las plantas precursoras del mar. Un ciervo de otoño baja a lamer la luna de tu mano.

Y ahora a mi orilla el mundo se empleza a desnudar Para morirse de árboles al fondo de mis ojos.

Mis cabellos se llenan de peces de penumbra y de esqueletos de navios forzosos.

Sin ir más lejos, tú eres fria como el hacha que derriba el silencio en la lucha entre el paisaje y su golpe de vista.

Mas cuando el cielo exporta sus célebres pianistas y la lluvia el olor de mi persona, cómo tu hermoso corazón se traiciona.

JUAN LARREA.

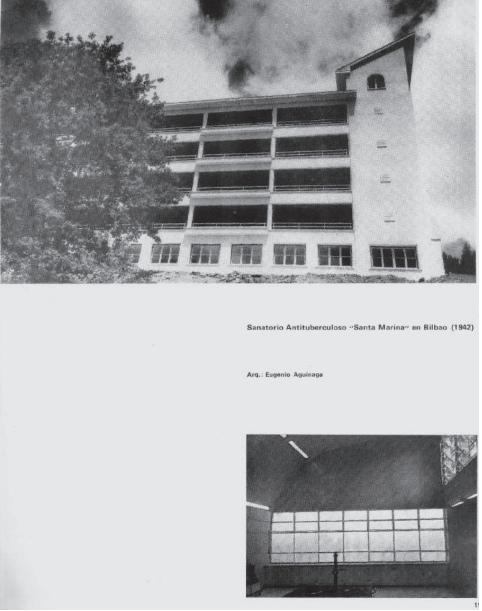


Fig. 6 Housing building in Alameda de Mazarredo, Bilbao (1965-1967), by Fernando Olabarría and Juan Daniel Fullaondo, in Nueva Forma 37 (February 1969): 56.

Fig.7 Cover of the issue about Rafael Aburto, in Nueva Forma 99 (April 1974), and the issue about José Luis and Felix Iñiguez de Onzoño and Antonio Vázquez de Castro, in Nueva Forma 102-103 (July-August 1974).



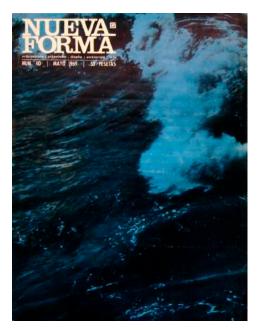


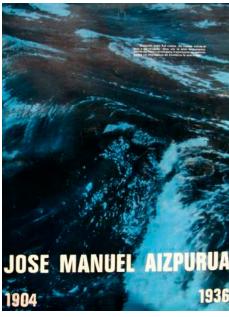
and, in particular, rationalist. All of them life. This was the main characteristic of the were clearly influenced by the masterpieces of Le Corbusier and Giusseppe Terragni, among others. The 1950s were years in Fernando Olabarría, Miguel de Oriol, and which a large number of social housing developments were constructed, in response to the need to build inexpensive dwellings due to the devastation caused by the Civil War. Fullaondo considered the new development of Caño Roto in Madrid (1957-1968) as the turning point for a new generation of architects whose work evolved into the framework of organicism. 11 The Basque architects José Luis Íñiguez de Onzoño and Antonio Vázquez de Castro, the authors of Caño Roto, did not believe in limiting architecture to the formal dictates of the Modern Movement. Their architectural goal was to serve the human needs of daily

forth generation that was also represented by other architects such as Rufino Basáñez, Fullaondo himself (fig.6). In pointing out organicism as the main influence of these architects, Fullaondo was influenced by the writings of the Italian historian and critic Bruno Zevi. He argued for a synthesis of the history of art and architecture based on successive cycles of creativity and regression, a vision that he inherited from his main philosophical influence, Benedetto Croce. Therefore, organic architecture was a progression from rationalism, a positive evolution that transcended the linguistic canons of orthodox functionalism to inspire the creative spirit of the author, which in his opinion had been bound and corseted.

volumes about the history and architectural continued publishing special issues on the career and work of Basque architects and artists. These volumes were the first monographs that compiled their careers and the work of all of them. From the last two generations. Nueva Forma published monographs about Rafael Aburto (issue 99 in 1974), and José Luis Íñiguez de Onzoño and Antonio Vázquez de Castro (issue 102-103 in 1974) (fig.7). Other architects who were not from Bilbao but from other areas of the Basque Country and Navarre also had special issues on their work. In 1969, issue 40 was dedicated to José Manuel Aizpurúa, the leader of the Northern Group of the GATEPAC (Grupo de Artistas y Téc-

Once Nueva Forma published these four nicos Españoles para la Arquitectura Contemporánea), a group close to the ideals culture of the city of Bilbao, the magazine of the CIAM. Among other projects, the Club Náutico (San Sebastian, 1929-30) stands out. Built in partnership with Joaquín Labayen, it is considered a masterpiece of Spanish modern architecture and was the only Spanish project to be featured in Henry-Russel Hitchcock and Philip Johnson's well-known book The International Style (fig.8).12 In 1973, issue 90-91 was dedicated to the career and work of Teodoro Anasagasti and Víctor Eusa from Biscay and Navarre, respectively (fig.9). Fullaondo considered both of them as examples of the influence of German expressionism in the architecture of the 1930s. Along with these issues, younger architects, with short but promising careers, were also

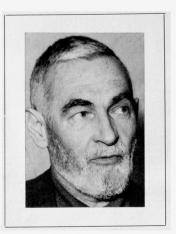




considered for special volumes, such as owned by the Huarte family-published Luis Peña Ganchegui from San Sebastián, and Fernando Redón, Rafael Moneo, and Patxi Biurrum, from Navarre. In underlining the culture of the Basque Country, Nueva Forma also published special issues on the work of Basque artists. The most outstanding were the sculptors Jorge Oteiza and Eduardo Chillida (fig.10). Other younger Basque artists who were in close contact with Oteiza and Chillida also had articles and issues published by Nueva Forma, including Nestor Basterrechea, Agustín Ibarrola, and José Antonio Sistiaga. While he was in charge of the magazine, Fullaondo published two books that compiled and extended with better photo essays most of the documentation about Bilbao already discussed. The editorial Alfaguara-also

both books under the title: La arquitectura y el urbanismo de la región y el entorno de Bilbao 1 (1969) and La arquitectura y los arquitectos de la región y el entorno de Bilbao II (1971).

RECUERDO Y OLVIDO DE JOSE MANUEL AIZPURUA POR JORGE DE OTEIZA



Quisiera decir algo pero no puedo, no sé cómo hacerlo, no creo que se pueda con palabras, solamente nos quedan las palabras, las palabras para sufrir en estos homenajes que ya no pueden ser más que de palabras, cuando la muerte del arquitecto Aizpúrua a los 33 años cumple también cumplimos para nada 33 años de su muerte, José Manuel Aizpúrua, presente, y aqui en su querida Guipúzcoa sin Escuela de arquitectura.

Quisiera decir algo, algo digo en un libro mío inédito como es natural, pues quisiera explicarme y no me explico todavía bien lo que en aquellos años nos sucedía hacia el 30 fundación del Gatepac, para nosotros Aizpúrua hombre en vanguardia de los arquitectos en España, para el grupo de artistas vascos que acudíamos a su estudio de la calle Prim, yo no iba mucho, no podía, mi desastrosa situación económica, pero creo recordar que con el pintor Juanito Cabanas en ese estudio de Aizpúrua y Labayen vi por primera vez un Cahier d'Art y abri los ojos a lo que pasaba en París, aunque esto debió sucederme unos años antes, pues con el pintor Ramón Gabarain trazamos sobre esa misma revista un plan audaz para ir a vivir a Paris el 31, y yo me quedaba ese año haciendo mi servicio militar en Africa. Comentábamos del poeta Maiakowski que había que sacar la República del barro, pero no debimos entender del mismo modo esas palabras, nos dolla la oposición de nuestros amigos del Renacimiento vasco, hitzol, Euzko-Pizkunde, a los que tratábamos de interesar inútilmente en los movimientos de renovación del arte contemporáneo, nos dolía la persecución en la URSS al arte nuevo, y hacia el 33, el 34, nuestro grupo donostiarra de artistas se orientaba hacia el fascismo italiano, Giménez Caballero, Marinetti, solamente faltas tú, me vino a decir un día Soraluce, no era yo sólo el que les faltaba.

El 33 en el Kursaal de San Sebastián exponían Artistas Ibéricos, Aizpúrua y Cabanas me invitaron para que llevara la obra que tuviese, pero yo lo único que tenía lo estaba exponiendo en el Casino en el Concurso de Artistas noveles guipuzcoanos. Recuerdo entonces la conferencia en el Kursaal creo que de Giménez Caballero y que habló también Aizpúrua, y me ha quedado su distinción entre todos, su elegante comportamiento en todo, hasta su forma de vestir, me parece entre arquitectos que hay una forma más estética y valiente, equilibrada y personal en el vestir, y siempre que veo un arquitecto joven y nuevo, suelo recordar a Aizpúrua. Recuerdo estas cosas porque no es mucho lo que recuerdo y no todo lo que quisiera recordar tengo ahora tiempo, no tienen tiempo los demás, sus amigos de entonces que están de más, los que estamos de más aunque más efectivamente hemos pensado y estado con él cuando hemos luchado por una Escuela de arquitectura, por una Escuela de investigaciones estéticas, por una Escuela de arte contemporáneo, para nuestra provincia, para su San Sebastián que él quería tanto y al que dejó, con escándalo y sin agradecimiento, el único edificio decente y anticipado. No, sin nuestra Escuela de Arquitectura no hay homenaje a Aizpúrua y yo me niego a añadir una palabra más,

Aránzazu, 23 de abril, 69

oter to



Fig. 9 Cover of the issue about Teodoro Anasagasti and Víctor Eusa, in *Nueva Forma* 90-91 (July-August 1973); "Casino Eslava, 1931," by Víctor Eusa, in *Nueva Forma* 68 (September 1971): 18-19.

Toward a Third Cultural Area

Fullaondo's writings always accepted Madrid and Barcelona as the main areas of architectural culture in Spain. Nevertheless, the amount of articles and special issues about the work and career of architects from the Basque Country and Navarre is an expression of his interest in pointing out this area as the third cultural outstanding territory of the country. Nueva Forma became a magazine where all these architects and artist found a shared platform to see their work interpreted as a whole. It was necessary as a way to defeat the feeling of being a disarticulated number of individuals who did not have a common way to express their ideals. It is remarkable that in some writings, Fullaondo used the term 'School of Bilbao' as a way to identify

young Basque architects such as Basañez or Larrea, despite the fact that there was not a real school of architecture in these years. Thus, this amount of writings is also a manifestation of the editor's concern about spreading the architectural culture of the Basque Country and Navarre throughout the rest of Spain, and especially in Madrid where the magazine was published.

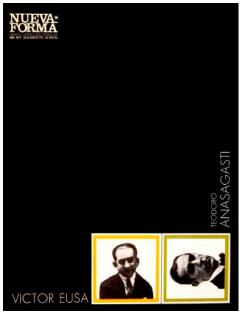




Fig.10 Cover with Jorge Oteiza's, "La desocupación de la esfera, 1957," in *Forma Nueva- el Inmueble* 14 (March 1967).

Endnotes

- 1 Javier Martínez González and Marta García Alonso, "Building Modern Spain: Some Notes on Huarte y Cía," in Nuts & Bolts of Construction History. Culture, Technology and Society, vol. II, eds. Carvais, R., et al. (Paris: Picard, 2012), 99-106.
- Juan Daniel Fullaondo, "Bilbao: Historia urbanística," in Arquitectura 102 (June 1967): 27-36.
- 3 Juan Daniel Fullaondo, "Bilbao: Análisis Urbanístico," in *Nueva Forma* 34 (November 1968): 5-81.
- 4 Leopoldo Torres Balbás, "La edad media," in Resumen histórico del urbanismo en España (Madrid: Instituto de Estudios de Administración Local, 1968), 1-107.
- 5 Juan Daniel Fullaondo, "Bilbao: Análisis Arquitectónico," in *Nueva Forma* 34 (November 1968): 82-118.
- 6 José Ortega y Gasset, "La idea de las generaciones" in J. Ortega y Gasset, En torno a Galileo (Madrid: Revista de Occidente, 1967), 51-52; 1st edition, En torno a Galileo (Madrid: Espasa-Calpe, 1962).

- 7 Juan Daniel Fullaondo, "La Primera Generación," in *Nueva Forma* 35 (December 1968): 67.
- 8 Juan Daniel Fullaondo, "La Generación de Zuazo," in *Nueva Forma* 35 (December 1968): 75.
- 9 Juan Daniel Fullaondo, "La Tercera Generación," in *Nueva Forma* 36 (January 1969): 10.
- 10 Ibid.
- 11 Juan Daniel Fullaondo, "La Generación actual," in *Nueva Forma* 37 (February 1969):4.
- 12 Henry Russel Hitchcock and Phillip Johnson, The International Style (New York: W.W. Norton & Co., 1932).
- 13 Juan Daniel Fullaondo, "Rufino Basáñez," in *Nueva Forma* 37 (February 1969): 35.

10

MASCONTEXT/30-31/BILBAC

The Vizcaya Amusement Park

A STORY OF BROKEN DREAMS

Essay by Tomás Ruiz Photographs by Yosigo There are abandoned places that generate stronger feelings than others. Possibly one of the most emblematic and missed places amongst the residents of Bilbao is the Vizcaya Amusement Park. Between 1974 and 1990, every kid from the city and surroundings spent their childhood at the amusement park and swimming pools, enjoying the rides, the mini-zoo, and the popular concerts. Since its closure, the still-visible iconic red pyramids are a reminder of a moment in which leisure, entertainment, and tourism flourished in Bilbao. Tomás Ruiz shares the history of the amusement park, from its origins as the most modern park in Europe to its decline and ultimate closing.



Origins

In the early 1970s, the local authorities from the Biscay province launched a public call. In refined language, typical at the time, it said the following:

"The Provincial Council of Biscay of-kilometers from the center of Bilbao. ficially announces the need that the province has to have a place that, open to the Architecture four winds and to everybody, can provide rest and relaxation, entertainment and relief from a laborious and committed life, for adults and children: a place that, combining classical and modern facilities, offer the cleanest and most natural way to entertain; a place that, because of being unknown and desired at the same time, draws attention from everybody."

of Biscay published in the Heraldo Provincial that three important banking institutions (Bankunión, la Caja de Ahorros Municipal de Bilbao and la Caja de Ahorros Vizcaína) were interested in leading the of the rides from the rain, thought from the project.

Two months later, on July 28, the Provincial Council of Biscay awarded the project to the company Parque de Atracciones de Vizcaya S.A., established specifically for this project by the three banking institutions and the company Parque de Atracciones de Madrid (Madrid Amusement Park) to build and manage the amusement park.

Construction started on July 9, 1973 and, in a little over a year, 270 workers from the company Edificios y Obras S.A. completed the construction, having used over 13 tons of dynamite to remove 300,000 cubic meters of land.

There are a few other facts that stand The Opening out: the main avenue was 250 meters long by 20 meters wide; the roller coaster the plan was to open the amusement park weighted 75 tons; the entry area had a size of 2,000 square meters; 22 kilometers of underground cable were used for the elec- had been done, the construction remained

trical installation: and more than 11 kilometers of pipes were used for water supply and plumbing. The park occupied an area of about 10 hectares (24.7 acres) in the hillside of the Ganguren Mountain, just a few

Two Bilbao-based architecture offices were in charge of the project. On the one hand, brothers José Luis and Mariano Ortega were selected by one of the partners in the project, Bankunion, as they had designed their headquarters in Bilbao (now Caja Navarra). On the other hand, a team formed by Ricardo del Campo, José Luis Burgos, and Juan Manuel Pazos, was selected. This On May 31, 1972, the Provincial Council resulted in two different styles that yet coexisted without conflict in the park, ranging from the lightness of the pyramids to the strength of the building hosting the minizoo. The former were built to protect some beginning as a system that could be extended or reduced as needed. Each one of the eight red pyramids had a large skylight in its vertex. The steel structure rested on concrete pillars, something that would have allowed adding modules if more rides had been built after the opening. Contrasting with the lightweight pyramids were the buildings for the mini-zoo and the offices, as well as the urban furniture. Using brutalist-style architecture in keeping with its time, the structures were made out of concrete where the texture of the formwork used for their construction was visible.

In order to take advantage of the summer, at the beginning of July 1974. However, and despite the speed at which the work









unfinished by July and the opening had to be postponed. Expectations and excitement rose among the people in Bilbao so. in order to avoid a massive influx of people, the official opening was scheduled for a Wednesday, August 14, 1974. But on August 13, a new postponement of 10 days was announced. Due to technical problems, the scheduled opening of August 24 had to be postponed once again. On Saturday, September 14 at 6 pm, the Vizcaya Amusement Park finally opened its doors minus any official celebration and with the summer almost over.

With an investment of 515 million pesetas (3.1 million euros) and a staff of 130 people, it was considered the best and most modern amusement park in Europe at the time. Intended mainly for children, the amusement park also had rides for people of every age, including the roller coaster, an impressive 26-meter tall Ferris Wheel, and the latest in kart racing.

The initial estimates expected 1.5 million visitors a year, but that number was later revised to 1 million people a year. However, as we will learn later, the number of annual visitors never exceeded 500,000 people.

Arriving at the Park

From the beginning, it was evident that the existing access road would not be adequate. Its state of disrepair and its narrowness would inevitably create long traffic jams. This was confirmed on opening day, when driving to and from the amusement park, covering just the few kilometers from the city, took more than an hour. There were talks about expanding and fixing the road and even creating a direct connection to the highway, but the damage had already been done.

The recommendation to use buses reduced the number of visitors due to inconvenience of having to depend of a fixed et costing 500 pesetas (3.01 euros) for all schedule and the high cost: 13 pesetas (0.08 euros) for adults and 10 pesetas (0.06 cost an extra 100 pesetas (0.6 euros) and euros) for children, which was expensive compared to the 20 pesetas (0.12 euros) that cost to access the amusement park. For those traveling by bus, the stop was located right by the entrance to the park. the season. It opened everyday between There was also a seven-story terraced parking lot that could accommodate more than 1,000 cars.

The Offices

Upon arrival to the park, what stood out even more than the red pyramids was the impressive concrete tower that housed the administrative offices. Resembling an Sundays. airport control tower, the office personnel windows. To this day you can see laying on the ground piles of member cards, plans of the rides, maps and brochures of unsold tickets.

Thirty years ago, concerts, advertisement campaigns, and all park activity were managed from this tower. Today, walking inside and between the unplugged phones and moldy cabinets, the only thing that you can hear is the howl of the wind that sneaks between some of the windows.

A Walk through the Park

Once the park was reached via car or bus, visitors could access the amusement park through the turnstiles located by the ticket booths. The ticket options and prices changed during the existence of the park. Initially, the cost to enter the park (rides were not included) was 10 pesetas (0.06 euros) for adults. The average cost for the rides was 110 pesetas (0.66 euros) per person. In the end, there was a single tick-become another attraction of the park.

the rides, except for the Magic Forest that kart racing that cost 100 pesetas (0.6 euros) for adults and 50 pesetas (0.3 euros) for children.

Opening hours varied depending on March and September, and on weekends and festive days the rest of the year. This schedule lasted at least until 1970 when economic losses and lack of personnel forced its closing during the winter season. In September of 1984, for example, the park opened between 4 pm and 9 pm on Saturdays and between noon and 9 pm on

Under the watchful eye of Chimbo, the could overlook the park from its immense first mascot of the park, adults and children could enjoy a family day in this "modern and functional version of the traditional fair rides of Bilbao, where everything is bigger and above all, thousands and thousands and flashier according to the tastes and demands of our times."

> In 1981, the original mascot was replaced by Basajun (Lord of the Forest), a Basque mythological character that would walk around the park delivering presents.

The Main Avenue and the Cybernetic Fountains

In order to welcome the visitors, the park created a 250-meter long avenue flanked by flowers and provided access to the restaurants, cafes, pyramids, and the ride area. Two luminous fountains, known as cybernetic fountains due to how innovative their light and water shows were for the time, were located at each extreme. The team of architects designed both fountains but, in euros) for children and 20 pesetas (0.12 order to create the show, they worked with the Catalan engineer Carlos Buigas. Every time the fountains would turn on, they would









The Amphitheater

Along with the pyramids, the amphitheater, located next to the main entrance to allow entrance and exit to large numbers of people, was probably the most characteristic image of the Vizcaya Amusement Park. With a capacity of 5,000 people, its stage hosted some of the most popular bands and singers of the time, including Hombres G, Alaska y Dinarama, la Orquesta Mondragón, Chiquetete, Gwendal, and Gloria Gaynor. Initially it was designed to be covered, but due to budget constraints, it was decided to cover it in a second phase if the park was successful. It goes without saying that the second phase never took place.

The Swimming Pool

Years after the opening of the amusement park and with the idea to attract a larger number of visitors, a swimming pool was built next to the mini-zoo and the amphitheater, as it was the most protected area of the park. Although it was independent from the rides and it had its own prices, you could buy tickets that would give you access to the whole facility, whether for the day or for the season. The pool would typically be open from 11 am until 7 pm, although it was dependent on the weather.

The Magnetic House, the Shooting Gallery, and the Tombola

The Magnetic House was a place full of sloped walls and gaudy drawings to create different optical effects. The entrance was a zigzag corridor with fans for wind that would give access to a room with a distorted perspective to create a sloped floor. It was one of the fan favorites. Next to it was the Shooting Gallery and the Tombola in which, depending on the offer, you could win any type of prize. Every Sunday, a bicycle would be raffled.

Fantasy House

An amusement park that prides itself can't forget about fairy tales. A Fantasy House was built to recreate the Snow White fairy tale with dolls, with an aesthetic far removed from Disney's but with the same charm. Through large windows visitors could see the bedroom of the Seven Dwarfs, their living room, the dining room, and even the Evil Queen.

Haunted House

Among the few rides that were not removed after the park closed was the Haunted House, a magic place full of fantastical creatures that even nowadays remain impressive. From this labyrinthine 2-story building you could only escape crossing a hanging bridge, go down a slide, climb several impossible steps, and cross two barrels that each rotated the opposite way.

The Mini-Zoo

The visitors really enjoyed this miniature version of a zoo. It was located on one of the extremes of the park and, besides the typical wild animals such as lions, there was an aquarium and a room for birds. Among the biggest animals, there were wolves, lion cubs, foxes as well as domestic animals so that the children could play with them. The park also bought between thirty and forty stuffed animals for the zoo museum, including the bear that "welcomed" you.

The Swings

Far from the plastic and safe swings that we have nowadays, the ones in the amusement park were metallic structures, typical of the time. In a wooded area were found the rowboats, the slide in the shape of an elephant, the ball and a yellow train engine













that delighted the younger kids. The swings in this area replaced an earlier area of the park that included the military fort and the wishing well.

Karting

Although not included in the price of the ticket, karting was one of the most popular rides of the park. The pavement, tires on the sides, fully equipped boxes, and brightly painted cars were all that was needed to feel like a Formula 1 driver. There were two tracks, one that was 180-meters long for adults and a 100-meter long track for younger people.

Magic Jungle

This ride, that wasn't included in the price of the ticket either, recreated a walk in the jungle. It was a place full of articulated figures of animals that were controlled by a computer. It was leased in 1989 for 20 million pesetas (120,200 euros) and was installed in the area previously used for slot machines. The ride was destroyed by a fire just a month after it opened and despite being one of the main attractions, it had to be closed. Nowadays, a Land Rover being swallowed by weeds is all that is left of this ride.

No Longer There

It was presented as one of the best selections of rides in Europe and, according to the news at the time, it really achieved that status. Besides the rides whose remains are still visible, there were many more that were dismantled and sold to a Portuguese amusement park. Among them, a bumper car floor with an impressive size of 30 x 14 meters that accommodated about 30 cars, and the 26-meter tall *Noria Visión* Ferris wheel that was one of the tallest in Europe. The roller coaster had a length of half a kilometer and weighed over 75 tons.

If you wanted to rest, you could ride on the small train along the one-kilometer long circuit. Nowadays, only some roadbed is left in place. Another option was to ride the automatic Ford Model T along the one-kilometer long track, or hop on the motorcycles for children, the only remnant of which is a painted logo on a wall. There was also the carousel, with its fire trucks, planes, and spaceships that we all dreamed to be driving for a moment accompanied with strident and catchy music. Despite being at the cutting edge of amusement parks, there was also room for some traditional rides such as the witch ride, trampolines, and miniature golf with fifteen holes.

Today, barely anything survives, only dilapidated tracks, round holes on the ground, and faded stalls. It is hard to imagine today that this amusement park was once one of the most modern amusement parks in Europe.

Eating & Drinking

Despite the fact that the management of the park always mentioned that they wanted to keep the prices very low, reviewing newspaper libraries we can find many complaints regarding the prices of food and drinks inside the park.

Without counting the snack bar by the swimming pool, there were six areas to eat. The snack bar by the entrance sold sandwiches and sodas. The stall selling churros, near the shooting gallery and the Tombola, also sold pastries and cotton candy. The two cafeterias, one by the amphitheater and one under the Ferris wheel, sold combination plates and fast food not only to the park users but also to those attending the concerts. The luxury restaurant focused on people with higher income and celebrations. Connected to the magnificent glazed dining room were an exhibition room, slot ma-









chines, and a nightclub. Finally, in the selfservice area you would select the food that you wanted, place it on the tray, and pay at sioned that shed light on the issues that the the end. As the food was already prepared, the fast service allowed eating quickly and going back to the rides as soon as possible.

The Start of the Problems

Since the park's opening, the number of visitors was way below the expectations of the promoters. The first number considered was 1.5 million visitors a year, but that prediction had to be lowered twice being set finally at 500,000 people. The strong wind gusts that continuously swept the area, and the rain, so common in Bilbao, were determining factors in preventing the success of the park. Although many of the rides were covered, the large pyramids did not protect the visitors, who would end up completely soaked. In 1981 there was a capital increase of 300 million pesetas (1.8 million euros) and, seven years later, the Provincial Council of Biscay acquired 77% of the park stocks by investing 144 million pesetas (around 900,000 euros) with the goal of "not only maintaining it but strengthening and expanding it." In 1989 there was another economic injection of 50 million pesetas (300,000 euros) to renovate and relaunch the park. To that purpose, a large advertisement campaign was launched, free buses from downtown were organized, and a single ticket was created that allowed to enjoy all the rides (except for karting, motorcycles for children, and later, the Magic Jungle). Unfortunately, that year the park suffered 188 million pesetas (1.130.000 euros) in losses that the Provincial Council of Biscay covered with a special budget item for 1990.

The Closing

In 1989, there was a viability study commispark faced. The periodic money that the Provincial Council of Biscay had been injecting since 1981 began to be questioned, as they had not turned the park into a profitable activity. The study provided two options in order to address this issue. The most ambitious option required an investment of 1,150 million pesetas (6.9 million euros) and needed to attract one million visitors a year. The second option, more modest, required an investment of 347 million pesetas (just over 2 million euros) and needed to attract 640,000 to make it profitable. Considering that in 1988 the number of visitors was 120,000 and that, not in the most successful years the number of visitors had surpassed 500,000, the results of the study could not be more negative. With these facts, keeping the park open for the Provincial Council of Biscay and the two banks (Caja de Ahorros Vizcaína and Caja de Ahorros Municipal de Bilbao) proved to be impossible, so it was decided to dissolve the company and close the park. The labor disputes that took place during the summer, which included hunger strikes, walk-outs during work hours, and the distribution of pamphlets, did not help the situation. These disputes, with the workers demanding wage increases and equal rights with the public employees of the Provincial Council of Biscay, were taken into consideration when deciding the fate of the park. On Friday, February 9, 1990 the amusement park closed its doors.

Since Closing

With annual expenses of more than 120,000 euros dedicated to maintenance and security, in 2011 the land where the former park sits was placed on the market for













2.4 million euros but no buyer was found. It is currently used as a warehouse and archive for several public institutions, having had other temporary uses in the past such as parking for the trucks and trailers for the fairground rides installed during the local holidays in Bilbao or as a warehouse for confiscated items and repossession.

There have been several artistic interventions and cultural activities organized in relationship to the park. Between 2005 and 2007, the project LUNA PARK, conceived by Franck Larcade, Lisette Smits, and Alexis Vaillant, and organized by Consonni, invited seven artists to the park to create seven interventions. In October of 2007, artist Saioa Olmo and Consonni organized a series of sold-out guided tours of the park titled "Vuelven las atracciones." In 2011, the release of the documentary Parque de Atracciones de Vizcaya: El Diente del Diablo, directed by Guillermo Santamaría, brought back memories of those who enjoyed the park and introduced its history to a younger generation that missed it.

On November 4, 2015, the Provincial Council of Biscay announced that it had allocated 1.6 million euros to demolish the complex during 2016. However, on June 9, 2016 it was announced that the demolition of the park would probably be postponed and on November 4, 2016, it was confirmed in the budget for 2017 that the demolition will not take place in 2017.

Today, the Vizcaya Amusement Park waits the final date for its demolition. With its vanishing, the citizens of Bilbao, specially those that grew up during the 1970s and 1980s, will lose a referent of the Bilbao that started to open to entertainment and tourism, anticipating the transformation of the city that would later come.























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FLOODING AUGUST 26, 1983

On Friday, August 26, 1983, Bilbao was celebrating its Aste Nagusia or Great Week, the main annual festivity in the city, when it and other municipalities of the Basque Country, Burgos, and Cantabria suffered devastating flooding due to heavy rains.

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In 24 hours, the volume of water registered 600 liters per square meter. Across all the affected areas, the weather service recorded 1.5 billion tons of water. In areas of Bilbao, the water reached a height of 5 meters (15 feet).



Transportation, electricity and gas services, drinking water, food, telephone, and many other basic services were severely affected.



32 people died in Biscay, 4 people died in Cantabria, 2 people died in Alava, and 2 people died Burgos. 5 more people went missing.



The value of the losses in 1983 surpassed 200,000 million pesetas (1.2 billion euros).



1983-1997

In decline for years, the devastating floods in Bilbao and other municipalities of 1983 can be considered the last nail in the coffin. This period is defined by a first strategic plan for the city that aimed to reposition Bilbao and provide a new future for the city. Strategic organizations were founded and alliances were formed. Multiple large-scale initiatives, ambitious unbuilt proposals, and remarkable built projects took place during this period that would culminate with the opening of the Guggenheim Museum on October 19, 1997.



BILBAO'S STRATEGIC EVOLUTION: THE **METAMORPHOSIS OF THE INDUSTRIAL** CITY

Essay by Ibon Areso

After the spectacular financial blossoming of Bilbao during the late 19th and early 20th centuries, the effects of the transformation of the world economy during the 1970s were especially detrimental to the former driving forces of the great industry: the iron-and-steel, shipbuilding, and textile sectors. This entire process brought about the collapse of the industrial town model on which metropolitan Bilbao was based.

In the face of a declining situation similar to that of other former industrial areas in Europe and other regions of the world, Bilbao had to commit itself to finding a new model for the future, while starting from the existing one.

In this essay, Ibon Areso, an architect, the former Mayor of Bilbao, and a key figure in the urban transformation of the city during the last thirty years, outlines the need for the transformation, the goals set forward by the public administration, and the challenges they faced. He places in context the key interventions in this remarkable transformation.

Introduction

Bilbao was founded in the year 1300 as a medieval villa or town by virtue of the privileges granted by the original founding document, the Carta Puebla. In 1511, when the trade and shipping office or Consulado was created, it became a trade outlet and subsequently, at the end of the nineteenth century, it was transformed into an industrial city covering its entire metropolitan area.

The 1980s are a crucial time for the history of our city. Immersed in a change in the model of the city—from a stage of industrial decline to a new post-industrial metropolis—which forced us to face our future with a new and necessary urban configuration. For that reason, we can assert that this was more a thorough urban transformation than the industrial development. an evolution of the old city, a transformation that provided the springboard for the Bilbao of the future.

The Need for Change

The increasing volume of industry and trade that characterized Bilbao from its foundation until the end of the 1970s made it the financial and services capital of a considerable economic hinterland well beyond the boundaries of what is now the Autonomous Community of the Basque Country. The economic slump that emerged in 1975 pointed to a number of structural problems. These problems consisted of restrictive industrial production based on the traditional iron and steel industries, shipbuilding, and equipment goods, the sectors worst hit worldwide, and also on insufficient autonomy of the services sector, which was closely linked to

This situation had a considerable social and urban impact. There was a decay of the industrial system, high unemployment

(between 25% and 30%, reaching 35% in certain areas of Greater Bilbao), degradation of the environment and the general city framework, emigration and stagnation of the population, and problems of social exin other industrial cities such as Pittsburgh. Glasgow, Hamburg, Rotterdam, and Turin. Facing this situation, Bilbao was forced to initiate a comprehensive urban transformation capable of generating new job opportube generated mainly in the tertiary sector.

Until 1800, manual labor was mostly found in agriculture, whereas nowadays agriculture accounts for only 2% to 4% of the workforce in the countries around us. From this point on, with the industrial revolution, the secondary sector became the ning, in industrial cities like ours these two basis of the economy and employment in concepts of urban quality and level of inthe developed world.

Automation, robotization, and other forms of technological development inevitably lead to a considerable reduction in the workforce required by these industries. Nowadays, the combined efforts of the primary or agricultural sector, which has provided jobs for mankind for 4,000 years, and the manufacturing industry, which has been a source of employment for 200 years, only generate between 20% and 30% of the needed jobs. Trade, information, cultural and leisure activities, and other sectors currently undergoing develthe jobs.

This does not mean that in Bilbao we wanted to discard our industrial tradition. Once technologically updated, it continues to produce wealth, albeit with less jobs, just as the 2% to 4% of the active populaclusion. All these effects were also present tion who work the land in the primary sector now produce much higher earnings from agriculture than 70% of the active population who were employed in agriculture 200 years ago.

Moreover, improving the living condinities for the local population, which would tions of local people, besides creating employment and increasing their income, should also mean an improved habitat, offering better opportunities for residents in terms of leisure, culture, and environmental friendliness, among others.

> From the point of view of urban plancome have generally proven to be antagonistic, since practically all the cities were traditionally wealthy with high levels of employment, but also extremely environmentally deficient.

Today, environmental degradation and the deterioration of our habitat cause a loss of competitiveness at the international level, and thus surmounting this obstacle was a sine qua non condition to create new jobs from the development of the tertiary sector, and to attract the needed investment to make this possible. Cities are now competing with one another to attract new opment, will provide the remaining 70% of companies seeking alternative locations, and so a quality environment is inextricably linked to obtaining a higher level of income.



The New Metropolitan Bilbao

Having established the need to get past the industrial model—since its crisis is structural and not temporary—it was necessary to begin the transformation process into a post-industrial city, setting out the main guidelines for the future urban redevelopment, an ambitious process covering all the lower area of the Nervión River to configure a metropolis for the modern age.

This urban renovation was considered taking into account physical concerns as well as social and economic issues, and developed based on the four main conceptual axes as listed below. The first two concepts relate slightly more to physical concerns or urban planning, whereas the third and fourth deal primarily with social and economic aspects.

External Accessibility and Internal Mobility for the Metropolis

Physical and intelligent communications are determining factors in attracting business investment. The expansion of the port facilities in Bilbao, a new airport, the Metro underground system, the work carried out on roads and railways, the future Intermodal Station, as well as the "information highways" created by new fiber optic wiring, are the result of an enormous and focused effort in this area.

Environmental and Urban Regeneration

The Bilbao metropolis developed with the environmental slavery typical of industrial areas. Nowadays, the quality of our environment is not only a basic requirement of the city for all its residents, but, as we have explained earlier, in Bilbao this was also essential for the development of the new economic activities of the future and to attract investment funds from exterior agents who demand increasingly more selective locations.

Improving the physical infrastructure, with specific emphasis placed on reducing pollution in the atmosphere, treating and cleaning waterways, managing industrial and urban waste, and expansion of parks and green-belt areas were the main interventions in order to achieve a metropolis with adequate environmental conditions.

The concept of urban regeneration has a number of aspects related to the previous point. The basic idea was to deal with the imbalances in the urban fabric caused by the economic development in order to foster a city that is better designed, friendlier, and that offered housing and other collective facilities. This urban improvement was essential to change the image of the city and satisfy the needs of its residents. This was necessary to boost the social enthusiasm required to develop new activities and to overcome the local pessimism and a lack of faith in the future that the closure of many businesses had generated.

Investment in Human Resources and Technological Transformation

The new economic drivers go hand in hand with knowledge, culture, and, in general, with immaterial aspects.

Training of the human resources within the industrial and services sectors was required if the city was to be competitive. Metropolitan Bilbao had to adjust its educational offerings to the new circumstances. Universities, professional training units, the relationship between training and employment, post-graduate training, and business policy with regard to human resources had to be a priority.

Values such as knowledge, creativity, dedication, and motivation must be taken up as a genuine challenge. The world of tomorrow is the world of knowledge.

This training must eventually transform our metropolis offering top-of-the-range services into a modern industrial region, reflecting the conviction that industry and services are inseparable within an economic context geared towards the twenty-first century. Industry creates wealth, and the services sector will provide many jobs.

Cultural Centrality

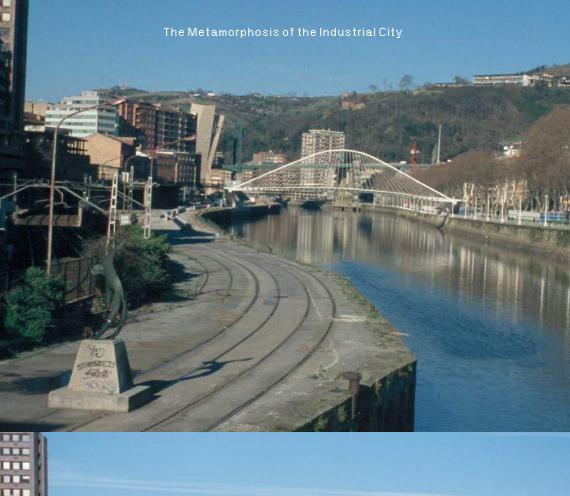
The boost of cultural activity is a factor that invigorates the city internally and also promotes it to the rest of world.

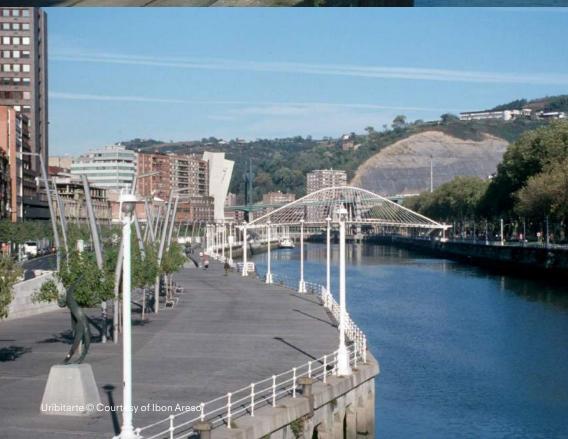
In contemporary societies, cultural activities, the arts, sport, and leisure constitute a genuine thermometer of collective vitality, determining the attractiveness of a city, contributing to its image abroad, and setting out the conditions for adding new activities.

I am convinced that, in the future, there will not be cities that are not simultaneously financially strong and culturally important. This double function is already true of large capital cities such as London, Paris, and New York. However, the cultural activity taking place in cities that are undisputed financial centers, such as Frankfurt, where seventeen new museums have opened in recent years, are an obvious example of this point.

In our case, in order to improve and promote the city of Bilbao we had to enhance the Museum of Fine Arts, the Arriaga Theater and the Campos Eliseos Theater, the Euskalduna Music and Conference Hall, the city libraries, the opera season, create golf courses, and turn the old Alhóndiga building into a new cultural, social and health venue. Undoubtedly, the key project in this area has been the Guggenheim Museum, having had an enormous international impact.

This process was effective, generating new jobs and reducing the above mentioned unemployment rate of 25%, to the rate of 8% prior to the global economic crisis that has elevated the unemployment rate to 12%.





The Guggenheim Museum Bilbao

Given the special interest that usually exists regarding the effect of culture in processes of urban regeneration, I will use as an example the effect achieved by the Guggenheim Museum which, without a doubt, has been the most symbolic and characteristic element in the commitment that Bilbao made to face its future and also the element that has contributed the most to make Bilbao internationally renowned.

was by no means simple. When Bilbao was chosen as the European location for the prestigious Guggenheim Museum in New York, first and foremost this conveyed the message to the Guggenheim Foundation that the proposal was serious and feasible, despite the image of decay that our town projected at the time. The selection of Bilbao was also the result of unsuccessful negotiations between the Foundation and other European cities that they felt were more appropriate, such as Salzburg and Venice.

However, the greatest problem was the large number of people in Bilbao who spoke out against the plan. They could not understand why the Basque institutions had to use so many resources to build a museum of modern art at a time of economic crisis, when it seemed obvious that public money should be used to shore up employment in stricken industries. This decision was considered a frivolity on the part of the public institutions promoting it.

A considerable amount of public money was indeed made available to industries experiencing difficulties but, in many cases. the loans and economic assistance would only sustain jobs artificially in industries that had no future, and were only effective when they were used to make the companies more competitive, replacing people with technology, thus increasing the unemployment figures.

In short, the local population failed to The task faced by the Basque institutions understand that the proposal for the museum drawn up by the Basque institutions contained, in addition to cultural concerns. a comprehensive economic component—in other words, culture was no longer to be understood as a mere "expense" as it had hitherto been seen-and was to be considered as economic "investment" in the future.

> There was also considerable opposition from a large number of cultural groups whose economic assistance and grants were cut back following the alterations made to cultural allocations to finance the new museum.

> Amid such a context of adverse opinion, when many people told us we were the biggest fools in Europe for accepting what nobody else wanted, that we were encouraging a "Coca-Cola culture" and American imperialism with our "MacGuggenheim," we had to implement our strategic plan: to build a museum that could become the symbol of the city and incorporate Bilbao into the international art circuit present in the main cities of the world.

The Metamorphosis of the Industrial City

The truth of the matter is that this plan exceeded our wildest expectations, as can be seen from the figures below, and the success of the museum completely transformed nomic model shows the following figures: the adverse opinions already mentioned.

estimated that 400,000 visitors per year would be required to justify the planned investment of 132.22 million euros. We had some doubts as to whether we could reach this figure but, during the first year after its opening, the museum received 1,360,000 visitors, over three times the required figure. The average number of visitors per year, once the novelty wore off, is between wealth generated an additional income for 900,000 and 1,000,000.

The investment package of 132.22 million euros was broken down into three areas: 84.14 million euros to build the museum and landscaping around the general museum area; 36.6 million euros to purchase the artwork, which constituted the initial capital of the Guggenheim Museum Bilbao; and finally the remaining 12.2 million represented the contribution to become a member of the Foundation to ensure that their collections would rotate through Bilbao. This prevented the long period of million euros. consolidation typical for a new museum, achieving from the outset a level of quality similar to the Guggenheim on New York's Fifth Avenue.

The economic results obtained are eloquent. The consultancy firm KPMG Peat Marwick carried out a survey, and their eco-

During the first year operating the muse-Firstly, the feasibility survey carried out um, from October 1997 to October 1998, the increase of the Gross Domestic Product (GDP) of the Autonomous Community of the Basque Country, resulting only from the museum, was of 144 million euros. There is no conventional non-speculative investment that can recover the invested capital in less than a year.

> On the other hand, this increase in the Basque public funds which covered, in the first three years, the 84.14 million euros that cost the museum and, in five years, the total investment of 132.22 million.

> The figures of the last study made in this respect, corresponding to the year 2006, reveal that, considering the direct, indirect, and induced effects, the activities of the Guggenheim Museum Bilbao had generated a wealth, until that year, of 211 million euros of GDP, which meant an additional increase for the Basque public funds of 29

> The above-mentioned increase in the wealth-according to the consultancy firm KPMG—implied, as well, the maintenance of 3,816 jobs during the first year, which increased during the year 2006 to 4,232.





As a reference, we can say that, in its heyday, the Euskalduna shipyard, located in the same area of the museum called Abandoibarra, offered, in the best of times, 4,000 jobs: 3,000 direct and 1,000 indirect through supporting industries. In its final years, the total number of jobs created at the shipyard was 2,300. For that reason, we can assert that the museum is able to maintain the same number of jobs that the shipyard held during its golden age (during the 1950s and 60s) and double the jobs offered during the shipyard's final stage. The reduction of the number of jobs was a consequence of the crisis and also due to the technological advances.

These figures don't take into account other factors such as the positive publicity that this action brought to the city, or its effect to gain other investments. If we consider all the articles written in newspapers, magazines, and TV features worldwide, and booked these as remunerated advertising, they alone would justify and amortize the resources employed.

There are even other more intangible benefits, which are nevertheless equally important. I am referring to the recovery of Bilbao's self-esteem, a society that was depressed and badly hit by the industrial crisis and consequent increase of unemployment. The process of decline was turned around and, although there was still much work to be done, there was a solid path established towards the economic recovery. That self-esteem and faith in the future were absolutely necessary in order to gain the needed social encouragement to face the difficulties and to develop a new economy.

Finally, we can claim that the Guggenheim operation has proved to be a fine investment and not an expense, as people now understand, and that investing in culture can help to generate a part of the economic resources and jobs we obtained from traditional industries in the past.

Other Aspects

how the urban transformation of Bilbao took place, I want to focus on a number of aspects that have defined it:

One of the most significant milestones ing visitors and investment. in the upgrading process was the transformation and recovery of the Nervión River. process such as the one described above The coexistence of manufacturing activities and housing due to the artisanal nature of the former proved possible initially, but proved to be impossible during the industrial revolution, which introduced production facilities incompatible with the quality required for human habitat.

To a large extent, we could say that Bilbao was built with its back to the river. But it could also be said that, when the city was unburdened of its manufacturing activities to leave the port area available in the short and medium term, this provided an enormous potential. Since it runs through much turn it into the structural element of the new city, bringing together leisure spaces, housing complexes, and tertiary activities and turning into its most emblematic symbol.

The new metropolis had to place much more emphasis on its internal transformation than on generating new development. The main objective was to renovate and upgrade the most degraded and obsolete areas that we inherited from the industrial crisis. In other words, turning "problematic areas" into "areas of opportunities."

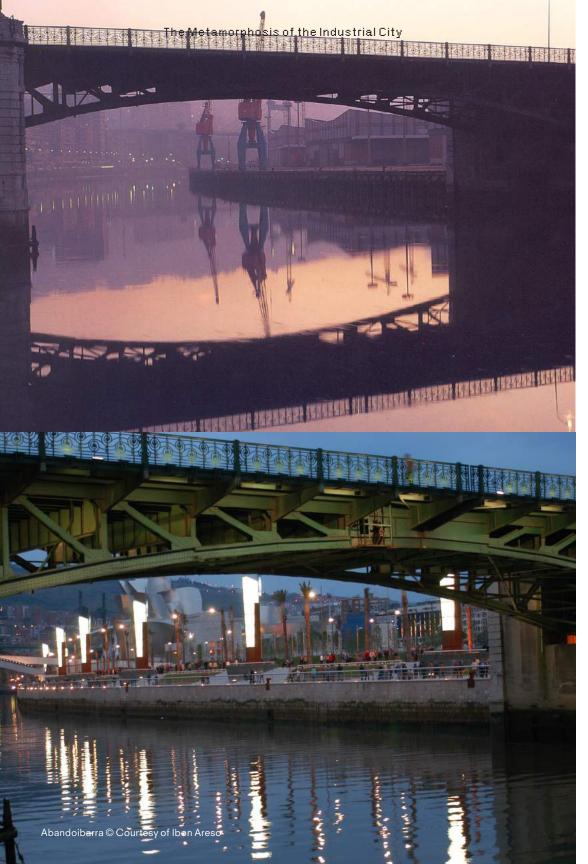
Close attention was paid to first-class In conclusion to this exploration of why and urban planning and architecture, since they not only define the quality of life of residents of Bilbao, but also contribute to the projection of Bilbao overseas, thus attract-

> The development of a multi-disciplinary required cooperation on the part of public administration, an institutional partnership. The city of Bilbao established a structure of cooperation between the institutions called BILBAO Ría 2000, a company whose shares were fully owned by the State Administration, the Basque Government, the Provincial Council of Biscay, and Bilbao City Council. It also required the gradual involvement of the private sector and, in our case, this was implemented by the Association for the Revitalization of Metropolitan Bilbao or Metrópoli 30.

Leadership is an essential feature of of the consolidated urban fabric, we had to a process to bring about comprehensive transformation of a city. A clear diagnosis of the problem must be drawn up, and all necessary measures taken to solve it, even if the process is not initially understood by many local people. Risks are necessary, and if the wrong action has been taken, the local population will chastise those responsible with their votes; on the other hand, if the correct action has been taken they will acknowledge this in the next elections.







Specific Areas of Intervention

Following this theoretical explanation, we should examine the specific results of the scheme, reviewing a series of images showcasing the before and after of the regeneration process. One inevitable question that arises after reviewing the work carried out is, "How was it all financed?"

It is evident that a project of this magnitude cannot be carried out using solely public money, which is subject to basic expenditures such as health, education, and other municipal services with no room for airports and levying airport charges. such extensive investment.

funding structure. In the case of Bilbao, the above-mentioned investment of 132.22 million euros in the Guggenheim Museum, in addition to land provided by the City Council, was financed in equal parts by multi-annual budgets from the Basque Government and the Provincial Council of Biscay.

The Euskalduna Music and Conference Hall, that cost 85 million euros, was fully financed by the Provincial Council, and built on land also provided by the Bilbao City Council.

The expansion of the port of Bilbao, with an initial budget of 700 million euros, is being financed by the resources created by the port activity itself. Although this specific infrastructure is a general-interest port and thus depends directly on the Spanish Ministry for Economic Promotion, the state budget does not cover it. The state merely endorses the guarantees requested by the Bilbao Port Authority, and the port uses its activities to pay back the credit with interest.

The metro, with an investment of 1.1 billion euros, was financed by long-term debt.

The European FEDER infrastructure funding covered a further 12% of these two last to quantify. activities.

Cleaning and sanitation work on the estuary, without prejudice to some public financial assistance, was paid for by an extraordinary charge to users over twentyfive years on top of their water bills. The total amount was around 900 million euros.

The Bilbao airport had become overstretched, and it required investment to build a new terminal, the control tower, and the extension of the runway, with a total cost of 190 million euros. This was financed by AENA, the state company handling Spanish

However, Bilbao's real singularity lies in This forced the diversification of the the ability that the city has demonstrated in obtaining resources from upgrading obsolete land amid the process of industrial dismantling. Much of the land formerly used by rail services, port, and certain industries was publicly owned.

> The creation of the public company BIL-BAO Ría 2000 by the Spanish Government, the Basque Government, the Provincial Council of Biscay, Bilbao City Council, and subsequently Barakaldo City Council allowed the donation of land free of charge by those authorities, becoming one of the main driving forces behind the transformation of Bilbao.

> BILBAO Ría 2000 handles much of the landscaping projects and rail reorganization, with a planned total budget of 901.7 million euros, of which 435.1 million euros have now been built. European funding accounted for about 90 million euros.

> From the costs mentioned above, we can deduce that public investment in these main interventions reach a total amount of about 6 billion euros that, in turn, have generated a considerable amount of local and national private investment that I am unable

The Metamorphosis of the Industrial City

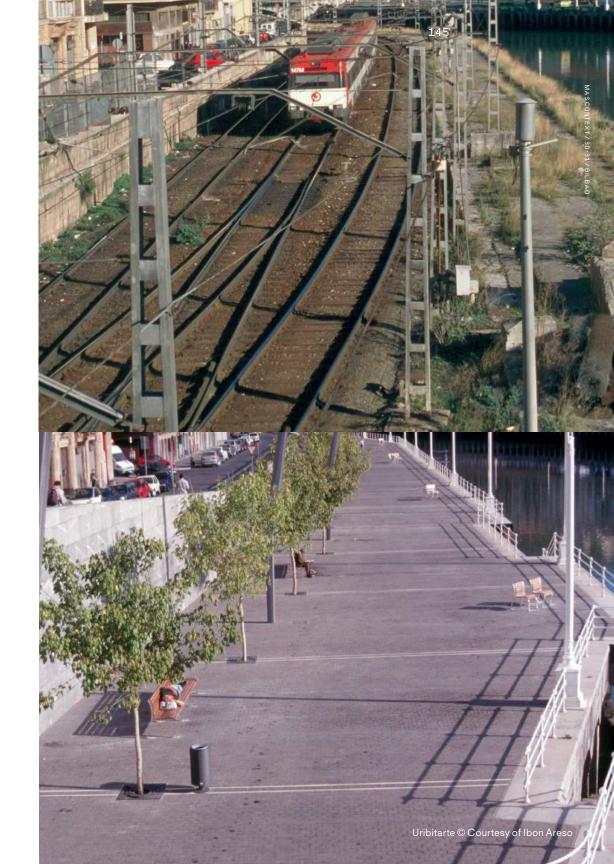
Conclusion

To summarize, in Bilbao we were aware of industrial city into a post-industrial city, the historical times in which we lived, and we knew that the decisions that we were taking were going to shape the future of our city. We agreed to assume our responsibilities, setting in motion the necessary mechanisms that would allow us to improve our future ranking on the international stage. After a number of years laying out our plans, acquiring the appropriate tools, concentrating our efforts and debating the various proposals, we are now living in exciting times indeed, where we can see some of our major projects completed, and others in progress, creating an atmosphere of optimism, progress, and hope for the future.

The efforts of the government during the last few years has created an important process of transformation and urban regeneration that has been recognized with multiple international awards. Among them we can highlight the 1st Prize I in the "Città D'acqua" Category of the 2004 International Architecture Exhibition of the Venice Biennale and the Lee Kuan Yew World City Prize, considered the Nobel Prize of cities, awarded by the city-state of Singapore in 2010.

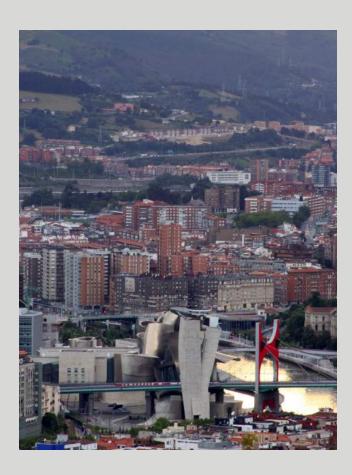
After the process of transforming the that is, from an ugly and polluted city to a friendly city, now it is necessary to drive the second urban transformation of Bilbao, a revolution that allows the generation of a new economy. Our second strategic plan for transformation needs to have the goal of transforming Bilbao from a friendly city to an intelligent city. Nowadays, in a global and competitive economy, we are seeing that the more creative the cities are, the more prosperous they are. That forces us to continue to reinvent ourselves to avoid the risk of entering a phase of stagnation.

For that reason, our new goal is to attract and implement the activities required in that new economy and needed to become competitive and access the network of innovative and creative cities. The exchange between art and technology is becoming the basis of our new economy and future prosperity.





Bilbao Metropoli-30



Bilbao Metropoli-30 was founded in 1991, a year before BILBAO Ría 2000, to generate activity in the areas of planning, research, and promotion. Through strategic planning, analysis of future scenarios, city marketing, and urban indicator systems, Bilbao Metropolis-30 focuses on the dynamic recovery of Metropolitan Bilbao. The association also encourages collaboration between public and private sectors, and develops entrepreneurial leadership, civil association, and innovation in business management. Here is a description of the origins, goals, structure of the organization, and the strategic plans for the city.

Origins and Mission

Bilbao Metropoli-30 was established in May Public and private bodies, who exercise of 1991 to carry out planning, research, and promotion of projects, headed towards the recuperation and revitalization of the metropolitan Bilbao, defined as a social and economic reality without precise geographical limits and whose existence has been projected throughout its regional and international environment.

Principally, Bilbao Metropoli-30 drives the implementation of the Strategic Plan for the Revitalization of the Metropolitan Bilbao. Secondly, Bilbao Metropoli-30 undertakes any type of actions derived from the stra-raguirre, Bilbao Port Authority, and Renfe. tegic plan, and particularly, of those whose aim is the improvement of the external and Metrpoli-30 has ordinary members and prointernal image of Metropolitan Bilbao. The tector members. association, thirdly, carries out study and research projects related to Metropolitan Bilbao, as well as other metropolises that, due to their circumstances, can provide useful knowledge. Finally, the association fosters the cooperation between public sector and private sector with the aim of finding joint solutions to problems of mutual interest that affect Metropolitan Bilbao.

In June, 1992, the Basque Government recognized Bilbao Metropoli-30 as a public utility entity.

Members

their profession or activities within the Metropolitan Bilbao, can become members of the project.

As founding members, Bilbao Metropoli-30 includes the Basque Government, regional Government of Bizkaia, Bilbao City Council, BBVA, Diario El Correo, Chamber of Commerce of Bilbao, Association of Basque Municipalities, Ibredrola, Bilbao Plaza Financiera, Kutxabank, Deusto University, Basque Country University, Petronor, Editorial Ipar-

Besides the founding members, Bilbao

Bilbao Metropoli-30 151

Board of Trustees, Board of Directors, and Internal structure

of Bilbao Metropoli-30 and established its specific purposes and aims. The board of trustees is made up of twenty-five people, rido Martínez.

the board of trustees, is the body of managemade up of seventeen people.

made up of eight people, including the direc-fessionals." tor general and the team working at in the area of the revitalization plan, area of exter- ebrated its first twenty-five years by introducnal relations, area of image and communication, and administration.

Revitalization Plan

role in Europe and the world. To maintain the leadership it has enjoyed throughout its history, Bilbao knows that it must work together with institutions and companies in planning the first day of the next twenty years." the future of the city.

Following the drafting of the Revitalization Plan in 1992, Bilbao Metropoli-30 focused its activities on furthering the launch of the revitalization process through a public-private partnership.

In the 1990s, a new scenario emerged for Metropolitan Bilbao, with globalization, the transformation of social and economic structures, information and communications technologies, and the emergence of a multicultural society. In order to provide a suitable response to these challenges, in 1999 the association's efforts were consolidated in the project "Bilbao 2010: Strategic Reflection," presented on November 25, 1999.

Subsequently, on April 4, 2001, Bilbao Metropoli-30 presented the strategic plan The board of trustees is the governing body called "Bilbao 2010: The Strategy" with a view to channeling the strategic reflection, its key areas and core aspects towards projects that will enable Bilbao to make the most of including the Chairman, José Antonio Garthe change already undertaken, projecting the metropolis as an international world-The board of directors, by delegation of class city in the knowledge society. On May 9, 2011, the association based its Strategic ment of Bilbao Metropoli-30. This body is Reflection 2030 on professionals in its twentieth anniversary in a general assembly called Bilbao Metropoli-30's internal structure is "Metropolitan Bilbao 2030: The Age of Pro-

On May 9, 2016, Bilbao Metropoli-30 celing its 2035 Strategic Review for Metropolitan Bilbao. This strategic review ushers in the next two decades, a time Bilbao will spend developing its key variables and setting its Metropolitan Bilbao has no doubts about its new goals, as well as defining the indicators that will in time enable us to monitor the results. In the words of José Antonio Garrido. president of Bilbao Metropoli-30, "Today is



BILBAO Ría 2000



In order to carry out the key projects of the urban transformation of Bilbao and its metropolitan area, a not-for profit entity called BIL-BAO Ría 2000 was founded in 1992. Since then, it has been able to tackle large-scale and complex projects with the close collaboration and involvement of multiple public institutions in order to recover former industrial areas. Here is a description of the origins, goals, structure of the organization, and their key interventions in the city.

Ownership

BILBAO Ría 2000 is a publicly-owned company incorporated on November 19, 1992. It is owned in equal parts by the central State erable opportunities for development in a administration through the public companies SEPES (State-owned Land Management Abandoibarra and Ametzola. In order to drive Company), the Bilbao Port Authority, and the rail company ADIF, and the Basque administration (Basque Government, Provincial Council of Bizkaia, and Bilbao and Barakaldo City Councils).

- 25% SEPES (State-owned Land Management Company)
- 15% ADIF
- 15% Basque Government
- 15% Provincial Council of Biscay
- 15% Bilbao City Council
- 10% Bilbao Port Authority
- 5% Barakaldo City Council

The active commitment of all the entities involved in BILBAO Ría 2000 has been a key feature from the outset and has allowed many key projects to be carried forward.

Origins

In 1987, the Bilbao Council drew up the first General Urban Plan identifying the considcity with available space in areas such as the development in these areas, where the authorities owned the land, the non-profit entity BILBAO Ría 2000 was created, owned equally by the Basque Administration and the State Administration. The company then took over other large projects in Barakaldo, Bilbao la Vieja, and rail infrastructures, among others.

Mission

Its mission is to recover degraded land or industrial areas in decline in the metropolitan of urban cohesion. To fulfill this objective, BILBAO Ría 2000 coordinates and executes projects related to town planning, transcarried out with a global approach focus- of Economic Promotion, Julio Gómez-Pomar. ing on the urban directives drawn up by the all shareholding administrations and companies. The active commitment of all the institutions involved in BILBAO Ría 2000 has been a key feature from the outset and has allowed Activity the completion of multiple key projects in the urban transformation.

Funding

BILBAO Ría 2000 was created from an initial share capital of 1.8 million euros (300 million all public companies or institutions, transfer Bilbao and Barakaldo, and each of the City of new Renfe and FEVE stations. Halls upgrade the zoning of the land. After that, BILBAO Ría 2000 invests in cleaning and urbanizing the land, tackling large-scale projects, and selling the resultant lots to finance its activities.

Since it is a non-profit entity, the capital gains obtained are invested in the regeneration of former industrial areas and in other major metropolitan projects, like rail infrastructures or the regeneration of other districts such as Bilbao La Vieja. BILBAO Ría 2000 also receives European Union subsidies, which in recent years have accounted for 9% of its investment budget.

Board of Directors and Internal Structure

BILBAO Ría 2000's board of directors conarea of Bilbao, thus contributing to a bal- sists of twenty directors and top-level repanced development and the improvement resentatives or official authorities of each public company. The Chairman is the Mayor of Bilbao, Juan Mari Aburto Rique, and the Vice-Chairman is the Secretary of State for portation, and the environment. These are Planning and Infrastructures at the Ministry

BILBAO Ría 2000's internal structure is planning authorities, and are supported by made up of eleven people assisted by external experts to carry out surveys and projects, and to manage construction sites.

The company's main areas of activity are Abandoibarra, Ametzola, Bilbao La Vieja, Barakaldo, and Basurto-San Mamés-Olabeaga. BILBAO Ría 2000 is also involved in restructuring the railway system and integrating the trains into the new urban framework. pesetas). Company shareholders, who are In this area, its main projects have been the Southern Bilbao rail routing, covering over land belonging to them in central areas of the FEVE line in Basurto, and the construction

Abandoibarra

Alameda Mazarredo Extension work on Parque Doña Casilda Abandoibarra Avenue and Leizalo Street Universities Avenue Deusto Library Zubiarte shopping center Residential buildings The stairway at Deusto Bridae Sol Melia Hotel The UPV University auditorium Campa de los Ingleses Park Shopping and leisure Riverbank park The Pedro Arrupe pedestrian bridge Euskadi Square Quay repair work Iberdrola Tower

Ametzola

Ametzola-Irala lift FEVE and Renfe Covering tracks Ametzola Station New streets Ametzola Park Pneumatic waste collection svstem New dwellings

Barakaldo

New business area Avenida de Altos Hornos The Lasesarre football field Ore loading facility Social services center Covering of the Adif line Portu Wharf Ilgner building **INGURALDE** building Herriko Square Dividing facades New road infrastructures New streets New residential areas facilities Lasesarre Park Riverbank park in Galindo Fueros promenade Promenades along the Ribera of the Galindo River Desierto Square Prometxea Square Barakaldo sports complex Pneumatic waste collection system

Basauri

Basurto-San Mamés Basurto's Community Centre Buildings in Miribilla New slip roads to the A-8 Garellano Urban Renewal Plan Works for burying the Adif railway line in Rekalde and Irala Works for burying the FEVE railway line in Basurto

Bilbao La Vieja

Miribilla Public School Landscaping work at the Corazón de María Square The Cantalojas Bridge The old riverside quays

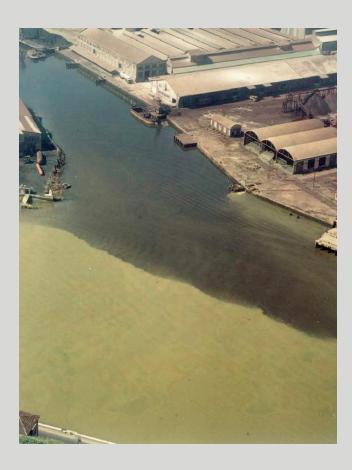
Rail Infrastructures

Ferrocarril Avenue Abando Station Ametzola Station **Autonomia Station** La Concordia Station La Peña Station Miribilla Station San Mamés Station Santurtzi Station Zabalburu Station The Southern Suburban Routing Alterations to the FEVE railway line through Ametzola

Other Works

Street Art

Bilbao Bizkaia Water Consortium



On March 17, 1967, nineteen municipalities in Biscay joined the now defunct Corporación Administrativa Gran Bilbao to set up and manage the primary water supply network and lead cleanup operations. A publicly owned company, it became known as the Bilbao Bizkaia Water Consortium and now comprises eighty municipalities with a total population of almost one million, approximately 91% of the population of Biscay and 48% of that of the Basque Country. The area of operations of the organization includes the most heavily urbanized and industrialized areas of the province of Biscay and operates with an annual budget of 185 million euros.

Nervión River

By the 1960s, the Nervión River was considered a navigable sewer due to domestic and industrial waste. The amount dumped in the river daily was staggering: 900 tons of solid waste mainly from mining, 400 tons of acid waste, 80 tons of metals, 20 tons of nitrogen compounds, and a ton of cyanide compound, among many types.

In 1979, the level of oxygen in any area of the river at that point was 0%. The Bilbao Bizkaia Water Consortium undertook an effort to clean the Nervión-Ibaizabal River, becoming the biggest environmental project in the Basque Country and one of the biggest in Spain.

Comprehensive Sanitation Plan: 1979

Objective

- Recover the aquatic life of the river
- Recover the coast and beaches for recreational purposes.
- Create acceptable aesthetic conditions.

Operative Objective

• 60% of oxygen in water.

Comprehensive

- Process domestic and industrial wastewater.
- Perform during dry and wet weather
- Serve everyone: general network, isolated areas, and individual sanitation

Financing

- Subsidies by public administrations
- Tax to the users

Management

- Implementation of waste regulations
- Use, renovate, and update of the system

Comprehensive Sanitation Plan: Today

- 1 million people served
- Treatment of more than 30% of the volume of industrial waste
- Two main water treatment plants:
 Galindo and Lamiako
- 900,000 people served
- Average flow in dry weather: 3.5 cubic meters per second
- Peak flow in wet weather: 21 meters per second
- 300 tons a day of waste in dry weather that is dehydrated and incinerated
- 425 tons a day of waste in wet weather that is dehydrated and incinerated
- Volume of ash: 30 tons a day
- 29 medium and small water treatment plants
- 400 km (248 miles) of collectors and traps
- 100 water overflows
- 50 pumping stations
- 4 rain overflow chambers with a capacity of 125,000 cubic meters in total, with several in the works with a capacity of 120,000 m³
- Three crossings under the River
- Universidad Museo
- Lamiako La Benedicta
- Elorrieta Zorroza
- Total investment: 1 billion euros
- 35 % Users through taxes
- 25% State Administration
- 23% Provincial Council of Biscay
- 17% Basque Government
- Implementation of project: 30 years.
 It will be completed with the future construction of the Lamiako water treatment plant.

Outcome

- Oxygen levels exceeds 60% in every area of the river
- 50 fish species
- Dozens of bird species
- The recovery of the river is a key aspect of the urban regeneration of Bilbao.

Endnotes

- 1 Lecture by Pedro M^a Barrerio Zubiri, Director of the Bilbao Bizkaia Water Consortium
- 2 "El Plan Integral de Saneamiento y la recuperación urbanística de la Ría de Bilbao," BIA Forum 2016, Julio 2016.





specifically, it was grey. That is the impression it left on color film. Once in a while, the color of rusted steel or the undecimake an appearance.

Grey was also the favorite color of the citizens of Bilbao when talking about the weather: "It seems we are going to have a grey day" was often said as a rou-Steel factories, black umbrellas, grey sidewalks, and clothes of similar colors defined the urban landscape associated with the industrial revolution of the twentieth century.

dressed with colorful clothes were the football players from the teams located around the industrial areas. Green and black for the team of Sestao, yellow and black for the players of Barakaldo, and the sacred colors red and white for the Athletic de Bilbao. Its fans turned "¡Alirón!" into their football chant, a phonetic interpretation that originated in strip mining when a good seam of steel was found: "¡All iron!" screamed the miners full of happiness.

Bilbao extended its vast steel industry and shipyards for almost 20 kilometers along the left bank of the Nervión River until reaching the sea. The landscape was defined by the steaming chimneys and the sirens that, like howls, marked the beginning and end of the workday in each factory. You would also see coal, tons of coal all around, along with fire and molten steel. By the docks along the river you would gaze upon gigantic ships and cranes that challenged the wind, rain, and even the laws of gravity and bal-Always the steel.

People who lived in the area referred to each factory by a colloquial name: "Alto-

Bilbao was a black and white city. More sornos" (Altos Hornos de Vizcaya), "Lanaval" (Astilleros Españoles SA), "Laaurrerá" (Aurrerá)," and "Labalco" (Babcok Wilcox). Bars and restaurants near the pherable color of the Nervión River would factories had a specialty of the house: "el Alubiero," for example, was the place to eat the only dish served made of beans, chorizo, and bacon. And you would eat with your factory clothes on.

Parents showed proudly to their chiltine novelty in houses, bars, and streets. dren the factories where they worked, and many of those children went on to apprentice schools in order to learn the trade and subsequently start working in the same factory where their parents once worked.

But that world of whites, greys, and It could be said that the only people blacks was doomed to die. They said that it was no longer economically feasible to produce steel. And the flame that used to light the night sky red slowly faded. Workers disappeared and that burning land vanished with them, even with controlled explosions of Goma-2 explosives.

> It gave way to a world of color, and the steel turned into sheets of titanium designed with Cad-Cam, one of the most advanced software programs at the time. The Guggenheim was born in the heart of Bilbao while, just a few kilometers away, coincidentally towards the sunset, the last remains of steel disappeared.

> Personally. I was saddened and even shed a tear as I saw every trace of this past disappearing. A past that was built by magnificent architects and engineers, mostly wise men who designed using wood rulers, India ink, and pencil, a past of large structures of reinforced concrete and mechanisms that were used to produce high-quality steel.

The photographs, my photographs, ance with their massive pieces of steel. were not easy to take, and want to be an homage to all those professionals who worked where people identified the places by the name of the factories.















Men Of Steel in a Grey Landscape



























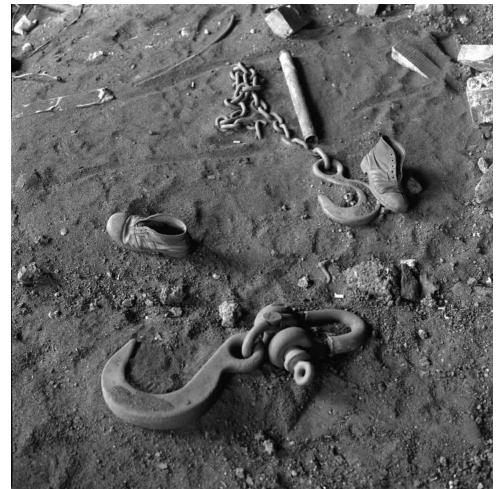














Apoptosis 185

Apoptosis is the self-programmed death of a cell in order to control its development and growth. It is a key function of organisms as it facilitates the destruction of damaged cells.







Apoptosis 187

The effects of the deep economic crisis of the 1970s lasted beyond that decade, conditioning the economy of the Basque Country during the following decade. Industry, the most important economic engine during the twentieth century, was the main victim, mostly that located around the Nervión River. With decreasing demand and obsolete facilities, the economic situation not only affected heavy industry (steel and shipbuilding), but also other productive activities, such as the food industry and the manufacturing of small appliances.

One of the most aggressive interventionist policies tried to match offer and demand by providing subsidies to a determined number of companies, for example, to those manufacturing small appliances. If until the beginning of the 1980s those Europe-based companies were able to remain independent, the situation changed radically in the following years, forcing them to merge into larger companies due to the escalating price war.

In Spain, at the beginning of the 80s, the government created the *Plan de Reestructuración del Sector de Electrodoméstico de Línea Blanca* (Restructuring Plan for the Sector of Kitchen Appliances) that would sacrifice some companies to save others. Macroeconomy generates an evident and direct impact in the industrial sector, sociology, and landscape of small regions. The progressive closing of companies turned into a gradual growth in unemployment and abandonment that lasted more than thirty years.

The photographs included here portray this abandonment and the traces left in former industrial nodes in Biscay. They are part of a larger project that is framed within the context of urbanism and the architecture of resistance, with the aim of generating new critical thinking about the effect of the relocation of productive areas and the consequence of the economic crisis and industrial stagnation that has affected the Basque Country during the last few decades.

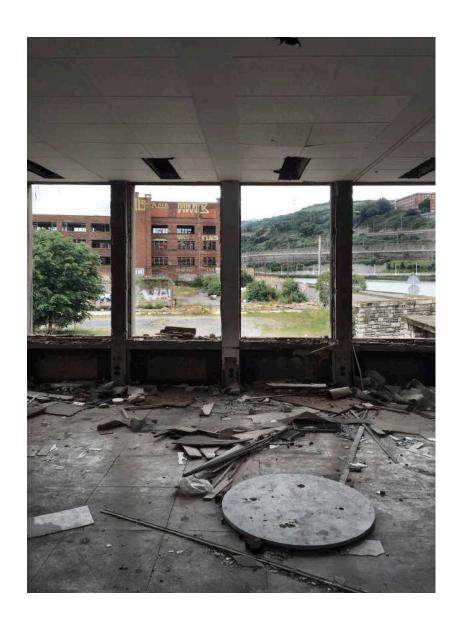
The comprehensive exploration of these conditions allows us to discern the unexpected consequences that are also generated by this industrial stagnation and displaced growth. The rest of the photographs from this project, but not included in this series, focus on new nodes of production of consumer appliances located in Asia.

Apoptosis challenges us to think about the effects of change in our identity and its reciprocal pollution.

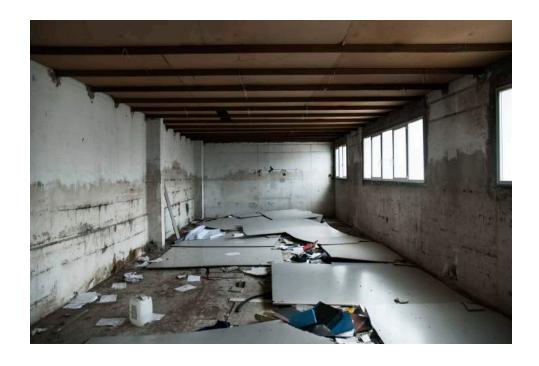


ASCONTEXT/30-31/BILBAO

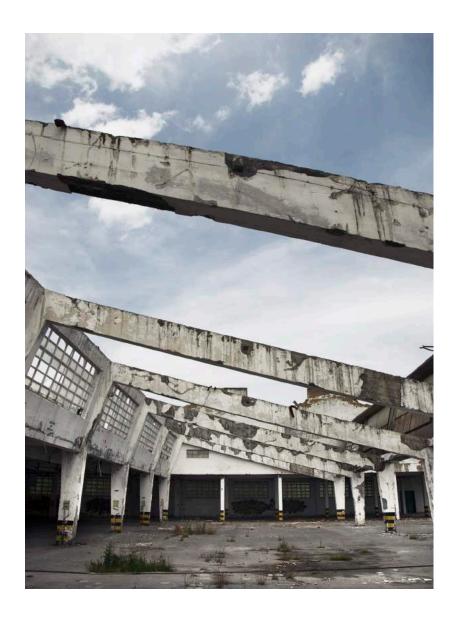
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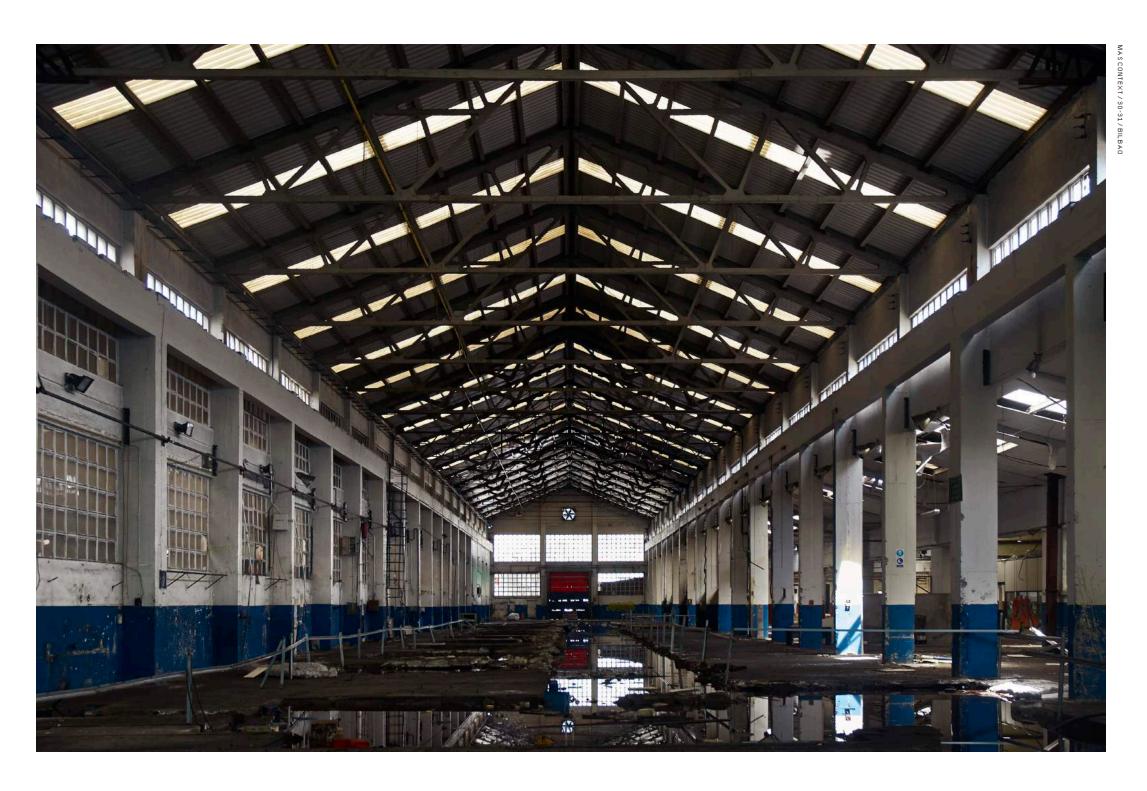
Apoptosis 191







Apoptosis 193



CENTER



AND

THE

OTHER

ARCHITECTURAL

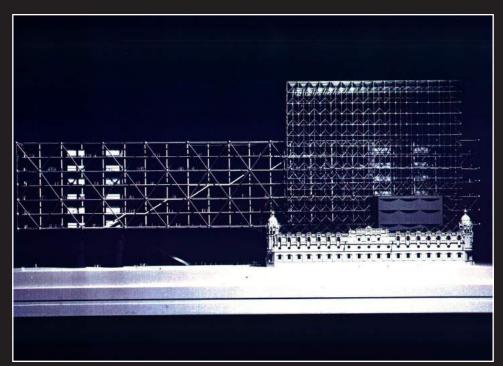
DREAMS

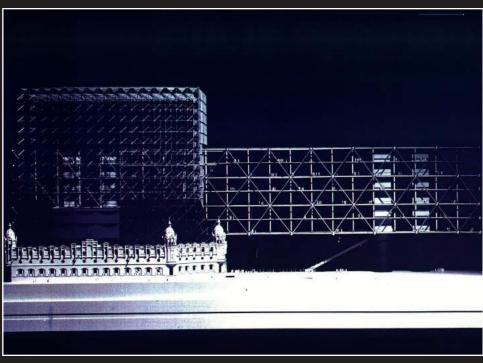
At the end of the 1980s, Jose María Gorordo, Mayor of Bilbao, promoted the remodeling of the old municipal wine warehouse, the Alhóndiga, an important project by the Bilbao-born architect Ricardo Bastida. The 1909 building had been in use until 1977 when it ceased its operations. In order to create a large cultural center that would serve as a model for other Basque cities as well as reactivate the local economy, Gorordo invited two renowned architects, Francisco Javier Sáenz de Oiza and Juan Daniel Fullaondo, to design a new project. Sculptor Jorge Oteiza, one of the most important artistic references from the Basque Country since the 1950s, joined them. After several architectural proposals and multiple political and media issues, the project never materialized, becoming one of the most emblematic unbuilt projects in the city. Finally, in 2010 the French designer Philippe Starck remodeled the building as a multipurpose civic center.

From the Old Wine Warehouse to the **Future Museum of Contemporary Art**

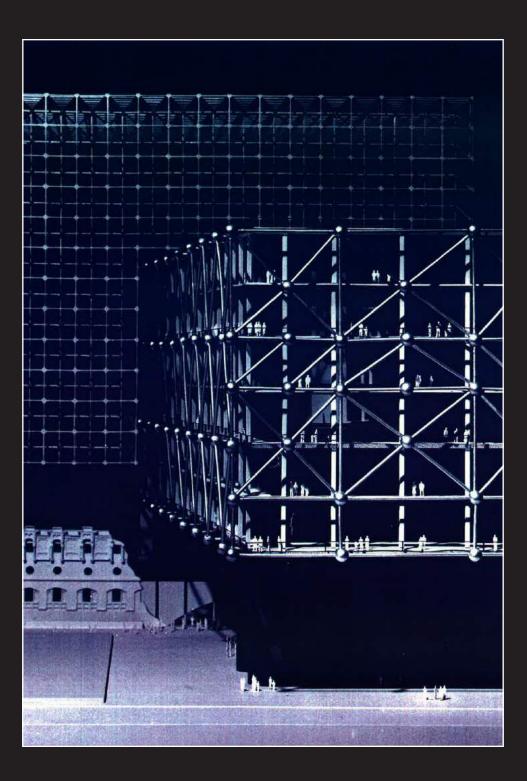
technical study about new cultural centers in Europe in order to establish the bases from which to define the characteristics of the desired cultural center in Bilbao. In the report From the old wine warehouse to the future museum of contemporary art, the Pompidou Center in Paris, by Renzo Piano and Richard Rogers, was the main subject of the study. Similar to the Parisian center, the Alhóndiaa was located within an established urban fabric. Besides the Bastida building, the brief of the project considered the use of the vacant lot available in the adjoining block next to the Alameda de Urquijo Street. In 1989, the Basque Government designated the Alhóndiga "Public Property of Cultural Interest," which meant that its façades had to remain untouched, but its interior could be demolished or modified.

One of the most sensitive aspects for those in charge of the project was defining In 1988, the Bilbao City Council prepared a the program of the new cultural center. Jorge Oteiza was a thoughtful sculptor who, for many years, had been trying to create an Institute of Aesthetic Investigations in the Basque Country. The predominant positivism of education in society during the twentieth century was one of his main concerns. For the Basque sculptor, it was necessary to get past the technological model of education, an education focused exclusively on a pragmatic and utilitarian vision of the world, to develop holistically as a person; to develop of an ethic and aesthetic conscience; to see and feel a richer and more caring world. A way to approach this concern was to demand an aesthetic education. For Oteiza, this should be a fundamental task for every artist. In his renowned saying "¡Me paso a la ciudad!" (I am focusing on the city!), there was an implicit idea: to abandon the plastic





199 and Other Architectural Dreams



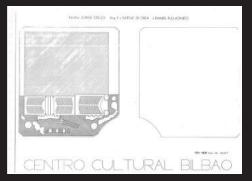
the responsibility of transmitting his or her large set of escalators would connect the reality to the society and mainly to children, the "unconscious adult" who, if aesthetically trained, will become a better person.² During his life, Oteiza had tried to launch several educational projects focused on the artistic development of children, such as the Children's University in Elorrio and the School in Deva. His inclusion in the team for the new Alhóndiga along with Oiza and Fullaondo probably was his last opportunity to make his ambition as a plastic arts educator a reality. After multiple meetings and conversations, the new cultural center in Bilbao would include a series of uses whose objective was to develop the plastic arts skills of children as well as adults. The final program included a provincial library, a school of music, a museum of contemporary art, and several rooms and workshops for artistic and plastic Oteiza created a large transparent structure arts creation.

During 1989, two proposals were presented publicly in the Bilbao City Council. The first proposal included as one of its main elements a vast plaza covered by a large glass cube measuring 80 meters (262 feet) on each side. Besides the cube, there was a bridge building housing most of the program and constructed with a tridimensional structure inspired by the utopian projects of Yona Friedman. Finally, there was a building crossing under the bridge building and connecting to the interior of the glass cube. This was an unsuccessful proposal, as the height of the span over the Alameda de Urquijo Street was too disruptive of the original fabric of this were undeniable references. As in the project area of the city.

In the second proposal, the bridge building was removed, maintaining the large transparent cube and protecting an elevated plaza above the old Alhóndiga building. With that solution, the cultural programs were housed in two opaque volumes located

arts to focus on education. The artist has on two sides of the vast glassed plaza. A plaza with the adjoining lot where there were two modest buildings with a height similar to the neighboring buildings: a small cube in the furthest corner from the Alhóndiga and a long building attached to the dividing wall of the existing building. The focus of the project remained the large glass cube that, inserted in the dense urban fabric of the city, stood out emphatically, almost like a modern cathedral, a landmark in the city. The old Alhóndiga became a large plinth for the new glass-covered plaza that protected its interior space from the inclement weather of Bilbao. That glass cube would become the most recognizable element of the new cultural center, one that would be known as the "Cube of the Alhóndiga."

The proposal by Oiza, Fullaondo, and that protected the "living organism" that was the nurturing of the artistic education. That idea was, to a large extent, influenced by the previous architectural work of Oiza and the sculptural work of Oteiza. Architect and sculptor had already collaborated on several projects in the 1950s that shared ideas with the proposal for the Alhóndiga. In the project for a Chapel in the Camino de Santiago (the Way of St. James), it was already evident, with an interest in creating a tridimensional transparent structure to protect the scared space of the chapel. In this project, the geodesic domes of Buckminster Fuller and the space frame hangars by Konrad Wachsmann for the chapel in the Way of St. James, in the proposal for the Alhóndiga, the tridimensional structure of the cube has an immense importance. This structural system allowed the creation of vast and unobstructed interior spaces that facilitated the arrangement of the cultural program. Besides these clear



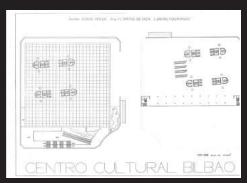




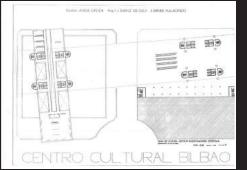


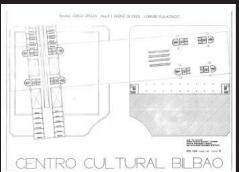


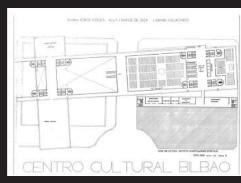


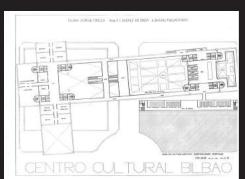




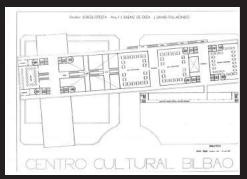


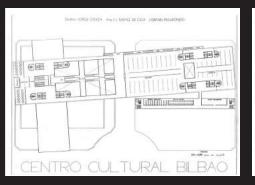














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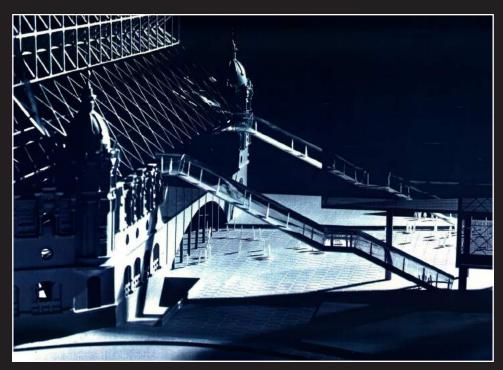
precedents, the cubic formalization of the highlighting the benefits that a project of this main volume as well as the importance given to freeing its interior space were fully in ac- success of the Sydney Opera House or the cordance with the theories of Oteiza written Pompidou in Paris. During the years when in essays such as "Propósito Experimental" (Experimental Purpose)⁵ and demonstrated in a series of sculptures such as his metaphysic boxes.

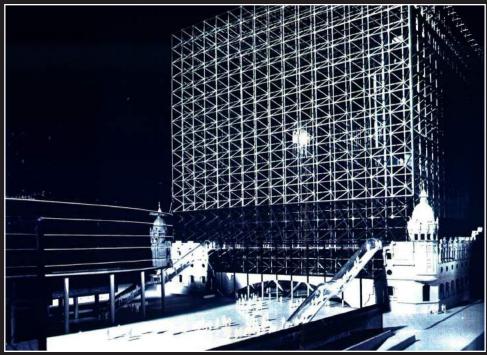
Polemic and Politicization of the Alhóndiga

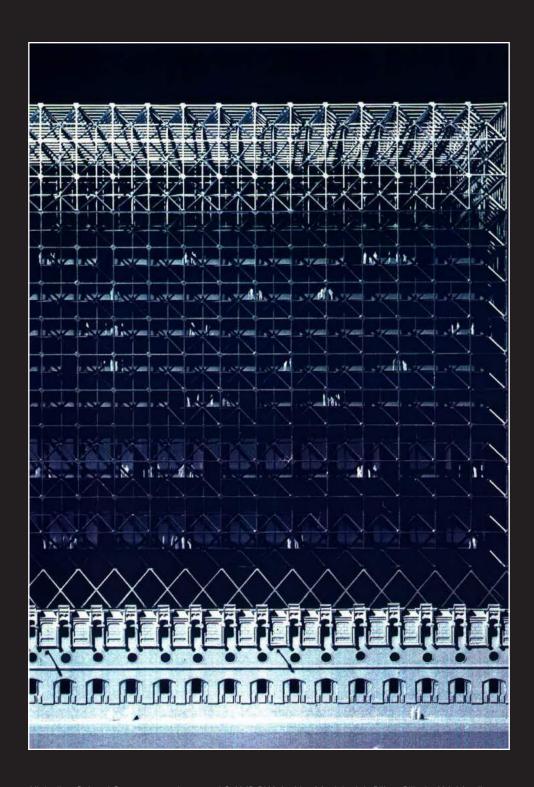
Beginning at the end of 1988, a constant controversy surrounded the project. The building, considering it an attack on the hisorigin of all the discussions and criticisms was political and of different opinions between the Basque Government and the Bilbao City Council. On the one hand, there was controversy surrounding the demolition of several projects promoted by the Bilbao or preservation of the Alhóndiga. The Mayor of Bilbao did not rule out the idea of demolishing it if it was needed, as its structural ca-resignation of Gorordo as Mayor of Bilbao pacity was not enough to fully support the new proposed uses. The rest of the political 2010 when the new Alhóndiga, now renamed parties and the Heritage Commission opposed this idea and proposed the complete preservation of the building and the adapta- cinemas, an exhibition hall, a theatre, an aution of the proposed program to its struc- ditorium, restaurants, and shops. ture, as they saw the building as an essential Bilbao. On the other hand, some members his image. However, those politicians against the Cube of the Alhóndiga did indeed con-Obviously, the design team rejected this idea architecture.

kind could bring to Bilbao, pointing out the Gorordo was Mayor, the team of Oiza, Fullaondo, and Oteiza would make multiple modifications to the two proposals that had been presented in April and December of 1989 in order to address the restrictions imposed by the Heritage Commission. Despite these efforts, in early 1990 the Commission deemed the project incompatible with the existing toric property. Because of this ruling, Jorge Oteiza decided to guit the project's design team. Ultimately, the political differences between all sides forced the cancellation City Council, including the Cube of the Alhóndiga. These discrepancies also led to the before the end of his term. It wouldn't be until Azkuna Zentroa, opened as a multipurpose civic center featuring leisure and sport areas,

Despite the unsuccessful outcome of piece in the historic and cultural heritage of the project by Oiza, Fullaondo, and Oteiza, the controversy generated in the media and of the Bilbao City Council did not approve political realm along with the several projthe designs by Oiza, Fullaondo, and Oteiza ects that had been proposed in the city creas they considered that Gorordo was using ated an intense debate around the need to the project as a political tool and to boost build an important cultural center in Bilbao, thus easing the path for future projects. The Cube of the Alhóndiga by Oiza, Fullaondo, sider it necessary to develop cultural inter- and Oteiza was the driving project for the ventions, but they argued that they had to creation of a large cultural center in Bilbao, be smaller buildings and dispersed across a goal that would be later achieved thanks several neighborhoods in order to avoid the to the Guggenheim Foundation, granting the concentration of culture in a single building. city a place in the history of contemporary







Controversy Around not Preserving the Building by Ricardo Bastida

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May – Mayor Gorordo and Jorge Oteiza visit the Alhóndiga building.

September – Survey From old wine warehouse to future museum of contemporary art.

October – Bilbao City Council purchases twelve works of art by Oteiza. Creation of the Aesthetic Research Institute.

1989

January – Bilbao City Council and Oteiza, Fullaondo, and Sáenz de Oiza sign the contract for the realization of the schematic design of the project.

April – Public presentation of preliminary design of first proposal.

October - Environmental Impact Report.

December – Public presentation of second proposal known as the "78m solution."

1990

January – Alhóndiga is declared an Artistic Monument by the Advisory Board of the Monumental Heritage of the Basque Country. The project is declared incompatible. Oteiza withdraws from the project.

February – Series of conferences "Cultural centers in the revitalization of the city."

July – Presentation of a new proposal.

November – Autonomous elections in the Basque Country.

December – Resignation of Mayor Gorordo.

1991

February – Basque authorities and leaders of the Guggenheim Foundation start negotiating an agreement.

1997

October – Opening of the Guggenheim Museum Bilbao.

2002

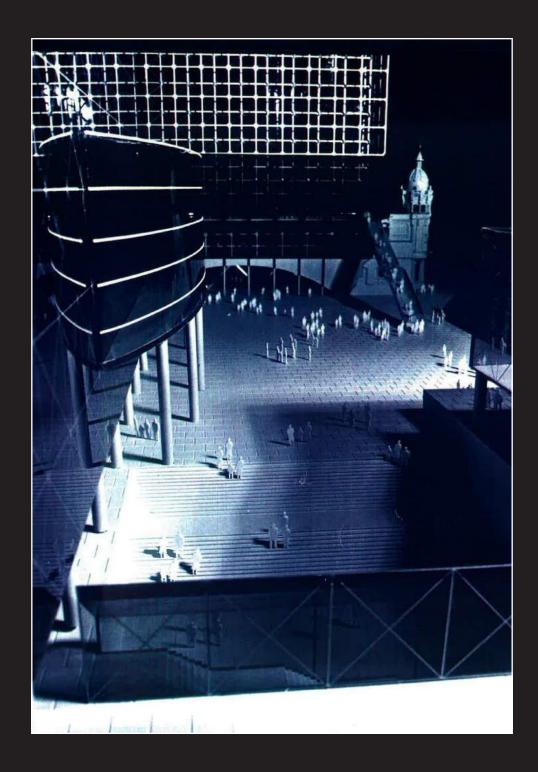
Rehabilitation of the Alhóndiga building commences.

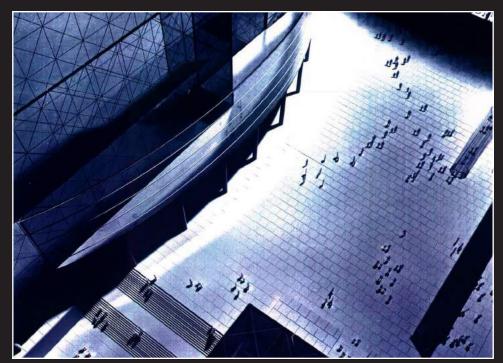
2010

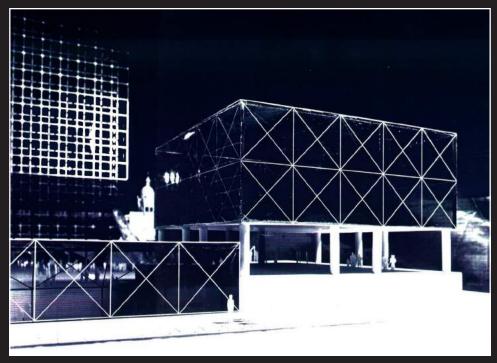
May – Opening of the new leisure and culture center known as Alhóndiga Bilbao.

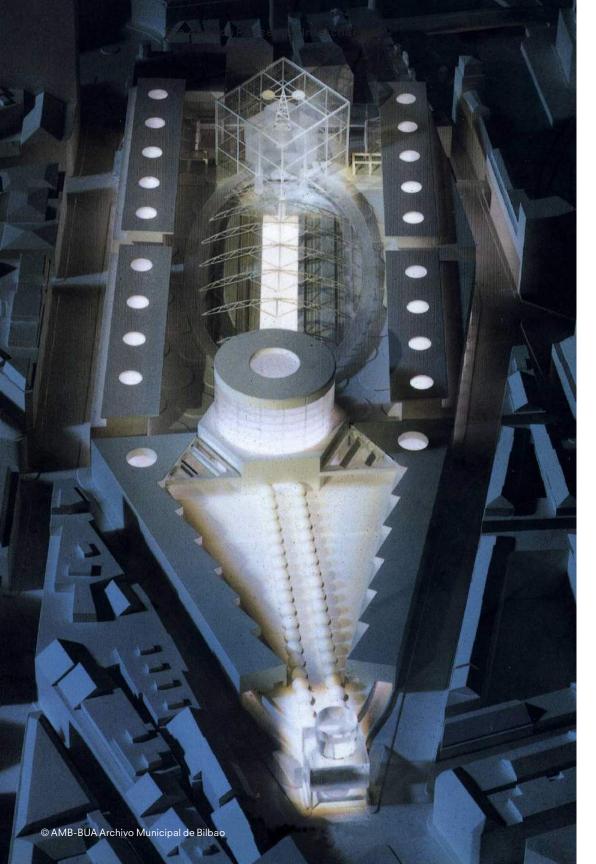
Endnotes

- 1 Iskandar Rementería, Proyecto no concluido para la Alhóndiga de Bilbao. Una propuesta sobre la estética objetiva de Jorge Oteiza como método de investigación, PhD Thesis, Universidad del País Vaco. 2015.
- 2 Iñaki Zuazo Akesolo, "Principio de interioridad y educación estética en Oteiza", in Oteiza y la crisis de la modernidad (Alzuza: Fundación Museo Jorge Oteiza, 2010).
- 3 Miren Vadillo and Leire Makazaga, Los proyectos educativos de Jorge Oteiza (Pamplona: Cátedra Jorge Oteiza, 2007).
- 4 Francisco Javier Sáen Guerra, Un mito moderno. Una capilla en el Camino de Santiago (Alzuza: Fundación Museo Jorge Oteiza, 2007).
- 5 Jorge Oteiza, "Propósito experimental 1956-57", Forma Nueva-el Inmueble, n. 14, March 1967. 24-34.
- 6 Pedro Manterola, *La escultura de Jorge Oteiza: una interpretación* (Alzuza: Fundación Museo Jorge Oteiza, 2006).









The Abando Passenger Interchange

A PROJECT TRAVELING OVER EIGHTY YEARS

On February 14, 1985, architect James Stirling and the Provincial Council of Biscay signed a contract to design a preliminary project for what was to be called the Abando Passenger Interchange. It was a new chapter in the long effort to create an intermodal station in Bilbao, one that could be traced back an entire half century and, staring into the future of three more decades, one that is still unbuilt.

On March 22, 1933, Indalecio Prieto, at the time the Minister of Public Woks, presided over a meeting at the Provincial Council of Biscay that approved the concept of building a station in Cantalojas. A train (but not intermodal) station was indeed built and inaugurated in 1948, but its design would ultimately wall it off from the rest of the city. It was a design that disgusted Prieto, who favored the project that architect Ricardo Bastida had prepared and that would have created a "large, open, landscaped square along Hurtado de Amézaga Street." Prieto and Bastida were decades ahead of their time and the project was sadly abandoned. It wasn't until 1975 that new conversations about the need for an intermodal station resurfaced.

Another ten years passed until James Stirling Michael Wildford & Associates presented a preliminary report to the Provincial Council of Biscay in January 1986 that, after incorporating a few modifications, would be unveiled to the public in July 1987. Introduced as Abando 2000, the project was considered by the local authorities as "one of the fundamental projects for the future of what we now call metropolitan or greater Bilbao." After the passing of James Stirling in 1992, Michael Wilford would lead the project, but it never came to fruition either.

After the opening of an intermodal station in San Mamés in 2004, the future arrival of the high-speed rail to Bilbao revived the idea of creating a second intermodal station in Abando. In December 2016, the Spanish and Basque governments, after years of discussions, agreed to create an underground intermodal station that would free over 22 acres of space used for public amenities and new housing. This project would once again stitch the city together as Indalecio Prieto and Ricardo Bastida had first envisioned it almost eight decades ago.

While we wait for the next chapter in this saga, here we reproduce the general project description, from the preliminary report presented to the Provincial Council of Biscay in January of 1986 by James Stirling Michael Wildford & Associates (urban design and architecture), Ove Arup & Partners (engineering concept and transportation planning), and Davis Bedfield & Everest (initial cost estimate).



General Description by James Stirling Michael Wildford & Associates

The site of the new bus station adjacent to the Abando railway station will ensure convenient passenger interchange between bus, train, and metro. Located between the old and new towns close to the Circular Square, it will also provide direct access to business, social, and shopping activities in central Bilbao. The operations of eighteen bus companies will be combined to provide improved passengers facilities and reduce traffic congestions caused by the present fragmented on-street arrangements.

Passengers will enter the bus and railway stations form a new Plaza connected to the Hurtado de Amézaga Street and Bailén Street by shopping arcades and to the old town by a new footbridge across the river. The Plaza (approximately twice the size of the Plaza Nueva) will be a focus of civic ac-

tivities in Bilbao, with traffic-free space for markets, fairs, and concerts. The Plaza is bordered by colonnades containing shops, bars, and restaurants with hotel/office accommodation above. Glass and steel canopies indicate arcade entrances from existing streets. Wide steps with viewing balconies connect the eastern arcades to new shops and cafes along the river walk.

Entrances to the bus and railway stations will be situated at each end of the Plaza, balancing activity in the space. The Plaza will be sheltered from winds and provide its own microclimate which, together with the colonnades, will ensure its use and enjoyment throughout the year. The ground surface comprises a series of shallow stepped planes landscaped with trees and rocks. Covered car/taxi dropoff points and 400 parking spaces will be situated below the plaza with escalator

connections to the bus and railway station entrances. Stairs and lifts within the colonnades will provide additional access to the Plaza.

It is intended that the formation of the Plaza and shopping arcades through the elevated plateau on which the Abando railway station and sidings are situated will reduce the present barrier between the old and new towns and regenerate commercial activity in the Area.

Ramps from Hurtado de Amézaga Street and Bailén Street will serve the car/ taxi drop offs and parking. A sliproad from Naja Street passing below Bailén Street will provide truck access to the parcel depot and service docks for commercial deliveries and garbage removal. Buses and coaches will enter and exit the bus terminal via ramps to the San Francisco railway bridge, proceeding either to the city streets or directly to the southern motorway on a new exclusive road.

The Plaza, bus station, and railways stations will be separate buildings for operational and security purposes. If required, the Plaza, bus station, and arcades could be constructed in advance of the new railway station.





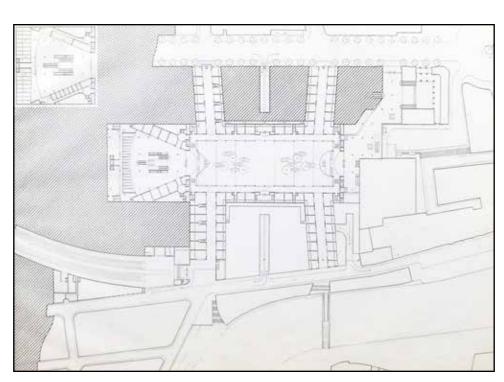
Bus Station

Passengers will enter from the Plaza colonnades and the car/taxi drop-off. Escalators and lifts [at] either side of a central information desk will connect the spacious entrance hall to the suburban and interurban stations above. The hall will focus towards above the bar and lounge. the interurban ticket/check in counters from which passenger luggage is separately conveyed to the buses. Shops, kiosk, and other passenger conveniences will line the sides of the hall with offices on a mezzanine above. Public toilets and telephones are provided at each level. Quick interchanges with metropolitan bus services on Hurtado de Amézaga Street can be made via the shopping arcades.

Suburban Bus Station

Arriving and departing passengers will pass through an island concourse connected to the entrance hall and interurban bus station by escalators and lifts. Sunlight will filter into the concourse through a roof lantern

Buses circulate clockwise in a roadway around the concourse to twelve boarding gates. Passenger alighting and boarding can either be combined at each gate or occur separately on opposite sides of the concourse. A central indicator board will direct passengers to the appropriate gate. Seating areas will adjoin the gates that can accommodate buses with front, middle, or rear doors. Emergency maintenance and staff activities will be provided adjacent to the bus entry and exit ramps. A restaurant for interurban passengers enjoys views across the Plaza through a large bay window.



Interurban Station

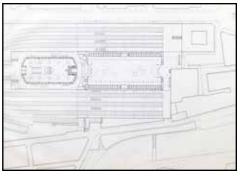
Passengers will alight and board the coaches through glass doors linking twelve coach parking bays with the arrival and departure lounge. The lounge will have seating areas on each side of the escalator and light connections to the suburban bus station and entrance hall. A central information desk and doors to a terrace overlooking the Plaza will be flanked by a bar and news/ tobacco shops. Separate stairs and lifts at each end of the lounge will connect to the restaurant below.

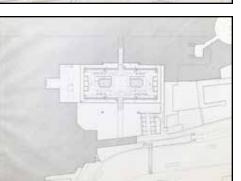
A central island in the couch maneuvering area will accommodate twelve parcel/ luggage loading docks connected by lift to the check-in and parcel areas. Cleaning, emergency maintenance and additional coach parking bays will be situated on either side of the bus ramp with drivers' cafeteria and dormitory above.

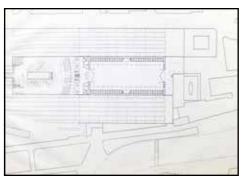
Abando Railway Station

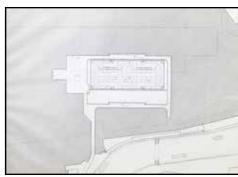
A new railway station will be constructed on the east side of the Plaza to contain six platforms for long distance and Vitoria airport express trains. When this has been completed, the existing station will be modified to accommodate short distance services including those to Orduña and the lines currently terminating in La Naja. The present six platforms will be shortened to provide a large concourse area and escalators to the ticket hall at street/Plaza level.

A new passenger concourse across the northern end of the Plaza with escalators and lifts to entrances from the Plaza and Hurtado de Amézaga Street will unify the new and existing stations. Short distance ticket windows will remain in the existing Abando hall with long distance ticketing relocated adjacent to the Plaza entrance. New escalators in the Abando hall will pro-





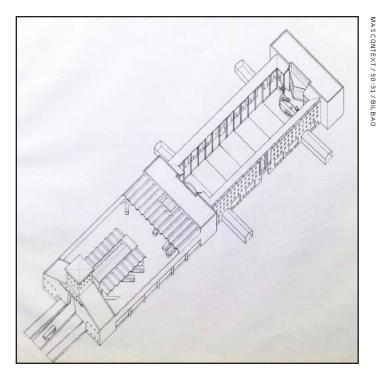


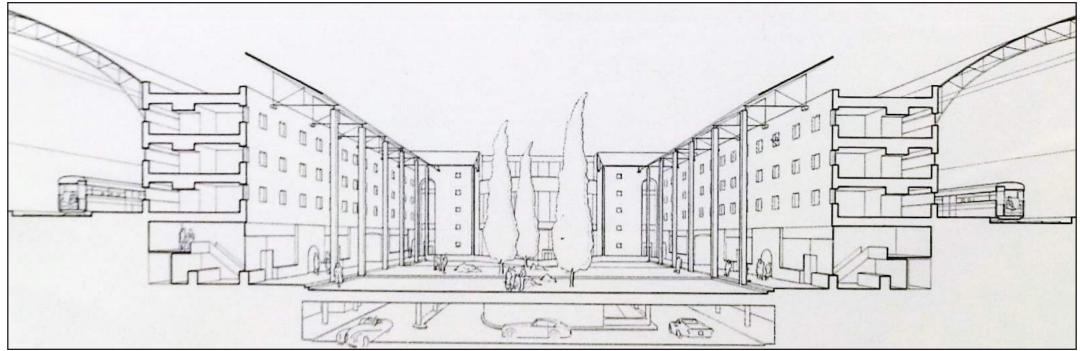


To provide a site for the Plaza, bus station and new railway station, the RENFE sidings and support activities will be relocated to Ollargon. The parcels storage and handling facility will be rebuilt adjacent to the existing Post Office building in the southeast corner of the site. Any remaining RENFE facilities essential to the Abando location will be accommodated in the existing station or the new buildings on the Plaza and Bailén Street.

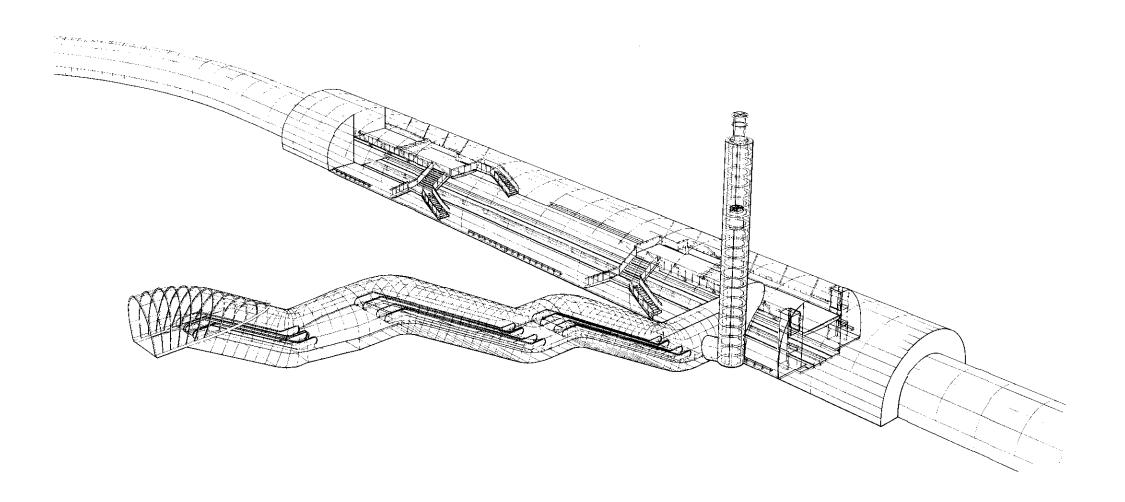
Santander Railway Station

The Santander Station will be relocated adjacent to the southeast corner of the Plaza and Bailén Street. The new station will have its own car/taxi drop off, improved concourse facilities and a restaurant on the second floor overlooking the river. The existing station will be restored as a museum or similar public facility.





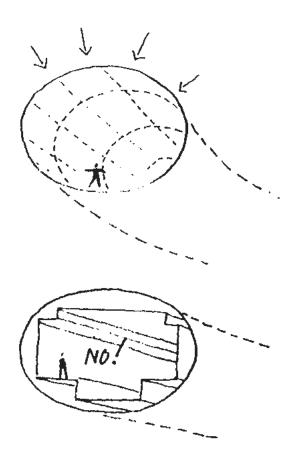
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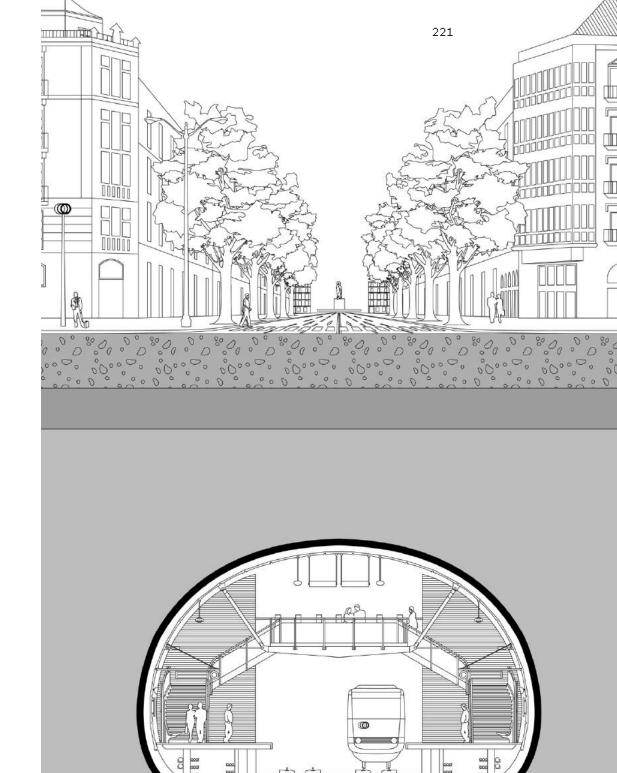


"The ability to master physical communication—the ease with which people can move freely and in a civilized manner—is essential to the future of our cities; and the architecture of this kind of infrastructure is critical to urban development." **Norman Foster**

The metro in Bilbao is probably the most important and ambitious project of the series of actions aimed at the renovation of the urban fabric and the reconfiguration of the city. The combination of functionality and aesthetic quality made the metro an outstanding project within the regeneration of metropolitan Bilbao.

In 1988, a competition launched to select a project that would balance architectural design and engineering. It was awarded to the team led by London-based Foster and Partners. Their proposal successfully integrated civil, structural, and transportation engineering with architecture and visual communication. Today, twenty-two years after its opening, the metro system continues to expand and shape the geography of metropolitan Bilbao.





Metro Bilbao

Origin

In 1974, the first in-depth study of the transportation problem of the Greater Bilbao area was published by the Provincial Council of Biscay (Bilbao is the capital of the Biscay province) called *Coordinated Study of Mass Urban Transportation for Bilbao and its Area of Influence*. As a result, in 1977 the Ministry of Public Works generated and approved the Construction Plan for a Metropolitan Railway network.

With the handover of authority to the Basque Government in 1981, the *Complementary Study for the Bilbao Metro Network* was completed, but not entirely accepted.

Throughout 1983, a new Study of Public Transport in the Bajo Nervión Area was undertaken. It proposed a combined solution of metro and railway, and can be considered the source of the project eventually carried out. Subsequently, the previous 1981 plan was revised and a new document was prepared and approved in 1987. This new plan outlined a route that was closer to the surface, in an attempt to bring the system nearer to the users and increase the accessibility to the stations.

Design Competition

In 1988, the Basque Administration launched a restricted competition inviting architectural teams from different cultures and with different sensibilities: Foster and Partners (London), Architektengruppe U-Bahn (Wien), Gregotti Associati (Milan), Santiago Calatrava (Valencia), Francisco Javier Sáenz de Oiza (Navarre), José Erbina (Alava), Fernando Olabarría and José Luis Iñiguez de Onzoño (Biscay), and Rufino Basañez (Biscay). The architect Luis Peña Ganchegui (Gipuzkoa) was also invited, though declined the invitation and instead joined the jury.

The Jury's Verdict

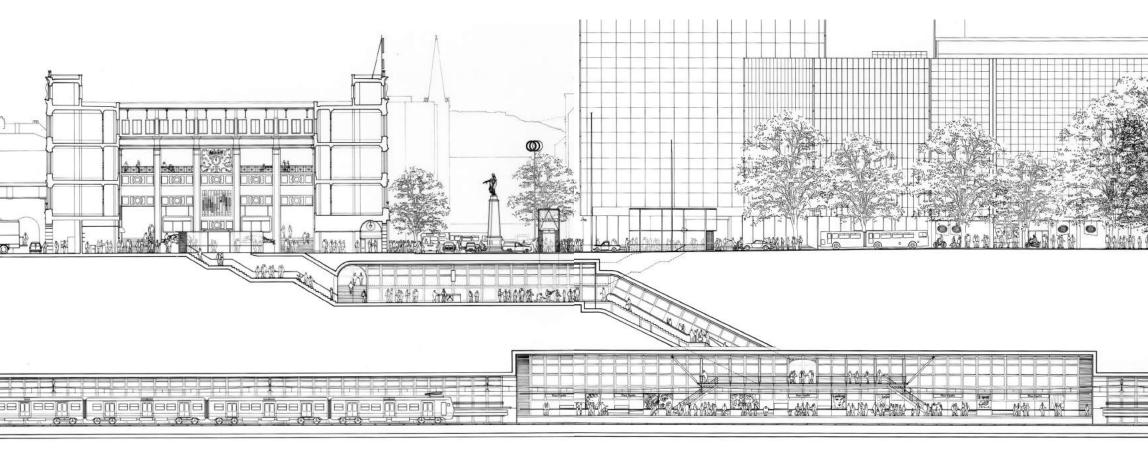
The competition jury was comprised of José Luis Burgos (architect and vice councilor for Transport), Javier Ruiz (civil engineer and chief of planning and projects for the Bizkaia Transport Consortium), Agustín Presmanes (civil engineer and director of Transport Infrastructure), the architects Francisco Hurtado de Saracho, Oriol Bohigas, and Luis Peña Ganchegui, the sculptor Néstor Basterretxea, the painter Agustín Ibarrola, and the economist Lourdes Llorens from the Transport Studies Center. The jury unanimously awarded Foster and Partner's proposal, a submission hailed as "having the clearest architectural design and image for the metropolitan railway as a whole, as well as being the one that best expressed the idea of an integrated transport system."

The clarity of the architecture of the metro is reflected in three basic elements: the interior (platforms and railway lines); the intercommunication (lobbies and stairs); and the exterior (street architecture commonly referred as "fosteritos"). The stations, located at a depth of between 20 and 25 meters, give the impression of well-equipped, spacious caves that are never overwhelming. One of the elements that most contributes to this perception is the pedestrian traffic distribution mezzanines between the platforms, steel slabs suspended in case vaults.

In Norman Foster's words, "in Bilbao, the architecture itself is designed to be legible: the routes in and out—via escalators or glazed lifts—lead travelers directly to the generous station caverns; and the caverns themselves are high enough to accommodate stainless-steel mezzanines and staircases above the level of the trains. The ex-







Metro Bilbao 227





perience of moving through a single grand volume in this way is dramatic, and the concept offers a high degree of flexibility for future change. The curved forms of these spaces are expressive of the enormous forces they are designed to withstand, while their construction reflects Bilbao's great engineering tradition." About the glass entrances at street level, Foster said that they "are as special to Bilbao as the Art Nouveau Métro entrances are to Paris."2

Dialogue Between Architect Engineer: A Connection Between London and the **Basque Country**

When Foster and Partners started to work his death in 1991. As described on Metro on the project, the route of the line, the stations' locations, and the configuration of the caverns and tunnels had already been determined from years of research by various local technicians. The London team concentrated on the design of the station interiors, and the development of the entrance positions and access shafts. The ideal shape of the caverns was designed so as to fit the mezzanines, the stairs, and elevator. The typical cavern station is 13,500 cubic meters, 16 meter wide and 11 meter high from the platforms. On either side there sit twin center tracks platforms.

Once the general outline was completed, the team concentrated on the design of the interior fittings: metal carpentry; mezzanine structures; benches, signage; lighting; and glass enclosures for the access. While the team in London developed the detailed design, local technical and engineering firms prepared the construction plans and ran the calculations. The New Austrian Tunneling Method (NATM) with shotcrete was used as the primary structure. As the final finished surface to the caverns and passen-

ger tunnels, 1.2 meter by 2.4 meter precast concrete panels treated with a transparent anti-graffiti coating were used. For the sections of the tunnels running beneath the Nervión River, prefabricated caissons containing twin tunnels were assembled above around and then lowered into place on the

It is also important to note the involvement of the graphic designer and typographer Otl Aicher, designer of the pictograms for the 1972 Summer Olympics in Munich, who was responsible for the corporate identity of the metro. Metro Bilbao was to be Aicher's last major commissions before Bilbao's website, "the symbol, formed by three rings, is an abstract figure based on tunnels and wheels in movement. Their thickness grows in the direction of reading (left to right) and creates a sensation of movement. The logotype uses the Rotis Semisans typeface in its semi-bold version and in lower case letters." The identity uses four colors: a "Bilbao red" for the background of the signs; white for text and arrows; black for pictograms and to highlight specific texts; and, in exceptional cases, grey as a background color instead of the red.

Present and Future

On November 11, 1995, at 11:11 a.m., the president of the Basque Country, José Antonio Ardanza, inaugurated Metro Bilbao. Along with him and other politicians, thousands of people waited anxiously yet patiently to ride the new metro system. Metro Bilbao opened with a single line covering 20 km along the right bank of the Nervión River. The network expanded soon after the opening with new stations and Line 2 running

Metro Bilbao

along the left bank of the river. It currently covers 45 km with twenty-five underground stations and sixteen above ground stations, with Line 3 opening in April of 2017, and with preliminary studies for Line 4 and Line 5 in the works. The design of Metro Bilbao has received multiple awards, including the Brunel Prize for Railway Architecture in 1988, for the network as a whole, and the Sarriko Station in particular.

With almost 90 million passengers a year (the metropolitan area of Bilbao has 1 million people), the network has restructured the geography of Bilbao and become a core element of its present and future.

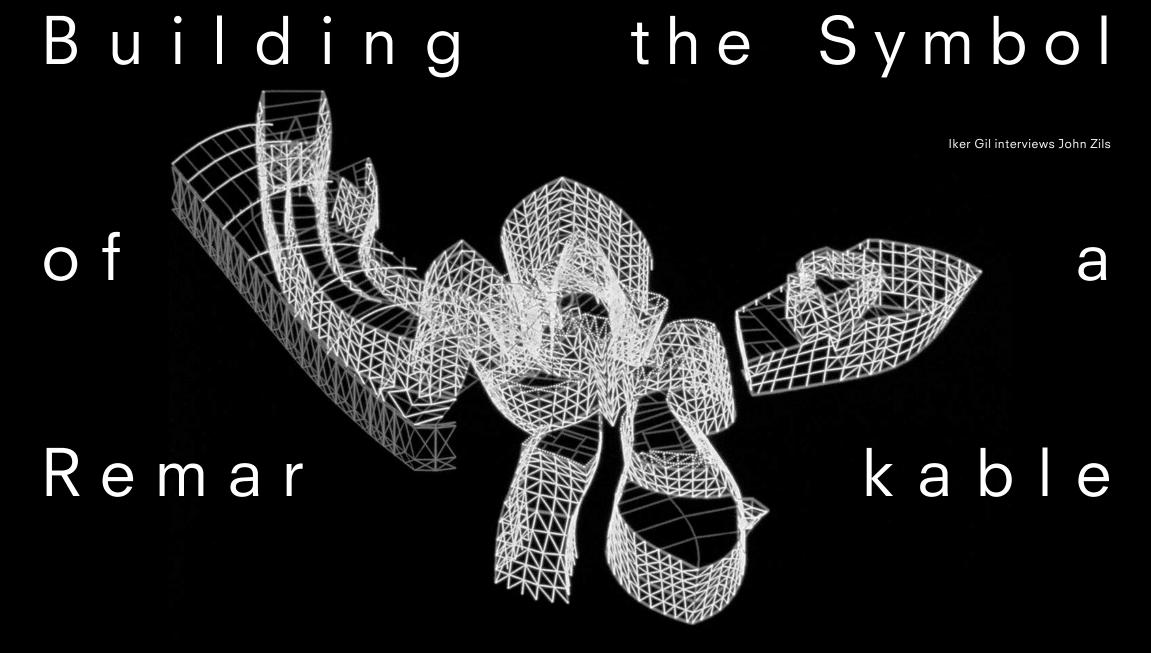
Fndnotes

- 1 "Foster+Partners," accessed January 31, 2017, fosterandpartners.com
- 2 Ibio
- 3 "Metro Bilbao," accessed January 31, 2017, metrobilbao.eus



Facts and Figures • Client Basque Government, Department of Transport and Public Works Years..... 1988-1995 1997-2004 Capacity: Currently 90 million passengers a year Foster and Partners Team..... Norman Foster, David Nelson, Spencer de Grey, Gerard Evenden, Rodney Uren, Mary Bowman, Kevin Carrucan, Etienne Borgos, Nigel Greenhill, Michael Borinski, Mark Bramhall, Ken Gomez, John MacFarland, and Alex Trussov Main Contractor...... IMFBISA • Cost..... Davis Langdon & Everest • System Planning Infrastructure and Engineering Sener, Bilbao TYPSA, Madrid • Signage Otl Aicher, Rotis (Germany) • Concrete Consultants Arup Design and Research • Tunnel Engineering Mott, Hay, Anderson, London





Transfor

mation

If there is a building that symbolizes the transformation of Bilbao and put the city on the international stage, it is the Guggenheim Museum in Bilbao. It was in October of 1997 when the building opened its doors to the public becoming, almost instantly, one of the most remarkable and recognizable structures of the twentieth century. Almost two decades later, the Guggenheim continues to attract one million visitors a year, all as interested in seeing the blockbuster exhibitions on display as much as visiting the building itself.

Designed by Frank O. Gehry & Associates, the building was a feat of design and construction. The use of digital modeling, including the now famous CATIA, and other innovations opened the door to a new generation of architecture that defined in the beginnings of the twenty-first century. The Chicago office of Skidmore, Owings & Merrill (SOM), one of the leading architecture and engineering firms in the world and responsible for many remarkable buildings in their own right, served as the structural engineer for the building with Bilbao-based IDOM as the local engineer. It was a unique collaboration that proved to be a major success.

Earlier this year, we had the pleasure to talk with John Zils, SOM Associate Partner Emeritus, a key member of the structural team for the Guggenheim Museum in Bilbao as well as other notable projects, including the Sears Tower in Chicago. John shared with us the history of the structural group at SOM, the origins of the collaboration with Frank Gehry, and the process of a building project that would become a turning point for a city as well as the career of its architect.

You joined SOM in 1966, so you have been directly involved in shaping many of the great projects of the office. Can you talk about the early period of your career at SOM?

That period starts with Fazlur Khan. To a great extent, it also starts with a gentleman by the name of Srinivasa "Hal" lyengar, who joined SOM a couple of years after Faz. The two of them were instrumental in developing the structural group as we know it today, fostering an integrated process of work between architects and structural engineers. It had always been part of SOM's philosophy, but I think it was really brought home by them.

The second thing that was important in that period was the advent of the computer. Very early on after Faz and Hal joined SOM, they realized that the computer was going to be a very important tool in our profession. Not only our profession, but the whole building profession. They convinced the partners at SOM to get a computer for the office. It was really for the structural group, as the others groups weren't going to get involved initially. The advent of the computer then led to all the investigations and system developments that Faz was involved in with high-rise buildings. It started with the Dewitt Chestnut Apartments built in 1965, which was the first tubular building, and then progressed to the John Hancock Center, Sears Tower, and many others. All of them would not have been possible without the use of the computer.

What year did SOM buy the computer?

Faz joined the Chicago office in 1960 and I think the first computer was brought into the firm around 1961.

That was very early. Did you know of any other architecture office that was using the computer at the time?

I don't, but there probably were a handful of them. To say SOM was the only office wouldn't be fair, but it was very, very early. The computer played a very important role in the development of these different structural systems that were all offshoots of what we term the tubular concept of behavior in a high-rise building. When I joined SOM in 1966, the design for the John Hancock Center was really just being completed, so I really didn't get involved in that building. I was involved with another building, the 31-story National Life Building [now the William R. Snodgrass Tennessee Tower] in Nashville, Tennessee, with Hal lyengar and Faz Khan. That was my first exposure, so to speak, to high-rise design and high-rise buildings. Then I left the firm for two years to go in the Army, coming back in January of 1969. Very shortly after that, I got involved in the Sears Tower with both Faz and Hal. I was the project engineer for the Sears Tower, following it all the way through completion of construction. That project brought on many new developments in terms of structural systems. the bundled tube, and other components of the structure, which were very unique to Sears Tower. There was always this attitude toward economy and integration of architecture and structure.

Did the architects and engineers work together from the beginning in those projects? Clearly the structure is one of the aspects driving the aesthetics of the buildings.

When you're dealing with a 100-story building, you have no choice. You have to integrate the structure and the architecture.

That same philosophy, if you want to call it that, pervaded all the projects, whether it would be a two-story building, a long span building, or a mid-rise building. Faz and Bruce Graham [architectural design partner] in particular developed a chemistry between them where Bruce and Faz wouldn't proceed without each other. There was a very strong connection between the two of them and that connection pervaded down to everyone in the firm. There was this idea of a group practice where the various disciplines work together right from the beginning, particularly the structure and architecture, but also the MEP group and all the other disciplines. I'm a firm believer that that's the only way to design buildings. Again, whether it's a hundred stories or it's two stories, there's an appropriate structure for each building. To this day, I think the firm still works that way. It's because of these people. A lot of the things that developed, a lot of the architecture that we designed and built, would not have been possible without that collaboration. It never would have happened, whether that's the Hancock Center, Sears Tower, the Hajj Terminal in Jedda, Saudi Arabia, Onterie Center here in Chicago, Hotel Arts in Barcelona, or the Guggenheim Museum in Bilbao.

We tried to instill that same philosophy with Frank Gehry. It worked differently than it would work here at SOM, where you are right in the same building and shoulder to shoulder with people, but I think it worked pretty well. A lot of times people will ask me, "How in the world, with the kind of architecture you do at SOM and the way SOM works, could you work with Frank Gehry?" I have to tell you, it wasn't the same as working at SOM, but I think we were still able to engender that spirit, that philosophy, which Frank was

quite receptive to. A lot of people think his designs are just whimsy. They're not. He was very receptive to our structural input and what we were doing. We were involved right at the very beginning in his projects.

The first collaboration with Gehry was related to the Hotel Arts in Barcelona designed by SOM and built for the 1992 Olympic Games. Next to the hotel, there is his fish sculpture.

He was involved with the fish and he was also the design architect of the retail portion.

I actually never knew that the retail area was his, too.

Yes, he was the design architect for that portion in front of the Hotel Arts tower, but the real collaboration was the fish in terms of our introduction to working with Frank.

How did that collaboration take place?

Bruce Graham brought Frank to the project. I can't really tell you what the impetus was for that, other than they knew each other and had a relationship of some sort in terms of knowing each other professionally. Again, he was brought in as the design architect for the retail portion and the fish. We worked with Frank and Jim. Glymph, who was at that time the person leading the CATIA effort. They developed this whole kind of offshoot of the architectural office, a technology group which brought on CATIA and developed a lot of things. We worked really well with Jim and Frank on the fish sculpture. As that project finished in 1992, our involvement with the project in Bilbao started.



The competition for the Guggenheim Museum took place in 1991. Frank Gehry was an advisor for the project and later was brought in as one of the three participants for the competition, the other two being Arata Isozaki and Coop. Himmelblau. It was in July of 1991 when Gehry won the competition, so it was right around that time.

We were brought into the project in early 1992. Based on our experience with him that had just concluded in Barcelona, he then asked us if we would like to join him in this project in Bilbao. We knew it was going to be a major project, but I don't think that at that time we had any sense that it was going to be quite as significant as it turned out to be. But we knew it was going to be a major project and we were happy to be a part of it.

Frank sent us a letter that included a sketch and he said, "Now that you've done a fish, would you like to do a flower?" He asked if we would submit a proposal for our structural engineering services. He sent us that sketch and he told us how many square meters the project was going to be. He expected us to give him a fee, and we did.

Out of that sketch?

Yes, the sketch and the square meters. We were silly enough or whatever you want to say to do it.

I guess it really helped that you had worked with him before and you had built a solid relationship.

 $\label{eq:Yes. So that was our introduction to the project in Bilbao.}$

How far along was the design of the project when you got involved? Was Gehry still primarily working with sketches?

Yes. When we actively got working on the project, he had done a few sketches and I think he probably had an initial model. I mean, he built so many models, that's how he works basically, so there was probably a model or two. I don't remember exactly but we got involved very early on.

How were the architectural ambitions set between the two offices?

There was a lot of back and forth.

There is an interesting story about the very first team meeting we had. We went out to Santa Monica, where his office was at that time, and he probably had a model and maybe some sketches. We were talking about the project, and at one point Frank turned to us and he said, "You don't have to worry about the structure because we think it should be reinforced concrete. With all the curves and shapes, reinforced concrete is what the structure should to be." We said, "Well okay, we'll take a look at it." That's how we started, you might say not in the right direction.

As we got home and started looking at things, we guickly realized that concrete was not the right solution. This project was going to be of a scale and complexity that Frank had never worked at before. Most of his previous projects were smaller in scale but this one was a whole different ball game. As you know, in the atrium of the Guggenheim, the flower as he called it, there were surfaces that were 150 feet in the air with nothing under them. We realized very quickly that concrete was not going to work very well because in the flower atrium you were going to have to scaffold all the way up there to support all this form work and concrete way up in the air. It was going to be very

expensive. So we started looking at alternate solutions. We had a series of meetings, going back and forth to Santa Monica with Frank, looking at wood structures, looking at steel structures, looking at precast and a lot of different options. The more we looked at it, the more we realized that steel was going to be the right answer. First of all, Bilbao is a steel city, with all the shipbuilding and a phenomenal technical expertise. It's terrific. Concrete is really economically feasible only on a small or less complex scale.

There's a rich history in Bilbao of working with steel related to shipbuilding and other industries, mostly at a larger scale than is typically associated with the scale of a building.

Let me also back up a minute because, very early on, there was a process to bring on the contractor which was very important in this project. Very early in this project, we had a whole series of meetings in Bilbao with various contractors and eventually IDOM was selected. It was a terrific selection. Not only were they very good technically, but also they were very adaptive at working with us. We had a very good communication with them and understanding of the process for the project. I really have to give them credit for that.

Having IDOM on the team also helped in looking at the various structural systems and what would be possible and what wouldn't. After a series of meetings with Frank, he eventually understood that concrete probably wasn't the best choice and he agreed that we should pursue the steel option. That seemed like the right way to go, but that wasn't the end of the story because we still hadn't worked out what we thought the system was. We just knew steel was the right way to do it. We probably spent two months studying what was the appropriate system

for structural steel. We knew it had to be able to conform to the different shapes, it had to be economical, and it had to buildable, because no two shapes were the same. Everything was different, very complicated.

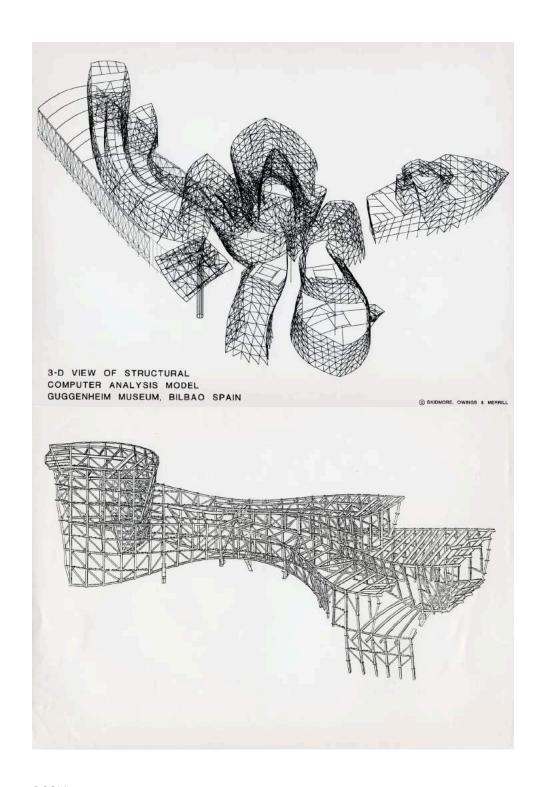
One of the key things that separated the steel from concrete was that there was no need for shoring or stabilizing cables, no construction hindrances so to speak. We wanted to be able to erect the structure without temporary props, something that would allow us to greatly reduce the cost. In fact, the final cost of the steel structure for the Guggenheim Museum was exactly the same as if we were building a rectilinear building with 30 feet by 30 feet bays, steel beams, and girders. The steel per ton cost was exactly the same, which was a real accomplishment, because it is a complicated structure.

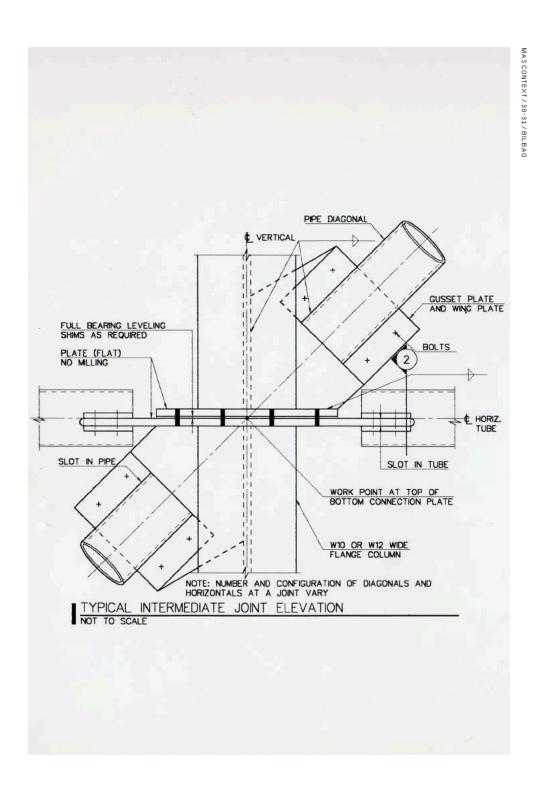
There were ways to achieve that. One of the things that we came up with was what we called a lattice steel grid system. It was a structure that would replicate a wall in terms of its behavior. We did this by creating a series of vertical and horizontal planes on a module that then would form this wall-like structure, but it was made out of steel.

What was the size of the module used?

If I remember correctly it was 10 feet by 10 feet, about 3 meters by 3 meters.

One of the advantages of this is that it could span long distances. This had a lot of strength to span a large distance with just being supported at each end. We worked for two months sitting in a conference room with sketches and yellow paper trying to figure out what was the right approach. We were not doing a lot of calculations, just trying to come up with the right system. Now you look back on it and you say, "Well gee, that's very simple and very obvious." Well, I'll tell you it wasn't obvious at the time.





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Did you look at any precedents when thinking about the structure?

No. It looks so simple and so straightforward now but it wasn't then and it had never been done before. In fact, the structure system ended up winning the American Society of Civil Engineers Innovation of the Year award. They give this award for innovation to one project in the world. Just one.

The next important decision was to see if we were going to build the structure flat, like a flat wall, and then create a secondary line of support to create the curve, or if we were going to curve the structure. Very quickly we realized that there was a huge advantage in curving the structure. I could certainly demonstrate that if I take piece of paper that is flat and I hold it out, it doesn't have any strength at all. The only way to make it stronger is to add more material. If you curve it, now you're taking advantage of the geometric stiffness, not the material stiffness.

So you need less steel.

Correct. That's the main thing, that you need less steel. All of a sudden it's very stiff, but if you make it flat, then it is not. Then you need very little additional steel to support the wall itself because the structure is going to follow the curve. The other thing that it does for you is that it creates more interior space. If you have a flat structure and then have to curve the wall surfaces, you have a huge cavity there eventually.

And that is space that is not usable.

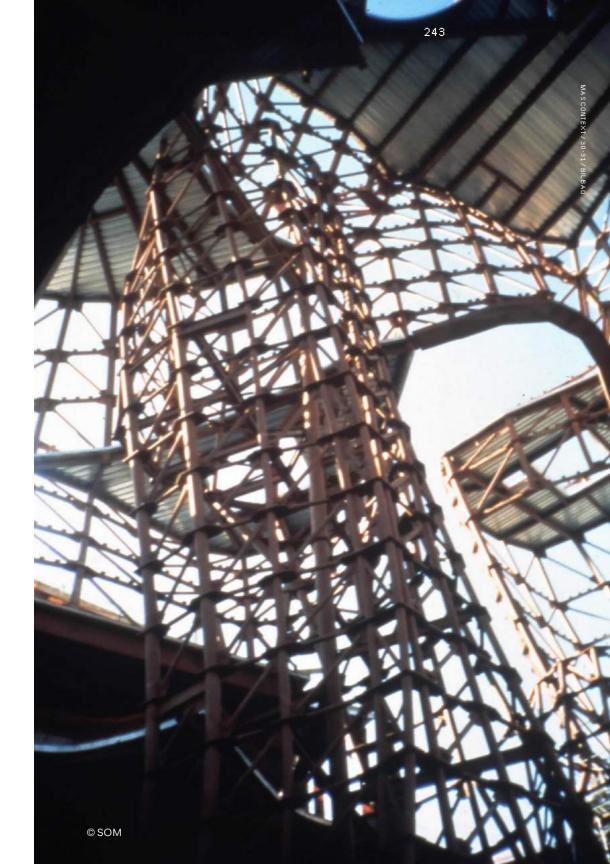
It's not usable. With our system, all of a sudden you have generated a lot more interior space for no extra cost. So the decision was to curve the structure. When Frank heard about it he was just elated,

because instead of fighting the curve, we used it. So the curvature was very important not only to him; it was important to us too, and he didn't have to pay any penalty for it. In fact, it was saving money.

During the design process later on, as we were doing the design and the analysis, there was one area where we were having difficulty making it work properly. It was too flat. We had a meeting in Santa Monica with Frank and we said, "Frank, we've got a problem. In this particular area, this wall is too flat. It doesn't have enough stiffness. We really need more curvature." He said, "This is amazing, I've never heard structural engineers come to me and tell me they want to make more curvature. They're usually telling me just the opposite."

One of the things that I find interesting is that the building has a lot of volumes that are very different in shape. You have some that have a lot of curvature and others that that are much more flat. I am sure that the flexibility of the structural system to take on the curves had to be one of the key aspects.

We had listed some of the aspects that we had to take into consideration while designing the structure of the building: it had to be versatile, and take any curve, any shape; it had to be disciplined, organized, and economical; it had to be fabric-like; It had to be thin to minimize the wasted space; we obviously had to be able to analyze it and do our calculations; it had to be lightweight and we had to be able to control the shape very closely. It was very important to Frank that the curves that he wanted were the curves that ended up in being built. We had to be able to do all of these things to satisfy his requirements.



Let's go back to the flow of information between the office of Frank Gehry and SOM. Can you go through the process as you were both using very different design methods?

The physical model was probed and then digitized. That information then was sent as a DXFO CAD to SOM where we used our own software that we called AES to do our analysis and design. Then we would send these wireframes to Frank's office and they would check them to make sure that something didn't get changed in the digital models. We also needed to make sure that the structure wasn't protruding over the curved finished surface. There wasn't a lot of room for errors.

The other interesting part of this story is that, at this time, which was the middle of the 1990s, the fabricators in the US had no capability electronically do shop drawings. All shop drawings were still being done by hand in the US. When we worked on this project, we were amazed that the fabricator had selected a firm in Belgium who had the capability of producing electronic shop drawings. There had been some discussions in the US, but nobody seemed interested in it. This project would have just been a nightmare to do by hand. The company from Belgium created very good shop drawings.

Was that company working exclusively on architecture projects or were they working on other type of projects?

I think it was for other things besides architecture. There might have been bridges and other civil structures, but I'm not sure. They were using a software called BOCAD. The interesting part of this story, too, is that they said that they had tried to bring BOCAD to the US. They had come to the US, met with some fabricators and detailers, and nobody was interested in it, so they gave up and went back. This was the process that we did go through at that time.

It is fascinating to learn about the behind the scenes of how this happened.

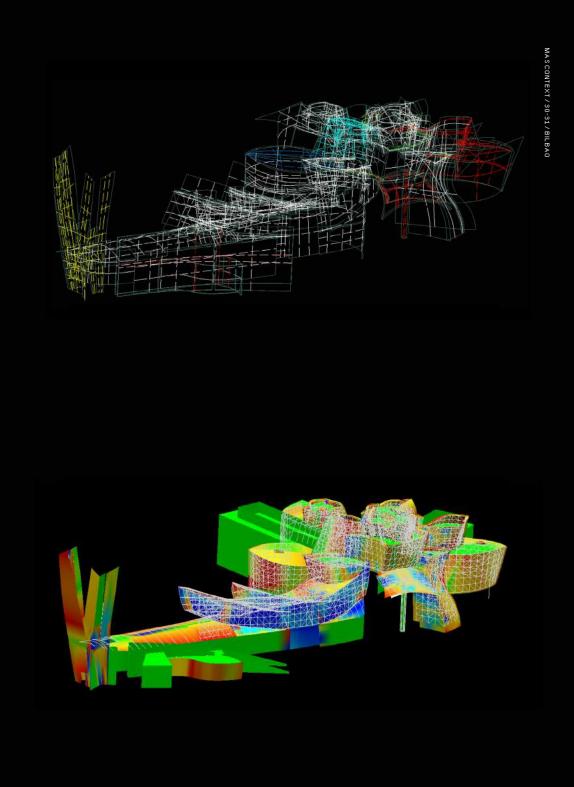
Obviously it would've been simpler if we had the CATIA capability at that time, but it really didn't cause any problems. Subsequently we did get CATIA, but this project was so early on that we hadn't really gotten into that then.

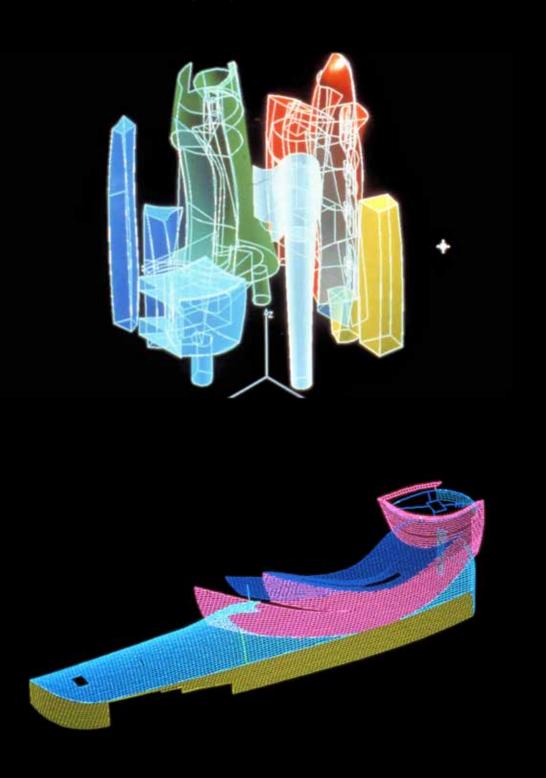
Now that you had the design and the shop drawings, let's talk about its fabrication and building of the structure.

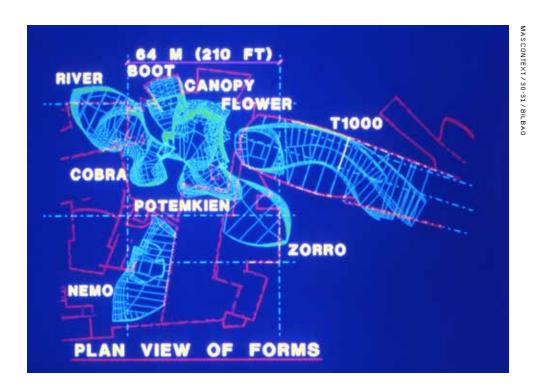
When you look at the structure, it really is just a series of bands of trusses forming a wall. These are really nothing more than trusses.

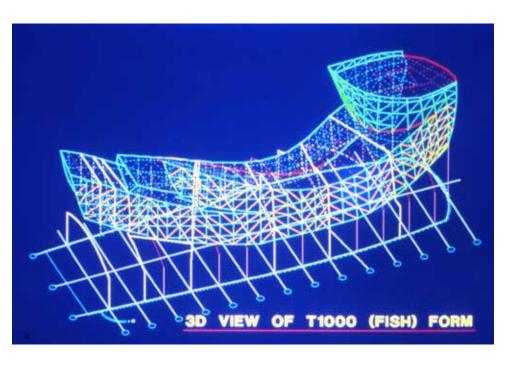
So it's like stacking one truss on top of another one?

That's the way it was fabricated. It was brought out to the site like that. It had the ability to span across these distances, then you put one on top of the other one, and then connected them. Obviously it kept getting stronger and stronger as you put them on so, when you finally did get the whole shape in place and started connecting floors to it, it had that ability to span long distances. There was virtually no shoring, no guide wires, nothing. The whole structure was just erected one on top of the other. That reduced the cost greatly.









Were all these elements fabricated in Bilbao or nearby?

It was actually up in Vitoria by a joint venture between URSSA/Lauki/Ferrovial.

An important part was what they did in the fabrication shop. As they would get each one of these elements fabricated, they would put them together in the shop to check that they all fit together and that the tolerances were met properly. So when they brought it out in the field and put it up, they didn't discover that things were not right. Every shape was preassembled at the fabricator to make sure that they were correct and then disassembled and brought out to the site and erected. The problems at the site in terms of erection of the structure were minimal, absolutely minimal.

I attribute a lot of that to IDOM. In particular, they had a very good structural engineer called Amando Castroviejo. He was just on top of everything. We would communicate all the time, he kept us up to date on what was going on or whatever. I have to tell you we really completed the project without any major structural issues. There were some small things as we went through, but very minor. Part of that I think was the work we did, but part of it was the work they did over there, too. Just keeping an eye on everything and making sure it was going in the right direction. So I give a lot of credit to IDOM, they were very good.

The other anecdotal part of it that's kind of interesting is that right as the structure was being completed, Frank Gehry came to the site and looked at the structure. He hadn't been there in a while and he was amazed. His feedback to us was, "If I had known that the structure was going to be this elegant and this beautiful, I would have exposed some of it. It's a shame that we're going to cover it all up." It really was a beautiful structure. Very light, very elegant, it looked like it belonged.

When I see an image of it under construction, it reminds me again of shipbuilding, like in the Euskalduna shipyard that existed right next to it before. And it is a scale of infrastructure more than of a building. It is interesting that, in its final state, only in the tower can you see some of the structure exposed.

That beauty isn't represented, unfortunately. The structural system in the tower is not the structural system of the building, so it would have been nice if somehow the building could have been exposed at some point.

It's quite amazing that it only took six years from the moment the building was commissioned in July of 1991 until it opened in October of 1997. It almost seems impossible nowadays.

Really, the work didn't get started until 1992. The first year, there wasn't much going on.

It seems that constraints also worked in your favor. It had to be built in a relatively short period of time and you had a specific budget, so you had to simplify as much as possible the construction of a complex building.

That's the other thing. Strange as it would seem, the budget that the city had was very, very, very tight. There was no going back and forth on this thing. So things were very carefully monitored by the city and by everyone involved to make sure it didn't get out of hand. One interesting aspect of that is the exterior cladding. I don't know if you know that story or not. It's titanium, but the original project was stainless steel. The only

reason the Guggenheim ended up using titanium was that, precisely when the drawings were issued for construction, Russia dumped their entire reserve of titanium on the world market. The price of titanium went out the bottom. Just pure luck. We quickly bought all the titanium for this project, and shortly after, of course, the rest of the world bought up all the titanium too, so the price went skyrocketing again.

Until that point, titanium wasn't a material that had been used before in architecture as a cladding material due to its cost.

Frank had identified it as a material that he would like to use in one of his projects. It had never happened prior to that and it didn't look like it was going to happen in this project either. Then all of a sudden, boom. Sometimes you are just in the right place at the right time and that is what happened here. As you know from being out there, the effect of the titanium is really interesting because it can change completely depending on the light conditions, if there are clouds, or if it's sunny.

Mostly clouds. That's what we have.

Mostly clouds, right. But it can take on a completely different appearance. Sometimes it can be gold, sometimes it can be pink, silver... all different colors.

And you have the backdrop of the mountains too. It's a building that you think you know and, in reality, it presents itself in a slightly different way everyday you see it.

It's a very dynamic building in terms of its appearance.

When I was in high school, three of the students and two of our professors visited the building when the structure was exposed. It was impressive and exciting, but also intimidating and foreign. It was a very interesting moment, but I remember I didn't have the sense of the impact that the building would have.

I have to say that by this point we were aware of its impact, but at the very beginning we weren't. We knew it was a major project, but we didn't exactly grasp the full extent of its impact. By the time we got to the structure going up, you knew it was going to have a major impact on the city.

After the Guggenheim Museum, you worked with Frank Gehry in other projects in Chicago, like the Jay Pritzker Pavilion and the pedestrian bridge, both in Millennium Park.

That's about it. We have talked to him about some other projects and it just hasn't worked out.

Did having worked in Bilbao simplify the work in the projects in Chicago, for example in terms of defining the structural system?

Yes, because in Chicago we did approach the surfaces the same way we did in Bilbao. The support of the surfaces is entirely different in both projects, but we approached the surfaces themselves very similarly.

It's interesting that in the Pritzker Pavilion in Chicago, you do see the exposed structure. From the front you don't see it, but you do from the back or the sides.

To be honest, it's not quite as pure as the one in Bilbao because of all that support that goes in the back. In Bilbao, the structure itself is the support.

Have there been collaborations with other architects in a similar way to the collaboration with Gehry's office?

On a smaller scale. Up until the work with Frank Gehry, our structural group at SOM had never worked outside of the firm. The project in Barcelona and bringing Frank Gehry on was the very first time our structural group had worked with an outside architect. We still continue that today, and the philosophy is that our structural group can work with outside architects, but they have to be architects that are in a non-competitive type of project. We would never design a 100-story building for an outside architect. At least I'll say today, never say never.

Did the way you approached the Guggenheim Museum influence subsequent projects at SOM?

I would basically say no. We approached this building much as we typically approach a structure in a building here at SOM. Now, as we said, there were some differences, because we were working with Frank Gehry in Santa Monica and we were here, so not quite the same as a regular SOM project, but very similar. I would say from that aspect it, did not really change anything. This is just a reflection of what we do.

One interesting thing that happened was that, when the project opened in 1997,

the architecture critic from the Chicago Tribune, Blair Kamin, went to Bilbao to see it. The headline of the article he wrote when he came back read, "Guggenheim Bilbao gets a Chicago Structure." What he meant by it was that, even though the project was a very complicated and very different kind of project from ours at SOM, we did approach it the same way and we came out with a very disciplined approach. We took complication and simplified it to build it. That's what he explained in his article. We really hadn't talked to him that much, and he was very perceptive in seeing that these guys from Chicago brought their very systematic approach and it worked.

Have you been back to Bilbao after the Guggenheim Museum opened?

No, I haven't been back since it opened unfortunately.

The city has changed a lot in these almost twenty years.

I'm sure it has. When we first started working on the project and I would go over there, I really felt like I was one of the few non-Bilbao people there. There were no tourists or foreigners of any kind. I'd love to go back and see the changes.



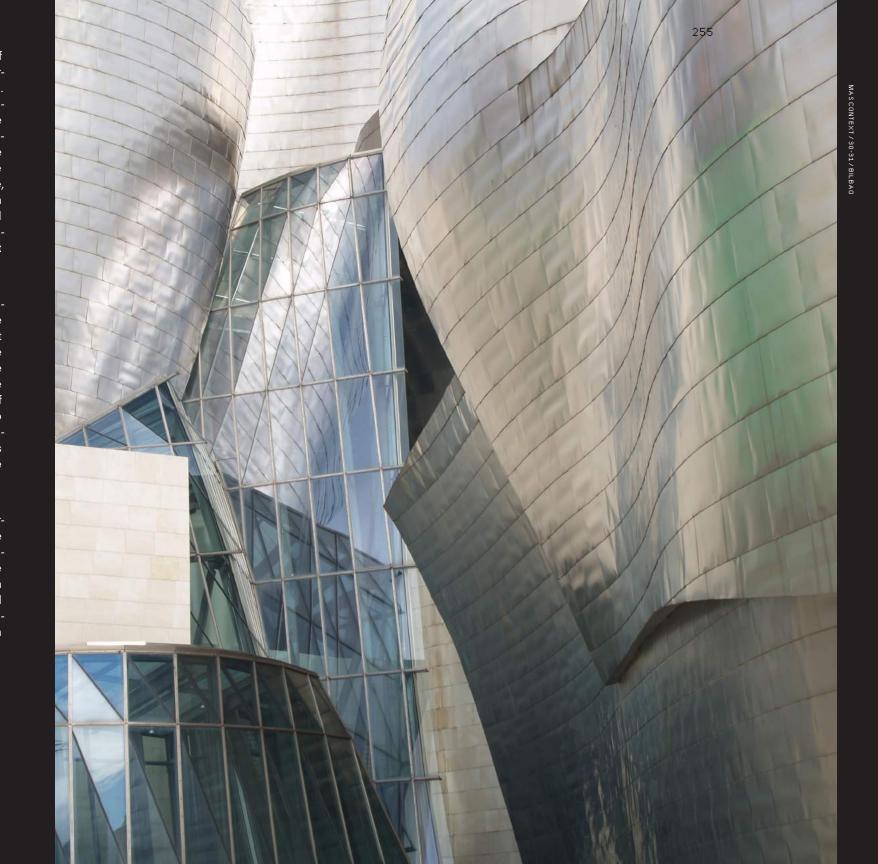


"The building has to have an iconic presence. It has to be important, like the library, like the courthouse, a place that has importance that makes the artist and the community understand the relationship of art to the world." **Frank Gehry, Architect**

"The Bilbao Guggenheim is an object, of course, however skillfully Gehry has intertwined the museum with the city around it. Still, inside and out, it's a spectacular embodiment of the tension between objects and the world beyond them. Within these far-fromneutral galleries, artworks will inevitably be drawn into complex relationships with the architecture and with one another. Outside, the design overflows any ordinary conception of what a museum, or any building, should resemble. Like the Basque region, this building is a place of contested borders." Herbert Muschamp, Architecture Critic

"Everything about the building denies custom and tradition. Its concept and forms are as radical as the contemporary works of art they accommodate... The container and the contained, the art and the architecture, are one thing, made for each other; nowhere else do all of the arts support and play off one another in a unified aesthetic that so fully expresses the 20th century. The setting is as significant as the art; the whole is the superb sum of its parts." Ada Louise Huxtable, Architecture Critic

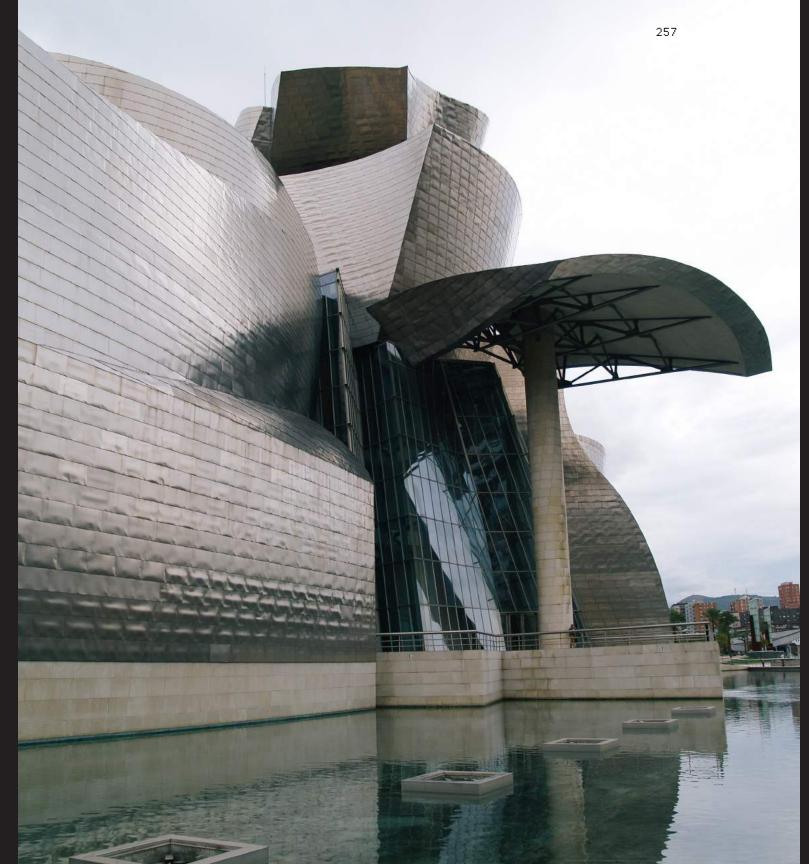
"The Guggenheim Bilbao was a rare occurrence. There was an incredible confluence of amazing, talented people. You had a museum that was hungry to expand, available land for cheap, a government with money, an architect itching to make a statement, and a city that desperately needed a new reason to exist. You can't just buy that." Maria Fernandez Sabau, Museum Consultant



"What we were able to do in Bilbao is create a new generation of museums and I think scale here is the issue. The test of a great building is its ability to handle the relevant art of the 20th century, let's say, and that'll range from a Richard Serra sculpture that weighs 70 tons to an 85-foot James Rosenquist painting to a Picasso drawing. In this building you will see spaces that are equally appropriate for works of such diverse scale. And scale has an impact. There is something that is heroic about it. If you can put these things together and make a building that is highly attractive to a visceral experience and, at the same time, if you can make the building subtly serve a wide range of important art of the 20th and, hopefully, the 21st century, then you've accomplished something really special. I think that Frank [Gehry] has done that with this building. The public recognition of the Guggenheim Museum is strongly influenced by its architecture. That has, interestingly enough, helped the collection to continue to grow. And Frank Lloyd Wright anticipated that. He set that up as a model, so to speak, in that he wanted to build a museum that was like no other and he was very successful in doing that.

...This is going to be precedent setting for what museums of the 21st century can be. It really is an extraordinary thing."

Thomas Krens, Director of the Solomon R. Guggenheim Foundation (1988 to 2008)





1997-2012

The opening of the Guggenheim Museum in 1997 symbolized the new Bilbao propelling it to the international stage. The image of a single building, considered the most important structure of the end of the twentieth-century, captured all the effort and projects of the previous two decades. Spurred by a success of unprecedented scale, the city undertook key infrastructural, urban, and architectural projects. Bilbao's transformation would be a reference for other cities trying to overcome their own decline. In many cases misunderstood and oversimplified, its success would prove to be hard to replicate. A period defined by a strong economy, the global crisis would challenge its model moving forward.

Setting Up New Relationships Between City and Nature

Iker Gil interviews Diana Balmori



The Nervión River, or Ría de Bilbao as it is more commonly known, is arguably the most important piece of infrastructure of Bilbao. The city, founded and developed for centuries along the riverbanks, turned its back on the waterway during the industrialization of the last century. This ultimately mutated the river into a physical barrier, inaccessible for the residents of Bilbao and occupied mostly by industry. In 1993, the Bilbao City Council organized an international competition to design the Abandoibarra master plan to recover the former industrial area and reconnect it to the city. A team formed by Cesar Pelli & Associates, Aguinaga & Associates, and landscape and urban design studio Balmori Associates won the competition for the area that would become the symbol of the transformation of Bilbao.



Balmori Associates was founded in 1990, just three years before the Bilbao City Council organized an international competition to design the Abandoibarra master plan. What were the aspects that you were interested in exploring in the office at the time?

Many jobs in the office were focused on how landscape can interface with cities. The two typologies we were exploring were linear parks and water management in the public realm. At the time, I was also writing Redesigning the American Lawn, A Search for Environmental Harmony (Yale University Press, 1993), which I co-authored with Yale colleagues Herbert Bormann and Gordon Geballe.

Linear parks, which I have called the twenty-first century park, are not what we previously called "park," usually empty land made into a densely planted terrain in the picturesque style. The linear park is also usually abandoned nineteenth century infrastructure, railroads, canals, etc. in which planting and greenness is engineered in. These parks were planned as a destination to contrast as dramatically as possible with the city itself.

What projects were you working on then?

In the early 90s, the office was working on the Farmington Canal Greenway master plan in New Haven: a thenabandoned railroad and former canal which preceded the railroad. We worked for a citizens' group, the Farmington Canal Rail-to-Trail Association, founded by New Haven and Hamden residents and chaired and led by the New Haven activist and ecologist Nancy Alderman.

The master plan was an exploration of what this new linear invention could lead to. We used the long passage to intervene along its course into the immediate city elements around it. I have compared it to a centipede because the sides of the greenway offer infinite new opportunities: a temporary closing of a crossing street for a fair, a farmers market on certain days, the opening of a back door on a building towards the linear park, intersections where buildings or land is for sale, etc. The linear park is a passage not so much as destination, but a route that takes you places and weaves together pieces of the city.

The linear park is a new prototype of open public space. In this particular project, a great amount of research was devoted to understanding the possibilities of such a narrow, 25-foot-wide corridor, which might eventually extend to a length of as much as 84 miles, since the railroad line runs up to Northampton, Massachusetts.

Our commission from the Farmington Canal Citizen Association, for a first conceptual presentation of the New Haven section, was followed by two grants, one from the NEA for work on the second section of the Farmington Canal, in Hamden, and another from the Carolyn Foundation for further work on the New Haven section.







The result of all these ideas became an exhibition at the Museum of Contemporary Art (MOCA) in Los Angeles, curated by Elizabeth Smith as part of a show of fifteen new US urban projects, called *Urban Revisions:* Current Projects for the Urban Realm (1994). In 1995, the exhibition traveled to the Canadian Center for Architecture, in Montreal.

Concerning water management issues, one of our projects was on the outer edges of Minneapolis, in Farmington, MN. The city council asked us to provide an alternative plan for draining the development. We designed an innovative riparian system, a network of channels, swales, and ponds that would function as an ecological drainage system and, at the same time, create public green space for the community.

The landscape design resolved several naturally occurring and man-made ecological issues for the development. The chosen site was a flat plain with a high water table that caused frequent flooding and storm water to empty into nearby rivers. Suburban developments typically produce problematic amounts of water run-off due to the large areas of impermeable surfaces in its roads, roofs, and driveways. To mitigate these environmental problems, Balmori Associates proposed an open water drainage system in place of the usual underground pipelines.

For the nearly 500 homes in this new development, the excess drainage water was channeled into a system of small ponds and swales, areas of planted grasses and sedges that absorb and filter the run-off rainwater. As part of the drainage solution, the project created 91 acres of planted public space consisting of a civic lawn, playing fields, and bike and pedestrian paths. The wetland ecology of the designed landscape also created a healthy habitat for regional wildlife increasing biological diversity.

Dubbed "Park Place" by the local residents, the open green spaces have become an integral part of the community, functioning as part of its infrastructure as well as a much-valued public amenity. We created a landscape shaped by natural systems, establishing a "productive park" that set a new standard for responsible suburban development and stands as a plan for the growth of a city as it expands.

For the competition, Balmori Associates teamed up with Cesar Pelli & Associates and Aguinaga & Associates, ultimately beating the other participants in the competition: Ricardo Bofill, Jose Antonio Fernandez Ordoñez, Eduardo Arroyo, and Francisco Mangado. Can you talk about how the proposal was structured and its goals?

While we were in charge of the street and open-space master plan, the buildings' layout was master-planned by Cesar Pelli and Associates and a Bilbao architect, Eugenio Aguinaga. Three main goals of the master plan were to increase connectivity, access the water edge, and expand the amount of green space while incorporating sustainable design practices.

I conceptualized the master plan as a series of parallel lines, or thin bands, each representing a different zone or flood level, each of a different material, and each charged with a function. Its most critical space, the line between the water and the land, had already been determined. The master plan reinforced it with parallel spaces: walkway by the water; walkway three feet above the shore; boulevard with sidewalks; and green center median for a light rail. The high-speed roadway was 'slowed down' and turned into a boulevard with multiple pedestrian crossings. A light rail now connects the

two main cultural centers of the development, Frank Gehry's Guggenheim Museum and the opera house [Arriaga Theater].

The additive potential of the parallel edges was understood and expressed clearly by connecting them. One main straight road, Ramon Rubial, cuts across these parallel lines and moves from city level to water level—a forty-two feet drop—and then, via a new pedestrian bridge, to the old University of Deusto on the other side of the river.

The plan's node, where the second and third levels end up and connect with existing city streets, became the central plaza—Plaza Euskadi—which we would later be commissioned to design.

The master plan became a legal document and could be changed only in minor ways. The biggest change that occurred was to allow the Deusto University library designed by Rafael Moneo to be built one floor higher than originally planned.

When you participated in the 1993 competition, did you have a sense of the importance that the site would have in the transformation of Bilbao?

The competition was organized by the public agency BILBAO Ría 2000, a non-profit entity, the product of a commitment on the part of all public authorities in a common task to transform the metropolitan area of Bilbao and the former industrial spaces around the city. In 1993, they had just been created, but their ambition and comprehensive approach to development, cultural institutions, and transportation was promising. Also, by the time we entered the competition, we knew that the Guggenheim Foundation had decided to open a new branch of the Guggenheim in Bilbao and that Frank Gehry would be the architect for it.

The original 1993 competition entry was later revised in 1994, with a third and final version prepared in 1998. What were the changes in each one of the proposals and what conditions drove those changes?

There were no changes in the proposals as to the open space, although the elimination of the underground railroad line service made for a delayed resolution of Plaza Euskadi. All the other changes affected the buildings more directly. They did not affect the open spaces except for the decision to build the bridge to the university.

The project was completed in 2012, almost two decades after the original competition. What are your thoughts about the result? Is there anything that has surprised you?

I am satisfied that two of the main aims for the open space were achieved; (1) to connect the piece of land indirectly to the main city on both sides of the river and (2) to give the public that access to the river with generous amounts of green space.

In 2008 the construction of the Plaza and Park was impacted by the economic downturn in Spain and the original budget was cut drastically, leading to a complete redesign for both. Decisions were made for these leaner times with a mixed prairie planting, mixing grasses and wild flowers, with only large trees for the perimeter of the plaza, and fewer flowering trees in the park. Water features were removed and a moss garden and a reflecting puddles section were designed.

After your initial work for the Abandoibarra master plan, you worked on two other permanent projects and a temporary installation in Bilbao. The two permanent projects, Plaza Euskadi and Campa de los Ingleses Park, are connected with your first project, but they have a very different historical context. While the Plaza Euskadi is a new space in the city, the Campa de los Ingleses is an area with a relevant presence in the history of Bilbao, having been a British cemetery and a soccer field for Athletic Club Bilbao, among many other uses. Did those different contexts play a specific role? How did you approach both projects?

Yes, in 2003 Balmori Associates was commissioned to design Plaza Euskadi and in 2007 we won, together with RTN Architects, an international competition to design Campa de los Ingleses. Both projects are in Abandoibarra. The third one you're referring to, the temporary installation of the *Garden that Climbs the Stairs*, is 1,500 feet east of the Guggenheim. We also authored the landscape for Iberdrola Tower, which is seamlessly integrated with Campa's.

Abandoibarra used to be Bilbao's port, and when we started working on the master plan, it was a brownfield site. There were no remnants of a British cemetery or a soccer field. The part of Campa was treated as the place to be in and remain while Plaza Euskadi was treated as a place of passage. Both projects deal with the concept of connectivity. For the park, the challenge was to mediate the height difference between the linear park at the river's edge, Parque de la Ribera, with the level of the old city—a 40-ft. drop. Ramps, undulating paths, and stairs

flow into one another to sculpt a park. Plaza Euskadi has one central path on which three public "pockets" are hooked.

Some critics of the transformation of Bilbao mourn the removal of the industrial traces in the process. They argue that, while the lifestyle around industry was not adequate in many ways, the industrial architecture is part of the history of Bilbao and it should have been incorporated and used in new ways. What are your thoughts on that?

Some early drawings in the process show elements of the old port, such as some remaining old cranes, placed along the path as colossal sculpture. These were not kept, but López Chollet Dalmau's design incorporated the use of copper in the lighting elements and using the scale of the previous cranes. My own take is there was no great industrial architecture in that port, and this was the opportunity for the city to create a totally new section for itself, much as the Ensanche was a new piece of city in the nineteenth century.

As Bilbao starts the next big urban transformation with the initial work as part of the Zorrotzaurre master plan, what are the lessons that should be considered from the last two decades?

The public agency BILBAO Ría 2000 is now being dismantled and the success of these future developments lay in the capacity of the different public agencies to work together. With the support of BILBAO Ría 2000, we were able to work seamlessly with the Department of Transportation and Park department.









Has your experience working in Bilbao for two decades shaped your current projects or thinking in the office in any way?

It has been very rewarding to work from the planning stages to the design and construction of these major spaces in Bilbao. We have been able to see our ideas through, which produced a more comprehensive design. The concepts of the master plan, the series of parallel thin edges I was mentioning earlier, moved to a concept of Thick Edge with the design of the Campa, the space between the Plaza Euskadi, and the Nervión River.

The Thick Edge became a way to approach the interface of two disciplines, landscape and architecture or landscape and city; two materials, water and land. And this concept of interface has influenced many of the projects in the office, including the recently completed new governmental city of Sejong in South Korea for which we designed the master plan almost ten years ago. In Sejong, we proposed a new approach to city-making, one that starts with landscape architecture.

The master plan consists of a continuous linear park on a continuous roof joining all the ministries. The government buildings are not separate, closed structures; they form a continuum at the ground and roof levels. This gesture means bringing access to all and encourages communication among the ministries. The park on the roof is intended as a fifth facade. Each of the six towns surrounding the Administrative City looks down on the park and the government buildings below it. The elevated park whose shape was generated by tangential lines to the existing topography and the river runs on top of a grid of streets and transit through the center.

Landscape's task in cities today is not about creating parks. Nor is it about greening cities. It is about embedding the city in nature. It is not about planting trees, but about setting up a different type of relationship between ourselves and each of the elements of nature: soil, water, air, plants and animals. We want to change the ways of relating to them, treating them as part of ourselves.







ZIGZAGS IN MINA DEL MORRO

Project by Eduardo Belzunce, Luis Díaz-Mauriño and Juan García Millán



279 Zigzags in Mina del Morro

pean 4 competition, the Basque Government commissioned our team to master plan the Mina del Morro zone. Dividing it in several parcels in order to make the devel- Parcel 4 opment possible, eventually all of the plots were built independently, with mixed results in terms of its architecture. Out of the two parcels that define the core area, we were in charge of developing one, Parcel 4.

Sagarminaga neighborhood, a heterogeneous set of residential buildings for working class people. The site is a steep terrain mediate scale of communal spaces. previously occupied by a mine, later abandoned, creating a no-man's land between the Old Town and the outskirts, between the Nervión River and the hills, and between city and nature. Besides its ambiguities, which we found full of potential, the site could become the urban façade towards the entrance to the city from the highway.

From the beginning, we were interested in its frontier character and in preserving its ambiguous and hybrid qualities. A comb-shaped footprint of several towers separated by lookouts works as a visual filter from the urban environment behind, generating a new façade for the city, introducing order and repetition. We proposed a low-rise, introverted, residential core surrounded by a taller perimeter dedicated to offices, amenities, retail areas, and civic buildings. The perimeter acts both as a connector to the neighborhood and the sual and acoustic barrier.

On the other hand, the existing neighborhood, which is very dense, needed porosity, so two sun-filled squares with views were preserved with the open spaces between towers acting as urban lookouts. In the core of the cluster, the buildings rise from a carpet of green spaces and, around

After being awarded first prize in the Euro- it, a ring-shaped road that gives access to the parking areas located under the peripheral buildings.

Parcel 4 includes six residential buildings that spill randomly throughout the hill, almost like a river, without subordinating themselves to parallel alignments, but controlled by a rational geometry. The build-The site is located at the edge of the ings, following the idea of long-tiered-zigzag, generate a series of exterior voids that get narrower and wider, creating an inter-

> The mixed typology of the buildings combines the volume of the single-family row housing and the functionality of a social housing building with access through corridors. Each unit is accessed from the outside, with independence provided by its individuality, but stacked one on top of each other, using the collective logic. The longitudinal orientation of the building, approximately north-south, determines that the access corridors, where the entry halls. kitchens, laundry rooms, and bathrooms are facing, need to look north. The south façade, facing the ideal sun conditions and views, is then dedicated to bedrooms and living rooms.

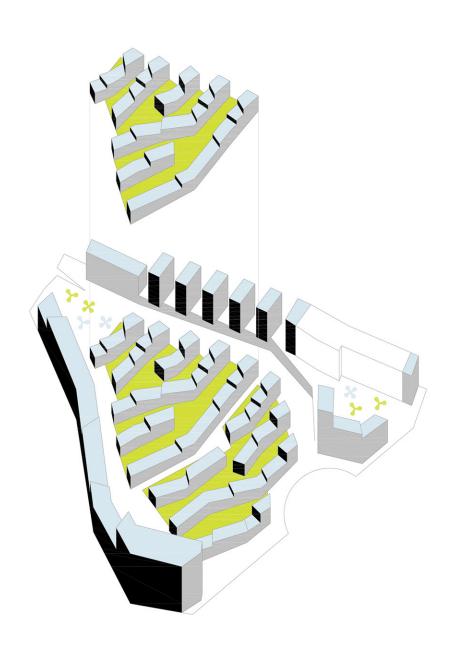
The plans are organized through a series of bands of different uses and characteristics: the exterior gallery for access; a technical wall cavity for mechanical ducts; a bay for service elements; and a final bay for old road to San Sebastian, as well as a vi- living rooms. The zigzag and tiered geometry of the buildings maintains the vertical continuity of the different functional bands, but not of the residential units that are pushed apart horizontally from each other. The roofs are clearly visible from afar, so special care has been taken to define a fifth façade. The roofs are either covered with pebbles or accessible by the residents

without the presence of mechanical or other distracting elements typically present in these spaces.

The open spaces make evident the steep slope of the site. A braid of concrete ramps connects the entrances, vestibules, stairs, and galleries. The steeper areas are solved with embankments of stones extracted from the site while pouring the foundations that will ultimately be covered by moss. Large-scale deciduous trees will extend their shadow over grass tapestries, sand playgrounds, and hard surfaces with benches to be outdoors.

Facts and Figures

Authors	Eduardo Belzunce, Luis Diaz-
	Mauriño, and Juan García Millán
Client	Basque Government
Location	Ortutxueta 2, 4, 6, 8, 10, 12, 14, Bilbao
• Years	1996-2007
Built Area	8,545 m ²
Collaborating Architects	Daniel Vaquero, Carlos
	Revuelta, and César Patín
Building Engineer	Juan Antonio Ramiro Garfella
Construction and Administration	Eduardo Aguillo
Structures	Fernando Rodríguez (Ferroestudio)
• MEP	Alfredo Domarco, Pedro Soriano
	(HTEAN tecnología y edificación)
Contractor	Ferrovial
Photography	Elena Almagro and Aitor Ortiz





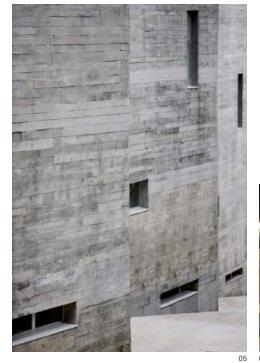
Zigzags in Mina del Morro 283

















J4

01, 02 © Elena Almagro / 03, 04 © Aitor Ortiz / 07, 08 © Elena Almagro



old bonded warehouse in the Deusto canal in Bilbao. Considered the first piece of urban development of Zorrotzaurre in Bilbao, the 14,400 m² building includes offices, research and development areas, a prototyping workshop, and social spaces.

From the beginning, the design focused on the role of the roof, formerly used to store goods. A green carpet has been designed as if simply placed over the roof, hiding all the air conditioning units and creating a new topography. Folds and surfaces resemble a hill on which to stroll, relax, and converse with peers, as this is the floor intended as the resting area. The flat surface of the carpet has grass, while the folded part covering the mechanical units has artificial turf for maintenance and weight reasons.

The design of the façades is highly protective from the sun, controlling solar radiation and thus energy expenditure without compromising the views from the inside. The design of the horizontal brise soleil emerges as an imaginary extension of the roof carpet, stretching over the façades and folding over its singularities: an existing balcony facing the canal, the entrance, access points for firemen, and other unique areas. The building envelope is made out of make filters and sieves. aluminum composite and rock wool in the opaque areas and performance glass in an aluminium framed curtain wall in the spaces between pillars.

Inside, the design combines existing elements with new ones. The great beams of the original structure are left exposed on most of the floors. A splendid main staircase and glass-covered elevators that offer views of both the offices and the canal occupy the openings used by the old car-lifts that raised cargo up to the roof. On the top floor of the tower, where the noisy machin-

The IDOM Group offices are located in an ery of the car-lifts was housed, there is now a library. The ground floor accommodates a 400 m² exhibition hall with wood floors. walls and ceilings.

> An important objective of the project was to create a large and airy workspace, with great visual communication between and within departments, without barriers between different functions and workers at IDOM. Very few offices haven been planned, yet there are multiple meeting and teamwork rooms. To avoid creating psychological barriers between enclosed rooms and open areas, we designed threepanel glass sliding screens that allow for 2/3 of the front of the office to be open towards the work area.

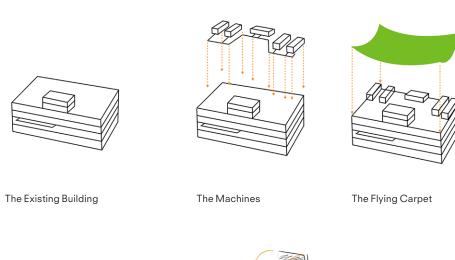
> Special attention was paid to sound absorption surfaces: on the floor, a carpet with 6,6 fiber; on the front of the tables, perforated panels with rock wool as well as in the ceilings; and the chilled beams have a lining designed with a sound-absorbing veil and perforated plates so that their position between the existing beams serves as an acoustic trap. This strategy is repeated in the visitor rooms, where we designed a rock wool wall cladding, absorbing veil, and electro galvanized dichromate perforated plates, an industrial finish used to

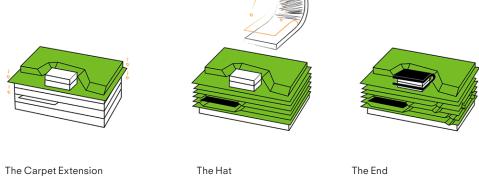
> The building has multiple innovative water and energy efficiency measures: very low consumption taps and sanitary equipment; rainwater storage tanks on the roof under the grass for automatic watering of the garden; automatic lighting regulation systems; sun protection slats on the façade; photovoltaic panels on the roof of the tower; a unique diffusion system based on movement: and HVAC that works with water. Different colored beams, cold beams, enclose the HVAC and lighting in a single element. The cold beams integrate water bat

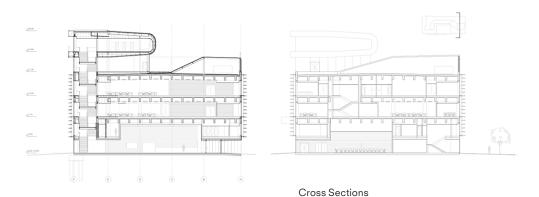
teries, lamps, and lighting sensors and are installed between the existing large beams. The green roof reduces the heat island effect, acting as a noise and CO, absorption element thanks to its vegetation. The water that accumulates in a run-off water tank on the ground floor contributes to the control of water in times of storm or heavy rains. It is estimated that these measures will reduce the energy consumption by nearly 60% compared to the typical consumption of a similar building.

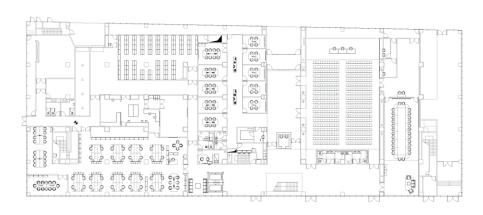
Facts and Figures

Author	IDOM Group
Client	IDOM Group
Location	Avda. Zarandoa, 23, Bilbao
Years	2010-2011
• Cost	13 million euros
Site Area	3,300 m ²
Floor Area	14,400 m ²
Project Architect	Javier Pérez Uribarri
Design Team	Oscar Ferreira da Costa, Jabier
	Fernández Sánchez, and Josu
	Eguileor Astigarraga
Project Management	Oscar Malo
• Cost	Agurtzane Insa, Javier Ruiz de
	Prada, and Gabriel Bustillo
Structures	Alberto Fuldain and Angel Gómez
Facilities	Jon Zubiaurre, Alvaro Gutierrez, Arturo
	Cabo, Oscar Malo, Mikel Aguirre,
	Rafael Pérez, and Lorena Muñoz
Fire Strategy	Arturo Cabo
Sustainability	Vindio Corro
Drawings	Iñaki Zabala, Joserra Ruiz,
	and Carlos Olmedillas
Administration	Sonia López, Blanca Ugarte,
	and Rosa Gutierrez
Site Supervision	Javier Pérez Uribarri
Construction Management	Juan Guinea, Mikel Mendigote,
	Miguel García, and Amaya Lastra
Photographers	Aitor Ortiz and Jorge Allende

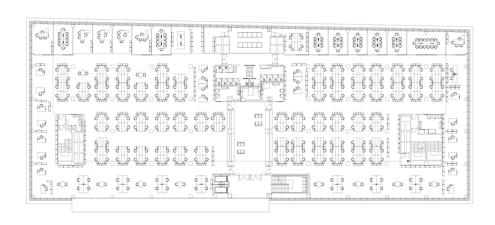




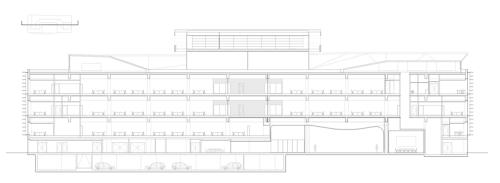




Ground Floor



Second Floor



Longitudinal Section

IDOM Offices 291









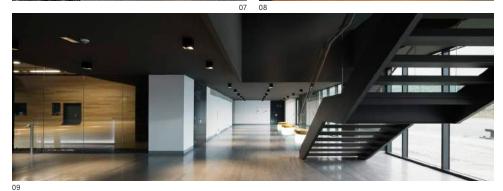












All photographs © Aitor Ortiz 06, 09 © Aitor Ortiz / 07, 08 © Jorge Allende



295 Lasesarre Football Stadium

Our goal is to answer the question, "What will the space be like when restored to its original quality of a sport-in-nature stadium, with the increasing religious quality of its skillful celebrants and obedient acolytes?" It is an almost-rectangular site envisaged by an autistic planning scheme without any kind of urban excitement, an excitement needed by a de-industrialized city in times of low self-esteem.

The answer is a system of visual/emotional patterns of behavior reflected in the shape of the building accommodating them. On the one hand, we need to recover a continuous green space on which to play and sit surrounded by a grass surface that blurs the boundaries between players and spectators. On the other, the multiplicity of ways of looking at height and distance, as well as the distribution of groups of spectators and their control, configure different tiers of seating with varying angles and greater or lesser slopes, with specific insertions of the playing field for each one.

In this way there appears a series of autonomous mini-buildings, without interconnecting circulatory systems, that house their own services and accesses, rendering them capable of being used independently. Their compact grouping within the piece of ground forms a whole which can cease to function as a male catharsis of just an hour and-a-half a week and facilitate partial rentals for weekly meetings of any group that wishes to use it. The four corners complete the layout and, in line with their different programs-changing rooms, social club and installations—are converted into new autonomous buildings with a characteristic geometry. Without forgetting that the players must make an effort for the show to go on, a chromatic world of illusion, an outcome of the algorithmic combination of seven colors will fill tile tiers of seats with silent spectators.

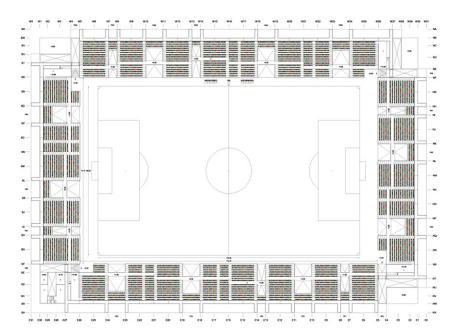
The roof provides the apparent unity of this whole battery of programs, a direct reflection of the internal organization, permeable to the gentle light of the location and cut back in the areas where the rain penetrates to the gardens of the terracing. The roofing continues on the outside, protecting the entrances to the stadium at the level of the tiered seating and, at a lower level, the areas of walkway on the street, generating a lack of rhythm that expresses the general way of functioning in the exterior image of the building.

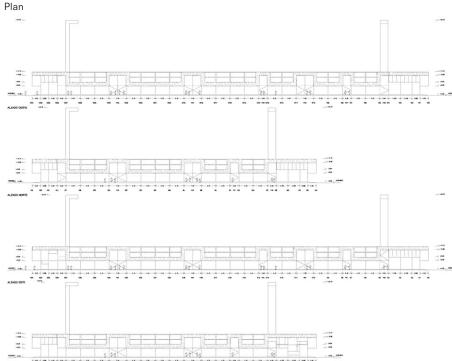
In the search to transmit an emotional message by indicating that we are entering another kind of nature, we introduce a perceptible camouflage in the closed perimeter of the building, conveying the variations of woodland light by means of a system of vibrant steel elements, permeable to sight and anti-vandalism beneath the angles of the roof. The entrances through this fictitious wall of vegetation transport us to an alternative geography which controls the flows and periods of visitation of the spectators. A volume is configured. then, with varying lighting conditions that acts like a gentle beacon at night, as if it were a ribbed Japanese lantern, capable of inscribing, in the dark, the skeleton of the building as a fascinating new emblem.

Facts and Figures

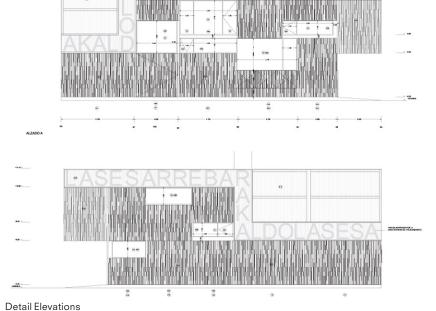
• Author	NO.MAD Arquitectos S.L.
• Client	BILBAO Ría 2000
Location	Paseo del Ferrocarril S/N, Barakaldo
• Years	1999-2003
• Budget	10 million euros
Site Area	28,700 m ²
• Floor Area	9,260 m² building + 7,760 m² field
Project Architect	Eduardo Arroyo
Design Team	Nerea Calvillo, Sergio L. Piñeiro,
	Héctor Mejía, Francesco Monaco,
	Raúl Ortega, Santiago Mazorriaga,
	and Luis Arroyo
Quantity Surveyors	Jose Luis Villanueva, Jose Miguel Ortega
	and Gorka Revuelta
Structural Design	Joaquín Antuña and Carlos Olmedo
Landscape Architect	Teresa Gali
Electrical Engineering	Patxi Hernando
HVAC Engineering	Jesus Mari Corral and Ricardo Laso
General Contractor	Construcciones BRUES, S.A
Photography	Roland Halbe

Lasesarre Football Stadium 297

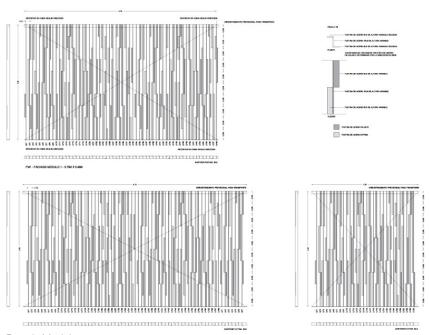




Elevations



Detail Lievations



Façade Modules

Lasesarre Football Stadium 299





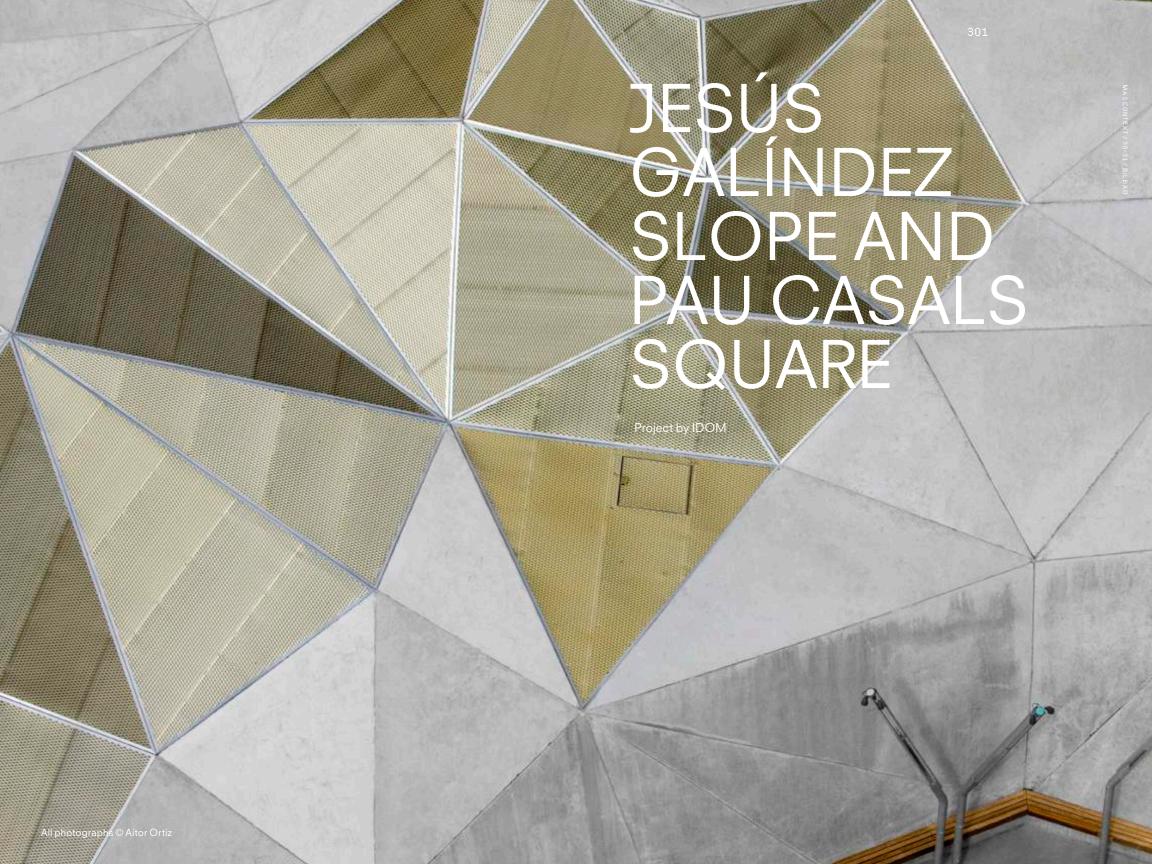








CONTEXT/30-31/BILBAG



The districts of Txurdínaga and Otxarkoaga are located in the peripheral areas of the city of Bilbao. These districts grew during the post-war period when a large number of dwellings for workers were built on the slopes of the mountains that surround the city, characterized by insufficient urban services and infrastructures. As a result of this disorderly growth, the rocky embankment on Jesús Galíndez Avenue became an isolated piece of land within the city and, until our project, it divided the city physically and socially.

At a time when major improvements are being made in the urban infrastructures in the center of the city, the Bilbao City Council has also undertaken a number of projects on the outskirts of the city in order to:

- Improve the conditions of the urban space of a number of different outlying areas.
- Eliminate physical barriers and improve accessibility to these areas, which are almost always located on steep slopes.
 Cut in the rock by different materials, a
- Eliminate social barriers and improve the conditions of these areas in order to bring them up to the level of urban quality of the center of the city.

Our work, consisting of the restoration of the embankment on Jesús Galíndez Avenue, must be framed within this effort. Prior to our project, the site consisted of a rocky embankment with a difference in level of 18 meters and stability problems that caused continuous landslides. It also created a physical barrier between two districts connected only by a small, poorly maintained metal stairway. Finally, it was also a social barrier, isolating the district of Otxarkoaga, with its severe integration problems, from the rest of the city.

The aim of the project is to consolidate the embankment and recover this derelict area, which acts like a physical barrier and disintegrating element in the city. To achieve this goal, the project shapes the embankment by using sloped planes of different materials, which reveal their strange topography to the city.

The triangular planes are formed by different materials: the existing rock; vegetation of different colors; concrete in those areas which required consolidation; and light defining their silhouette at night.

The project creates and connects areas between the top and bottom levels to lessen the impact of the embankment as a physical barrier in the city, as well as create a horizontal viewing platform to take advantage of the height of this area of the city. All the elements in the project are part of this recreated topography and part of a single fold: the stairways, the sitting areas, and the public toilets.

Cut in the rock by means of planes of different materials, a gently sloping stairway joins the two levels of this district. It is used by large numbers of pedestrians who choose this as an alternative path instead of the much longer existing routes that run around the embankment.

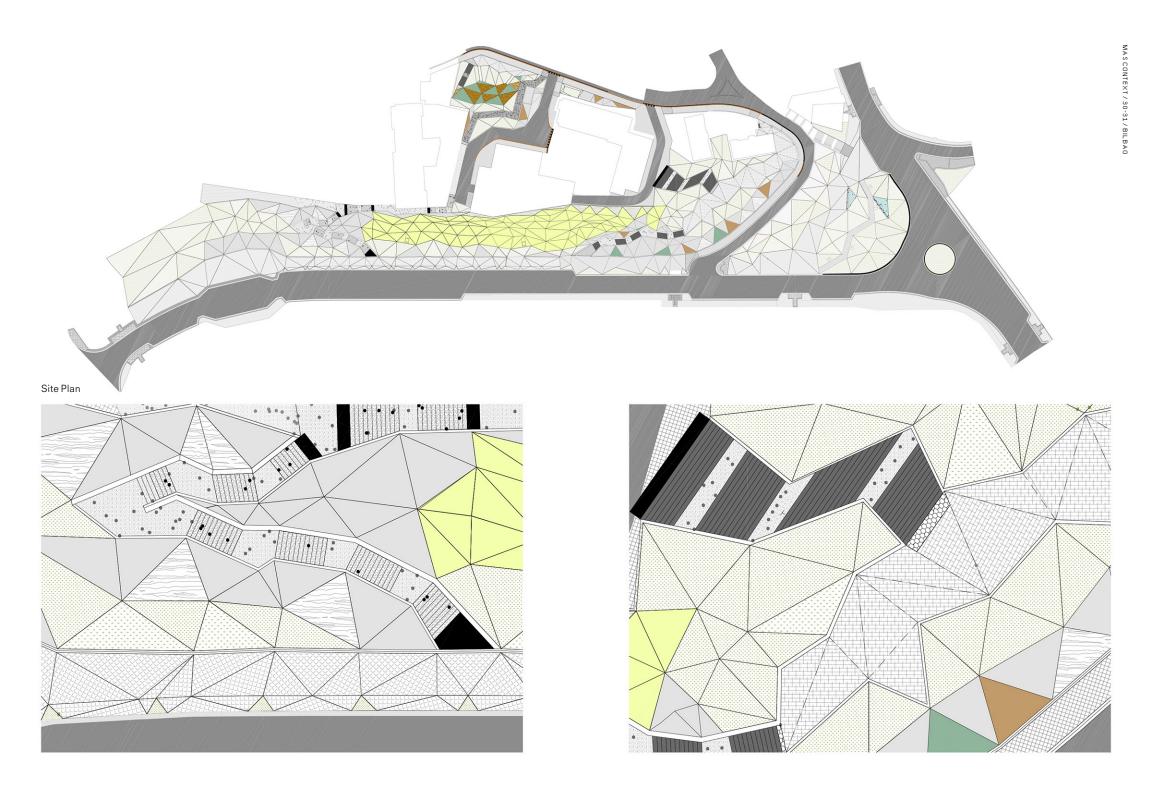
Following the embankment project, we were commissioned to develop the Pau Casals Square next to the embankment project and create a children's play area over a former electricity substation. For this second project, we once again used triangular planes. In the children's playing area, the planes are soft: grass, rubber, and flowers. The area also features built-in slides. The old substation is now part of the topography wrapped in a fold of wooden slabs.

In the Pau Casals Square, the folds wrap a retaining wall and generate a space defined by gentle slopes where formerly there had been a crossroads. There are planting planes between the existing trees in the old central reserve, as well as planes of colored concrete and planes of water to sit next to.

A former rocky embankment that represented a barrier in the city is now a connecting element for sitting and public use. Furthermore, it has become a landscaping element that has improved the quality of the surrounding urban space.

Facts and Figures

• Author	IDOM Group
• Client	Bilbao City Council
Location	Jesús Galíndez Avenue and Pau
	Casals Avenue, Bilbao
Year	2009
Site Area	11,000 m ²
Heads of Landscape Design	Ana Morón Hernández and
	César Azcárate Gómez
Collaborating Architects	Carlos Guimaraes and Xabier
	Aparicio Ortega
Financial Studies	Ana María Puente Villares, Elena Varillas
	del Río, and Javier Durán Ruiz de Gaona
• Cost	Javier Durán Ruiz de Gaona
Civil Works	Javier Durán Ruiz de Gaona
Lighting Consultant	Antón Amann (ALS Lighting)
• Water	Javier Durán Ruiz de Gaona
Electricity	Alvaro Gutiérrez Cabello
Site Supervision	Ana María Puente Villares and
	Elena Varillas del Río
Photography	Aitor Ortiz





















defining characteristics of each area, what we would call the *genus loci* in western cultures or feng shui in eastern cultures. The project takes place along a narrow (8 meters) and long (600 meters) area next to the Nervión River that faces urban and social issues, among them a problematic relationship between vehicles and pedestrians, due to the limited width. However, it is also a symbolic area as it is one of the founding spaces of Bilbao. With sensitivity and respect towards its surroundings and a capacity to translate the memory of the context, the project aims to intervene minimally. With this premise, the design incorporates formal languages borrowed from architecture as well as urban sculpture and public intervention. The project also incorporates clear criteria to address functional problems. The concept of contemporary spatial intervention is changing. Static and unchanging elements belong to approaches from another period. Today, with the continuous movement of people in the city, urban interventions need to negotiate, interact, and change with the activities of the city. A decorative object is nothing more than an artistic corpse. The structural element of the project is evidently the Nervión River. Thus, the bridges become the organizing element of the area. In the project, we find three areas of intervention with shared criteria and different rules.

Balconies over the River

The balcony with corten steel structure and wood flooring cantilevers over the river where the space becomes narrow and uncomfortable. The balcony/walkway relates to the industrial culture of Bilbao without imitating it. The most industrial façade of Bilbao La Vieja can be found between the Merced Bridge and the pedestrian bridge

The goal of the project is to rediscover the of La Ribera. The new dock becomes a comfortable pedestrian bridge that pays respect to the industrial character of the area. The streetlights lean out to light the balcony, creating a continuous row of fluorescent lights that, in elevation, relate to the curve described by the edge of the wall. Both in plan and elevation, four rectangular planes form the balcony over the river. The wooden pavement folds and creates a dihedral angle that turns the river into the focal point. Being able to be very close to the river when it is swollen is quite an interesting experience. In the dock, the slope of the Conde de Mirasol Street has been extended. The wall that defines the expansion makes its presence, expressing its edge and retaining its orthogonal corners, without a handrail, more abstract. Under it, we find another hidden element in the benches, which conceal a message in Morse code: BLV (Bilbao La Vieja)

Seven Centuries

The basic rhythm is created by the projection of the seven historic streets that, when touching the Marzana Dock, define seven historic nodes, one per century. They establish a relationship between the passing of time and space. In the past, seven towers marked the entrance to the seven streets. Today, we remember them on the other side of the river, assigning a century of history of Bilbao to each one of them. An urban blackboard of asphalt creates a semantic island within the neutral stone pavement. It is on that black surface where texts appear. Each fragment, talking about Bilbao, represents one of the seven centuries. They are fragments of literature pushed into the background of the urban reality, with letters and rusty manhole covers living together with equal hierarchy. In the exact point where each of the projections of the

seven streets meets, the dock is a square patch of pavement. These materials are subtly related with the text and the accompanying century but, above all, they are void microstages, small platforms where no one is present, but where you could find a sculpture or a speaker. A small light. similar to those found on a stage, strengthens the texture of the pavement at night. From the dock across the river and from the bridges, you can see a light for each of the centuries, like candles in honor of saints, placed in the dock and illuminating the river to make it a participant of the installation. A piece of each century remains alive. Over these patches of asphalt, a final element provides a vertical reference to the composition and variety to the path. The "Elemental" benches are pieces of reinforced concrete that function as pseudosculptures, urban benches, tall stands, and even loungers. The different relationships between the pieces become a metaphor for human relationships, sex, affection, and diversity. Finally, between the patches of asphalt, there is a sequence of streetlights in pairs. These streetlights, like the benches that accompany them, imposed by the need to provide formal continuity to the riverfront, are placed as if they were in a zarzuela stage. It is a tactic that removes their meaning, but provides urban flair.

The Walls

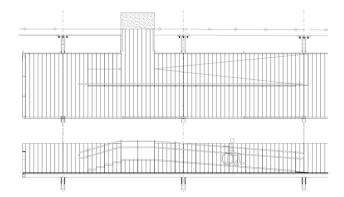
There is a height difference of eleven meters between the edge of the river and the city. It is a place from which to observe the river with its bridges and buildings. The project then is considered both from the perspective of the observer and the observed. The combination of those two factors is achieved through a clear and strong geometry. Establishing the spatial composition from the diagonal of the sloping street and the buttress of the nearby bridge, a series of interwoven ramps and stairs meets all the levels and complies with the universal design requirements. The expansion of the La Naja Street is resolved with a large red, clean, and clear wall. The covering of the concrete bunker that is the electricity substation providing current to the light rail is resolved with an equally strong green wall. These two walls are pinned into the amalgam of grey material, each one with its own texture and incorruptible linearity, each a clear shape bastardized with geometric games to unsettle the viewer. It's a nice and carefully considered promenade, with its pivotal point located at the place of biggest compositional tension: the balcony lookout.

Facts and Figures

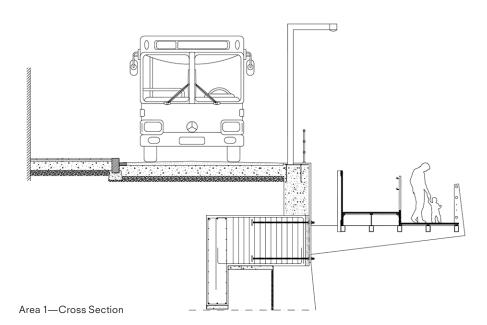
Authors	Juan Sádaba and José Luis Burgos
Client	BILBAO Ría 2000
Location	Bilbao La Vieja
Years	2000-2004
Budget	3 million euros
Site Area	8,200 m ²
Building Engineers	José Ramon de Azumendi
	and David Meléndez
Contractor	Balzola

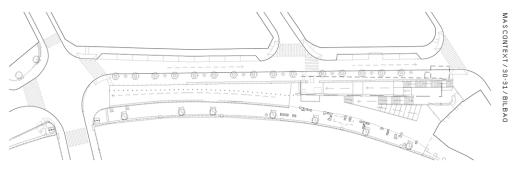


Area 1—Site Plan

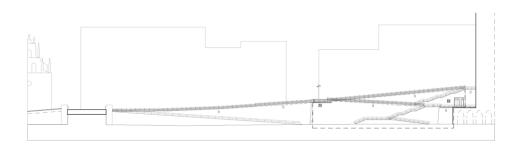


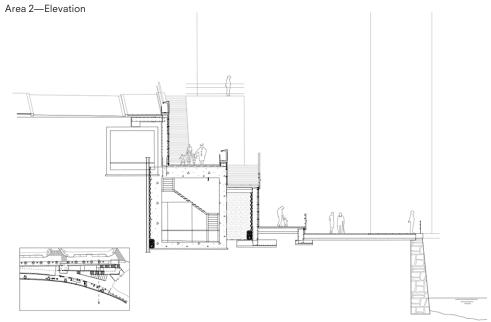
Balcony Over River





Area 2—Site Plan



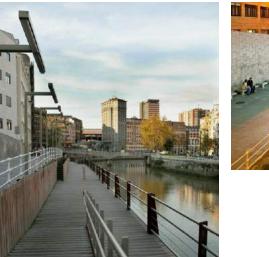


Area 2—Cross Section







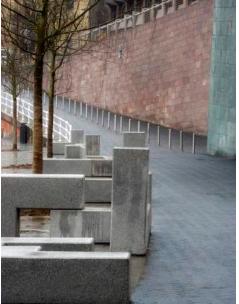












THE MANY EFFECTS OF THE

Built when I was still a rookie architecture student, the Guggenheim Museum was a building we were thoroughly taught to despise, because of all its arbitrariness and extravagance. However, as I saw it growing in my regular trips back to Bilbao, evolving from a sort of constructivist vision á la *Tatlin* into an ethereal compound of reflecting titanium veils, it always struck me as a building firmly anchored



GUGGENHEIM EFFECT

Essay by Koldo Lus Arana

in Bilbao's urban tissue. Tightly framed by the severe buildings of Iparraguirre Street and the green color of the mountain behind it, slowly revealing the mountains of containers at its back, the building certainly—and quite unexpectedly—did not feel out of place within its context. Some even claimed Frank Gehry had produced a strangely contextual piece. The problem would arrive when that very context was drastically changed.

A measure of the building's success in integrating itself within the city can be found in its rapid endorsement by Bilbao's population. If at first the building under construction was received with widespread skepticism, occasional disgust, and even some mockery (it rapidly became the subject of several tongue-in-cheek jokes), soon it became affectionately referred to as "Guggy," confirming its adoption by the citizenry. Soon after its opening, the Guggenheim Museum had become an inalienable part of the collective imaginary of the inhabitants of Bilbao. Furthermore, it had become an element that came to represent the city at its best, at its most heroic, an emblem of Bilbao's proverbial pride on pair with the Athletic Club soccer team.

"The notion is telling, for it points to the new centrality of architecture in cultural discourse. This centrality (...) is clinched by the contemporary inflation of design and display in all sorts of spheres: art, fashion, business, and so on. Moreover, to make a big splash in the global pond of spectacle today, you have to have a big rock to drop, maybe as big as the Guggenheim museum in Bilbao..."

Meanwhile, outside Bilbao, the bean counters everywhere soon did the math and tried to reproduce the effects of the operation by copying what they understood as the cause of its success, inaugurating the cascade of empty cultural centers (sometimes literally, as in the Ordos Art Museum) housed in flamboyant vessels that we have witnessed in the last two decades. As Foster notes, if Guy Debord "defined spectacle as 'capital accumulated to Gehry "the reverse is true as well: spectacle is 'an image accumulated to the point where it becomes capital."2 And so, power and architecture started a new (b)romance, where speculators and politicians alike reduced architecture to its most folkloric

features, populating the cities with fashionable, expensive, and surprisingly vacuous exercises of contemporary kitsch. Architects, in a race to design the building of the century each week, joined forces with city planners, consolidating the sort of 'World Fair urbanism' that is shaping the Far East: the city as an architectural theme park, in the case of Spain, 'Port Arquitectura', or maybe 'Arquitectura Mítica.'³

fined spectacle as 'capital accumulated to the point where it becomes an image'," with cle is 'an image accumulated to the point where it becomes capital." And so, power and architecture started a new (b)romance, where speculators and politicians alike reduced architecture to its most folkloric special with the point where it becomes capital. And so, power and architecture started a new (b)romance, where speculators and politicians alike reduced architecture to its most folkloric special with the point where it becomes an image'," with if not impossible, to replicate. An old adage states that "in Hollywood, nobody wants to be first, but everyone wants to take the risk of being the one trying something untested, but everyone wants to be the first to catch on its success if/when it happens. However, those



who tried to use "Guggenheim maneuvers" outside Bilbao forgot the rule that applies to almost all film sequels: they attract a rapidly decreasing interest. Thus, increasing budgets invested in trying to create instant icons created bigger debts, rather than proportionally bigger benefits. As it turned out, attaching big names to big buildings was not enough of a formula for success. Apparently, nobody realized that even Frank Gehry's name, even if already in the pantheon, was not the force behind Bilbao. The 'Bilbao anomaly' happened because of a particular synergy brought about in a very specific moment and context.

That said, it was possibly in Spain itself where the Guggenheim's success had its most dramatic effect. Trapped in the euphoria of an economic boom driven by the

still early stages of the economic bubble, the parallel 'Bilbao bubble' rapidly took over Spain, with every other mayor of a small village in the countryside wanting to build his or her own version of the Guggenheim in front of the town hall. The list would be too long to reproduce here, but among the most sadly remarkable wreckages included Toyo Ito's never used Parque de la Relajación in Torrevieja—currently in a ruinous state—, Oscar Niemeyer's Centro Cultural Internacional in Avilés—active from March to December, 2011-or the megalomaniac City of Arts and Sciences in Valencia, a sort of mix between the Luxor complex and an Elephant graveyard where the Government of Valencia commissioned Santiago Calatrava to celebrate himself. Its ability to boost the economy of the city,

or even to recover the investment, is doubt- orcize the scars left by the accelerated deful at best.

the price of identity. The astonishing profit of the Guggenheim operation installed a fetishization of the new, and furthermore, understanding of the phenomenon as the one displayed everywhere else. Thus, Bilbao grew more modern and comfortable, as well as more standard and anodyne, losing some of its character in the journey, and character. Allegedly, in order to make room for the new Bilbao, the old Bilbao had to disappear, thus giving us the opportunity to get rid of a past we now seemed ashamed of. Perhaps demolishing the icons of the industrial past seemed a good way to ex-

cline that had shaken the economic basis In Bilbao, the result has been success at of a historically solid region. However, most probably it was prompted by the sheer fascination for the glitter of the new.

Perhaps the most dramatic example of of the *flamboyant*, showing a similar lack of this Orwellian will to erase the past that runs parallel to Bilbao's transformation was the demolition of the industrial city of Altos Hornos de Vizcaya (AHV).4 For those who had to take the train on the left bank of the river, driving through the guts of its what's even sadder, some of its decisive Blade Runner-esque for several miles, the images of the apparently infinite superimposition of layers of pipes, boilers, and steel structures are an inalienable part of Bilbao's ethos, even more so in the city of Sestao. Even if it effectively became a barrier between the city and the river, AHV





was also a crucial part of Sestao's tissue and self-image. Soon after the demolition of the factory, the parts of the city closer to it started a rapid decline, with bars being shut down and dwellings abandoned. AHV could have been transformed into an industrial park, or integrated within new facilities, as has been successfully done in many other places such as Dortmund, Lorraine, and the Fundidora Park in Monterrey. Instead of that, here it was rapidly torn down, as if in a race to erase it from memory, while pastiche parks, which would be equally anonymous in Bilbao or in Shanghai, were erected in the newly developed areas. As of today, most of AHV's old plot remains undeveloped, standing as a post-apocalyptic site left there to remind the village of its own absence. Only one of

the blast furnaces was kept, standing today as a decontextualized, undersized reminder of what once was there, waiting its turn to be suitably sanitized and become a sort of Disney-fied version of itself, as has happened with the other isolated industrial icons that have survived Bilbao's transformation. Of course, it was immediately declared a Property of Cultural Interest. Because we care.

On the other hand, the perfect portrayal of the de-characterization of post-Guggenheim Bilbao may be the Abandoibarra development itself. When Gehry did his original design, the area was certainly a space of conflict: with its abandoned warehouses, piles of containers, and the La Salve Bridge crossing above it near its end, the area provided the kind of dense, rugged context

where the museum's smooth curved surfaces could find a solid substratum to cling to. Twenty years later, the area, restructured and presided over by a master plan and a tower designed by Cesar Pelli is yet another example of the city-as-a-theme-park mentality. Joining Gehry's Guggenheim Museum, the Deusto University library by Rafael Moneo, the Basque University assembly hall by Álvaro Siza, the Sheraton (now Meliá) Hotel by Ricardo Legorreta, the Euskalduna Congress Center and Concert Hall, a Po-Mo shopping mall by Robert Stern, and a couple of kiosks sit on the green like a group of Easter eggs. Spread in between them, a pretty posh-even if harmless-park is insufficient to compensate the lack of real urban tissue which, aside from a few author-housing blocks

sitting in the contact with the urban grid, presides over the area. The overall feeling is that of a series of architects laying their architectural eggs, trying to outdo each other with a 'hey, mom, look at what I'm doing' attitude, all climaxes without any tissue to sew them, Abandoibarra is, borrowing a scholar's apt description of the Euskalduna Concert Hall, 'a little bit of this and that.' Unfortunately, this has also destroyed the previous perception of the Guggenheim. If, back in the day, the museum had found in Abandoibarra's post-industrial decay, the perfect backdrop to display its flamboyance without apparent disruption, nowadays it fits the new context quite well, too. With its 'urban piece' qualities lost forever, it is now one more in the carnival of fair rides that the area has become.





This same approach has guided some of the other urban developments undertaken in the Bilbao of the Guggenheim era, such as the Miribilla area or El Desierto in Sestao. Composed of a mixture of sometimes kitschy, sometimes individually successful buildings and fashionably enough icons, these formerly industrial areas, located in privileged enclaves close to the riverside, seem infected by the 'cutesiness' that seems to have become endemic of Bilbao's renewal, and while the pieces themselves might be certainly above average, there is a general absence of Bilbao's characteristic rusty, dense texture. One can surely appreciate efforts such as the Lasesarre Stadium, or the El Desierto Square, both designed for Barakaldo by Eduardo Arroyo, a Madridbased architect who wears with pride his

Bilbao-an origins. But the whole feels like a collection of ready-mades, lacking the substance of the real thing, or the ability to convey an authentic sense of place. The same goes for the Miribilla area, Bilbao's latest newly created neighborhood, which shows the typical combination of extensive, calmly awful pseudo-historicist-well-not-really housing blocks and author public buildings. Disheartening as it may be for those of us who dreamt of a future Bilbao that re-built itself by taking advantage of the gravitas of its own past, at least in those cases the depersonalization task was carried through by local architects.

However, unlike most of its failed copycats, Bilbao and its effect have shown an ability to stay in the international collective eye even after all the ballyhoo—'the party', if we are to use The Economist's terms—is over.5 The stubborn reality of the economical data seems to point that way. The lasting effect of the Bilbao Effect on the city that engendered it cannot be denied: The museum keeps attracting visitors at a rate of roughly 1 million a year, with only 12% of the visitors coming from the Basque Country.6 The economic repercussion of the museum in the city has been estimated at 310.5 million euros in 2013, with a benefit of 42.15 million in taxes (it was 110 million in the first three years after the museum opened). And the effect does not seem to wane as time passes. Despite the lasting economic crisis, in July of 2014 the museum received the second biggest number of patrons in its history, with 122,437 visits. Most inter-

estingly, the attendance record was not set in the first years after the opening but in July of 2012 with 127,774 visits. In the last fifteen years, Bilbao has consolidated itself as (it has become, actually) one of Spain's main touristic destinations, quite a remarkable accomplishment for a rainy post-industrial city in Spain, a country characterized by its beach-and-sun tourism. And, in this sense, the Guggenheim Effect achieved a previously unthinkable attainment: installing in Bilbao's population a new self-image. We now think of Bilbao as a touristic, cultural, and modern city. If locals previously looked at the city feeling the pride of its industrial development, now they have found a new reason to be proud, as part of a city that successfully achieved to reinvent itself.





Bilbao after the effect

However successful, the strategies that led to Bilbao's cathartic reinvention relied on changes that were more structural than the construction of a new museum, and as a consequence of this, the city's journey towards its future self has also survived the waning of the Guggenheim fever. Architectural pyrotechnics aside, the Guggenheim Museum also spawned other modest but nevertheless substantial interventions: originally, one of the reasons for Gehry's choice of a new site by the river was to create a 'triangle of the arts' that would include the new museum, the Arriaga Theater, and the University of Deusto, alongside perhaps the nearby Bilbao Museum of Fine Arts. A year before the Guggenheim Museum opened its doors, a competition for the renovation and expansion of the Museum of Fine Arts gallery was organized. A local architect (finally!) won the competition with an exercise of intelligent architectural surgery linking seamlessly all the different additions that the museum had suffered through the years. In the 1990s, this low-profile museum barely reached 100,000 annual visitors, most of them locals. When the Guggenheim opened in 1997, that number rose to 190,000. In 2012, almost 300,000 people visited the museum.

The same can be said about the Euskalduna Conference Center and Concert Hall, which has created a very profitable congress market while joining the Arriaga Theater with a drastic increase of the theater supply. Not only did the cultural market not suffer from this but, in 2010 a new facility, the renovated Campos Elíseos Theater, re-

opened its doors. Even an ill-fated project such as the Bilbao Arena has managed to put Bilbao in the international rock concert circuit, and since 2006, the city has its own burgeoning music festival, the Bilbao BBK Live, with an estimated 100,000 visitors each year. It is particularly rewarding that the building that perhaps better portrays the progression of the construction of Bilbao as a cultural city after the Guggenheim bubble is the renewed Alhóndiga Bilbao cultural center, now known as the Azkuna Zentroa. Designed by Philippe Starck in collaboration with Thibaut Mathieu, the 2010 Azkuna Zentroa stands for the certainly not humble but more subtle approach that could lead Bilbao's renewal in future years: a chic restoration of one of Bilbao's silent landmarks, a former wine warehouse, the building attracts tourists and organizes cultural activities while seamlessly impregnating Bilbao's daily life. Who knows, maybe this will guide the way in which the city should grow in the future, grounding the new on the city's rich history.

With the crazy bubble years over, Bilbao still has a long way to go on its journey to consolidate its new, refashioned *persona*, in some cases developing projects outlined in the Guggenheim era. Next on the horizon is Zaha Hadid's master plan for Zorrotzaurre, which may well be the Abandoibarra of the next decade. Whether the city officials will be so bold and avantgardist when the time comes for local architects to turn Ms. Hadid's sharp volumes into actual buildings, or whether those will add up as a consistent new organ of the city, that is something we will have to wait and see.

Endnotes

- 1 Hal Foster, "Master Builder" in *Design and Crime (And Other Diatribes)* (London: Verso, 2002), 27
- 2 Ibid., 41.
- 3 See Port Aventura and Terra Mítica, two of Spain's better-known theme parks, another fever Spain suffered during the years of the construction bubble.
- 4 See José Eugenio Villar, Catedrales de la industria. Patrimonio industrial en la Margen Izquierda y Zona Minera de la ría del Nervión (Barakaldo: Librería San Antonio, 1994).
- 5 See "The Party's Over A special Report on Spain," *The Economist*, November 11, 2008.
- 6 In 1999, still the museum's best year, the number of visitors broke the 1 million barrier for the first time, with 1,060,000 visitors. With some less successful years in between, the 2012 annual result was 1,014,104 visitors, and in 2013, with the lasting effects of the crisis looming over the economy, it still attracted 931,015 visitors, 65% of them coming from outside Spain, and 23% of them from other regions of Spain. So far, 2014 has shown better results than the previous year.





The exhibition Identitatearen Eraisteak/Derribos de la Identidad (Demolition of an Identity), curated by architect Patxi Equiluz and organized by the Basque/Navarre Association of Architects, presented the dark side of the bustling architectural development of Bilbao: the demolition of an invaluable built heritage.

into a world-renowned city, Bilbao has a very recognizable identity: a homogeand in a good state of preservation; the per-class of the time. Expansion district that grew primarily during the beginning of the twentieth century (and that features a magnificent mix of eclectic, regionalist, and rationalist buildings); and the Nervión River between both of them that is now, finally, the heart of the city.

The Guggenheim Museum is the most paradiamatic element of the recovery of the river. The reclamation of the Nervión. initially a port and industrial area, was achieved mostly through the demolition of obsolete infrastructures and industries. the creation of new pedestrian riverwalks, and the construction of new buildings benefits of the museum, a false notion was created about the need for new buildings to turn things around and that these new buildings would have to be designed by renowned architects.

The new Bilbao has unquestionable value, but it can also resemble an architectural amusement park, without a strong cohesion between the signature buildings and lacking the character and idiosyncrasy of a city built around the industrializa-

Beyond the museum that has turned it tion of the river. That industrialization provided innumerable remarkable industrial buildings as well as wonderful residential neous medieval Old Town that is active buildings for the booming middle and up-

> Last fall, the headquarters of the Basque/Navarre Association of Architects in Bilbao organized the exhibition Identitatearen Eraisteak/Derribos de la Identidad. It presented a selection of significant buildings that have been demolished in the metropolitan area of Bilbao in the last twenty-five years. The exhibition was a strong wake up call for the blindfolded sensibility by the government towards the built heritage. This issue not only affects Bilbao, it is a general endemic problem and so the exhibition included buildings from the larger metropolitan area, too.

Organized as an educational tool, the along its banks. Without questioning the exhibit used photography as a medium to facilitate the understanding and assessment of the issue by the general public and to raise awareness about the destruction of the heritage—and loss of identity of Bilbao and its surroundings.

> One of the most significant aspects the exhibition showcased was the level of protection that buildings had when they were demolished, something that made evident the alarming tendency of total permissiveness by the government. Other

buildings that did not have any protection status were included in the exhibition, too, as they were unique and exceptional examples of the architecture of the city, its industrial past, and the remarkable work of its architects.

Among the demolished buildings, there are two examples of noteworthy cinemas among the vast number that Bilbao once had. Not only were they a key part of the built heritage, but also a reflection of the immensely active cultural life of the city. They are the Ideales (designed by Pedro Ispizua) and Abando (designed by Germán Aguirre and Hilario Imaz), yet the exhibition could have also included other examples such as the Olimpia Theater on Iparraguirre Street. There are other cinemas that are still standing but are no longer used for their original purpose: the Avala Cinema is now a gym and the Consulado is a clothing store. (There's something very universal in this notion of beautiful old movie houses being destroyed. Maybe it doesn't need to be gotten in to, but it reflects not only a lack of forethought and respect, but a huge cultural shift in how people consume popular art.)

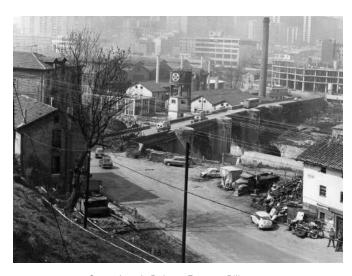
There are also examples of powerful industry, such as the buildings for Unión Cervecera, Talleres RAG (a fantastic example of rationalist architecture designed by Diego Basterra), Santa Ana de Bolueta (one of the oldest steel factories), or Sefanitro (designed by the great Germán Aguirre). And, of the big companies based in Bilbao, one stands out: Iberdrola, with its two headquarters demolished in the last decade. The first one, a rationalist building built before the Civil War and designed by Manuel I. Galíndez, José M. de Smith, and Juan de Madariaga, came down in 2008 while it was being considered for landmark status. Last sum-

mer, the expansion designed by Francisco Hurtado de Saracho that, along with the original headquarters created a perfect combination, was also brought down.

We can also highlight examples of the past use of the Nervión River as a port, such as the loading bay of Olabeaga, one of the final links between the mine and the ship, and the bonded warehouse (designed by Edesio de Garamendi), where only a few walls remain nowadays, almost like a film set.

The exhibition also included more contemporary buildings designed by fantastic professionals who are not as valued as they should be. This is the case of the School of Teacher Training, designed in 1960 by Álvaro Líbano and demolished in 2013, or the bandstand "La Rana," designed in 1964 by César Sans and Félix Candela and demolished in 1997.

When I visit any city for the first time, I try an imaginary exercise: I place myself anywhere downtown and think if I would be able to recognize the city again if someone would bring me with my eyes closed. Sadly, there are many cities that years later would be unrecognizable. I hope that, in the future, I can continue to recognize Bilbao when, upon my return, someone removes the blindfold from in front of my eyes.



Santa Ana de Bolueta Factory, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Gandarias Loading Bay, Olabeaga, Bilbao © Txema Luzuriaga



Sefanitro Factory, Barakaldo © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



"La Rana" Bandstand, Barakaldo © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



San Mamés Arch and Grandstand, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Deposito Franco Building, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Former Military Headquarters in Garellano, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Iberdrola Headquarters, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Iberdrola Headquarters expansion, Bilbao © Carlos Copertone



Aguinaga gas station, Bilbao © Txema Luzuriaga



La Arboleda Miners' Hospital, Trapagarán © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Talleres RAG, Bilbao © Antonio Escribano



School of Teacher Training, Ibarrekolanda, Bilbao © Txema Luzuriaga



Ideal Cinema, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



Abando Cinema, Bilbao © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte



María Luisa House, Bilbao © Txema Luzuriaga



Okeña House, Trapagarán © Txema Luzuriaga



San Antonio House, Bilbao © Txema Luzuriaga



Residence in Alamedo de Urquijo Street, Bilbao © AMB-BUA Archivo Municipal de Bilbao – Bilboko Udal Artxiboa



Medieval residence in Iturburu, Bilbao La Vieja © AMB-BUA Archivo Municipal de Bilbao Bilboko Udal Artxiboa Fondo La Gaceta del Norte

La casa sin fronteras (1972)
No es bueno que el hombre esté solo (1973)
El Pico (1983)
Bandera negra (1986)
Todo por la pasta (1991)
Accion Mutante (1993)
The World Is Not Enough (1999)
Pagafantas (2009)
La máquina de pintar nubes (2009)
Jupiter Ascending (2015)
Gernika (2016)

A City in Film

Iker Gil interviews Koldo Serra

All of these films were shot in Bilbao to support or contextualize their plots, ranging in genre from stories of drugs and crime in the 1970s and 1980s to international blockbusters and futuristic thrillers after the opening of the Guggenheim Museum. As the city has changed, so have the stories that take place in it. To discuss the transformation of the city and how it has been portrayed in films, Iker Gil interviews Bilbaoborn filmmaker Koldo Serra. director of the film Gernika and great grandson of the prominent architect Pedro Ispizua.





You were born in 1975, so you have lived through the transformation of Bilbao. What memories do you have of the city growing up?

I was born in Bilbao and after six or seven years we moved to Algorta (a neighborhood in the town of Getxo, 14 kilometers away from Bilbao), but I have always been very connected to Bilbao as my two grandmothers live there. One of them lives in the Ribera de Deusto, now facing the Guggenheim Museum, something that, obviously, is completely different from those times that I would go to her home at Christmas growing up. What I remember from my childhood is the grey color

of the city, a color that I think defines all the movies of that time. Now we talk a lot about the "Blue Bilbao" but then, if there was something that defined the city, it was the "Grey Bilbao." I remember a grittier Bilbao defined by punk and Gaztetxes (selforganized youth centers). I also remember it as a city forged by the steel industry and the Nervión River. It was filled with cranes and metal and it went hand in hand with the Bilbao of that time. It is a Bilbao that has almost disappeared. Pedro Olea has mentioned in previous interviews that the river is an element that has fascinated all of us involved in cinema or audiovisual. It is very suggestive to the camera.

The river shaped the city, but was also a limit to the city. Its riverbanks were used for industrial purposes, not as a public space.

The riverbanks below the Concordia Station, La Naja Station, the Ripa Dock, and the Abandoibarra area have completely changed. Now you can walk along the river, but what I remember are the hundreds and hundreds of shipping containers where the Guggenheim now is. It was a grey landscape of gigantic metallic boxes. I believe that there is a sequence in the opening minutes of the movie *El Pico* (Eloy de la Iglesia, 1983) where two of the main characters walk on the La Salve Bridge showing that grey landscape of cranes and containers where now you see the Guggenheim Museum.

When you look at the movies shot in Bilbao during the 1970s and 1980s, besides the panoramic views of the city, you notice the strong presence of the La Salve Bridge.

It is true that in those movies the river and the La Salve Bridge, either from above or below, are very present, even more than the Arriaga Theater. I think that it is also that, in those days, it was more used as an entry point to the city than it is now.

It is interesting that both the river and the La Salve Bridge are infrastructural elements, defined by cranes and port facilities, while the Arriaga Theater is one of the cultural and architectural references of Bilbao.

Exactly. And it is interesting that those movies prominently featured the troubled areas along the river. Nowadays, you can cross any of the bridges to both banks of the

river and there is no problem. Some areas are still not perfect, but they are definitely not as conflictive as they used to be. Except for a couple of streets, the riverbanks of the city have been revitalized with the revamped Ribera Market, new bars, and other cultural institutions. Before, they were uninviting places: humid, made out of concrete, and full of syringes. Aesthetically, they were perfect for films, but they were not welcoming for the everyday life.

The movies of those decades are defined by that context. I am not sure if Bilbao determined the type of movies that were shot in the city, or the Bilbao-born filmmakers filmed specific type of movies because of their experience having grown up in that context.

If you analyze police thriller movies of the 1970s, they always have a pessimistic tone, many of them ending up badly. I think that something similar happens in Spain in the 1980s. In large cities like Madrid, Barcelona, and Bilbao, there were areas of crime. During that time, there was also the introduction of heroin in Spain, which is a key aspect as it defined a whole generation. Films such as El Pico, Perros Callejeros (Jose Antonio de la Loma, 1977), and others that are part of the so-called *Cine* Quinqui genre (juvenile delinquency films) have heroin and areas of crime as common denominators. If in the US the Vietnam War defines many of the films, in Spain they are defined by the transition to the democracy after decades of dictatorship. Suddenly, there was a sense of freedom with a new drug, music, and other elements shaping the Spanish society. Consequently, those changes shaped the stories and the aesthetic of the films. It is impossible to imagine El Pico or other movies of the time

removed from the context were they were shot. But responding to your question, I think that they are influenced by a little bit of both aspects.

As you mention, the films of this period focus on the themes that are important in Spain at the time. Are there certain cities that reflect these topics better than others?

I think that big cities, where you can find everything, are a breeding ground to represent the topics that are discussed in the movies. Todo por la Pasta (Anything for Bread, Enrique Urbizu, 1991) could have perfectly taken place in Madrid instead of Bilbao and feature other nightclubs and nightlife or even Barcelona with places like El Raval. The quinqui genre focuses on three main cities: Madrid, Barcelona, and Bilbao and, specifically, the Otxarkoaga neighborhood in Bilbao. It is a historic moment that is strengthened by the conditions of those cities at that time. It is interesting that I remember Bilbao being rainier then than it is now. I am sure that it is just as rainy as it was then, but the architecture, industry, and pollution gave the impression that everything was more oppressive, pessimistic, and sad. The transformation of the city has created a completely different feeling.

The buildings had that grey patina from the pollution that made them generic and invisible. As they were cleaned years later, the city has rediscovered their value.

There is a definitely a feeling of a less polluted city, with more blue skies. There are more bike paths and trails to walk, as well as many more green areas. Before, the city might not have been as welcoming to those outdoor activities.

With the exception of specific areas, most of the spaces that defined Bilbao in the 1980s have disappeared. The river has abandoned its industrial character in most of its areas, the brown water of the river now is clean and accommodates the swimmers of triathlons, and buildings' facades have been cleaned. Bilbao has transformed itself and so have the films shot in the city.

If someone today wanted to tell a story similar to the ones in the 1980s, it would be harder to find the places to shoot. The river has nothing to do today with the river three decades ago. As a child, all the trips between Algorta and Bilbao would take place driving along the river, seeing the smokestacks from the steel factories. I compared that world with The Deer Hunter (Michael Cimino, 1978) which opens up in Clairton, Pennsylvania. It is an industrial and grey environment, filmed in winter, the trees without leaves. Then the film takes you to Vietnam, where the landscape and cinematography completely change. I remember the Bilbao of that time just like the opening of the film. Obviously, I didn't work in [the steel factory] Altos Hornos, but I do remember the smokestacks, the docks, and the rusted railings. I don't know if, as Bilbao-born filmmaker Alex de la Iglesia says, the new landscape invites people to make romantic comedies, but it is true that visually it is a much friendlier and welcoming city. In the opening scene of James Bond's The World Is Not Enough (Michael Apted, 1999) or a decade later in Pagafantas (Friend Zone, Borja Cobeaga, 2009), you can see it's another type of city, no longer industrial. The city now welcomes other types of stories.



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I think that *The World Is Not Enough*, shot months after the opening of the Guggenheim Museum, marks the before and after of the city. However, the film only shows the museum and the Iparraguirre Street, not providing a comprehensive view of the city.

Every Bond film searches for new and emblematic locations. In this case, the decision was to open the film with the Guggenheim, the newest thing at the time, and jumping from the office building across from it. Coincidentally, for my film *Gernika*, we have had several meetings with the Provincial Council of Biscay in the same room from which Pierce Brosnan jumps through the window.

New directors also have different referents and context from the ones that associated Bilbao with the industry. It is a new generation.

It is clear that every generation of filmmakers portrays what they have lived, what they have grown up with, or even the films that left a mark when they were growing up. To my generation they have always been referred to as the "Goonies generation," as it defined a whole set of 1980s films of adventure and fantasy directed by Landis, Spielberg, Lucas, and others. The future generation has other referents, probably from the 1990s and so on. Logically, the fact that Enrique Urbizu or Alex de la Iglesia grew up in the city at that time makes it easier to relate to the city of the past. But sometimes, even if you haven't lived through something, being a fan of a specific period or type of film makes you relate to them or explore them. For example, I am a fan of the thrillers of the 1970s such as The French Connection (William Friedkin, 1971) more than most

contemporary thrillers, but it is true that the place where you grew up defines what you talk about, as you typically talk about the things that you know and what you have experienced, the bars that you have had the pleasure or the bad luck to visit in your youth. For example, now you don't see groups of heavy metal fans in the street like you saw then, but I am sure that current groups of people or tendencies will be the focus of future films.

Can Bilbao be a character in itself and not just a generic background? Can the city have new qualities that, while being different, are as important as the ones in the 1970s and 1980s?

What I think is great about Bilbao is that it offers many different faces. On the one hand. Bilbao still has a few of those gritty areas to shoot a thriller or a crime movie. But it also has many other faces such as the Arriaga Theater, the Arenal, and the Campo Volantin riverwalk that could tell another type of story, maybe something similar to Woody Allen's New York. We have the Doña Casilda Park that, without being London's Hyde Park or New York's Central Park, can also be a great location for a film. There was actually a movie called Un banco en el parque (Agustí Vila, 1999) that was shot in the Doña Casilda Park. Obviously, the Guggenheim Museum has changed the riverbank and could also be a good location for a film. And you also have the main streets of the city such as Gran Via Avenue or Autonomía Street where many car commercials are shot. The Wachowskis, for example, came to Bilbao to use it as a futuristic location for their film Jupiter Ascending (2015). On the other hand, I have shot a film in Bilbao that takes place 80 years ago. So the good thing is that Bilbao

offers a variety of aesthetic opportunities and locations to situate the stories and not be just a generic background.

In terms of interior spaces, now there is the Bilbao Bizkaia Film Commission that works very well, inviting people to shoot in Bilbao by helping them to find the right locations. Also, thanks to the public organization Bilbao Ekintza, we were able to see the interiors of many fantastic places for the locations for Gernika, such as the Olabarri Palace, headquarters of the Port Authority of Bilbao and almost across the Guggenheim Museum, the Bilbao Club, the Arriaga Theater, or the Bilbao Philharmonic Society. They identified and opened the doors to places that otherwise we might not have been able to access because they are private, they have institutional activities, or because they are abandoned. In the film La Casa sin Fronteras (The House Without Boundaries. Pedro Olea, 1972), Pedro Olea uses the Ibaigane Palace as the headquarters for a satanic cult. (The Ibaigane Palace is now the headquarters of the Athletic Club).

This is an anecdote, but apparently Pedro Olea did his military service in the building while it was a military station and this was his way to take revenge.

Sometimes directors make inside jokes or just want to include places that have been important, for good or bad things, in their lives. In my case, it was the Arenal Bandshell designed my great grandfather Pedro Ispizua.

It is interesting that your film Gernika is set at time in the history of Bilbao that is defined by buildings designed by your great grandfather, such as the Arenal

Bandshell, the Ribera Market, or the Tiger building. Which buildings of that period have you chosen to include in your film?

To make our film, we researched extensively, looking for the buildings that shaped that period. To our surprise, we noticed that the city at that time was packed with cars. For example, the space in front of the Arriaga Theater, now a pedestrian plaza, had a tall central streetlight and was used as a bus stop and for parking. In the film, on the one hand, we have tried to use places that are emblematic of the city and can be recognized by the audience, and, on the other hand, for production reasons. we have looked for spaces where our physical intervention had to be minimal. In the end, we shot at the San Antón Bridge, in the exterior of the Arriaga Theater, in the Bidebarrieta Library, in the Plaza Nueva Square, interior of the Bilbaina Club, and in the interior of the City Council, including its Arab room. They have been very supportive of our filming, even allowing us to completely muddy the space in front of the building. We have been very lucky that the Arriaga Theater, since we have the light train, looks more like it did in 1930s than the one a few years ago. Except for the front of the Arriaga Theater that was different and that in front of the Concordia Station there was another station, the rest was quite close to the city in the 1930s. The cobblestone streets, rails, and overhead power cables of the light train have been great for us. We have obviously had to clean up and remove some of the modern featurestrashcans, shelters, ads—as well as block new shops and business. We had to create many fronts and windows that would be typical in the 1930s to block current shops. Without a Hollywood film budget, we had to be smart about our decisions.



Were you able to include any of the buildings designed by your great grandfather?

I feel gutted about not using the Arenal Bandshell due to production decisions. A scene that was supposed to be shot there was finally done in the Arriaga Theater. The 'Tiger' building, which is one of my favorites, was built slightly after the period the movie is set in, and the current exterior of the Ribera Market has nothing to do with the original one. It is too bad as it was quite close until recently.

It has been more than three decades since the devastating flooding of the city and two decades since the opening of the Guggenheim Museum, but the transformation continues, now with Zorrotzaurre and other projects across the city. In two decades the city will be very different from the one we see today. What would you like to see added and what would you like to see maintained and not lost?

As filmmakers we tell stories and, the more interesting the context the better. If it was up to me, I'd like Bilbao to not change anything. I would have liked it to not have changed as much in the last decades even more, but that goes against the natural evolution of the city, against making Bilbao a more livable city. But as I mentioned earlier, for filmmakers it is prob-

ably more interesting than the industrial city. It is probably similar to actors that like to play bad characters as they are more complex and have more layers to explore. I have always been more interested in Darth Vader than in Luke Skywalker. I think with cities it is similar. Visually, it is always going to be more interesting to have a place full of rust, made out of concrete, and with a river whose water has the color of chocolate as context than a place that invites you to have a drink in a café. Logically, Bilbao will tend to move towards this clean version in the future, maybe more international and touristic. It will become a nicer and more livable city with more green spaces and where the quality of life will be better, but it would be great to maintain the character of the city. Even though some of the neighborhoods are not my favorite, I like that they are there, that they are part of the city. It could be nostalgia, but for the type of stories that I gravitate to, I think it is more interesting to see the gritty parts of the city. If I were to film a romantic comedy like Pretty Woman (Garry Marshall, 1990), I would probably like to showcase places that are beautiful and clean, but ugly things are also beautiful and you just have to learn how to appreciate them.

Each story requires a specific place. Bilbao will continue to change like it has done in the last three decades and become nicer and more livable, but could also become a little less interesting cinematographically speaking.



BOTXE Text and photographs by Diego Sanz

Botxo: cavity, hole. Affectionate nickname by which Bilbao is known due to being surrounded by mountains.





MASCONTEXT/30-31/BILBAC





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MASCONTEXT/30-31/BILBAO





SCONTEXT/30-31/BILBAO

I started this photo series in 2008 when, during my daily walks, I started to notice that all the small stores that had existed forever began to slowly disappear.

My intention was to document the life of neighborhood stores, a reflection of the centenary identity of a city that disappears amid franchises and new businesses that come and go.

I photograph the stores from the street in a frontal and cold way, from a pedestrian perspective. I am interested in the façade and the signs, but also in the interior and the clients. I look for the moments that reflect a neighborhood lifestyle that it is unlikely to ever come back.



NTEXT/30-31/BILBAO



2012-Future

In November of 2012, the Bilbao City Council approved the Special Plan for Zorrotzaurre. With a master plan designed by Zaha Hadid Architects, the approval kicked off the start of a new urban transformation of more than 200 acres that would turn the mostly industrial peninsula into a mixed-use island. A second strategic plan for the city is in place to guide this new phase of the city, where Bilbao aspires to play a role in the competitive world of cities and regions. It is a plan that aims to involve public and private entities, create new synergies with neighboring cities, and establish a knowledge economy that will define a bright future.

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Our new strategic plan, like the previous To that purpose, we are working in four one, focuses on employment and is based on the knowledge economy. Unlike our first strategic plan, the one that gave us fame, this one can't be photographed and involves more participants than the previous one in which the public administration had a strong investment role. This strategic plan's main points are the following:

Increase the Area of Influence and Strengthen its Qualities as a Capital City

We are a mid-sized city and we need a critical mass to be able to compete in this globalized world and to support the existence of advanced services that tend to require a larger population. The world increasingly belongs to cities and regions, and states are losing the influence they once had.

We have to articulate and generate synergies with eight mid-sized cities in the southwest of France and north of Spain that can define an area of influence of more than three million people. Greater Melbourne, for example, has a population of four million people. Between the neighboring cities we need to change the verb 'compete' to 'collaborate', looking for synergies and creating a bigger critical mass.

An Intelligent Economic Specialization

Those of us governing cities have the obligation to encourage an increase in wealth and employment and support the companies present in our municipalities. The most important element for social cohesion and equality is employment. In our case, we need to have a vision for the future and invest in the economic specialization of Bilbao. We need to focus our economy towards those areas that generate added value and that can guarantee the economic viability of the city.

1. Creative Industries: Art. Technology, and Design

In the new economy, it is becoming evident that the more creative cities are, the more prosperous they are. We believe that we have specific capabilities and opportunities, mainly in the design field that can generate added value in industrial products.

These activities already play an important and growing role in the real economy and in the image that the city can project externally to attract both investment and talent. Besides their strategic impact, on the one hand these activities have always benefited from an industrial and dynamic environment like ours. On the other hand, creative industries require an important international network and can address the local/global tension.

In effect:

- Creativity's target market is the world.
- Creative and design values mobilize economic activity, youth, and entrepreneurship internationally.
- Creativity can be learned and it is not exclusively an inherent characteristic. To do that, it is important to establish collaborations with other leading centers worldwide.

One of our shortcomings to support the initial entrepreneurship in this field is the absence of venture capital firms, which forces our youth to have to look for those resources elsewhere. It is a problem that needs to be addressed.

2. Tourism and Healthcare

Tourism is a fundamental way to increase the floating population and diversify our economy. It currently represents 5.6% of Bilbao's gross domestic product (GDP) and we aim to achieve 8%, understanding that the hospitality and commercial sectors have to be complimentary activities to the city and not its main activities.

In terms of healthcare, we have an aging population. By 2030, it is estimated that the population over 65 will increase by 18.5% and the population over 85 will increase by 37.8%. We need to work in this area. turning this issue into an opportunity to generate a new economy and employment. Besides that, we need to make an effort to attract a vounger demographic.

3. Urban Solutions and **Environmental Technologies**

The transformation of Bilbao has been achieved with technology developed by Basque companies. We have great engineering knowledge that emerged from the industrial past that is now helping companies to compete for city services, especially in regions such as Latin America.

4. Advanced Services for the **Industrial Economy**

Bilbao needs to strengthen itself as a center of services for the industrial economy of its territory. Those advanced services include financial. insurance, consulting, engineering, architecture, communication technologies, audiovisual, and university, among others.

Internationalization. The Bilbao Brand

I have mentioned earlier that the world increasingly belongs to cities and regions. The first strategic plan for the transformation of Bilbao positioned the city as a referent in urban transformations and good practices.

This circumstance has had a positive effect on our industrial fabric. Despite our small size, we have been able to become a referent and an example of success and good practices. This has created a framework for our large and small companies to present themselves worldwide as part of a competitive region, showcasing our city in front of other cities with a large economic potential where the Basque companies have a market to explore and conquer.

In the World Cities Summit hosted in Bilbao in 2013, the Minister of National Development from Singapore stated that there is no reason to reinvent the wheel and what we have to do is identify those who are being successful and import their knowledge. Thus, our companies have a great opportunity to showcase their achievements to future importers of solutions.

The 'Bilbao' brand is fashionable, but the wave we are currently riding won't be eternal and we need to take advantage of it to secure our presence in the international networks. To achieve that goal, we are working on agreements to collaborate with leading international cities. Initially, our international positioning was generated spontaneously as a result of Bilbao being considered a successful case of best urban practice. Afterwards, however, we must purposely and intensively work on this aspect as we consider it fundamental moving forward.

External Connectivity and Internal Mobility

plan, and we need to strengthen it both externally and internally. Only well-connected cities will have the capacity to compete globally in the future. We need more port, airport, high-speed rail, and internal networks that facilitate basic mobility to build such as residential, leisure, and hospitality. up the nature of the capital city.

University as Hub

Universities, science, and technological institutes are fundamental in a society like ours that, since our mining became extinct, doesn't have resources beyond our human capacities. In any case, the richest cities are not those that have more natural resources, but those who have the most knowledge world.

Bilbao is not known as a university city and one of our goals is to recover the university as agent with presence in the city, promoting and facilitating the location of new centers. The University of the Basque Country was founded during the dictator- versity by providing a municipal building. ship and, in order to prevent conflicts with students, its campus was located in a re-tional university infrastructures. We also mote area of the metropolitan area, outside Bilbao.

First, university and technology with their research and innovative activities are a component of excellence around which we want to redefine an important part of our economy. They also generate a high degree of employment as eight out of ten graduates become employed in three years after completing their studies. The impact of the economic crisis has lowered that percentage from 87% in 2008 to 77% in 2011. Besides, there is an important collective that is getting trained in these areas, between 6% and 8% of the total graduates.

Second, I consider the university an economic element and generator of employ-Connectivity was part of our first strategic ment. But besides being a "company" in itself, it is also an agent that supports other activities of high added value. At the same time, students and college life invigorate life in the city, providing places with unique identities and synergies with other sectors

> But this strategic and programmatic approach towards the university requires specific and tangible solutions.

In terms of urban visibility of the university, I want to start with Abandoibarra, one of the new central areas of Bilbao, where the new University of Deusto Library and the University of the Basque Country Bilbao Aretoa building are located. The campus of the University of Deusto is expanding and qualified people. The current world is the in Sarriko, we have provided land where a legal and economic center will be located. The Basurto-San Mamés axis is becoming a technological and healthcare center, with land reserved for the new Medicine School. At the same time, we have contributed to the Bilbao location of the Mondragón Uni-

> But we can't focus exclusively on tradihave to develop units that can incubate companies and create university spin offs, establishing learning hubs for universitycompany collaboration.

> In the public university we have the ZITEK program geared to the creation of a business fabric generated not only by the ideas coming from research groups, but also by any entrepreneurial agent with a current or past relationship with the campus in Biscay and more specifically with the Engineering School in Bilbao. The University of Deusto has "DeustoKabi" in Bilbao, a space to activate and connect people that work within and outside the program. Also, the Bilbao

City Council has established an agreement with the University of Deusto and its Basque Institute of Competitiveness, "ORKES-TRA," to analyze the economy of the future that Bilbao aspires to and its capabilities to reach it. The Mondragón University has created the "Bilbao Berrikuntza Faktoria." an innovation and entrepreneurial center to support the early stages of business projects and their subsequent consolidation. The postgraduate studies aim to ultimately create real companies.

Finally, I'd like to mention the DigiPen Institute of Technology. DigiPen is a leader in education and research in computer interactive technologies. With campuses in Redmond, Washington and Singapore, its Zierbena campus is part of the metropolitan area of Bilbao.

Continue with the Urban Transformation

We are not done with the transformation of the city. We are starting the development of new areas where we are combining mixeduses and incorporating sustainable urban quidelines. Some of these areas include:

> Zorrotzaurre: Zaha Hadid Architects designed its master plan. It will be a mixed-used area including creative industries, a technological park, and residential uses among others. Initial development of the area has already started.

Punta Zorroza: Plans for its urban redevelopment are being processed in order to generate a mixed-use area combining housing and work. In Bilbao, we must keep our feet on the ground, so we want to keep part of our traditional industry within the city once it is renewed and it becomes more competitive thanks

to innovation and technology. First, we need to facilitate the relocation of industries that are incompatible with their urban location and replace them with others that are cleaner. more modern, and can provide a bigger added value. That way we will also reduce as much as possible the time spent commuting between home and work.

Basurto-San Mamés: It is an area currently under major transformation. New sport facilities (not just the San Mamés Stadium), the technological and healthcare area, the new residential development in the former military headquarters in Garellano, the undergrounding of the FEVE rail infrastructures, the new bus terminal, and the transformation of Sabino Arana, with its viaduct already having been demolished, will generate a city rich in uses and the type of future for which we are looking.

Abando Station: This is also one of the main spaces with ample opportunities that we need to tackle in the future. It will be the location of the high-speed rail station and it will affect the urban configuration of its surroundings.

The Relaxation of the Urban Regulations

The goal is to facilitate the establishment of new activities, allowing for more flexible activities, and supporting businesses that want to invest in Bilbao.

The Neighborhood Cores

We need to find a better balance between the center of the city and its neighborhoods. To that end, we are developing a comprehensive and advanced study to Concert Hall, the Guggenheim Museum, strengthen each neighborhood as a social and economic core.

Unlike the directional and representative activities that typically tend to be located in four other topics: the center of the city, the creative, cultural, and software activities are more competitive in neighborhoods where they can find affordable locations. Therefore, we need to use the neighborhoods to invest in startups and other entrepreneurial activities.

Creative industries are characterized by being based on individuals and their value lays fundamentally on the intelligence and intellectual property, initially not having any financial capital. As opposed to the more traditional and technological industry, a creative industry requires a smaller investment and its facilities fit perfectly within the city.

I have mentioned earlier the issue of our aging population and the need to attract a younger population, as well as emerging companies by providing access to the neighborhoods so they can settle there.

On the one hand the goal is to create an interesting space in each one of the neighborhoods, turning them into the hearts of the area and combining areas dedicated to housing, leisure, and work. We don't want dormitory neighborhoods, so from the City Council we need to facilitate adequate infrastructures, such as our program "Auzo Factory."

We have to establish "neighborhood factories" that integrate the new entrepreneurial community with the surrounding collective groups. We have already opened the first two spaces in Matiko and Bilbao la Vieja and we are rehabbing one in Rekalde that will be followed by others in other

neighborhoods. It is a new type of infrastructural investment that differs from that in the first strategic plan, one that created the Euskalduna Conference Centre and and the subway, among others.

To conclude, I'd like to briefly mention

Maintenance of the City: First, we need to take care of the maintenance of the city. It is the responsibility of the Bilbao City Council and it is a non-transferrable task. We have to give a good impression and not one that could be interpreted as a city in decline. To some, this aspect might seem inconsequential, but it is not. It is necessary to have an adequate environment in order to be attractive. to facilitate economic activity, and to generate trust. A proper maintenance is essential and we should delay certain investments if that is required to pay for the costs.

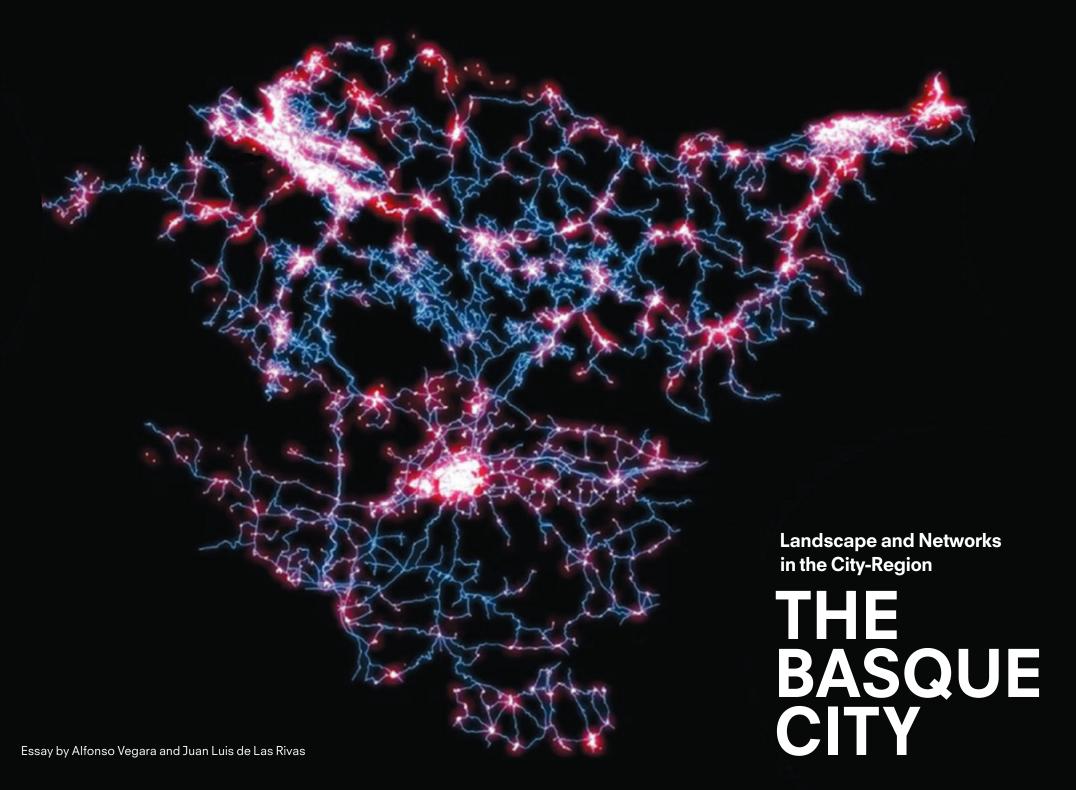
Culture: It was also part of our first strategic plan. The strengthening of the cultural sector is an element of internal revitalization and promotion of the city externally. In contemporary societies, cultural, artistic, sport, and leisure activities are measuring tools of their collective vitality. It is important for those of us living in the city and it also determines how attractive the city is, contributing to its external image and capacity to attract new activities.

Leadership and Governance: This is something that is the responsibility of all of us in the municipal government, to have a vision of what we want and manage it. Our vision is the one that I have outlined in this text. On top of that, we need to be responsible for the adequate management of the funding that the citizens put at our disposal, investing it to make this project a reality and incorporating other public administrations, companies, and agents to our efforts. The Bilbao City Council has zero debt, pays in 26 days, has been a leader in transparency five years in a row, and has received first prize in transparency by the European Union for our management. Legitimacy is achieved not only with the electoral results, but also with the daily work. We need to be close to the citizens, close to the economic agents, and have integrity so that we all recover the confidence in politics. The Bilbao City Council is a public institution that projects stability.

The Encouragement of Values and Attitudes: We have to be open to minorities and diversity as well as encourage values of hard work and solidarity. Given our demographic evolution. Bilbao will have an increasingly mixed-raced population. Despite our aging population, we have to be tolerant and allow those activities and leisure options that the youth demands in order to attract them. We can be rigorous in our values, but flexible in light of social changes.

To sum it up, we were able to overcome our crisis in the 1980s and now our challenge is to do it again, with new industrial policies and economic specialization. We are already working on it and I can assure you that we are going to achieve it with the same level of success of our first strategic plan.

Recently, fDi Intelligence, a specialist division from The Financial Times, recognized Bilbao as the fourth best European city for investment in the section "Mid-Sized Cities," which includes metropolitan areas with a population between 200,000 and 750,000 inhabitants. During the recent World Cities Summit 2016 in Singapore, two members of the Bilbao government were present and they were positively surprised about the impact that Bilbao had in the event. While Bilbao is the brand, it also represents the impact of Biscay and the impact of the Basque Country. Let's take advantage of our opportunities.



381 The Basque City

A prime example of effective and comprehensive regional planning in Spain is the Directrices de Ordenación Territorial de la Comunidad Autónoma del País Vasco (Guidelines for the Territorial Planning of that is, in cities and territories of certain the Basque Country). The supramunicipal planning, regulated by the Law 4/1990 of the Territorial Planning, proposed three tools: Guidelines for Territorial Planning; Partial Territorial Planning; and Sectorial Territorial Planning. The Guidelines for Territorial Planning, approved in 1997, organized the Basque Country in fifteen functional areas. For each of the functional areas there is a Partial Territorial Plan prepared by the Basque Government in collaboration with the Provincial Councils and the affected municipalities. The development of these guidelines established the Basque Country as a polycentric urban region. Euskal Hiria (Basque City in the Basque language) is not the definition of an existing geographic reality, but the expression of a project of the future. It is a political, economic, social, and territorial project intended to provide structure and coherence to the idea of a city-region within an open and competitive international context. With it, the Basque Country can aspire to become a true city-region with a population of over two million people and an approximate density of 300 people per square meter.

The improvement of the infrastructures is allowing the population of the Basque Country to have options to accessible housing, work, education, leisure, culture, nature and small urban centers. In the new economy, it requires an extraordinary level of complexity to be able to operate at a global scale. As sociologist Saskia Sassen has brought to light, in order for companies to operate globally, they need the support of a network of highly specialized services such as intellectual capital, consulting, fi-

nancial services, legal advice, marketing, new technologies, and transportation. This network of specialized services can only be located in urban centers of a certain size. critical mass. That is possible in the Basque Country because of its rich and complex urban network. The scale of the Basque territory and its dense demography also provide a strategic value to a series of natural spaces, associated to its complex orography, and connected to each other through a series of natural corridors that increase the global appeal of this territory. The Basque Country can thus establish the critical mass needed to successfully face the challenges of the new economy. In order to achieve that, it is essential to establish coherent synergies that are the outcome of the organization of the territory as a whole. The current update of the regional vision that was introduced by the guidelines, the Euskal Hiria Net strategy, highlights the uniqueness of the Basque territory, prioritizing the relationship between the urban, rural, and ecological networks that define it. On the one hand, this creates a visual order of the territorial components and, on the other hand, it emphasizes the capacity of integration of its natural and urban spaces, focusing on the aspects that connect the

Thus, the idea of Euskal Hiria responds to the opportunity to explore complimentary interrelationships between the Basque capital cities as well as between those and the rest of the urban centers of different sizes that make up the regional network of cities. The key is to maintain the identity of each one of the cities, towns, and villages and achieve the benefits of their sum in a competitive and balanced city-region. The strategy is to reach a better functional and economic integration of the three Basque

capitals acting as a central hinge, as well as with other cities in close proximity such as Pamplona, Logroño, and Santander in Spain, and Bayonne in France. It is critical to develop complementary urban profiles based on aspects of identity and excellence that are unique to each of the cities that form this polycentric system of capital cities. None of its society and marked feeling of identity the cities of this system, in an isolated way, can be relevant in the international stage of global cities. None of the Basque cities have enough critical mass to be able to offer the network of specialized services, infrastructures, and options that successful cities operating globally do offer. However, the structure of the Basque territory has important and unique competitive advantages:

- Location at the intersection between the Paris-Madrid corridor and the Ebro and Cantabrian Coast axes.
- Polycentric system of capital cities, with three important urban areas evenly distributed, close to each other, and with complementary and differentiated profiles.
- Attractive network of middle-size cities key to achieve urban and rural integration, with urban cores that allow for a balanced territorial structure and social cohesion.
- Excellent network of rural centers with their own identity and morphology that are essential to the value of local cultural heritage, with sixty-nine highly valued historic centers.
- Rich network of natural areas interconnected with urban centers, allowing the Basque population the possibility of enjoying the biodiversity, quality of landscape, and options for leisure of its territory.

The Basque Country has a strong identity that, in terms of economy, is based on an entrepreneurial spirit and in the capacity to adapt to changes, in particular, in its capacity to overcome difficult times. Its unique structure of territorial government gets complemented with the strength of and belonging to the region. Euskal Hiria and other European regions share similar characteristics, such as being polycentric and a coordination between all the components of the territory. However, Euskal Hiria, thanks to its geographic location, can become a true hinge between the European Atlantic Arc and the most dynamic areas in Europe if the integration of its network of cities, connecting infrastructures, and initiatives for cooperation with neighboring territories continues to improve.

As demonstrated with Euskal Hiria, in the contemporary city-region, regardless of its size, a thorough knowledge of the territory allows the maintenance of a certain level of coherence in terms of its shape and structure. The landscape facilitates a structural understating of the shape of the region as its substratum allows managing its large scale even with a visual logic. Despite the current complexity of the urban system, it is still viable to maintain the legibility of the landscape of the city-region. It requires the understanding of the substratum and the historic patterns that humans have created in terms of settlement, infrastructures, and interactions with the landscape. That's why we say that the structure of the future city, completely dependent on the existing one, is based on the landscape. For that to be useful, it requires a rigorous and innovative disciplinary effort.



There is something special about places in transition. We know their past and we can speculate about their future, vet their present is usually ambiguous, unconventional, unrestricted, and full of opportunities. Aware of living on borrowed time, the present is where experimentation takes places, testing interesting activities and social interactions, and nurturing alternative ways of living different from those that take place in the established city.

Zorrotzaurre is in that special moment of a transition. The latest major urban project to be implemented in Bilbao, it currently sits between its industrial past and its future as a new neighborhood shaped by a yet-tobe built master plan from Zaha Hadid Architects.

The Zorrotzaurre Peninsula was formed when the Deusto Canal was dug for industrial purposes between 1950 and 1968. Prior to the existence of the canal, the area included houses and open fields where the renowned tomatoes of Deusto grew. With a quarter of a mile remaining to be completed, work on the Deusto Canal stopped, creating an artificial peninsula instead of the island initially planned. The peninsula, over 200 acres, was home to many important industries providing jobs to thousands of people, creating a bustling area of workers, residents, bars, and restaurants. My first memories of the area came from my father, who for years would go to companies such as La Aeronautica. Artiach, and Cromoduro to take care of their computers. Those companies and many others are now gone, with the remains of several buildings as the only traces left behind. The industrial crisis of the 1970s and 1980s that affected the entire metropolitan area of Bilbao inevitably had an important impact in a dozen former industrial buildings. The for-Zorrotzaurre.

To address the decline of the area, in 1995 the General Urban Plan modified the

zoning of the area from industrial to residential use. The master plan, first presented in 2004 and later revised in 2007, to guide the transformation was prepared by Zaha Hadid Architects. (In the this issue, we feature that master plan project). Ultimately approved by City Hall in 2012, the master plan aims to create an area for 15.000 new residents along with workshops, labs, studios, and offices for nearly 6,000 working people. To avoid the risk of flooding, the plan also calls for the finishing of the Deusto Canal, at last creating the island originally intended. The island will be connected to the surrounding areas through a series of bridges and the light rail that will extend from the center of the city. From the existing industrial buildings, seventeen are expected to remain, maintaining the character of the façade to the Nervión River. Overall, it is an ambitious project that will reshape a large area of Bilbao. There is no defined schedule for the completion of the project, but due to its scale and complexity it will undoubtedly take several decades.

So, what about its present and why is it so important? Today, there are about five hundred residents living on the peninsula, with several industries still in operation. Branded as a "creative island" by the Zorrotzaurre Management Commission (who own 65% of the land in Zorrotzaurre), it is also home to many initiatives that have found, in this transitional moment, a place to develop their activities. It started in 1998, when the Haceria cultural association took over an abandoned warehouse to offer theatre, music, and dance activities. In 2008, the ZAWP Project (Zorrotzaurre Art Work in Progress) was created to promote artistic and creative activities during the transition, operating in mer Artiach cookie company is now home to thirty companies and associations, ranging from a skateboarding school and artisans to

3D printing and tech companies. One of the most successful initiatives is the Open Your Ganbara flea market that takes place every Sunday. Besides that, the Deusto Rowing Club, the indoor rock-climbing Piugaz Bilbao, and the circus initiatives of Karolazirko and Zirkozaurre are a few of the businesses that call this area home.

All of these associations have established an important and successful network of activities that have flourished in this area in transition. They have generated an alternative cultural and creative landscape in the city, one that is unique and has provided a new identity. Not only are their activities filling cultural voids, but also reusing buildings that otherwise would sit abandoned and deteriorating. It is crucial that, as the overall master plan for Zorrotzaurre gets developed and implemented, these initiatives (and new interesting ones) as well as the needs of the existing residents are incorporated to keep these unique qualities when the transformation is complete. It is obvious that not all the activities that exist today need to continue in the future, but it would be a missed opportunity if those that are successful and could benefit the area disappear as the city changes. Now there is the right set of circumstances to continue to transform the city and to improve the quality of life of its residents while reusing the industrial buildings that are the identity of the place.

Most of the industrial buildings in Zorrotzaurre are deteriorating quite quickly, due to the constant looting of cables, copper, and any other material than can be sold. Fires and the fear of personal injuries due to the collapse of roofs and walls could push these buildings to the point where no recovery can exist. The Papelera (Paper Mill) Building, one of the abandoned industrial buildings, was recently restored and is now open to the public to host cultural activities. Konsoni

Lantegia has been storing important artifacts of the industrial past with the goal of creating the Museum of Basque Industry in the future. Hopefully, there are more opportunities in the near future to recover the buildings that are architecturally and culturally significant to Bilbao and the region.

The first signs of the implementation of the new master plan are now visible. In 2014, work to complete the Deusto Canal started and the Frank Gehry Bridge, the first connection of the soon-to-be island to Deusto. opened to traffic in early in 2016. The IDOM headquarters across the Deusto Canal (a renovation of an old industrial building) and the IMQ Zorrotzaurre Clinic (new construction) are the first two completed buildings in the area, with the first few residential buildings expected to start construction in the first quarter of 2017 and designed to provide 112 social housing units, 117 pricecontrolled units, and 131 market rate units. The global economic crisis, though, has delayed the start of some of the projects and limited the resources available, and in so doing, might provide valuable extra time to look more carefully at the process and interventions ahead. Many significant buildings have been lost in the last three decades in the process of transformation of Bilbao. As we approach this new transformation, we have the opportunity to maintain the same ambition for change demonstrated in the past while respecting and embracing what made Zorrotzaurre unique. Its singularity will set this new neighborhood and Bilbao apart from other cities.

The photographs that accompany this text are the work of photographer Aitor Ortiz, whose studio is located in Zorrotzaurre. They document a place in transition, full of possibilities ahead. They are a good reminder of the importance of remembering our past as we create the future of Zorrotzaurre.







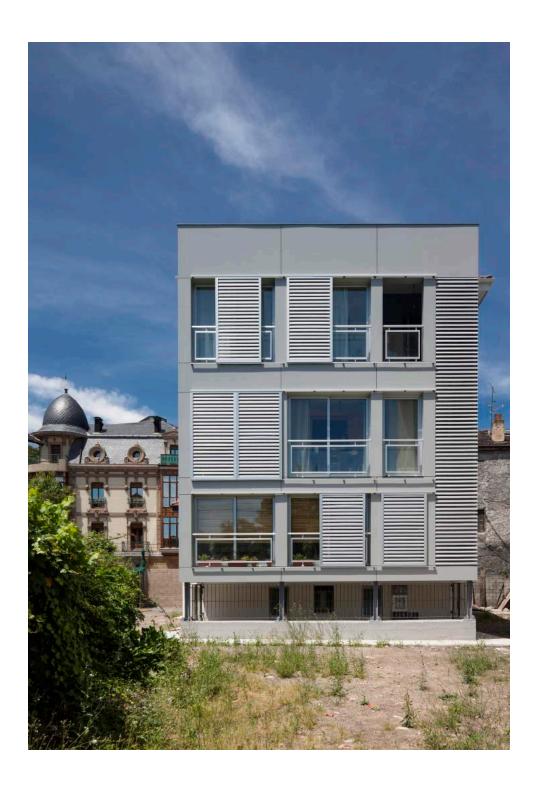










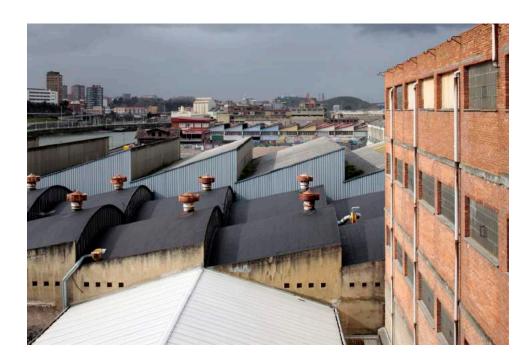














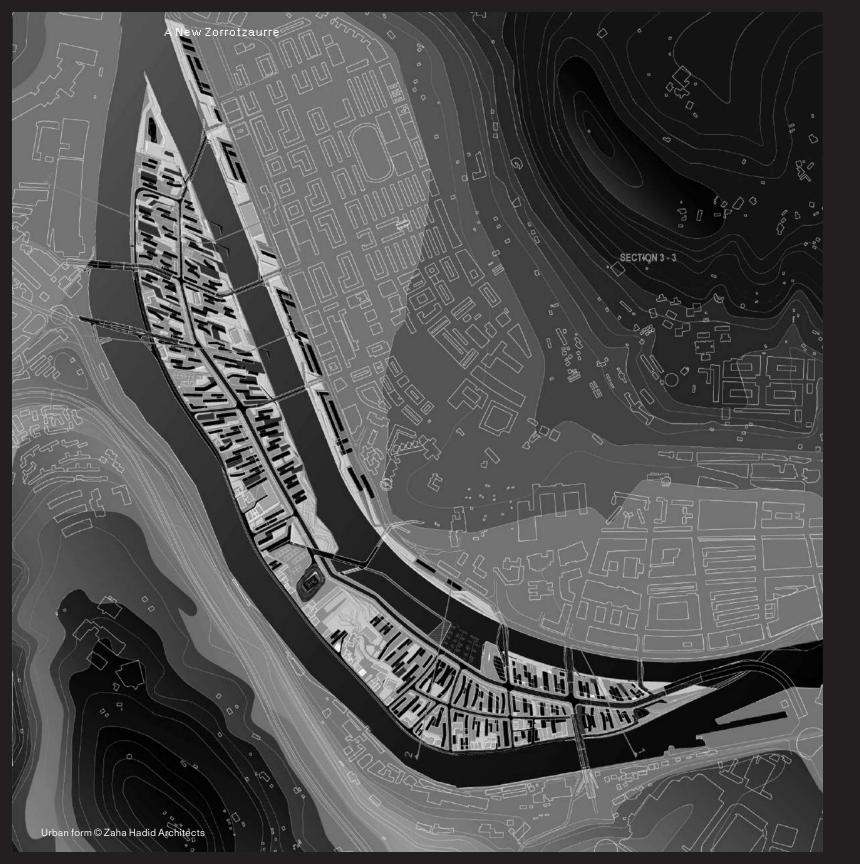
NEW ZORRO

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Project by Zaha Hadid Architects





Zorrotzaurre, a peninsula formed when the Deusto Canal was built in the 1950s and 1960s to facilitate navigation and industrial use, is the latest and most ambitious transformation taking place in Bilbao. Encompassing an area of more than 60 hectares, this once mostly industrial area is reinventing itself as a new district of residential, commercial, office, and civic uses.

To guide this renewal, Zaha Hadid Architects designed the first master plan in 2004, later revised in 2007. Officially approved by the local authorities in 2012, the initial changes are already visible with the demolition of former industrial buildings, construction of a handful of new buildings, and the opening of the first bridge that connects the soon-to-be island with the Deusto neighborhood.

A long-term, complex, and controversial project that undoubtedly will continue to evolve, we here reproduce, in their own words, how the architects envisioned this transformation a decade ago.

Zaha Hadid Architects has completed the ing sequence of bridges. These will allow conceptual masterplan for Zorrotzaurre in the river itself to become a meaningful part Bilbao, a 60 hectare area cradled in a long of the daily life of local communities along curve of the Nervión River just across from the banks. Equally important to the transthe city's center. This former port and industrial area will become home to nearly 15,000 new residents and will provide workshops, labs, studios, and offices for nearly 6,000 activity running through the island and linkworking people. Zorrotzaurre has been nearly separated from its neighboring communities by a canal opened to enlarge the port during its heyday, and this canal is destined to be extended for flood-control purposes in context of a distinctively strong local identity. future years. This will make Zorrotzaurre an island occupying a strategically key position is an elegant system of building blocks enin the future expansion of the city and integration of the region. Zaha Hadid Architects have responded to this challenge by defining a dramatic urban fabric and bold approach to infrastructure and the waterfront that will highlight the great significance of its natural and strategic position.

of Zorrotzaurre's surrounding topography and the broad curve of the Nervión to subtly influence Bilbao's well-defined urban grid. The resulting building alignment generates a finely textured ground sweeping the length of the site, contracting to conform to the small scale of existing fabric and expanding in response to more open spaces. In this way normal level of the river, allowing the people the plan accommodates both historic buildings and major new investment, while linking both to a generous public waterfront. Zorrotzaurre's future skyline presents a jagged profile with fine gaps, reminiscent of densely built waterfronts around the world. Zorrotzaurre will be well integrated with its neighbors on both banks of the Nervión by an excit-

port system, Bilbao's existing tram system will be extended the length of Zorrotzaurre and beyond, establishing a central spine of ing the region's downstream communities to the city's center. The plan aims to set the trend for a regionally integrated city, defining new patterns of living and working within the

At the heart of the plan for Zorrotzaurre abling the achievement of both skyline and collective ground. These building blocks are like a set of "tiles," each over 1000 m2, and they allow the ground formation to respond to the curving spine of the river, the street grid, and the shifting orientation of buildings from upstream to downstream. In this way, The plan permits the dramatic character the tiles give the plan an overall unity while allowing the differentiation of districts and clusters. The platform level of the tiles establishes the critical level of defense against floods while also creating space for underground parking. By linking this critical level to the development of building clusters, the waterside promenade can dip closer to the of Bilbao a closer engagement with the water's edge. Meanwhile, above the platforms, the buildings are turned perpendicular to the long axes of the river, opening the building fabric so that pathways and views may be enjoyed by all.

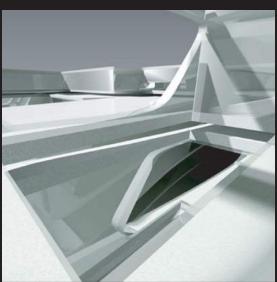


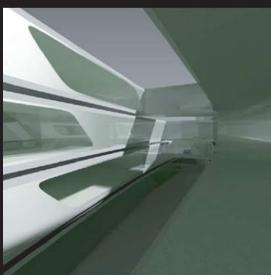


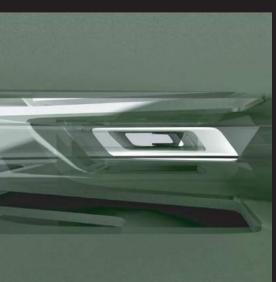
Sarriko Park across the canal, drawing upon











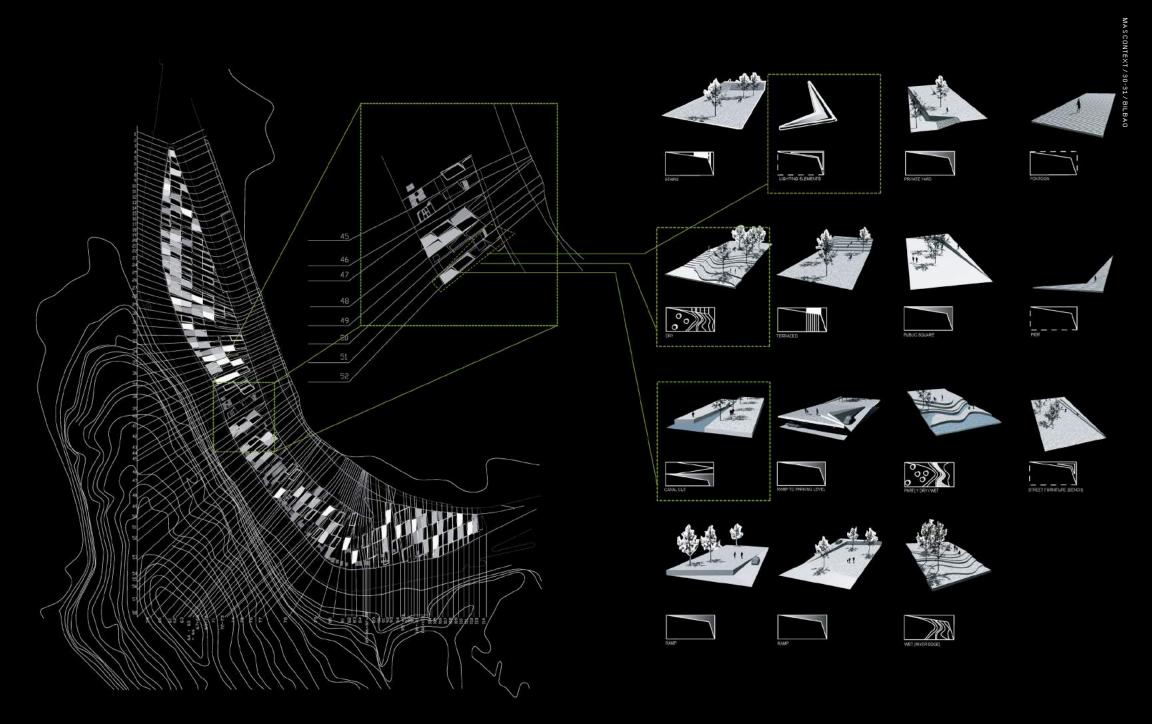


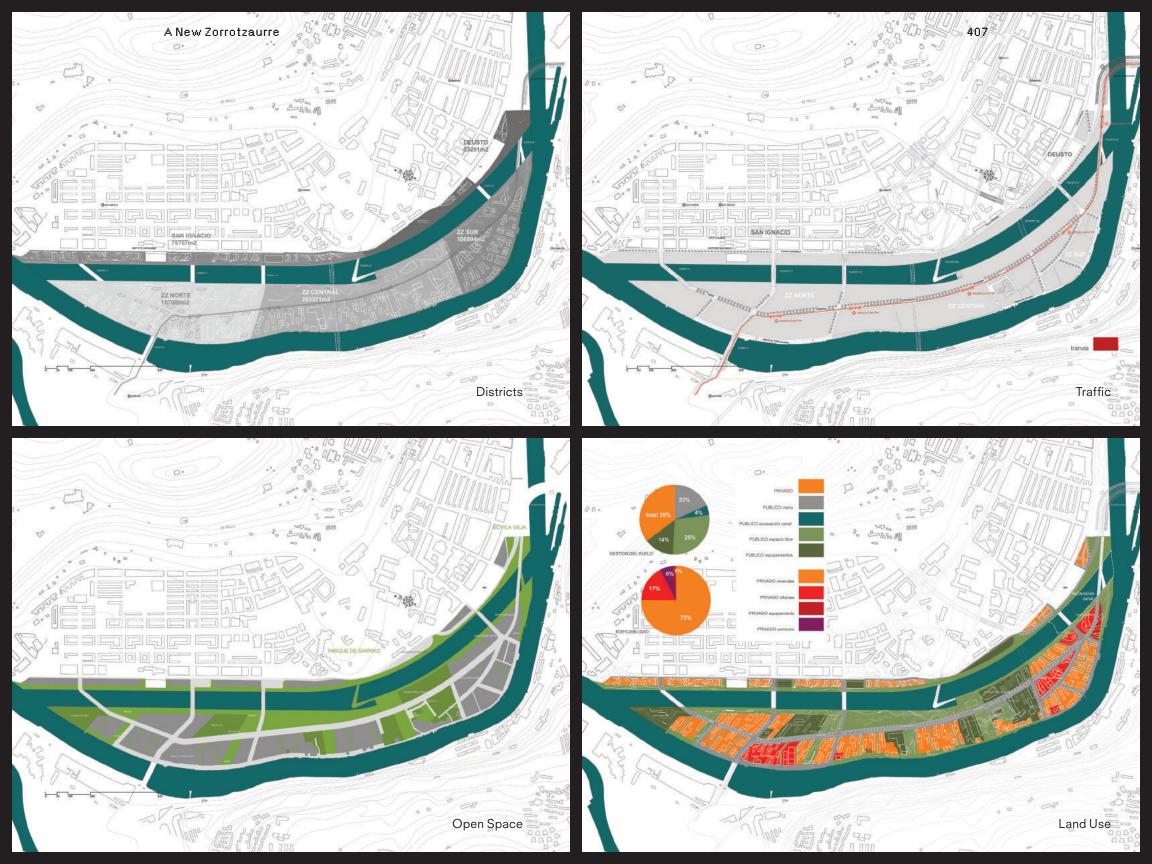
The rich pattern of public and private spaces we see in the plan can be achieved through the subtle differentiation of levels, promoting an easy balance between the needs of The overall structure organizing the tiles permits a densely built environment to accompany the fabric's strong feel of porosity, with future residents and workers all enjoying a promenades, parks, the tree-lined central avenue, small squares, and public gardens—all link together to create a textured setting for park where a small amphitheater provides a urban social life.

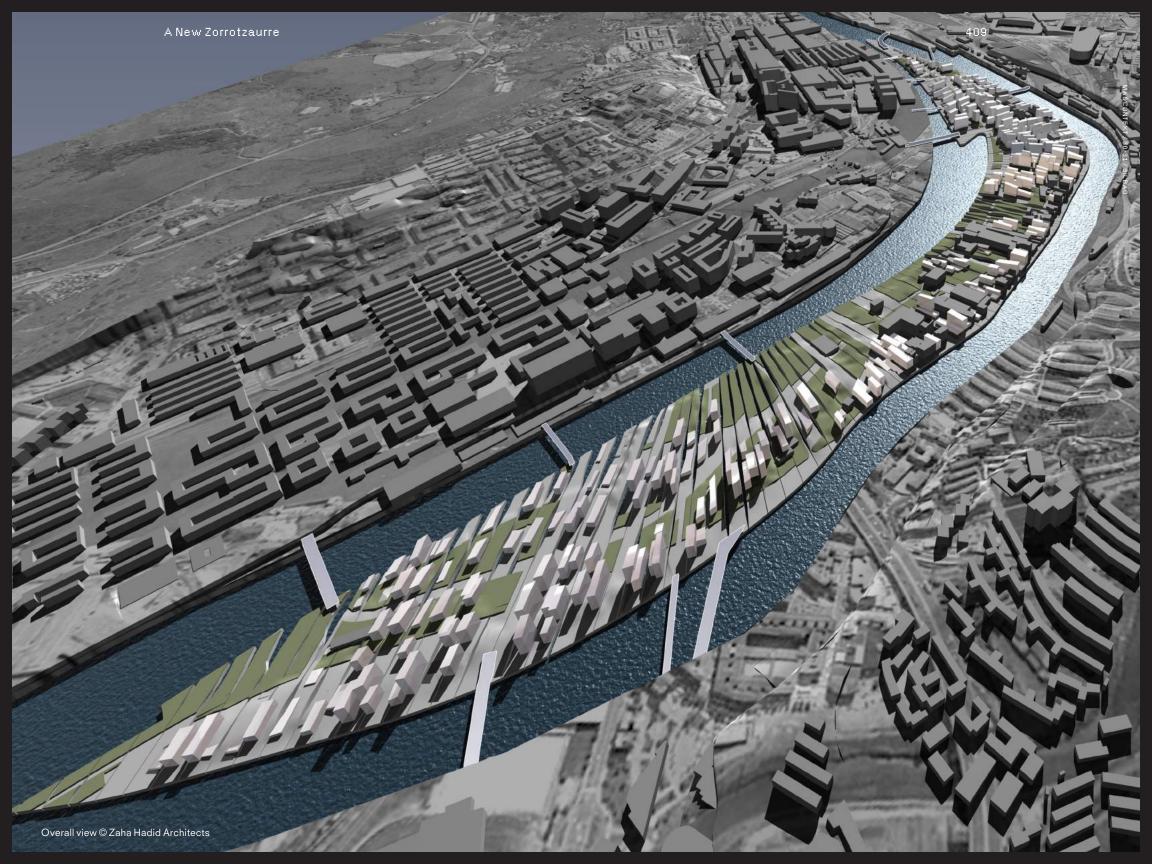
three loosely defined districts that effectively integrate with their neighbors across the waand more complex urban areas that will be able to meet the challenges of regional economic change in evidence across Europe. Upstream, Zorrotzaurre lends itself to a natural urban intensification, just across the river from the Bilbao's nineteenth century core and conveniently located among centers of ing, making this area an ideal knowledgeeconomy district. The built fabric here will be sharper and tighter than in the two downstream districts, integrating the existing historic waterfront into a compelling fabric of offices and residential buildings. Courtyards and public passages create a porous and intricate environment linking old and new. The middle district mirrors the openness of

the strength of the landscape to establish a strong coherence among historic buildings of very different character. There is an enticprivacy and the pleasures of community life. ingly grand scale to be preserved in the more interesting industrial buildings, with these potentially providing workshops, studios, and classrooms for the further development of local arts-based industries. Meanwhile, the rich tapestry of outdoor places. Waterside small-scale existing neighborhood that gathers closely around the local church retains its intimacy amongst the trees of an adjoining venue for outdoor performances. The dis-The plan promotes the development of trict offers itself as a center for arts, sports, and environmental science, connecting via a "green bridge" to the university and Sarriko ter, establishing together with them larger Park. The openness of the site creates an opportunity for the development of sports facilities with a wider regional appeal, while the waterside park establishes an important local amenity for surrounding communities. Downstream, Zorrotzaurre will establish a concentrated urban node within the longterm regional development of the Ría, with learning, medicine, business, and engineer- a set of new bridges creating an essential urban link between across the banks of the Nervión. The district is defined by its close integration with the water, with local docks to moor small private boats, and ponds, boardwalks, and waterside bars to encourage a relaxed leisure culture along the canal. Together, the districts, the ground formation generated by the tiles, and the skyline present an overall picture of a differentiated unity.

A New Zorrotzaurre 405







Perfect Future



I start this essay with the goal to answer the question posed by the editor: "What elements do we need to emphasize, incorporate, or avoid so that Bilbao can become the city that it needs to be in the future?"

Essay by Ruth Mayoral López

Before trying to answer this question with my humble opinion, first I'd like to clarify two aspects that I find important. On the one hand, I have no clue about what Bilbao needs to become in the future. Although I assume that, as it is stated in the title of this piece, the city of Bilbao, like any other, needs to change for the same reason that time goes by, space changes and, above all, the needs and desires of those who live in it evolve.

On the other hand, if the future is defined by what will happen in a subsequent period than the present, the future must be unreal, only the speculation of what it will be. That is, the future does not exist. Rather, we live in an eternal presentism in which we have enormous longings to prognosticate what will come so that we can prevent things and, most excitingly, we can project our desires and dreams.

Considering that the city of the future does not exist, not even in Bilbao, I am going to try to analyze from which perspective a city like ours.

For years there has been a lot of work done to consider the strategic plan about what metropolitan Bilbao could become. Already in the reflections made in 1999 for the Bilbao of 2010, the goal was to position it in a global world; to create a world-class city. There was talk about being a model and reaching excellence. About innovation, knowledge, and becoming an attractive city. All those statements correspond more to a competitive projection between cities than an exercise of thorough research. However, the most surprising part about strategic plans for cities is that almost all of them, for almost every city, end up being practically the same. It is something that we clearly see illustrated with the Cultural and Creative Industries (CCIs), the sector that has become the most prominent in these large strategies.

Although there doesn't seem to be a simple and shared definition about what the CCIs are, we know that they can be good we seem to be thinking about the future of both for driving the knowledge economy as well as to revitalize a depressed neighbor-

hood. They can favor diversity as well as gentrify. It depends on the moment. In the last urban intervention in Bilbao, in the postindustrial neighborhoods of the Ribera de Deusto and Zorrotzaurre, you can find all these aspects and a few more: urban strategy, institutional vision, CCIs, former industrial warehouses sitting vacant, neighborhood associations, and cultural collectives. The urban plan is also the result of those plans for the future led and decided by those who do not live in the area but pretend to know what Bilbao needs to become in the future. This, like any other strategic plan or master plan, has a beginning, an end, and implementation phases, as if it wasn't daring to predict the future with such a conviction.

With a more modest approach, a few collectives are working in the abstract distance found between present and future, in what we call the "meanwhile" period. ZAWP is situated in an area that does not provide solutions, only a few temporary responses. It has to do more with a collective experience than with the leadership of a singular vision. It has to do more with a reasonable evolution and sustainable transformation. Because it seems more appropriate that the soul transforms a place than the transformation of a place changing its soul.

I go back to the initial question and I reassert the idea that it is more urgent, and even more important, to ask how we are changing the city than where we are heading. We still have to assume that we do not know our future, that we can work on the "in the meantime" period so it becomes what each of us want, and that we are obliged to question who are the people that transform the city and why not others, and why not all.



Architects' Role in the Future City



Now that Bilbao has been transformed into a service city, the General Urban Development Plan is currently being revised to better adapt it to new regulations and to further develop new and exciting projects that will help continue the evolution of the city.

Essay by JAAM

and well-focused interventions, and the guiding principle is the recovery of the city for exclusively understood as construction. its citizens. The creation of green spaces new project, and the proper execution of the planned ideas will create, without a doubt, an even better city.

Yet logically, there are aspects that can be improved. From our perspective as architects, to consider the particulars that need to be addressed in Bilbao's future development, we want to explain the situation for those of us who are directly involved in its evolution.

Detailed work on a few of the new main objectives has started, projects in which City Hall's management cannot be as involved as resources to define it. it has been previously. Public societies and sponsibility of leadership. And as the number of projects multiplies, each reduces its intervention in order to focus on specific aspects.

We will probably find that public management companies don't have the adequate human resources to be able to foster good architecture endorsed, for example, by spearchitecture as a main criteria in awarding projects in public competitions. High quality architecture will likely be a requirement for larger interventions, such as public buildings and unique programs, but perhaps it won't the future of an exciting Bilbao.

In the updated plan, there exist important be as present in less significant projects, nor will it be a requirement when architecture is

On the other hand, we know that, when and recreation areas is always a goal in any looking for distinguishing and highly valuable architecture, the price tag is not the primary criteria when awarding the project. Unfortunately, the current tenders for new projects relate, too often, the highest scores with the lowest economic bids, making the architectural fees the main criteria when designing the image of the city, the image of Bilbao. It is a situation that is hard to understand when the quality of the built architecture is not directly related to an elevated cost in the market. Though it does require

In order to achieve the necessary qualprivate companies should now take on the re- ity of the Plan, appropriate resources are needed to design projects that create the best built environment possible, resources that allow for outstanding design, efficient construction, and a balanced and proportional answer to the needs and economic reality of the society.

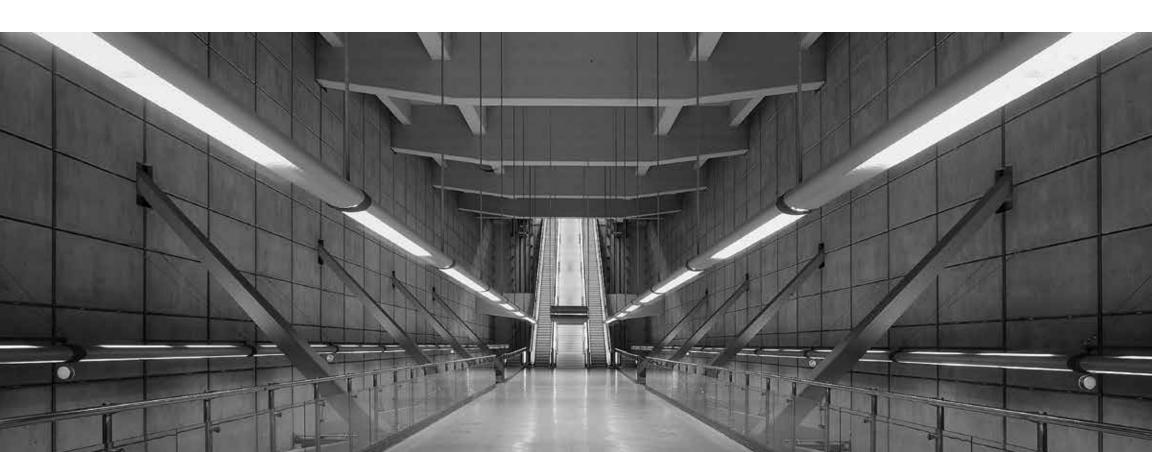
The working reality of architects can be cialized juries that value the quality of the improved by the public sector, facilitating the architect's involvement in shaping the future city. The public sector can promote their training as well as technical and cultural abilities, so they can be shared and add value to



Words, Desires, and Memories

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"A city is a combination of many things: memory, desires, signs of a language; it is a place of exchange, as any textbook of economic history will tell you—only, these exchanges are not just trade in goods, they also involve words, desires, and memories." Italo Calvino on *Invisible Cities*¹



Words, Desires, and Memories

I have been asked to close this issue by sharing my opinion, doubts, and pleas about the changes that my city has seen during the last two decades and the projects to come in the future. I want to make clear that mine is not an academic assessment and it is not based on a rigorous and technical expertise in the field of urbanism. My opinion is purely based on my own observations.

During the last two decades, I have been a direct witness of the transformation of Bilbao and, thanks to my own profession as a photographer, I have been able to observe that evolution in detail. I have been able to analyze and interpret the consequences of the different changes led by local authorities and public institutions. I have had long conversations with friends who are architects, politicians, sociologists, historians, engineers, business people, and artists that have allowed me to explore things from multiple points of view. This is, thus, a cross-disciplinary opinion and, like any opinion, completely subjective. I want to recognize beforehand the admirable work done by the public institutions and the different parties involved all these years in the transformation of the city. However, there are certain aspects that I call into question and that I'd like to discuss.

It is evident that, at the end of the 1980s, Bilbao was a devastated city, the result of a deep economic and industrial crisis that contributed to high unemployment and, as a consequence, a lack of resources that triggered a general state of depression and apathy in the society. The government, facing a social decline of such a magnitude, was forced to put forward a new strategic plan, a bold investment that would contribute to the beginning of a new economic model.

The Guggenheim Museum represented that milestone; the turning point. It was a remarkable change that only a few people

were able to envision with clarity ahead of time, the same people willing to take the risk to make it happen exactly at the right time. The museum was significant for two reasons. Architect Frank Gehry designed one of his most influential projects, one that quickly became an international reference of modern architecture. It also signified the beginning of the change of Bilbao from a purely industrial economic model to a service industry.

The use of internationally renowned foreign architects such as Frank Gehry and Norman Foster (who designed the Bilbao Metro) to signify the renovation of the image of the city was a perfect ploy of urban marketing. But it is also true that the so-called "Bilbao Effect" could not have been as relevant if it was only with the fame of those architects. It was the result of Gehry and Foster's two remarkable projects along with the institutional management of Bilbao Ria 2000 and Metrópoli 30, the cleaning of the Nervión River, and the relocation and burying of railroads.

The transformation of the city has been based on a model of ambitious marketing and image campaigns based on hiring highprofile architecture studios. Applying this economic model that started with the Guggenheim Museum and provided undeniable benefits, the city has consequently been able to hire six Pritzker Prize-winning architects, turning the initial and accurate decisions into a sort of amusement park of international architecture. This, in itself, does not have to be bad, when one considers the experience, efficiency, and the repercussion that those projects have had for the city. However, we need to take into consideration other aspects. First, the lack of regard and promotion that officials have had with local studios and companies that could have a promising international career. That in itself is paradoxical, as their work along with international studios



has been essential in order to build their highprofile projects in Bilbao. Despite the fact that this relationship has been beneficial to some politicians, it is not directly beneficial for the local architects. It is the capacity to correctly select the architect for each project, transmit the social and cultural values that later are reflected in the project, and the adequate management of the construction costs what will determine if the effort will be noteworthy and correct.

Industry and work have dignified our society for centuries, making us recognizable for our values, commitment, and sacrifice. Physically, the industrial revolution shaped a city with a strong and particular aesthetic due to pragmatic needs, an unexpected beauty that has been a source of inspiration to numerous filmmakers, sculptors, poets, and photographers. It created a landscape of concrete and steel that extended from the city center until the Nervión River reaches its mouth eight miles away in El Abra. Due to this particular and extensive covering of the territory, it would be important to have a comprehensive view of and approach to it. We should go beyond administrative boundaries and apply the same ambitious vision for the city to the metropolitan area of Bilbao, with the river as the structural element. We should connect the dispersed elements of our recent memory (blast furnaces, docks, railings, bollards, piers, barges, and buoys) that dot the territory and are physically and symbolically connected to the river.

The past of Bilbao was defined by merchant ships, steel, and steel mills. Now the city has turned its back to them. It seems to be ashamed of them, unable to show its visitors the glorious past, even if it is through its remains. During the last few decades, we have suffered the continuous denial of our honorable industrial past in the develop-

ment of the territory, choosing a transformation that erases and replaces rather than a transformation that repairs and recovers. However, it is the industrial architecture that provides our society with the tools to rediscover its own past, establishing a temporal connection between past and present. We need to be able to identify ways to improve our quality of life with new economic activities. Unfortunately, many places have been left to deteriorate for specific institutional interests. They have been demolished leaving no traces, a tabula rasa that prevents uncomfortable questions and looks. But this lack of sensibility with our historic idiosyncrasy and our memory defines a model of society, our sense of belonging to a place, and thus a city. We need to understand that the improvement of our quality of life does not have to be associated with a determined aesthetic, and that we are not forced to abandon our idiosyncrasy nor our industrial past.

However, I also don't think that the solution is to create an endless list of buildings with a high level of protection that ultimately is of questionable usefulness. The government needs to generate flexible protocols to address the legal voids that facilitate the looting and defacing of our industrial heritage, Babcock Wilcox, Cromoduro, or Tubos Reunidos being perfect examples of buildings in this situation. Currently, there is a double standard. On the one hand, there is an excessive protectionism by the government. Unable to cover the cost of maintaining such a vast amount of industrial heritage, it has looked away, allowing its continuous decline and its slow disappearance by the work of scrappers. On the other hand, whenever private investors propose alternative plans or social uses for those spaces, it is the government that imposes requirements of restoration and adaptability impossible to





Words, Desires, and Memories

meet. The local authorities need to identify, protect, and find a viable solution, in collaboration with private investors, to propose new uses and economic activities in order to retain the traces of our history in our current territory. It needs to become a mediator and adapt those regulations that have become more and more complex. We should foster a change in the model of the city that does not compromise the opportunities to propose new uses and activities with the high cost of the land and the application of more and more restrictive regulations. That would inevitably force the displacement to the periphery of all those modes of alternative living and creative professionals that look for more expressive and less conventional spaces.

Curiously, during the last few years, Bilbao has bragged about a model of city based on creativity as a sustainable economic model. However, I sincerely see the government having trouble distinguishing between culture and entertainment, identifying leading creative agents to be able to connect them to small ecosystems, and creating the ideal spaces to foster the development of those activities, taking into account that the value that they generate is not just measured economically. It is a value generated by hundreds of authors that share their interests with others, generating a professional and social structure that ultimately could define the city. The city, and image, would benefit by promoting the values of its own authors, by fostering cultural activities (design, music, theater, visual arts, fashion, etc.), and by building the appropriate spaces. In short, the city should provide the tools to develop a sustainable economy that is truly accepted and supported. It is time to stop seeing the creators as bums that provide the city with an alternative, exotic, and irreverent image, temporarily giving them spaces to satisfy their egos and pushing them to the periphery

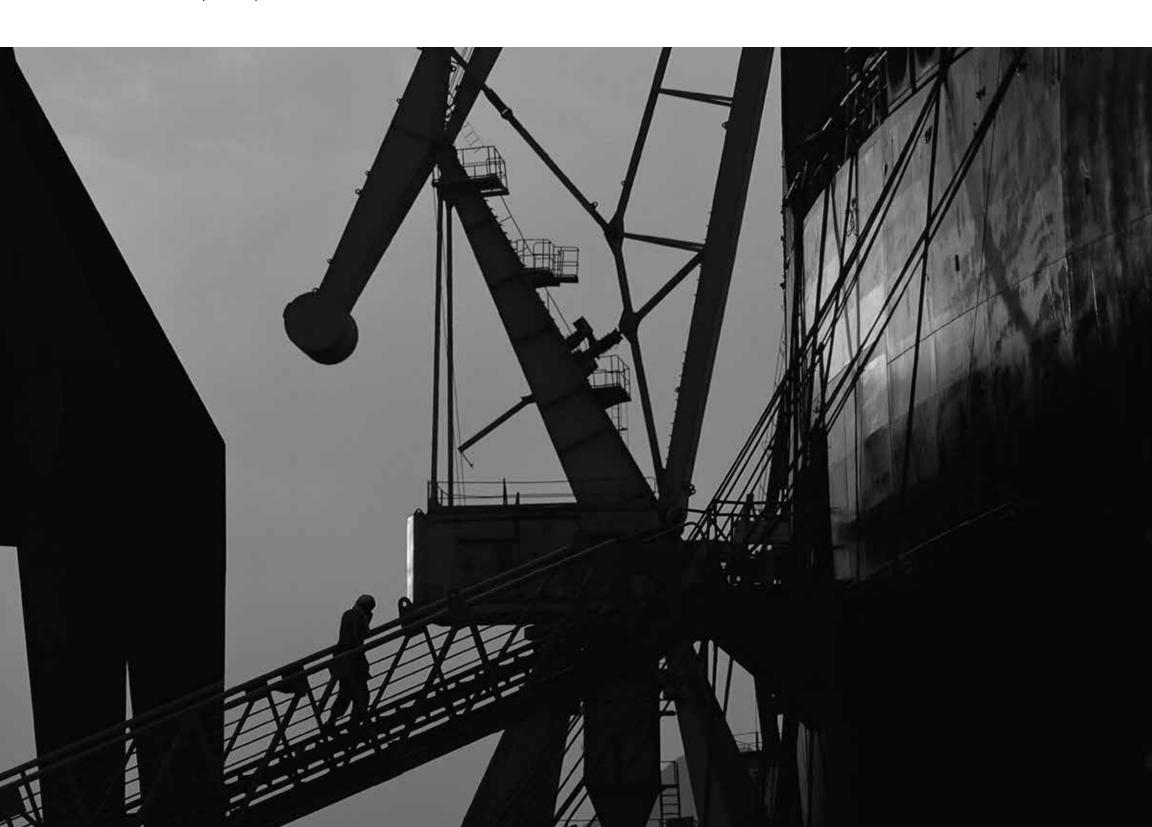
again and again due to the inability to pay the cost that the city imposes on them to be able to be part of it. Diversity and differentiation is richness. It is important to avoid a standard and homogeneous model. The downtowns have turned into something similar to airport terminals, all having the same shops, independently of the city we are in.

The city must avoid an overly euphoric message void of self-criticism about the architectural and urban transformations that have taken place in the last twenty-five years. We need to understand that a city is more than a group of buildings and that architecture is the visible manifestation of our different ways of living in the city. At the end of the 1980s, Bilbao needed the help of ambitious publicity campaigns to recover the self-esteem and boost the image of the city. It used the power of architecture to achieve that goal. Now, twenty-five years later, the prestige and image of the city have been established, now being associated with quality of life and good architecture. As an established brand, "BIL-BAO" needs to shed any inferiority complex and assume its leadership role, identifying excellence in each and every industrial sector, professional or artistic discipline, that takes place in the city, and promote them as local values that generate a shared benefit, tangible or intangible, understanding that they are a value in themselves and that the city will ultimately benefit from them.

Endnote

1 Excerpt from a lecture given by Italo Calvino to the students of the Graduate Writing Division at Columbia University on March 29, 1983.























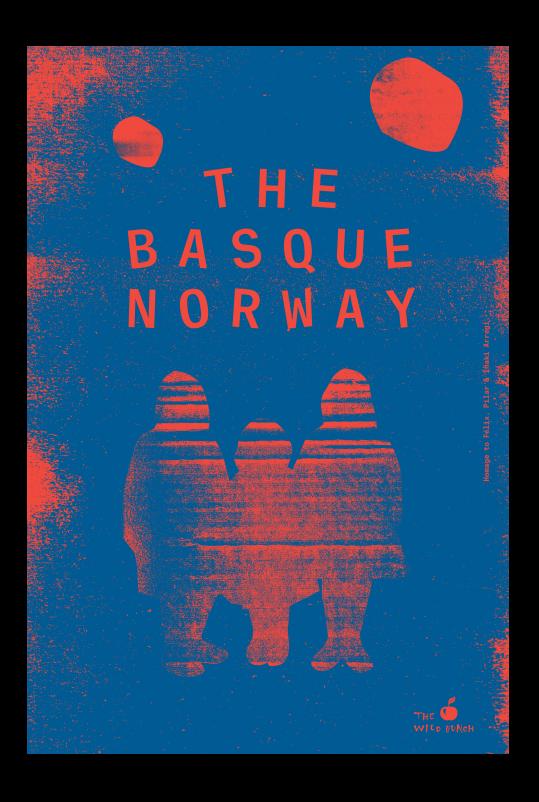
POSTCARDS FROM BILBAO

Five Visions of the City from Five Design Studios



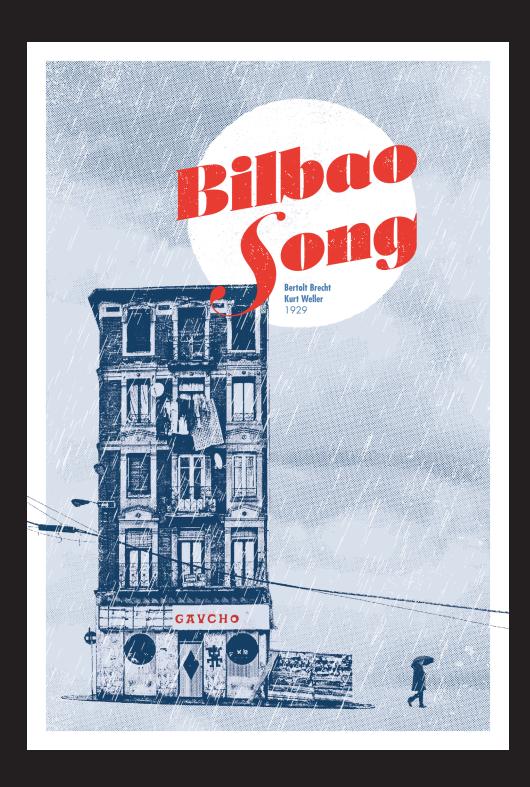
Welcome

A spot to live in To fail To rise A land to be To meet people To gather A place to grow To love To touch A playground



The Basque Norway

At the very entrance of the city, cod boats coming from Norway could not pass Olabeaga because their drafts made it impossible to get any further up the river. The fish was unloaded in the neighborhood and stories of that time speak of sailors looking for fun after months of life at sea, who temporarily inhabited Olabeaga where they left descendants.



Bilbao Song

Bill's beer hall in Bilbao

Was the most fantastic place I've ever known.

On the dance floor the grass grew high,

Through the roof the moon was shining green

And the music really gave you some return on what you paid.

Now they've cleaned it up and made it middle class

With potted palms and aspree,

Very bourgeois, very bourgeois,

Just another place to put your ass.

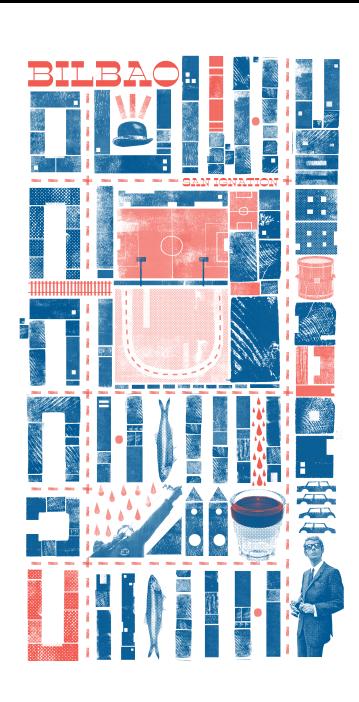
They've cleaned up all the booze and broken glass,

On parquet floors you can't grow grass,

They've shut the green moon out because of rain

And the music makes you cringe now when you think of what you paid.

Hey Joe, play that ol' song they always played.



San Ignation



Lost Letters in Bilbao

1 **Disco 3**Berastegui, 1

Demolished

2 Bar-Restaurante Isla de Loto

Gran Vía, 19 Demolished

3 Bar Ereaga

Villarías, 2 Original sign removed

4 Cafetería Bilbao 70

Colón de Larreátegui, 40 Original sign removed

5 La Bacalada

Belosticalle, 17-19 Business closed, sign remains

6 Cafetería New York

Buenos Aires Kalea, 15 Business closed, sign remains

7 Cocinas Leyre

Gran Vía, 63 Demolished 8 Bar Gaspy

Cortes, 19 Still standing!

9 Bar-Restaurante San Fran

San Francisco, 27 Still standing!

10 Bar Irache

Colón de Larreátegui, 33 Still standing!

11 Sombrerería Gorostiaga

Victor, 9 Still standing!

12 Farmacia Arrieta

Licenciado Poza, 38 Still standing!

13 Coctelería Bar Tito's

Rodríguez Arias, 8 Still standing! Contributors 449

Ibon Areso is an architect and politician who graduated from the School of Architecture in Barcelona in 1970. After becoming the Basque Government's Deputy Minister for Land Planning in the early 1980s, he was hired in 1987 to run the Municipal Office. In that role, he oversaw the preparation of the new General Urban Development Plan for Bilbao, which set up the guiding principles behind the transformation of the city. In 1991, Areso was elected as the Bilbao City Councillor and appointed as Deputy Mayor of Bilbao and, concurrently, the Head of Urban Planning Division. After the death in office of Mayor Iñaki Azkuna in March of 2014, he served as the Mayor of Bilbao until June of 2015.

bilbao.net @bilbao_udala

Diana Balmori founded Balmori Associates in 1990. The landscape and urban design practice is recognized internationally for designing sustainable infrastructures that serve as an interface between landscape and architecture. In 2006, she created BAL/LABs within Balmori Associates to further push the boundaries of architecture, art and engineering: Green Roofs, Floating Islands, Temporary Landscapes, Forms of Representation, and Zero Waste City, among others. She is the author of *Drawing and Reinventing Landscape* (A/D Wiley, 2014) and *A Landscape Manifesto* (Yale University Press, 2010). Since 1993, she has been a Critic at Yale University in both the School of Architecture and the School of Forestry and Environmental Studies.

balmori.com @balmorilab

Eduardo Belzunce, Luis Diaz-Mauriño, and Juan García Millán are all architects who collaborate in different projects, including the Europan 4 architectural competition in 1996. Their proposal was awarded first prize, ultimately building eighty-four housing units in 2007 in one of the parcels of their masterplan. Eduardo teaches at the European University of Madrid School of Architecture. Luis teaches at the Superior Technical School of Architecture of Madrid (ETSAM). Juan is the founder and director of Ediciones Asimétricas and was editor in chief of Arquitectura magazine between 2000 and 2008.

José Luis Burgos received his architectural degree from the School of Architecture in Madrid. As the Basque Government's Deputy Ministry of Transport between 1987 and 1991, he was involved in key projects for the region such as Metro Bilbao, the expansion of the port, the new airport terminal, and the removal of the train tracks along the river. He has also worked on the revitalization of the Nervión river docks and has collaborated with Philippe Stark on the Azkuna Zentroa project. In 1980 he was awarded the Spanish National Urbanism Prize.

Cini Boeri, the Italian architect and designer, graduated from the Polytechnic University of Milan in 1951. Following an important internship with Gio Ponti and a long period of collaboration with Marco Zanuso. she set up her own studio in 1963, focusing on civil architecture and industrial design. Her architectural projects range from houses and apartments to museums, shops, showrooms and office buildings. She has devoted particular attention to the function of the house, centering on the psychological relationship between man and his habitat. Her industrial design work has aimed at the search for everything that can improve and simplify our way of living. Her many projects can be seen at international exhibitions and museums all over the world, and Cini has received innumerable awards, including the Grande Ufficiale al Merito della Repubblica Italiana in 2011.

ciniboeriarchitetti.com

<u>Carlos Copertone</u> is a judge who received his PhD from the University of Extremadura in Spain. He specializes in urbanism and regional planning and has taught at the Carlos III University in Madrid. He is a permanent contributor to the Spanish edition of *Architectural Digest* (AD España).

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Juan Luis de las Rivas received his PhD in Architecture in 1988 from the University of Navarre. He is currently a professor of Planning and Urban Design at the School of Architecture of Valladolid. He is the Director of the Department of Urbanism at the School of Architecture of Valladolid and the former director of the Instituto Universitario de Urbanística (IUU). His current research focuses on the relationship between nature and city, exploring urban and peri-urban landscapes in order to promote sustainability and innovation in cities and regions. He is the author of multiple books. including El espacio como lugar (1992). Modos de urbanización y desarrollo sostenible (2000), and Territorios Inteligentes, (with Alfonso Vegara, 2004). In 2016, his book Superciudades was awarded the Gerd Albers Award by the ISOCARP association.

Patxi Eguiluz is an architect with more than fifteen years of experience in building construction and urbanism. His work has received multiple awards and has been published internationally. He is a permanent contributor to the Spanish edition of Architectural Digest (AD España).

patxiequiluz.es

García de la Torre Arquitectos is the architecture office founded by brothers Francisco Javier and Bernardo I. García de la Torre in 1977. Based in Zalla, Biscay, their work ranges in scale and typology from residential developments and sport complexes to cultural institutions and building renovations. They also work in the fields of graphic design, interiors, urban planning, research about architectural and cultural heritage, and publishing. They are the authors of several books, including Bilbao: Arquitectura / Architecture (gt., 2009) and Bilbao: Nueva Arquitectura / New Architecture (gt., 2014).

garciadelatorrearquitectos.blogspot.com

Iker Gil is an architect, urban designer, and director of MAS Studio. In addition, he is the editor in chief of MAS Context. He is the recipient of the 2010 Emerging Visions Award from the Chicago Architectural Club.

mas-studio.com ₪MASContext

IDOM is a leading company in the global market for professional services in engineering, architecture, and consulting. For more than half a century, IDOM has participated in 13,000 projects on four continents working with more than 5,000 clients. IDOM has distinctive strengths for undertaking multidisciplinary and complex projects. Some of their recent architecture projects include the Bilbao Arena and new San Mamés Stadium in Bilbao, the Convention Center in Lima, and the CEIBS campus in Beijing.

idom.com ⊡ldomGroup

Founded in 2005, the Bilbao-based architecture office <u>JAAM</u> works in multiple scales and typologies, from residential buildings, infrastructure, and public spaces to restoration projects, urban furniture, and lighting. Published internationally, their work focuses on offering functional and creative designs suited to context and climate, in order to be efficient and limit the use of resources.

jaam.es

James Stirling Michael Wilford & Associates was established in 1971 and continued until James Stirling's death in 1992. The collaboration between James Stirling and Michael Wilford had started a decade earlier, when Wilford joined the office of Stirling and Gowan in 1960. Some of their best-known projects include the Staatsgalerie in Stuttgart, the Sackler Wing extension to the Fogg Museum at Harvard, the Science Centre in Berlin, the Clore Gallery for the Turner Collection at the Tate Gallery in London, the Performing Arts Center at Cornell University in New York, and the B. Braun Melsungen A.G. buildings at Melsungen in Germany. Michael Wilford continues to work as Michael Wilford architects in England and Wilford Schupp in Germany.

Koldo Lus Arana is an architect, illustrator, and architecture scholar. He earned a Master in Design Studies from Harvard GSD in 2008, and a PhD from the University of Navarra in 2013 with the dissertation Futuropolis: Comics and the Transmediatic Construction of the City of the Future. His main lines of research deal with the interactions between architecture and media, and with architectural prospective. He currently teaches Theory and History of Architecture in the University of Zaragoza (Spain).

Elena Martínez-Litago received her degree in Architecture and Urban Planning from the School of Architecture of the University of Navarra in 2001. She also studied at the School of Engineering and Architecture of Zaragoza University (Master Degree, 2014), and is a PhD candidate there. Her research analyzes the architectural development of the Basque Country in the 1960s, focusing on the role of international (failed) architecture competitions.

Ruth Mayoral López is part of ZAWP (Zorrotzaurre Art Work in Progress). ZAWP was founded in 2008 to address the "in the meantime" period before the urban development plan approved for the neighborhoods of Ribera de Deusto and Zorrotzaurre. ZAWP is now a consolidated movement involving many people that works for the social, economic, and cultural revitalization of the neighborhood through creation, intervention, and valuing of its past.

zawp.org @ZAWP

Meneo is a graphic design studio based in Bilbao founded in 2010. They develop projects related to art, culture and fashion which include publications, digital media and visual identities. Their design ideas are simple and effective, understanding design as a source of learning and joy.

 Contributors 451

NO.MAD is a Madrid-based architecture office founded by Eduardo Arroyo in Amsterdam in 1989. Their work has received multiple awards and it has been published and exhibited internationally. Some of their most recognized projects include the Lasesarre Stadium and the Plaza del Desierto in Barakaldo, the Sondika Nursery, the Levene House and the Zafra-Uceda House in Madrid, the Arquia Bank in Bilbao, and the University of Economic EXAC in Vienna. Their book CREATE! documents their design process that combines precision, chance, and necessity in search of the unknown.

nomad.as

Dissolving and transmuting reality, one typically associated with photographic representation, <u>Aitor Ortiz</u> works with space, architecture, and objects as starting elements to pose a series of visual and cognitive unknowns. His solo exhibitions include shows at Le Centquatre in Paris (2015), Fotografiska, The Swedish Museum of Photography in Stockholm (2011), and the Museo Patio Herreriano in Valladolid (2009), among others. His work is part of the permanent collections of the Museo Nacional Centro de Art Reina Sofía in Madrid, Guggenheim Museum in Bilbao, and "La Caixa" Foundation in Barcelona.

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Lucía C. Pérez-Moreno received her architectural degree from the School of Architecture at the University of Navarra in 2003. She also studied at Aalto University (International Program, 2004) and the GSAPP of Columbia University (MsAAD, 2008). In 2013, she received her PhD in History and Theory of Architecture from the Polytechnic University in Madrid. Her research focuses on the role and scope of Spanish architecture magazines in the last decade before the advent of democracy in Spain. Since 2008, she has taught History and Theory of Architecture at the School of Engineering and Architecture of Zaragoza University in Spain. Her last book, Fullaondo y la revista Nueva Forma: aportaciones a la construcción de una cultura arquitectónica en España, 1966-1975, was awarded in the XIII Spanish Biennial of Architecture and Urbanism.

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Fidel Raso received his degree in journalism from the University of the Basque Country. A special correspondent to many international events, he witnessed firsthand the First Gulf War and the fall of the Berlin Wall. He is the author of two books exploring the deindustrialization of Bilbao, Semillas de hierro and Margen Izquierda, and was awarded second prize in the 2014 Spanish National Photojournalism Award for his photograph "Desesperación y huida." In 2016, he was awarded the prestigious Premio Internacional de Periodismo Cátedra Manu Leguineche.

Tomás Ruiz is a TV cameraman whose interest in abandoned places started ten years ago. Since then, he has been recording and photographing locations across Europe, from stations to hospitals. He is the administrator of the Club CELA, the most important forum in Spain concerning abandoned places, and he runs the blog *Esperando al Tren* since 2007.

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<u>Juan Sádaba</u> is an architect, urban planner, and industrial designer. He understands design as a creative strategy to solve problems and create intelligent beauty. This approach can be applied to the different scales of design problems, trespassing the classical boundaries between disciplines. He is currently a part-time professor at the Singapore University of Technology and Design. Juan is also the co-founder and CEO of Nerei Emotional Intelligent, a company focused on new strategies and designs for the urban space, design, and architecture. The company is part of the NER group.

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<u>Diego Sanz</u>, aka Karramarro, graduated in Audiovisual Communication from the University of the Basque Country. In 2010, he joined the Bilbao-based design studio Vudumedia where he works as a graphic designer. Ever since his parents gave him his first camera at the age of 10, he's been a photo enthusiast.

vudumedia.com @karramarro

Patricia Sanz Lacarra received her architectural degree from the School of Engineering and Architecture at the University of Zaragoza in 2015. Her graduate thesis was entitled "La Alhóndiga de Bilbao (1987-1990). Arquitectura no construida de Jorge Oteiza." As part of the ERASMUS program, she studied at the Faculdade de Arquitetura de la Universidade Técnica de Lisboa between 2013 and 2014. In 2016, she received her Master of Architecture from the University of Zaragoza. Since 2016, she has worked as a design architect at TheLeisureWay in Zaragoza.

Koldo Serra is a Bilbao-born filmmaker. Growing up shooting skateboarding videos, drawing, and devouring comics, he is the director of award-wining short films, episodes for TV series, commercials, and music videos. In 2007, he released his first feature film, *The Backwoods*. On April 26, 2016, he released his second feature, *Gernika*, coinciding with the 79th anniversary of the German bombing raid over the eponymous town during the Spanish Civil War.

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Alfonso Vegara is the founder and president of Fundación Metrópoli, an international institution based in Madrid. Fundación Metrópoli leads Proyecto Cities, a project that studies the innovations, competitive advantages, and success factors of twenty cities from five continents, including Toronto, Boston, Curitiba, Sydney, Shanghai, and Euskal Hiria (Basque City). Between 2002 and 2005, Alfonso was the president of the International Society of City and Regional Planners (ISOCARP) and is currently an advisor of the Government of Singapore for the development of One North.

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Yosigo is a photographer and graphic designer based in Barcelona, Spain, whose work pays particular attention to space, symmetry, and color. He has exhibited his work in the monographic exhibition Kresala in the Aquarium San Sebastian and has had his work published in international magazines including Colors and Wired. His latest book is called Riu Avall. yosigo.es

Zaha Hadid Architects is a London-based international architecture and design firm founded in 1979 by the late architect Zaha Hadid. As pioneers in research and design investigation, their implementation of state-of-the-art technologies have aided the realization of fluid, dynamic, and therefore complex architectural structures worldwide. Some of the firm's most well-known buildings include the Vitra Fire Station in Weil Am Rhein (1993), the MAXXI: Italian National Museum of 21st Century Arts in Rome (2009), and the Heydar Aliyev Centre in Baku (2013). Among many other awards, Zaha Hadid was awarded the Pritzker Architecture Prize in 2004 and the RIBA's 2016 Royal Gold Medal.

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John Zils is an Associate Partner Emeritus at Skidmore Owings & Merrill LLP (SOM) Since joining SOM in 1966, John has served as structural engineer on numerous projects ranging widely in scope and scale, including the 110-story Sears Tower in Chicago, the King Abdul Aziz International Airport in Jeddah, Saudi Arabia, and the Guggenheim Museum in Bilbao. John is the recipient of multiple awards including those from the American Society of Civil Engineers, the American Institute of Steel Construction, and the Structural Engineers Association of Illinois.

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Special thanks to Rafa Gil for all the help coordinating information in Bilbao, going through archives, selecting photographs, and calling people to secure the files we needed.

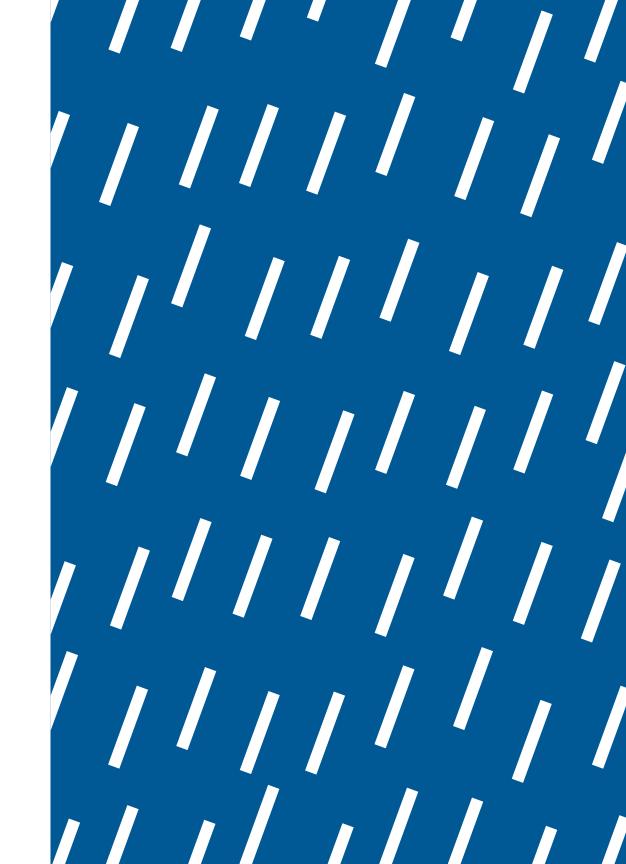
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We are very grateful to Miguel Terán and Oskar Hernández from Meneo for their fantastic work, dedication, and patience to design this extended issue. It was a pleasure to work with you, and we love the T-shirt you designed!

We'd like to dedicate this issue to those who work everyday to make Bilbao a better city, whether leading the efforts or participating in everyday activities. MAS Context Issue 32 **Character**

What are the opportunities of conjuring fictional characters as a device to demonstrate how a building is experienced? What makes a building have or become a character? Why do architects sometimes consciously formulate their own persona as a quasi-fictional character? Our CHARACTER issue will consider architecture in literary terms in order to reimagine how buildings can communicate with audiences through form, expression, structure, type, decoration, experience, narrative, and metaphor.

This issue will be guest edited by Stewart Hicks and Allison Newmeyer of Design With Company.



Ibon Areso, Diana Balmori, Eduardo Belzunce, José Luis Burgos, Cini Boeri Architetti, Carlos Copertone, Juan Luis de las Rivas, Luis Diaz-Mauriño, Patxi Eguiluz, García de la Torre Arquitectos, Juan García Millán, Iker Gil, IDOM, JAAM, James Stirling Michael Wilford & Associates, Koldo Lus Arana, Elena Martínez-Litago, Ruth Mayoral López, Meneo, NO.MAD, Aitor Ortiz, Lucía C. Pérez-Moreno, Fidel Raso, Tomás Ruiz, Juan Sádaba, Diego Sanz, Patricia Sanz Lacarra, Koldo Serra, Alfonso Vegara, Yosigo, Zaha Hadid Architects, John Zils.

MAS Context Issue 30–31 **Bilbao**

