A photograph of the Guggenheim Museum of Bilbao, a modern building with a highly reflective, metallic, and undulating facade. The building is situated in an urban environment, with a street and cars visible in the foreground and a green, hilly landscape in the background. The text is overlaid on the central part of the image.

**Guggenheim museum of Bilbao:
Cultural Value
and
Economic Value
to the city's redevelopment**

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I. Introduction

Urban regeneration planning has been the major ambition of several European cities for the last couple decades including Glasgow – Scotland; Marseille – France and Bilbao and Barcelona – Spain. In order to transform their images to a better, maybe to be a central spot of the country, they have been using traditional marketing solutions involving community mottos and slogans and literature propaganda, as well as more ingenious strategies in which erecting iconic buildings, organizing vast events and applying intricate public relation techniques¹. Using a subtle technique of constructing iconic buildings is a common tactic in city reimagining, which a number of cities around the world have used. (Opera house, Sydney; German Pavilion, Barcelona; Guggenheim Museum, Bilbao; etc.) The main purpose of this paper is to analyze the effects of using iconic structure to revitalize the city life and its economy system by investigating two aspects: Economic value and Cultural value. In this case, the study focuses on Bilbao, Spain in particular and its iconic architecture, Guggenheim Museum by famous architect Frank Owen Gehry.

¹ Smith, A. (2005). Conceptualizing city image change: The “re”-imaging of Barcelona. *Tourism Geographies*, 7, 398–423.

II. Body

1. Bilbao's economic history

a. Golden age

Bilbao, the capital of Vizcaya, was one of the traditional industrial centers of Spain in 1960s. Capitalizing on mining the richness resources of natural iron ores, developing mineral-related industries (metallurgy) and ship manufacturing; all along with the propitious geography location close to Nervión River had given the prosperity to Bilbao's industry during the second half of the nineteenth century². That promoted Vizcaya to become the most vigorous industrial center of Spain in which Vizcaya province contributed the largest portion of the registered capital of all Spanish banks, 22.2 per cent, and Bilbao banks held 42.1 per cent of total Spanish legal bank reserves. Investing in the major industrial sectors with the profuse capital, which fostered by the exportation of iron ore, the city possessed the largest railway system and the largest number of ships registered.

b. The crisis

The golden age of Basque's industry reached its peak by the mid 1970s when it owned a continuing increase of industrial jobs and a small ratio of 3.2 per cent of unemployed population³. Until 1975, when the Franco regime collapsed, the crisis gave a negative impact on the "so-called Spanish

² Gómez, M.V. (1998) Reflective images: the case of urban regeneration in Glasgow and Bilbao. *International Journal of Urban and Regional Research* 22.1, 108

³ Ibid.

economic miracle”⁴ which had made it disappeared forever. The industrial sectors such as metallurgy and ship manufacturing, which the Basque economy heavily based on, had to be radically renovated and this severely affected Basque economy more than the entire financial system of the Spain. The critical change resulted in high unemployment rate climbing inflation and trading deficiency. Basque country continued to suffer from the crisis with no sign of economic growth until later during the second half of the 1980s; positive rates of economic expansion were documented and showed evidences of the return of Basque’s economy. In fact, the industrial retrograde still critically impacted on the financial system.

c. Solutions:

Facing the prolonged economic crisis, the government made effort to reimage the city, attract new business and create a tourist industry by implementing a wide range of urban planning schemes. The hard-core of the holistic redevelopment plan of the city was facilitating access to as well as restructuring transportation within the city⁵. New system of rail, port and highway were established. New modern airport terminal designed by famous Spanish architect Santiago Calatrava and a new world’s most elegant subway network designed by Sir Norman Foster. Lastly, “the icing on the cake was the construction of the Guggenheim Museum Bilbao and additional cultural investments”⁶, polishing the whole renovation strategy.

⁴ Gómez, M.V. (1998) Reflective images: the case of urban regeneration in Glasgow and Bilbao. *International Journal of Urban and Regional Research* 22.1, 108

⁵ Newhouse, Victoria. *Towards A New Museum*, The Monacelli Press, 1998. Pg246-47

⁶ Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 507

2. The effects of Guggenheim Museum Bilbao

a. Economic Value

Question:

In such an economic state, spending \$228.3 million of public fund on a modern art museum is a good way out?

Answer:

The purpose was not to build the museum as an iconic building, but as a solution for a number of difficult economic situations of the city at the time: high rate of unemployment (25 per cent), outdated conventional industry, traffic jam, urban deterioration and some problems from extremist Basque separatists.⁷

These difficulties were settled by combining public policy: diversity and productivity, with a strong cultural component.⁸ A way of diversifying the economy and increase employment opportunities was to use GMB as a mean of promoting art and cultural tourism to the world and as an incubator for young artists.

Investing in historic, cultural heritages is controversial because it might cause the increasing in land prices and costs of services, which will have negative effects on the economic development. According to the work of Greffe (2004)⁹, the efficiency of heritage investments in city redeveloping depends on four major factors: First, heritage investments become effective employment creators only to the extent that they become effective tourism magnets.

⁷ Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 507

⁸ Ibid.

⁹ Greffe, X. (2004) Is heritage an asset or a liability? *Journal of Cultural Heritage* 5, 301–9.

Second, the greater the diversification of the city's economy, the greater the absorption of the price tensions. Third, the greater the integration of the redevelopment zone's markets, the easier the absorption of price tensions. Fourth, the greater the productivity of the city's economy, the greater the absorption of price tensions.

For the first condition, GMB surely performed as an effective employment creator and tourism magnet. It contributed to the city economy by generating approximately 740,904 overnight stays per year, 907 full-time jobs and attracted around 900,000 visitors every year.

Table 1 Number of visitors to Guggenheim Museum Bilbao (annual data from 1997 to 2006)

Years	No. of visitors to Guggenheim Museum Bilbao
1997 Oct-Dec	259,234
1998	1,307,065
1999	1,109,495
2000	948,875
2001	930,000
2002	851,628
2003	869,022
2004	909,144
2005	950,000
2006	1,008,774
Total	9,143,237
Number of months opened	111
Average monthly	82,372
Non-Basque country visitors (80%)	65,897

Source: Guggenheim Museum Bilbao

¹⁰ Table 1 and its source information are cited from Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 508

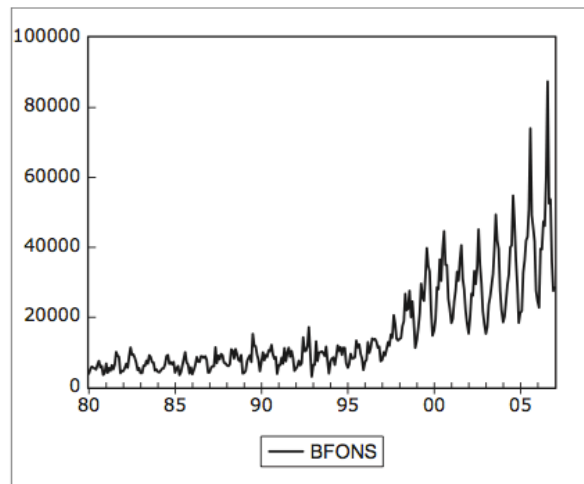


Figure 1 Overnight stays of foreign visitors (BFONS) in the province of Biscay (monthly data, from January 1980 to January 2007) (source: original figure based on Instituto Nacional de Estadística – INE). Note that the Guggenheim Museum Bilbao opened its doors in October 1997. Bilbao is the capital city of Biscay (in the Basque language ‘Bizkaia’).

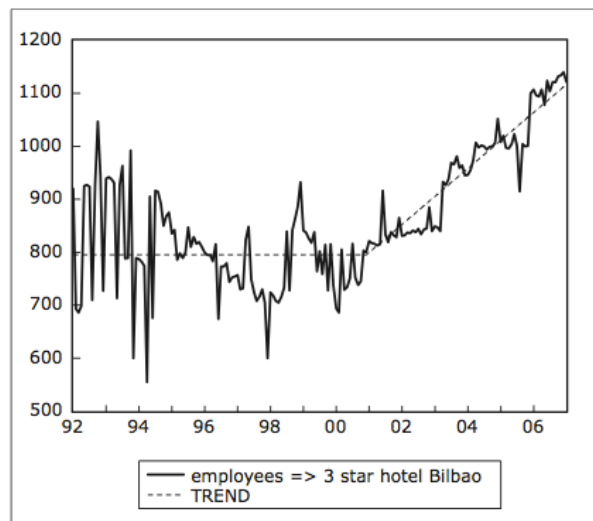


Figure 2 Number of persons employed in three to five-star hotels in the city of Bilbao (monthly data from January 1992 to January 2007) (source: original figure based on Basque Statistic Institute – Eustat).

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Secondly, after the opening of the museum in 1997, the city opened to tourists, a wide range of industries was developed with new skills, offers and amenities required. Knowledge intensive business services (KIBS) became one of the fastest growing areas of Bilbao’s economy in order to suffice the rapid growth of technologies and communication, outsourcing and the

¹¹ Figure 1 and Figure 2 with their source information are cited from Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 509

globalization process, it represented about 34 per cent of the total employment growth in 2005¹². The city progressed both cultural investment and economic diversification policies together successfully.

The level of integration of the redevelopment zone's markets could be indicated by the amount of the merchandise and services that produced locally¹³. Bilbao transformed into a tourist destination, which attracted both tourist and non-tourist travellers. Tourists mainly visited Bilbao for its landmarks, theaters and historic cityscape during weekends and summer holidays while non-tourist visitors including people who went to work conferences, business trips or exhibitions, visited Bilbao during weekdays and other seasons of the year. These two types of visitors generated a new segment for the hospitality market: cultural tourism¹⁴. In 2006, the tourist industry contributed 27 per cent to the business that conducted by hotels, restaurants and leisure activities and a high percentage (81%) of goods and services were produced locally¹⁵. Hence, a good level of integration of the redevelopment zone's markets was performed.

The city's overall productivity is an important factor in the regeneration process, which prevents the negative effects of increasing input cost scheme and reducing the competitive advantage¹⁶. Supporting for infrastructure and

¹² Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 509-11

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Eustat (2006a) *Cuenta satélite del turismo de la C. A. de Euskadi* [Tourism satellite accounts for the Basque Country]. Vitoria.

¹⁶ Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 513

sustaining competitiveness by local authorities as well as public and private investments in human capital are essential to increase productivity. In fact, among the Spanish regions, the top rank in productivity (value added per employee) belonged to Biscay province of Bilbao with \$61,296 per employee in 2003.

Table 4 Labour productivity by provinces (value added per employee, 2003)

	Province	Value added per employee in €
1	Biscay	46,694.7
2	Madrid	46,589.9
3	Balears	45,851.2
4	Alava	45,676.6
5	Teruel	45,364.3
6	Tarragona	45,228.8
7	Navarre	44,185.2
8	Guipúzcoa	42,935.2
9	Rioja	42,717.8
10	Barcelona	42,634.9
	Spain	38,211.4

Source: Original table based on Instituto Nacional de Estadística, Madrid

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The museum earns about \$40 million¹⁸ annually for Bilbao's finance and after 7 years since the opening, the investment on GMB was returned. In conclusion, Guggenheim Museum Bilbao has acted as a significant character the turning point of the centuries. It proved itself as "an effective economic re-activator"¹⁹ and a good solution for Bilbao's economy after 20 years crisis.

¹⁷ Table 4 and its source information are cited from Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2, 513

¹⁸ Guggenheim Museum Bilbao

¹⁹ Title of Beatriz Plaza Journal: Plaza, Beatriz (2008) On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator. *International Journal of Urban and Regional Research* 32.2

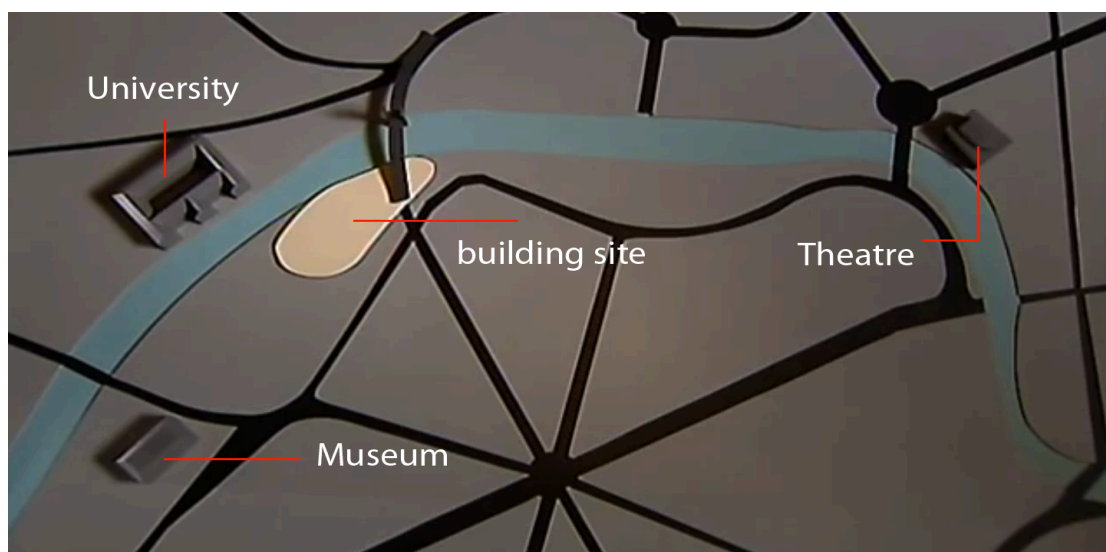
b. Cultural Value

Question:

What make GMB become a tourist destination (a tourist magnet)?

Answer:

In 1991, the Basque government reached out to Guggenheim director: Thomas Krens with their desire of creating a new magnificent museum to extricate Bilbao's economic stagnation. This aspiration matched Krens's current ambition of creating a worldwide network of museums²⁰, which designed by famous architects around the globe. Like the parent foundation at New York, each Guggenheim museum should has its own impressive and innovative architecture. One day, when Krens was walking under the La Salve bridge, he realized that the new museum should be built right there on the foundation of abandoned factories and shipyards, next to the La Salve bridge, where it was located at the centre of a geo-culture triangle: Bellas Artes Museum, the University of Deusto and the Arriaga Theatre.²¹



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²⁰ Newhouse, Victoria. *Towards A New Museum*, The Monacelli Press, 1998. Pg247

²¹ Donada, Julien, Director, *Frank O. Gehry – The Bilbao Guggenheim Museum*, 2004

²² Image taken from film Donada, Julien, Director, *Frank O. Gehry – The Bilbao Guggenheim Museum*, 2004.

The original ambition of building Guggenheim Museum Bilbao was to improve the quality of life for the city dwellers, to create a strong identity that let the inhabitants take their city back. "They had to turn their back on the industrial period and stop fleeing the city as the previous generation had done. They needed to get back their civic pride. The museum had to be a monument." – Gehry emphasized. In fact, the impact that Guggenheim Museum had on Bilbao was more than expected.

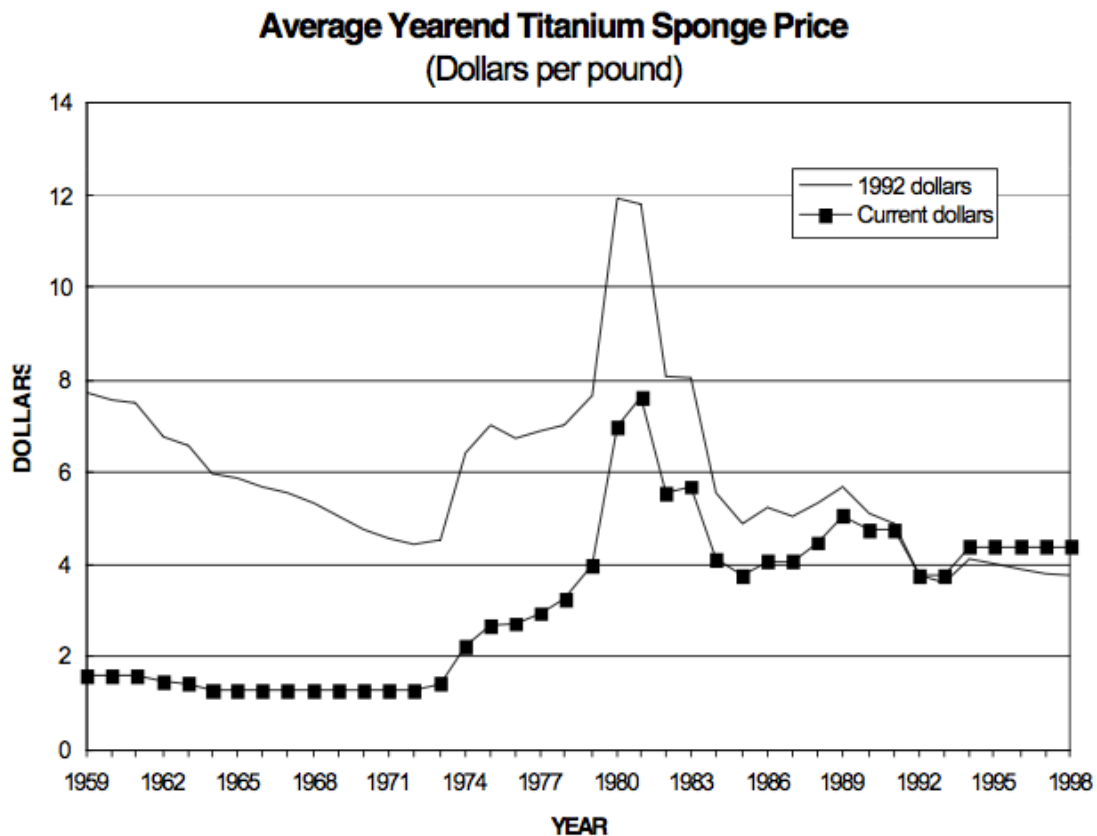
Three architects were invited to the limited competition of designing the museum: Isozaki, Coop Himmelblau and Frank Gehry. Frank Gehry's proposal was selected. The American architect was already expressed his strangeness of deconstructive architecture shapes in his previous work but for Bilbao, he would create a building to match his scale of ambition: "A monumental sculpture with a chaotic abstract look to it."²³

Frank Gehry used mainly three materials steel, stone and titanium for the façade of the museum to represent the strength, independence and industrial tradition of Bilbao²⁴. The museum was designed in large scale in order to capture the glamorous effects of sunlight during different time of the day. He spent a lot of time studying the quality of light in Bilbao and experimented with different reflective materials. "The steel that I was meant to use in the beginning gave off nothing at all in the light of that region, the metal seemed to be dead under a grey sky, but, quite by chance, we found that titanium was very well suited to this sort of light." – Gehry said. Fortunately, titanium was

²³ Donada, Julien, Director, *Frank O. Gehry – The Bilbao Guggenheim Museum*, 2004

²⁴ Ward, Sue. 'Big is Beautiful' – The Guggenheim Museum at Bilbao, *The Art Book*, vol15, issue 1, Feb 2008. Pg.60

affordable due to its price dropped lower than stainless steel at that time²⁵. Since then, nowhere else could bear the expense of titanium in such an enormous scale.



Source: graph taken from USGS Mineral Commodity Specialist: Joseph Gambogi post on website <http://minerals.usgs.gov>
(full link of the source: <http://minerals.usgs.gov/minerals/pubs/commodity/titanium/670798.pdf>)

The shining light emitting from the skin does not dazzle people's eyes. The titanium sheets half absorb, half reflect the light giving the museum's skin a soft glowing effect, "like the dull side of a piece of tinfoil" ²⁶– as Herbert Muschamp described it in his architectural writing for *The Times*. He also pictured the museum from afar as it "...flashes briefly into view; its curving

²⁵ Ibid.

²⁶ Muschamp, Herbert, *The Miracle in Bilbao*, *The New York Times Magazine*, September 7, 1997, Section 6.
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walls of titanium steel glinting an unmistakable welcome.”²⁷In fact, the integration of GMB with the La Salve Bridge, which connects Bilbao’s centre to the outskirts of the city, makes the museum become a distinctive entrance gate into the central area.



Image taken from
http://media.photobucket.com/image/Bilbao%20museum%20La%20Salve%20Bridge/xpagola/artxanda_9.jpg

From outside, the building expresses its respect to the surrounding cityscape. To the South side, stone, right angles and windows align follow the pre-existing construction style of urban hierarchy. To the North side, the fluidity of the man-made architecture synchronizes with the softness of the River Nervión nearby. Also, a concrete ramp raised above the river makes a pedestrian walkway connecting the East and the West sides of the museum. This is used to relate people back to their river, which has been neglected for a long time.

²⁷ Muschamp, Herbert, The Miracle in Bilbao, *The New York Times Magazine*, September 7, 1997, Section 6.
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Take a closer look at the “metal artichoke flower”²⁸, more figurative silhouettes appear: metal flower with silver petals, cruise liner and even shape of a fish with its head and tail chopped off.²⁹ “Fish and their movements have always been part of my architectural vocabulary. I think that it goes back to my childhood, every Thursday; my grandmother took me to the Jewish market, we bought a live carp, and took it home where we put it in a bathtub. I played with the fish all day until my grandmother killed it and made fish balls.” – Gehry shared.

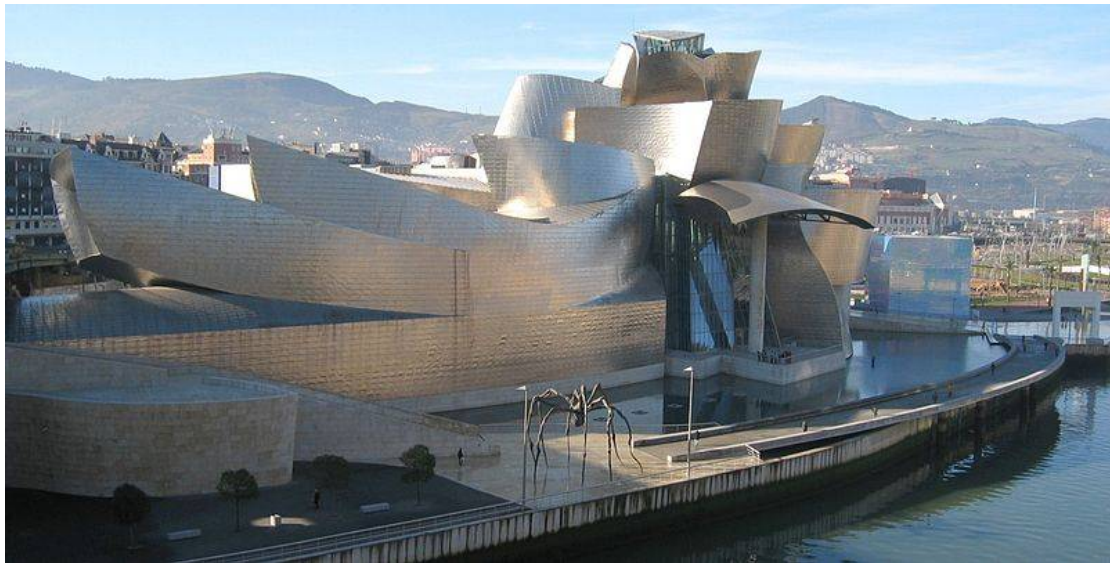


Image is taken from <http://yaelsara.thenewhive.com/frank-gehry>

Gehry’s fish obsession continues to appear in the design of the largest hall in the building: the Fish gallery³⁰. This room expands 130 metres long and 24 metres high under the La Salve Bridge. Krens reflected that “scale that is inspiring, not overwhelming.” This gigantic and continuous space could become overwhelmed and scaleless without art installation, which Gehry

²⁸ Muschamp, Herbert, The Miracle in Bilbao, *The New York Times Magazine*, September 7, 1997, Section 6. Pg 4

²⁹ Donada, Julien, Director, *Frank O. Gehry – The Bilbao Guggenheim Museum*, 2004

³⁰ Cuito, Aurora and Pablo Soto (eds.). *Guggenheim: New York. Venice. Bilbao. Berlin.*, Kliczkowski Publisher, 2001. Pg112

fearfully urged to build two short stub walls at first³¹. The space with seamless long wall, slight slope ground, variation of ceiling heights, massive curved ceiling beams, skylights and a delicate balcony give it a unique atmosphere for large scale art installation.



Image is taken from <http://yourattractions.com/guggenheim-museum-bilbao/>

This room contains series of pop art, minimalism and conceptual art, which are produced by American artists: Labyrinth by Robert Morris, Snake by Richard Serra, Reduced by Lawrence Weiner, Sixty-three White Mona Lisas by Andy Warhol, Untitled by Donald Judd and Knife Ship by Claes Oldenburg³². The other eighteen galleries are distributed on three floors with a variety of sizes and scales. Ten galleries are built following the classic orthogonal plan and could be distinguished from the stone finishes outside; the other nine galleries, which are constructed with peculiar forms, could be

³¹ Newhouse, Victoria. Towards A New Museum, The Monacelli Press, 1998. Pg251

³² Given information from the official website of Guggenheim Museum Bilbao (www.guggenheim.org/bilbao)

determined by their twisted shapes and titanium cladding from the exterior.

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The appearance of stone and titanium keep going in and out of the building, leaving big gaps between exterior and interior spaces, which are then secured by glasses and curved steel frames flexibly following the movement of the whole construction. By this, the museum has no traditional entrance façade. A slight tilt metal wing is protruded from the top, reveals a colossal wall of glass and metal of the entrance and leads the view into museum's glorious atrium. Gehry regretfully described the metal wing to Herbert Muschamp on his visit to the museum: "It looks like a pimple. But I guess it's O.K. for a face to have a pimple."



Image is taken from <http://www.worldtravelguide.net/bilbao>

The central atrium is 50 metres high, used as a meeting place to control the flow of tourists and lead people to three different exhibition areas³⁴ that are concentrically situated around it. In this atrium, the architecture exhibits itself as the first thing on display, artist installation come second (Claes Oldenburg

³³ Ibid.

³⁴ Cuito, Aurora and Pablo Soto (eds.). *Guggenheim: New York. Venice. Bilbao. Berlin.*, Kliczkowski Publisher, 2001. Pg.117

and Coosje van Bruggen's Soft Shuttlecock). Either sides of the atrium, stairs and lifts are hidden behind fish-shape, glass and metal structures, which have appeared in Gehry's Dancing House (1996) in Prague. The upper floors are connected by two suspending pathways, which provide a spectacular view of the river and cityscape beyond. This grand hall shows its salutation to both comers and art via its material vocabulary³⁵: titanium, metal, stone, glass, transparency, rigidity, curves, and smoothness. "...the atrium pitches you into an enclosed version of the state of surreality that overtakes you on entering Bilbao. Pinch yourself, but don't wake up. It's better just to dream this." – Herbert experienced.



Image is taken from <http://www.concierge.com/travelguide/bilbao/photos/photoview/61470>

³⁵ Muschamp, Herbert, The Miracle in Bilbao, *The New York Times Magazine*, September 7, 1997, Section 6.
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III. Conclusion:

The initial investment of Basque country in Guggenheim Museum of Bilbao was a risky attempt in the process of regenerating the city's urban heart and reactivating its regressive economy. Although, there were a lot of critics on this decision, even some artists and curators impugned Krens's ambition of creating a global museum network, Guggenheim Museum in Bilbao still stands tall and proves itself as a successful financial generator as well as an attractive tourist destination. It was instantly hailed as one of the most heroic and magnificent architecture of the century after its establishment.

"If you want to look into the heart of American Art today, you are going to need a passport. You will have to pack your bags, leave the U.S.A. and find your way to Bilbao, a small, rusty city in the northeast corner of Spain. The trip is not convenient, and you should not expect to have much fun while you're there. This is Basque country. A region proudly, if not officially, independent from the rest of Spain, it is also bleakly free from Spanish sophistication. Oh, and by the way, you might get blown up. Basque country is not Bosnia. But it's not Disney World, either."³⁶ – (Muschamp, 1997).

³⁶ Muschamp, Herbert, The Miracle in Bilbao, *The New York Times Magazine*, September 7, 1997, Section 6.
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