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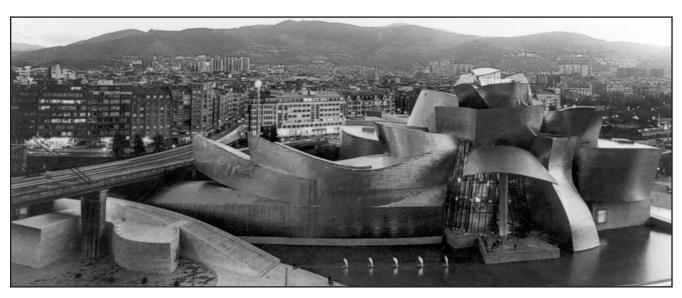


FIGURE 1 | The Guggenheim Museum in Bilbao, Spain (Frank O. Gehry) (Friedman and Sorkin, 1999).

n 1929, Frank O. Gehry was born in Toronto, Canada. This would be a neutral fact except that his French education served him well later in life when he went to Paris to meet Le Corbusier (Le Corbusier was a leading architect of the time who, unknown to many, took "inspiration" for part of his work, in the non-professional architecture of Ghardaia, in southern Algeria). Gehry later moved to Los Angeles and became an American citizen, his education continued including studies at University of Southern California and Harvard, from which he obtained formal degrees in architecture and, interestingly, in urban planning.

I encountered Frank O. Gehry when I attended a lecture in New York at Town Hall sponsored by the Architectural League in honor of Gehry's then recently published book, *Gehry Talks* (Friedman and Sorkin, 1999).

The person introducing Gehry remarked that the lecture had been organized originally at another smaller venue, because they were expecting no more attendees than the total membership of the League, which is close to 600 souls. He added: "Who the hell are the rest of you?!" — for there were 800 additional attendees. Needless to say, the interlopers remained quiet. There was a profound implication to this inconvenience: Gehry, the architect, had become a phenomenon that exceeded the boundaries of professional incarceration. He had crossed over from being not just an important architect, but also a

much larger intellectual and artistic figure, and somewhat surprisingly, one of global dimensions.

I was delighted to attend the lecture, because I had seen photographs of his masterpiece, the Guggenheim Museum in Bilbao (Figure 1). Bilbao is the capital of the Basque province in Spain. A place riddled with strife and tragic memories from the Spanish Civil War. Before Gehry's architectural intervention, an uninteresting, moderately large city adorned with dreariness and sadness. The gleaming metallic structure that Gehry built near a lake overnight changed the fortunes of Bilbao and of the Basque province, as well. Tourists arrived in droves to see the Museum not to visit the exhibits necessarily, but to admire the sight of the building on the lake wrapped in shining yellows and silvers. This is an accomplishment not seen since the completion of the Seven Wonders of the World, if I am allowed a slight exaggeration.

When Gehry began his lecture that evening at Town Hall, I was convinced that he was a son of Brooklyn, specifically Jewish Brooklyn. That assumption proved incorrect. He is Jewish, but not from Brooklyn. Nonetheless, several interesting facts did reveal themselves as the lecture proceeded:

1. He essentially confessed that his best friends and the people he relied on most, were sculptors and other artists, not architects. We shall return to this point later.

- 2. He considers himself a spiritual disciple of Frank Lloyd Wright, but not to the point that he was willing to spend one dollar per person (he was traveling with his family) to enter as a visitor *en famille*, Taliesin West, the school of architecture that Wright constructed near Phoenix, Arizona. Gehry claims he regretted immensely missing this monument; however, but his stinginess, as a character trait, has served him well professionally.
- 3. As his career unfolded, he became seriously interested in the use of stainless steel and noble metals (titanium, among others), particularly as the outer "skin" of his fanciful buildings. He also became a serious computer enthusiast by hiring experts in the use of computers, that enabled his design, strength calculations, and help in the production of his inventions.
- 4. Possibly the most important point he made that evening was that he abhorred the cube and





FIGURE 2 I Upper panel: the exterior of the Guggenheim Museum of Art on Fifth Avenue, New York (Frank Lloyd Wright). Notice the helical ribbons of the main part of the museum and the original use of windows between the modified rectangle element of the structure and the base of the building. Lower panel: the descending platform and the ribbon-based design of the interior.

rectangle as the fixed language of buildings; not only because these shapes have been exhausted as creative expression over the centuries, but because they had the annoying consequence that they force windows to exist as flat cubes, or rectangles. Hence, for too long, almost all buildings had flat sides and flat, flushed windows. Gehry felt something had to be done about this, and he did it in a grand way. In fact, Frank Lloyd Wright had earlier deviated experimentally from the flat windows both at Taliesin West as well as in the Guggenheim Museum in New York City (Figure 2). Of course, windows placed on a non-flat surface create new kinds of challenges for the architect.

5. An insight into his work came out of his description of his travails in fulfilling his commission to build a bank/apartment complex on Unter der Linden in Berlin, a few yards from the Brandenburg Gate. The bank portion of the building faces the Pariser Platz and the famous Tor. The city authorities had written severe limitations and regulations for all buildings to be constructed in that area. Gehry complained that he had to make concessions on that portion, but that the back of the building, the apartments section that faces a parallel street, was without building restriction. Interestingly, that street harbored the vast memorial to the Holocaust currently being constructed in Berlin, so Gehry's proposal was simple: Rent those apartments exclusively to ex-Nazis or present-day Nazis so they could daily confront their own bad deeds. The suggestion, however, was politely declined.

I visited Berlin a year or so after the lecture, and only then did I realize the full impact of this project (Figure 3). The front of Gehry's building, next door to the famous and infamous Hotel Aldon, had to be encased in the reviled rectangle! But Gehry had defied the constraints by two wonderful sleights of hand. Thus, he replaced the street wall of the offices by full-sized windows and painted each floor with a different hue of tans and yellows. At night, the project is a palette of bright colors. Also, he slanted a series of windows on one floor only, in the vertical direction, to break the monotony of the geometry. And finally, he constructed the heights of the offices to different levels on each floor.

But the posterior of the building was fair game for his ideas, and he took full advantage of the lack of restrictions here. Gehry destroyed the classical straight façade by undulating the horizontal plane and by undulating, at right angles, the location of the windows as well as alternating the window facing (Figure 4). In addition, he bent backward the top of the façade. The rectangular traditional notion of a building was completely subverted. The effect, at short distance, is so unusual and striking that my

brain could not process the information correctly, so the building appeared to be shimmering for a minute or two. This was a most frightening and revealing experience.

The building in Unter der Linden has another interesting feature. Gehry was prohibited from using his special metals in the skin of the building. Instead, he incorporated into the atrium a glimmering silver metal horse-head that was originally designed for the Peter Lewis residence that was never built. This gigantic fanciful sculpture, in shining armor, houses the auditorium and stands off center in the atrium (Figure 3). The latter is surrounded by an adventurous lacy and curved glass ceiling and floor, contributed by the structural engineer Jorg Schlaich, whom Gehry has crowned as the "best in the business."

The final point about the dgBank building on Unter der Linden is one of an extraordinary finding during the excavations. It was known that Albert Speer, Hitler's architect, indicted in Nuremberg and condemned to a long prison term for war crimes (but served too short a time), had his studio adjacent to the site. What was not known is that his bunker was *under* the site. The excavation revealed an intact dining room with food and dirty dishes on top of a table. It was destroyed summarily by the authorities but remains a haunting reminder, indeed. Excavations in Rome uncover the art of the Romans; excavations in Berlin find the evil that we must not forget.

Gehry's proclaimed ties to Frank Lloyd Wright are obvious and ever-present, but probably the most important link is the use of *ribbons as the assembly unit* of his sculpture/buildings. This element came straight from Wright's Guggenheim Museum masterpiece, on Fifth Avenue in New York City (Figure 2). It did not proliferate in Wright's work, but developed in many forms in Gehry's opus: sim-

ple undulating ribbons, crushed ribbons, vertical ribbons, horizontal ribbons, converging ribbons, metal ribbons, concrete ribbons, colorful ribbons.

In his recent retrospective exhibition in the New York Guggenheim, Gehry adorned the central atrium with ribbons made of a mesh material with a helical twist; defeating Wright's purpose for the atrium, which intended to expose, at a distance, the art and the people milling in a descending ellipse. But this effect exposed Gehry's central tool—the ribbon—and, in the process, possibly unconsciously, managed to concentrate better the attention of the viewer to the exhibition at hand.

Gehry has declared his opposition to the concept of "schools" of architecture (Bechter and Bergenz, 1999). Unfortunately, however, he will not be able to control lesser imitators and untalented disciples.

Why is Gehry a sculptor of buildings more than an architect? Since, he advocated placing the arts before architecture. His maquettes and the efforts leading to them, leave a trail of crumbled paper or aluminum foil, which he uses to conceive the centerpieces of his projects. It is a hands-on effort and not a pencil and ruler event, bent over a drafting table (Figure 5).

Why is Gehry the sculptor of buildings for the twenty-first century? Because he blends with art the raison d'etre of our time: the explosion of technology. His serious involvement with metallurgy and computers is not the only driving force of his endeavors, but without them he could not have reduced to practice his novel artistic urges.

The trait of stinginess referred to before has served him well; because he is also stingy with time and construction

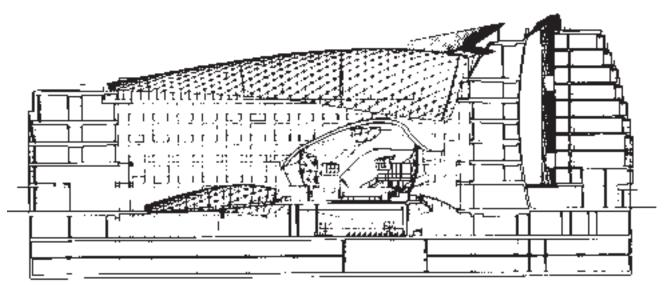


FIGURE 3 I The overall design of the dgBank building on Unter der Linden, Berlin (Frank O. Gehry). The left side faces the famous avenue. Notice the different heights of the offices, the slant in the window of the fourth floor. The atrium in the middle has the auditorium, in the form of a horse head, is off center, and the ceiling has a wonderful glass-containing mesh as well another similar structure in the floor. The backside (apartments) faces the Holocaust Memorial to be completed in 2002. Notice the back bending of the facade as the building rises above the level of the front facade (Friedman and Sorkin, 1999).

budgets, accordingly in most cases he finishes his work on time and on budget. Of course, his pre-modeling by computer saves him from making many mistakes.

Gehry is presently building the downtown Guggenheim Museum on the margin of the Hudson River. This is his first New York City commission. This is a welcome change for a city that lately has been suffering from a death of architecturally interesting structures due to the prominence of real estate moguls with no taste and city officials without any serious education. Fortunately, Richard Meier, another giant in American architecture and a New Yorker, will soon be among the contributors to the adornment of the city, with two new apartment towers, also downtown on the Hudson River. Interestingly Richard Meier designed the first chapel constructed in the Vatican in hundreds of years as well as the originally named Pediatric Psychiatric building near the Albert Einstein College of Medicine facing the Hutchinson River Parkway. The building, which is well known in architectural circles, is now essentially abandoned and would serve the college and city well to find ways to revive it. It represents an early example of use of metal in the exterior of a building.

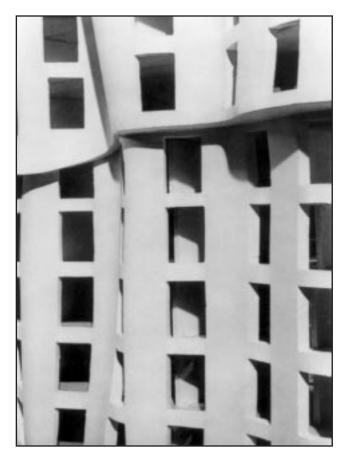


Figure 4 I The back portion of the dgBank building (Frank O. Gehry) houses an apartment complex. Notice the horizontal and vertical offsetting of the windows (Friedman and Sorkin, 1999).

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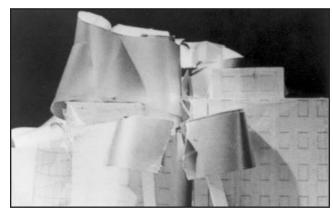


Figure 5 I Examples of ribbon-based assembly of different designs to be used in different projects (Frank O. Gehry) (reproduced with permission of Rizzoli, 2000).