The 57 Métal, Claude Vasconi,
(1981, first studies - 1984, delivery)

THE CHALLENGES OF A TRANSFORMATION

FRANCIS RAMBERT

The 57 Métal became the Métal 57… A subtle shift for an unprecedented transition. In its zinc shell, the building had a hard skin but was supple enough to undertake a new molting. The sole vestige of a major urbanism project in Boulogne-Billancourt, the industrial building is readying itself to undergo a deep mutation. At the heart of this resolutely service-oriented conversion, the architecture will remain. It is the common thread of a scenario marked by twists and turns.

For the last century, the city of Boulogne-Billancourt has acted as an architecture laboratory following the example of the 16th arrondissement in Paris, that adjoining district that took part in many 20th-century architectural experiments, from Hector Guimard to Roger Taillibert as well as Auguste Perret and Robert Mallet-Stevens. Opting for the Art Deco movement, the city of Boulogne-Billancourt would make its city center a modernist area in the 1930s. Its city hall, designed by Tony Garnier, is considered a flagship of this wave of progress, a dynamic initiated by singular houses built around the Roland Garros tennis stadium. Near the elegant hard court arena, studio-residences, villas and other houses emerged designed by Le Corbusier, Mallet-Stevens, Patout, Niermans, Pingusson… that make this area an ensemble of very high-quality architecture and a beautiful sequence of modernity.

Far from the chic neighborhoods, on the Billancourt side, it was the entire Renault site that was transformed alongside the Seine as of 1923. The mutation of the Île Seguin, its raising to fend off post-1910 flash floods, made this factory-island an archetype unique in the world: an ocean liner-island floating in the curve of the river. There was the mine-island of Gunkanjima, nicknamed the “battleship,” off the coast of Nagasaki in Japan – an industrial area that was made a UNESCO World Heritage Site in 2015 (21 years after the Völklingen steelworks complex in the Sarre) – but in this Far Eastern case, we are not dealing with a single production site (of coal from 1887 to 1974), but a entire extremely dense city, with a record 83,500 inhabitants per square kilometer.

Historic Renault-Billancourt factory on the Île Seguin in Boulogne-Billancourt, rebuilt by Albert Laprade

The Renault island could be more accurately compared to the famous Lingotto of Fiat, in Turin, a production unit that, in 1922, joyously put its test track on the roof. In Billancourt, the track did not put on a show as in the Italian icon of futurism, but took place in the factory's base; in the hold of the ocean liner, we might say. If their scale was not at all the same, the two sites shared the fact of having emerged out of the industrial process – and the length of the assembly line in particular – and of being the product of engineers' thinking. It was only after the war that the architect Albert Laprade would be called on to help rebuild the plant damaged by several Allied bombings between 1942 and 1943. His modernization project for the Île Seguin (1944-1951) was not limited to redesigning the façades of the "workers' fortress." He restructured and built new buildings including a power plant downstream, nothing of which remains today.

The other major phase of the architecture laboratory of Boulogne-Billancourt was the Point du Jour residence built in the 1960s, already on industrial wasteland, the former Salmson engine factory. Apart from the fact that it would be largely talked about in legal circles, this operation would above all renew the housing offering. On eight hectares, Fernand Pouillon designed an exceptional ensemble of 2,260 apartments (1957-1963). Before he developed an even larger, higher project on the Meudon-la-Forêt plateau, the architect, author of the cult book *Les Pierres sauvages*,[1] used all the modern vocabulary of the period, towers and blocks, but found a sensitive expression of them in a sequencing of the public space. From this point on, Billancourt also became a reference for the habitat, while the Renault factory was working at full capacity.

1 Fernand Pouillon, *Les Pierres sauvages*, Seuil, 1964.

2 "It is before the Charter of Athens, the first manifesto of progressive urbanism," Françoise Choay in *L'urbanisme, utopies et réalités: une anthologie*, Paris, Seuil, 1979.

3 Tasked by François Mitterrand with the study mission for the World's Fair in Paris in 1989, Robert Bordaz invited several architect-urban planners, including Renzo Piano, Vittorio Gregotti, Antoine Grumbach and Claude Vasconi, to reflect on different sites along the Seine from Issy-les-Moulineaux to Tolbiac in Paris.

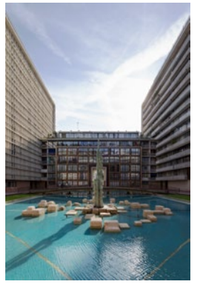
A new horizon

While the end of the "Thirty Glorious Years" [1945-1975] was shaken by two oil crises, a major project, as urbanistic and architectural as it was industrial, was emerging just west of Paris. In 1979, the Régie Renault reflected the mutation of the factories' footprint, on what is usually called the Trapèze. Bernard Hanon, appointed to the head of the firm of the lozenge logo in 1981 in the wake of the election to the presidency of François Mitterrand, would accelerate the reflection process by clearly orienting it to contemporary architecture in France as well as outside the country's borders.

In order to modernize the production facilities, this captain of industry launched the ambitious "Billancourt 2000" project alongside the Seine. It was a way to reassert, through this 20-year plan, the power of invention at the heart of the historic site, which aspired at the time to become a site of the future. The project did not touch the rebuilt factory-island but concentrated all its force on the Trapèze and developed a series of industrial halls there following a concept by Claude Vasconi. Passionate about the theme of industrial architecture, following the path opened by Peter Behrens in Germany, Claude Vasconi, who liked to talk about the Renault factory as a city within a city, de facto, continued the dream of Tony Garnier, author of the celebrated Cité industrielle[2] imagined in 1901, from Rome, a 10-kilometer territory between Lyon and Saint-Étienne. But, for Vasconi, "city within a city" did not mean a closed city, but clearly an open one. In his large-scale plan, he wanted to give the buildings an urban status and to pay attention to the connections to the existing city. The Trapèze was consequently reconfigured, a large axis appeared in a new 100 x 100-meter urban grid with dimensions of 22 meters in height. Among the different variants studied, there was one that imposed itself – it stretched in a diagonal creating an oblong form following the example of the Piazza Navona in Rome.

In 1981, Claude Vasconi was still not able to express himself in the industrial register with the exception of the municipal workshops in Saint-Germain-en-Laye, a long sober building constructed in 1980 which somewhat prefigured the aesthetic of the 57 Métal. Until this point, the architect had especially worked in the new towns, notably in Cergy-Pontoise, and cosigned the Forum des Halles in Paris, now demolished, swallowed up by La Canopée and its enormous golden structure. When he received the commission for this major project destined to propel Billancourt into the future, Claude Vasconi had already dealt with the large scale. He had notably designed a project for the 1989 World's Fair for which Paris had submitted its candidacy[3] (before throwing in the sponge in 1983). It was a wonderful opportunity to rebalance the capital toward the east.

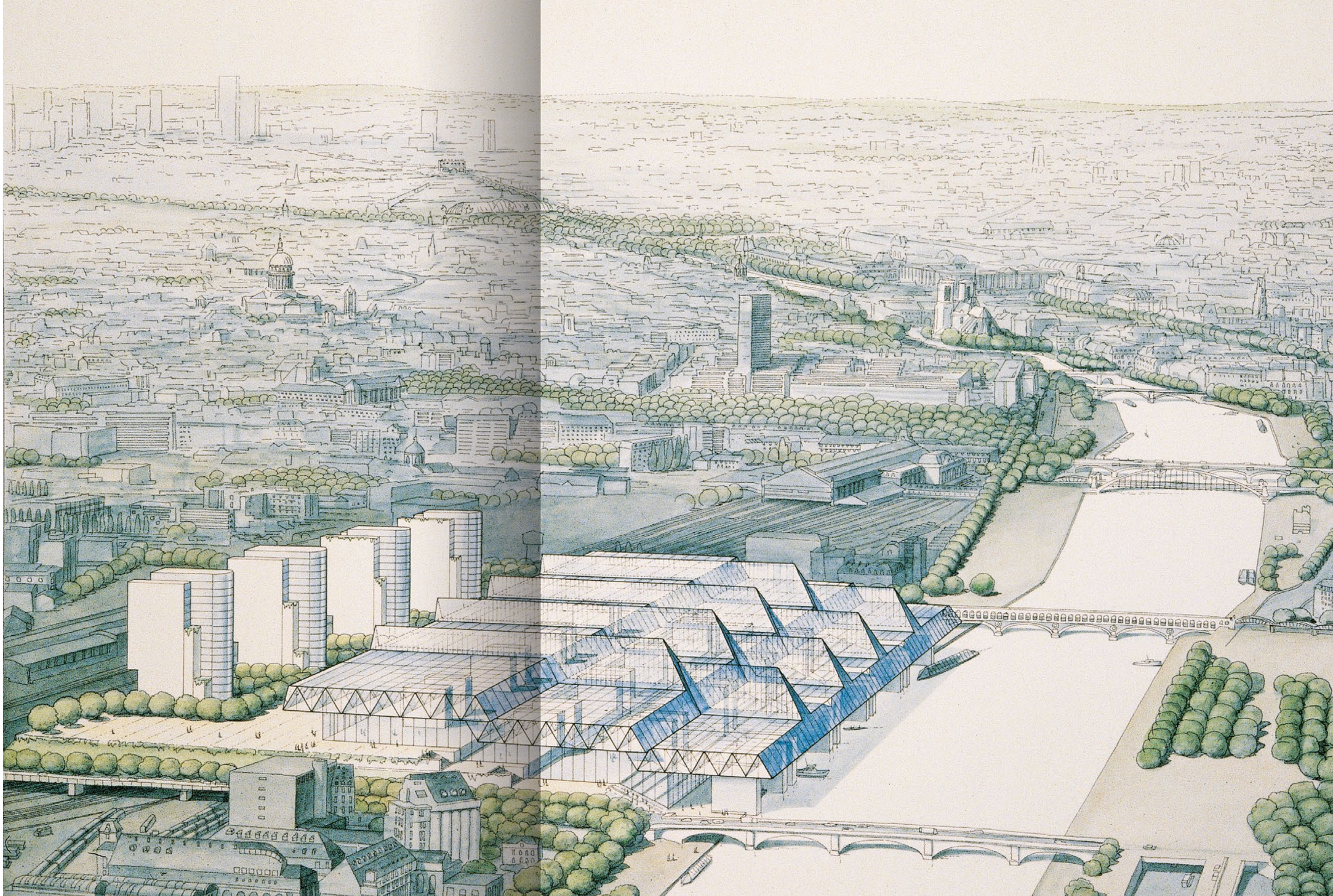
Studied on the Tolbiac site, this project already initiated the idea of the rhythm of volumes and the crescendo from the Seine. But Vasconi, who had a builder's soul, was especially involved in erecting the radio relay tower of Romanville (1979-1985), his first tower, a highly technical structure 141 meters high that remains a landmark in the landscape of Grand Paris. Mastering the large scale was, for the architect, the challenge of this "Billancourt 2000" project, launched just at the time when Paris was starting the "large-scale projects" of the president of the Republic, beginning with the Grand Louvre and its "pyramid" by Ieoh Ming Pei, the subject of a divisive debate on modernity in the heritage milieu. Then, another strong symbol, the Bibliothèque nationale de France, designed by Dominique Perrault in the Tolbiac area, rose. It contained a sampling of a forest wedged between four book-towers, which raised the entire question of a monument without walls, largely open on the public space. These two projects would be debated until their opening, when the polemics finally quieted down. The evidence was there, the architecture was in place.



The Point-du-Jour residence by the architect Fernand Pouillon (1957-1963) is a large development in Boulogne-Billancourt, labeled "Heritage of the 20th century" in 2008

The municipal workshops in Saint-Germain-en-Laye, Claude Vasconi, 1978-1981

The TDF radio relay tower of Les Lilas (Fort de Romainville), Claude Vasconi, 1979-1984



Project for the Paris World's Fair (1989) on the Tolbiac site that the Bibliothèque nationale de France would later occupy, perspective, Claude Vasconi, 1982

In Billancourt, there was no risk of cleavage on this terrain because modernity was already in Renault's DNA. Even if Roland Barthes decided to choose the Citroën DS for his pantheon of *Mythologies*,[4] Renault had not said its last word, because henceforth car design and architectural conception would go hand in hand. This was at least the signal that Bernard Hanon sent to the entire world. We will note that during the era of icons, in this beginning of the 21st century, most German automakers would display the same search for coherence between car performance and architectural experimentation: Mercedes-Benz with UN-Studio for its spiral-shaped museum in Stuttgart (2001-2006), BMW with Coop Himmelb(l)au for its spectacular complex in Munich (2001-2007) without forgetting the Phaeno, a powerful all-concrete work by Zaha Hadid, built in the cradle of the Volkswagen factory in Wolfsburg (2000-2005).

A few years later, Claude Vasconi would be invited to Berlin to take part in an international competition, which he won. The objective was to reconquer the industrial wastelands of Borsig (1994-1999), 15 hectares in the Tegel district, known for its Berlin-West airport. The historic site of locomotive manufacturing was consequently reactivated on a new commercial programming opening onto the city. Let us stress that at this period of the changeover of centuries, two major French architects were working on very large urban operations in the reunified German capital. Dominique Perrault was involved in creating a sports complex (velodrome and swimming pool, 1992-1999), at the time when Berlin was aspiring to organize the 2000 Olympic Games. Vasconi-Perrault: two parallel tracks that would intersect 16 years later in Billancourt. The 57 Métal would become the meeting point.

Hallen am Borsigturm, business and leisure center, reconquest of the Borsig industrial wastelands, 15 hectares, Claude Vasconi, Berlin, 1994-1999

The translation by Claude Vasconi of the program of the 57 Métal, workshops intended for modeling press and foundry tools, would give rise to an architectural scenario in which the spatial question and the technical question immediately swept away any vague design impulses. He left design at the door of the style office of the car designers. The architecture is read here in the construction choice. Claude Vasconi had not forgotten Louis Kahn's lesson: "When you decide on the structure, you decide on the light."[5] Volume, light, ergonomics and flexibility comprised a wonderful studio scene for an architect. The architect would respond to the "heavy" commission for the workshop by instilling a lightness that came from the movement imprinted by the spatial sequence[6] whose volumes rose in a crescendo. Next came the idea of continuity expressed by a single material, pre-patinated zinc, to clad the façade and the roof. Envelope and structure were thus intimately linked in this idea of a seamless transition. The skin was marked every 30 centimeters by very projecting vertical veins; this "veininess" effect – a word coined by Vasconi – gave the whole a force that, combined with the monumentality of the saw-tooth roofs, provided the structure with a unique character.

Whereas on the city side, the building was very open with its large north-oriented glass façade, like artist's studios, on the Seine side, the building became a rampart, the inclined façade borrowing from the image of the glacis. Vasconi, who always saw things "on a grand scale," remained fascinated by the work of Vauban, the Sun King's engineer-strategist, who was able to design infrastructure as architecture; he saw in this a way of keeping hold of the city at the time when urban sprawl was wreaking havoc on the landscape. And, if there is one reference that Vasconi especially liked, it was the Topkapi Palace in Istanbul, whose cadenced roof gives this architecture of the Golden Horn a status as building-landscape. From the Bosphorus to Billancourt, the correspondence is improbable. The alignment, the progression and the rhythm of the saw-tooth roofs is inserted into a serial logic that gives the building its singularity. This must be imagined on an even greater scale, because the initial project stretched farther along on the riverbank. And it was clearly more than just a simple shell, as Vasconi would strive to design them later (incineration plant in Rouen, La Filature in Mulhouse, convention center in Reims…). It was a genuine landscape that the architect composed, with its lines and its heights that played with the context of the cluster of towers by Badani & Roux-Dorlut and that of the hills of Meudon and Saint-Cloud.

Krasnoje Snamja or the "Red Banner," textile factory designed by Erich Mendelsohn, Saint Petersburg, 1925-1928

As a reference, Vasconi, steeped in German culture, kept in mind Erich Mendelsohn's project for Leningrad (Krasnoye Znamya, or the "Red Banner"), the only work by the expressionist architect built in Russia (1925-1928): a textile factory bristling with shapes that pointed toward the sky. Today, this industrial ensemble is being converted into an art and business center; additional proof, if one was needed, that transformation is not specific to Boulogne, but a worldwide subject today. In addition to efficiency and durability, there is the idea just beneath the surface of reversibility and the future would prove its importance. The architecture of saw-tooth roofs that appeared with the Industrial Revolution in the mid-19th century became an archetype that gave birth to new architectural landscapes. One of the best examples is undoubtedly the El vapor textile factory in Terrassa, built on the outskirts of Barcelona by Lluis Muncunill (1907-1909). We can see this saw-tooth roof theme in it developed on the scale of a large luminous system. This theme lent itself to every variation and other reinterpretations. It meant large eyelids open on the Catalan sky, and large waves alongside the Seine with Vasconi.

The new Renault plant was dynamized by the linking of spatial sequences at ceiling heights of 6, 9 and 12 meters. This architectural principle applied to a building of 9,000 m^2 fit perfectly with the factory's processes: 6 meters for machining, 9 for average assembling and 12 for heavy assembling. It may be remembered that, in a whole other register, Frank Gehry would use the same type of height progression to welcome art in all its diversity at the Guggenheim in Bilbao under a titanium skin. Under the factory's zinc skin, the efficiency of the construction system was obvious: posts – concrete beams with 18-meter spans able to support another frame, this one in metal, which incorporated gantry cranes able to lift 30 metric tons, needed for a foundry. "A module in the name of futurism and with a futuristic look, the 57 Métal, which combines the aestheticism of the material and the amplification of industrial forms," Emmanuel de Roux summed up.[7] It is interesting to point out that Claude Vasconi reactivated the saw-tooth roofs whereas he could have used another construction model as numerous architects and engineers did in the early 20th century: Albert Kahn in 1903 for the Packard plant in Detroit in the US, Mattè-Trucco for the Fiat factory in Turin in 1922… However, for the Ford plant in Dearborn (Michigan, 1924), that same Albert Kahn would opt for monumental saw-tooth roofs that he designed in a symmetrical system replacing the traditional "saw teeth" with large "M's". We can therefore see in the 57 Métal the architect's desire to assert a strong industrial image through this expressionistic icon. Certain people would see the figure of a lozenge in the geometry of its large saw-tooth roofs…

The saw-tooth roof has remained an inexhaustible theme. Let us look at the Swiss architects Gigon and Guyer who made an unusual use of it to build the Kunstmuseum Appenzell in the Swiss mountains in 1998. But the use of this saw-tooth profile is explained in this case by contextual reasons, to echo the nearby sloped roofs. Ten years later, the Spanish architects Nieto & Sobejano also dipped into the industrial vocabulary to design the convention center of Saragossa, a building whose cut-out silhouette revisits the saw-tooth theme in a way that is as free as it is monumental. And Vasconi himself was not finished with these saw-tooth roofs and he would revisit them several times. First, with the Credo

4 "La nouvelle Citroën," in Roland Barthes, *Mythologies*, Paris, Seuil, 1957.

5 Louis Kahn, *Silence et Lumière, Saint-André de Roquerpertuis*, Éditions du Linteau, 1996.

6 "The spatial sequences in 57 Métal result from the structural continuity," Claude Vasconi explained in his biography written by Gilles de Bure, Éditions du Regard, 1995.

7 Emmanuel de Roux, Georges Fessy, *Patrimoine industriel*, Paris, Scala et les Éditions du Patrimoine, 2000.

Signal Box, the central railroad signal tower, Basel, Herzog & de Meuron architectes, 1994-1999

of Colmar, the corporate headquarters of the Alsatian company Rinaldi (1991-1993), whose original design projected a silhouette resembling the crests of waves. Then, the opportunity to build a technical high school in Toulouse – dedicated to the car – would naturally lead the architect of the 57 Métal to update the saw-tooth roof to current taste, 20 years after the pioneering building of Billancourt. The Gallieni high school, one of his last works, stretches out over 300 meters in length in a repetitive rhythm (2004-2008). In addition to this rhythm of the saw-tooth roofs, there was the extremely supple movement of the façade of the company restaurant on the Seine side. This nod to Aalto, which Vasconi constantly wanted to include in his buildings, here took the form of an undulating brick wall that took part in the dynamics of the whole. With the 57 Métal, the architect demonstrated that the functional banality of the commission – because it concerned a simple workshop and not the flagship of the car company, let us recall – did not exclude an exceptional architectural creation. In this same logic, Herzog & de Meuron would transform, a few years later, one of the most functional engineering works, a signal box in the Basel train station, into a genuine work of architecture (*Signal Box*, 1989-1994). Materiality played a very important role in this type of project: the copper strips along the Swiss railroad tracks, the zinc cladding along the river in Billancourt.

An asserted architectural policy

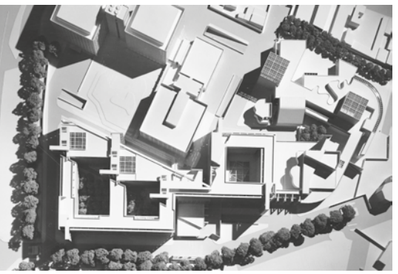
The 57 Métal was the spearhead of a new architectural policy. Even if it is "alone" today, Vasconi's building was not an act isolated from this industrial world, but was originally inserted in that major urbanism plan intended to metamorphose Billancourt. The first note played in this major symphony written for a new industrial world. Everyone was to follow the movement. Whereas the company was not at the top of its form, far from it, Bernard Hanon nevertheless set his course on a resolutely creative future. It was obviously a question of "going into overdrive" to remodel Renault's corporate image. It was an accelerator effect that seemed to want to ward off poor financial figures. In vain, the future would say. The 57 Métal was therefore the contemporary of one of the most famous industrial buildings, the Renault Distribution Centre in Swindon in the UK. This work by Norman Foster (1980-1982) expressed at the time the concept of corporate identity through a high-tech architecture, joyously exhibiting its yellow structure in the Wiltshire landscape. Published, awarded (even by the *Financial Times*), this building inaugurated in June 1983 by Catherine Lalumière, French minister of consumption, and which is now called the Spectrum Building, became a listed historic monument in 2013. It is an icon of modernity as shown by the cover of the book *L'architecture du xxe siècle*,[8] in the same way as the corporate headquarters of Lloyd's in London by Richard Rogers. The high-tech current was in its heyday at the time.

At the same time, Renault would look for other signatures on the other side of the Atlantic. In 1981, Richard Meier designed the new corporate headquarters of the Régie Renault, intended to be located on the Point du Jour site in Boulogne-Billancourt. If this project would in the end not be built, on the other hand, the New York architect would build, in his fetish white writing, the headquarters of Canal+, alongside the Seine in the 15th arrondissement in Paris in 1992. Then the company with the lozenge logo launched another commission, calling on the Mexican architect Ricardo Legorreta, who had reflected on the subject as he had built the Automex factory in 1964 in Toluca. In the northeast of Mexico this time, Gomez Palacio, that disciple of the great master Luis Barragan, designed a factory-landscape that, through the colors of its long walls, sought symbiosis with its desert context.

8 Peter Gössel, Gabriele Leuthäuser, *L'Architecture du xxe siècle*, Cologne, Taschen, 1991.

Aragon conference center,
Saragossa, Spain, Nieto
Sobejano Arquitectos, 2008

Gallieni high school in Toulouse,
Claude Vasconi, 2008



Model of the new corporate headquarters of the Régie Renault in Billancourt. Richard Meier, 1981 (project not built)

Claude Vasconi - 57 Métal stamp, issued by Europa C.E.P.T. Designed by Jacques Jubert after Claude Vasconi, 1987

The Renault factory in Gomez Palacio in the state of Durango (Mexico), Ricardo Legorreta, 1985

It would open its doors a year after the 57 Métal. Foster-Vasconi-Legorreta were the three architects who would finally shape Renault's new architectural line of this period, a trio who particularly excelled in this industrial exercise in very different real-estate contexts. If we could not speak at the time of style in the automaker's architecture, there was nevertheless an authentic contemporary signature. And, later in 2001, one of those advertising agencies, always fond of the relationship between the car and architecture, would make use of Massimiliano Fuksas' conceptual approach on "the cloud" of the future convention center of Rome to create an unexpected commercial on the Scenic for Renault Italie. Afterward, "la Nuvola" genuinely took form in its glass box, on the extremely modern site of the EUR.

Despite appearances, the 57 Métal was a reference building. Delivered in 1984, the year when the first model of the Renault-Espace minivan came out, the 57 Métal was the subject of a Europa stamp issued on April 27, 1987. The engraver, Jacques Jubert, wanted to "zoom in on" the saw-tooth roofs that gave the building its architectural identity. He therefore chose the corner on the northern façade that made it possible to enhance the sequence of these elements comprising a new "fifth" façade.

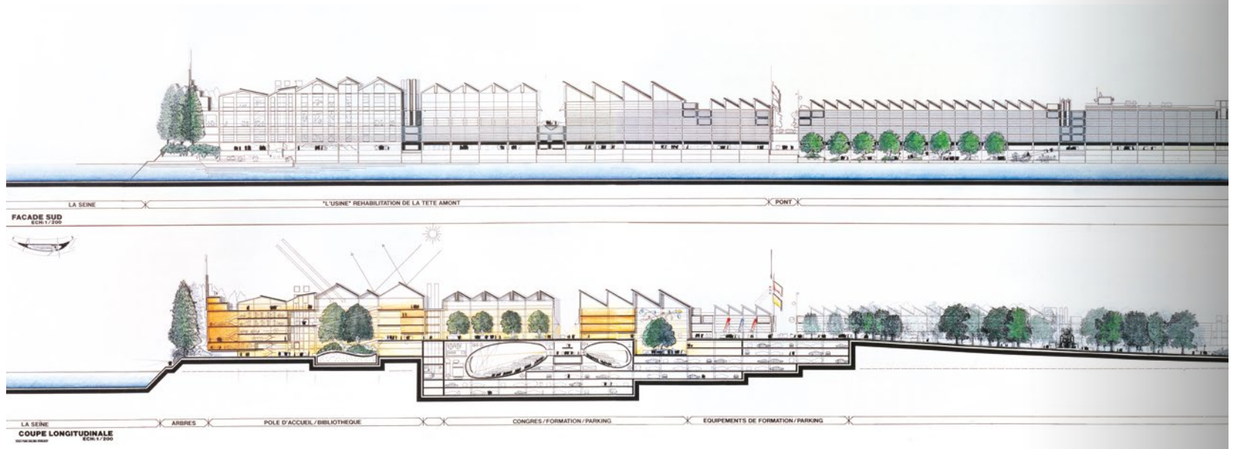
Rare are the contemporary buildings that have been "engraved." The 57 Métal entered the very closed circle of "stamped architectures," following the example of the Centre Pompidou (which benefited from two stamps, one at its opening in 1977, the other to celebrate its 20th anniversary in 1997) and the Bibliothèque nationale de France at the Tolbiac site, a stamp designed by the architect himself in 1996. Even rarer is the choice of industrial buildings for this kind of recognition. There is the example of the Salines de Chaux [Royal Saltworks], Claude Nicolas Ledoux's masterpiece (1774-1779), but, in the case of the 57 Métal, no one expected this issue marked by the seal of the contemporary. The common point of these four buildings lies in the fact that they are all bearers of a vision, an icon of the ideal all-inclusive industrial complex for the Salines, an urban machine for the Centre Pompidou, a founding act for a new district for the BnF, a driving link in a large production chain for Vasconi's work in Billancourt. Everything is relative, because the 57 Métal was in no way a monument either through its size or its function. In Germany, the large AEG industrial hall in Berlin, the work of Peter Behrens (1908-1909), was featured on a stamp issued by the Deutsche Bundespost. If we believe Manfredo Tafuri and Francesco Dal Co, it is a cult building because they saw in it "the synthesis between the Greek temple and the modern factory."[9] The 57 Métal appeared as the synthesis between architecture and the landscape, the saw-tooth roofs imprinting a powerful industrial landscape facing the hills of Meudon.

In 1984, the 57 Métal received honorable mention at the Prix de l'Équerre d'argent awarded that year to the work by Christian Devillers, the celebrated parking garage, for its glass block walls (Parking des Chaumettes in Saint-Denis, 1983). That same year, the building was awarded the prize for the best metal construction. And, there is no doubt that the jury of the Grand Prix national de l'architecture – which Vasconi received in 1982 (after Jean Renaudie, Claude Parent, Paul Chemetov and the Atelier de Montrouge) – evaluated the entire dimension of the work of this builder who distinguished himself through his urban acts. For Vasconi, a project only existed through its urban roots. At the opening of the Cité de l'architecture & du patrimoine, in 2007, the model of the 57 Métal entered the museum's collections. The public discovered a cut-away model, designed by the Vasconi agency at the period, which showed the "glacis" effect as well as revealing the construction system.

9 Manfredo Tafuri, Francesco Dal Co, *Architecture contemporaine*, Paris, Electa, 1976.

Kunstmuseum Appenzell,
Switzerland, Annette Gigon et
Mike Guyer Architectes, 1998

El vapor Aymerich, Amat i Jober
factory by the architect Lluis
Muncunil (1909) in Terrassa,
Spain. Current headquarters
of the science and technical
museum of Catalonia (mNATEC)



Project by Renzo Piano Building Workshop Architects for the Île Seguin, 1993-1995. Client. Study mission for the Billancourt - Renault SA site

Coming to a halt

The Rocard government put an end to Bernard Hanon's term as president (losses posted: 12.5 billion francs in 1984) and replaced him with Georges Besse. "The transition under the worst conditions" was the title of the economic daily *Les Échos* in its January 23, 1985 issue. He therefore had to turn the company around and take radical steps. Before being assassinated by a commando of Direct Action, in front of his home on November 17, 1986, the new boss of the Régie notably shut down (temporarily) Renault's Formula 1 team and put a halt to the "Billancourt 2000" large-scale industrial urbanism project. Orphaned, the 57 Métal would de facto remain a prototype.

A few days after the fall of the Berlin Wall, it was the walls of the Île Seguin fortress that trembled… A page had definitively been turned with the transition from Billancourt to Guyancourt. On November 21, 1989, Raymond Lévy, the CEO who succeeded Georges Besse, during to say the least an extraordinary works council meeting, announced the closing of the Renault-Billancourt site by 1992… And things went very quickly. About two weeks later, Michel Rocard, prime minister at the time, stated before the deputies the creation of an "Operation of National Interest" on the site and turned over to Jean-Eudes Roullier, on January 29, 1990, the task of defining the nature of the urban-planning operations. The objective was clear, providing time for reflection, to calm the fervors of real-estate developers in a hurry to build. It must be said that the real-estate opportunity was fantastic: nearly 60 hectares in the city! From then on, the mutation of an exceptional site just west of Paris, facing the hills of Meudon, would become "a subject" for over 20 years. A good thousand project were imagined on the Île Seguin, which had become the island of every fantasy. We can notably remember that of Renzo Piano – the architect of the exemplary transformation of the Lingotto in Turin – who proposed demolishing and rebuilding while however keeping the memory of the ocean liner-island's silhouette. As for architecture schools, they would find a privileged terrain for research there. The "lozenge" company would therefore abandon the Trapèze. The decision was made to relocate the car company, leave the historic site on the Seine, and relocate it on the perimeter of the new town of Saint-Quentin-en-Yvelines, 25 kilometers farther west. This was how the idea of the "Technocentre," largely focused on research and development, arose, to be built on a 150-hectare site. In fact, the trace of the automaker already existed because Louis Renault had bought an airfield there

in the 1930s, closed down in 1989. This large-scale project whose master plan had been designed by Valode & Pistre, would open in 1998. The pair, known for its "flower-factory" in Aulnay-sous-Bois (L'Oréal factory, with Peter Rice, Équerre d'argent in 1992) would moreover design La Ruche, the driving element of the new project.

The 57 Métal then had to "recreate" its life. For Louis Schweitzer, appointed in 1992 to the head of the Régie – which would be privatized four years later – the Technocentre was "the architectural expression of a new organization." Under his presidency, the 57 Métal would change course: the industrial was finished, the process of shifting to the service sector was underway. The production building consequently became a communication center. Through this first conversion, the building would show its aptitude for changing function, which was the whole challenge of the architects' consultation that Renault launched. To his great displeasure, Claude Vasconi was not among the participants, those who would reflect on the transformation of "his" building… he was asked to sit on the jury. Jakob+MacFarlane compelled recognition with a particularly creative reuse that respected the existing structure. In fact, they would intelligently slide themselves into the building without changing its morphology, but by taking advantage of the original construction system. In this way, derived from the saw-tooth roof architecture, new hanging structures created new spaces in this enormous volume that could be modulated. These large white inclined walls would not touch the floor, like certain museum panels for hanging artworks. What emerged was a very good interaction between these large folded sheets and the very powerful porticos.

A demolition process

Jakob+MacFarlane, who liked to practice technology transfers – the Georges restaurant at the Centre Pompidou used boat-building techniques and not those of the construction sector – would work here with the Alcore Brigantine company specialized in manufacturing Airbus cockpits in order to create the large aluminum honeycomb panels. The idea was to "sculpt" the new exhibition space with a great deal of lightness. Their work, which was distinguished by its elegance and precision, succeeded in creating a new landscape in the existing one. We can consequently think of the way in which Bernard Tschumi created an unexpected between-two-spaces at the Studio du Fresnoy by Alain Fischer (1991-1997),

The French embassy in Warsaw, a metal building by Bernard Zehrfuss, Henry Bernard, Guillaume Gillet and Jean Prouvé for the façades (1970) and transformed by Jean-Philippe Pargade between 2000 and 2004

The Renault Distribution Center in
Swindon in the United Kingdom,
Foster + Partners, 1980-1982

in an entirely different context in Tourcoing. In both cases, the roof generated a new contemporary universe.

The rumors of demolition of the industrial heritage would bring to mind unpleasant memories. The destruction of Baltard's Les Halles, 30 years earlier, remained riveted in the collective memory. "Boulogne assassinates Billancourt" was the title of a *Le Monde* article on March 6, 1999. Through this cry of alarm worthy of Zola, Jean Nouvel called out to the paper's readers. On the front page, the evening daily published a vitriolic forum in which the actors of the announced drama were called on to take responsibility. "We are entering the era of transformations, urban mutations on the territories already built. The time of large-scale renovations with bulldozers is over," the architect wrote. This would not prevent the first machine to take action on March 29, 2004. The "workers' fortress" would therefore fall…

The Grands Moulins de Paris in the Tolbiac area transformed by Rudy Ricciotti into a university library in 2004

The ocean liner-building sunk, the factory-island waved goodbye, the tabula rasa continued, demolitions inexorably stretched out between 2004 and 2005. If Robert Doisneau, the guardian of Renault's photographic memory, was no longer there to witness the massacre, other photographers seized upon the subject. There now remained, as witnesses of the industrial past, only four pieces: Louis Renault's historic cabin, Building X and the Daydé bridge, both built in the 1920s… and the 57 Métal; without forgetting the pieces of façades of the famous place Jules Guesde and other monumental walls of the former Artillerie buildings on the riverbank. It was with these contextual elements that Jean Nouvel would imagine his new urban project for the Île Seguin.[10] An entirely different story could be written, with or without towers.

The threat now hung heavily over the 57 Métal because, in 2010, the English investor Europa Capital that had wanted to buy the abandoned building did not conceal its intention to raze it to erect an office building: a tower in front of Jean Nouvel's "non-tower" (Tour Horizons, Ateliers Jean Nouvel, 2011). The architecture milieu would react; on June 26, 2014, *Le Monde* published a petition signed by a collective of architects, artists and scientists.[11] Many personalities including a series of Pritzer winners flew to the aid of the 57 Métal Jean Nouvel, Christian de Portzamparc, Thom Mayne, Richard Meier, Renzo Piano, Jacques Herzog and Pierre de Meuron who had demonstrated (with the Tate Modern in London, then with the CaixaForum in Madrid) that transformation was truly a source of experimentation. And, among the winners of the Grand Prix national de l'architecture, also signers of the petition, there were Lacaton & Vassal who had made the fight against destruction a genuine battle horse, as shown by the transformation of the Tour Bois-le-Prêtre in Paris, carried out with Frédéric Druot in 2011, or the FRAC of Dunkirk which they sited in a former shipyard. It is interesting to note that Billancourt, once a place of union battles, had become that of an architectural battle because the stakes went beyond the fate of the 57 Métal to raise, even more fundamentally, the question of the recognition of the heritage of those years.

The goal of the action in the press – which had nothing to do with the corporatist reflex – was to save a masterpiece of industrial architecture that was moreover representative of the commitment of a project manager in the sector of architectural creation. A first protective measure taken in 2011 by Frédéric Mitterrand, the minister of culture and communication, granted a stay. His successor, Aurélie Filippetti, turned over a mediation mission in 2014 to Jean-Pierre Duport, honorary prefect, former director of architecture. As the building was threatened with a demolition permit, the idea was to find a way out as rapidly as possible, that is, an economic solution. In such a tense crisis situation, hope was reborn when Xavier Niel, the CEO of Free, decided to reinvest the Freyssinet hall at the foot of the BnF, in this way saving this piece of industrial heritage, it too in danger.

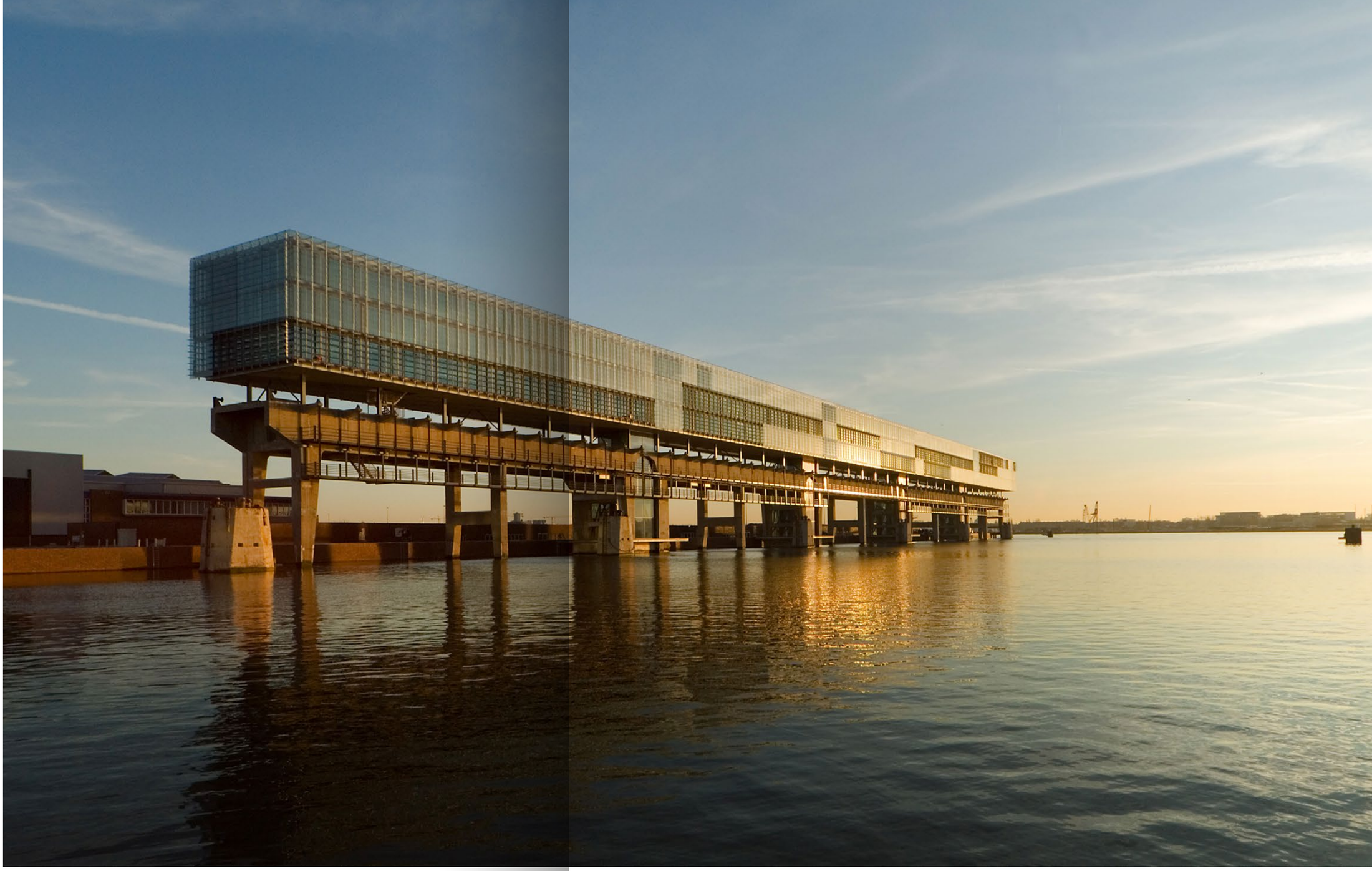
The transformation scenario therefore appeared as a major trump card of the rescue. But who could the white knight then be in the fight to save the 57 Métal? Given recent experiences, it was clear that this type of rescue operation was not impossible. Several times, in fact, a lifeline was found through the commitment of architects who fought against the destruction of buildings that were exceptional in their genre and who brought forward the virtues of their reuse. In this respect, the precedent of the French embassy in Warsaw, a metal building erected during the Cold War by Bernard Zehrfuss, was one of the most important examples. Metamorphosed by Jean-Philippe Pargade in 2004, the diplomatic building was opened onto the city, as well as onto a garden, in a project that made a point of honor of restoring the "Prouvé panels."

It was the same kind of determination that guided Rudy Ricciotti in the rescue of the Grands Moulins de Paris in the Tolbiac area slated for demolition. The concrete colossus was converted into a university library in 2004. And as for the Kraanspoor, the monumental civil engineering work built in the 1950s in the port of Amsterdam, its recycling into office buildings was only made possible by the stubborn intervention of OTH Architecten in 2007, which persuaded the city that the reuse option was totally viable. All these projects clearly showed that demolition was not an inescapable process, and that, on the contrary, transformation could not only be economically

Project model by the Ateliers Jean Nouvel for the Île Seguin, 60% planted, July 2010

10 A coordination mission tasked by the SAEM on June 7, 2009.

11 "Mémoire et reconquête industrielle : Sauvons le 57 Métal," *Le Monde*, June 26, 2014.



The Kraanspoor, office building, Amsterdam, Netherlands, 2006-2007, OTH Architecten. Transformation of a 270-meter-long bridge crane built in 1952 by J. D. Postma at the center of a former shipyard in the process of becoming a business park

viable, but architecturally interesting. All these buildings, in the specificity of their context and program, had found a new life. So why was fate fiercely raining down on the 57 Métal?

However, there was no wave of a magic wand and a reflection on the program was necessary. How could the former cathedral of labor be converted? Many ideas burst forth, including that of transforming this hall into a new express network station of Grand Paris as the volume lent itself to this use. But the key to the enigma was found in economics. A dramatic turn of events occurred in June 2015. While the mayor of Boulogne-Billancourt, Pierre-Christophe Baguet, still refused to sign the demolition permit for the 57 Métal, a decision of the administrative court of Cergy-Pontoise pressed the mayor to act. The 57 Métal then had only 15 days of reprieve… The situation seems desperate until the moment when, in summer 2015, the white knight appeared under the features of BNP Paribas Real Estate, which saw in it an opportunity to develop a particularly interesting project closely following upon the impressive transformation of the cluster of towers of the CityLights operation, at the head of the pont de Sèvres bridge. So why not ask the architect who was able to meet the challenge of the mutation of this service sector heritage of the 1970s to attack, this time, the conversion of this piece of the industrial heritage of the 1980s? In this strategic situation of the gateway to the city, the architectural laboratory of Boulogne-Billancourt resolutely set its course on transformation. The field was open as much for the architect as for the project manager to push innovation and invent a new place.

A sign of the times, in this second decade of the 21st century, Dominique Perrault was led to work on several occasions on this essential question of transformation. The BnF had already positioned itself, in 1995, as the first act of the enormous conversion of a district. Next came a series of projects: the Court of Justice of the European Union in Luxembourg (originally built in 1973), La Poste du Louvre, the masterpiece by Julien Guadet in Haussmannian Paris (1888), the Dufour Pavilion at the château of Versailles (18th century) and successively two projects in Boulogne-Billancourt. In all these examples, the idea was to revisit a building, to enter the construction logic of the period in order to develop a new project that came out of a totally different program.

At the moment when the question of the obsolescence of buildings is asked, had the 57 Métal aged to the point that its initial concept made it unusable? The solution is contained in Dominique Perrault's response to the new program. But there is a price to pay: the 57 Métal cannot remain intact, it will undergo a major physical transformation, to the tune of 50%, in order to adapt it to the new use in an economic equation that was finally found. Equation means appropriateness here. Thus can the new challenge that Dominique Perrault must meet be summed up, a challenge in a context in which Vasconi's very strong architectural writing leads to having the most accurate reply. This is because between restitution and a new score, the scenario has to be particularly "adjusted." The architect of the Bibliothque nationale de France is creating the intersection of two geometries that each assume their rhythmic logic – difference and repetition, Gilles Deleuze[12] would say. In this transition between two writings, the challenge is found in the coherence of the interweaving of the volumes and in the intelligence of the connection, following the example of the Tate Modern in London or the FRAC in Dunkirk. Without any ambiguity or pretense, Dominique Perrault has proposed to make a clean graft, a very visible and readable intervention.

12 Gilles Deleuze, *Différence et Répétition*, Paris, PUF, 1969.

The graft will take the form of a block emerging from the anthracite landscape of the saw-tooth roofs. In this approach marked by radicalness, the progressive movement of the saw-tooth roofs is not only preserved but also clearly visible from the ribbon bridge designed by Marc Barani. The new volume very quickly aligns itself on the dimensions of the building opposite signed Norman Foster (Immeuble Khapa, 2008), the operation that marked the starting point of the reconquest of the Renault terrains. White-collar workers have thus definitively replaced blue-collar workers in Billancourt.

"It is good to be an elder but bad to be old," Victor Hugo tells us in *Les Contemplations* (1856). Strongly resistant, the 57 Métal thus revisited and redynamized draws all its force from the elder to launch itself into an extremely competitive race. Saved in extremis, it is beginning its third life.

The Court of Justice of the European Union, 1996-2008 and 2013-2018, Luxembourg, Dominique Perrault Architecture, working with Paczowski et Fritsch and M3 Architectes. Extension of the 1973 building to accompany the enlargement of the European Union to 28 members