

Le Havre 1946

PLAN FOR THE RECONSTRUCTION



Le Havre, 1939

At the end of World War II, Le Havre had the dubious honor of being able to call itself the hardest hit city in France and the most heavily damaged port in Europe. After having been bombed 155 times, the attack of September 5, 1944, transformed the city center into a tabula rasa. The only structures left standing were the Notre Dame Cathedral (1574-1638) and the Monument aux Morts (1918). Other than these, nothing remained but an area of 150 hectares covered with the rubble of 12,500 buildings, a port with only a quarter of its quay walls intact, and 80,000 homeless inhabitants.

The postwar reconstruction plan designed

by Auguste Perret (1874-1954) epitomized the planner's struggle to carry on the tradition and grandeur of his seventeenth- and eighteenth-century forerunners with the use of contemporary resources and a modern morphological vocabulary.

The Ministry of Reconstruction and Urban Planning (MRU) – which was responsible for the postwar reconstruction of France and was trying to cope with a shortage of brick, among other things – appointed Perret chief architect for the reconstruction of Le Havre, based on his record of service and his preference for the use of concrete. An official announcement of his appointment was made in September

1945. Perret developed his plan with the assistance of the *Atelier de Reconstruction du Havre*. The atelier had sixty employees, among whom were prominent figures such as Jacques Guilbert, André Hermant, Pierre Edouard Lambert, José Imbert, Guy Lagneau, André Le Donné, and Théodore Sardnal.

The idea for establishing the *Atelier de Reconstruction du Havre* was initiated by Guilbert and Lambert. Driven by their aspiration to propagate Perret's concepts and put them into practice, in the spring of 1944 they assembled a group of Perret's former students. This group submitted a proposal to the MRU in which they asked that an *Atelier de Reconstruction Auguste Perret* be created. In February 1945 the MRU approved this proposal and, at the same time, announced that the atelier, headed by Perret, would be commissioned to plan the postwar reconstruction of Le Havre. Perret's concepts on architecture were clear and consistent: architecture should be rational and pure. Working in what he called 'the grand tradition of architecture,' Perret developed a morphological vocabulary derived from seventeenth- and eighteenth-century French architecture. As a building material, he used reinforced concrete. Perret believed that the beauty of a building originated in the 'glow of purity.' He argued for the omission of ornamental embellishment and the exposure of the concrete skeleton. Perret saw the concrete skeleton not only as an indispensable element, as are the

skeletons of vertebrates; he believed that a visible concrete skeleton would lend beauty to a building.¹

The official appointment of Perret as chief architect for Le Havre presented the city council with a dilemma. If the municipality did not approve Perret's appointment, it would forfeit the subsidy provided by the national government for postwar reconstruction. The problem was, however, that urban planner Félix Brunau had been working on designs for the reconstruction and improvement of Le Havre and the region around it since February 1941 and would be presenting his plans on

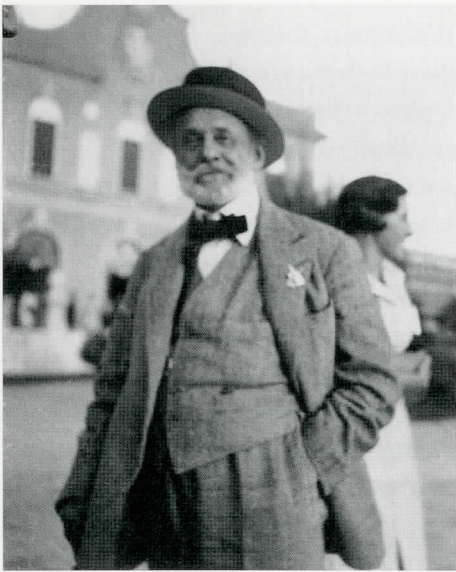
September 26, 1945.

Furthermore, the appointment of both Perret and Brunau would create a difficult situation, as they had sharply contrasting views on architecture and urban planning in general, and on the future of Le Havre in particular. Brunau wanted, wherever possible, to restore the city to its prewar state. Perret, on the other hand, thought that the situation in Le Havre presented a unique opportunity to create urban-planning and architectonic designs as a whole and thus to produce a harmonious urban image. He advocated a total revision of both street plan and architecture. To ex-

tricate itself from this impasse, the city council decided to have both Brunau and Perret present their plans in September. Perret's proposal was based on an idea he had been working on since the 1920s: a network of streets 3.50 meters above ground level, laid out in a grid composed of blocks 100 meters square.² Perret believed in the practical and economic advantages of such an urban plan. In the first place, an elevated street system would create extra space for public transportation, parking facilities, storage, and the like. And secondly, the elevated structure could accommodate the network of



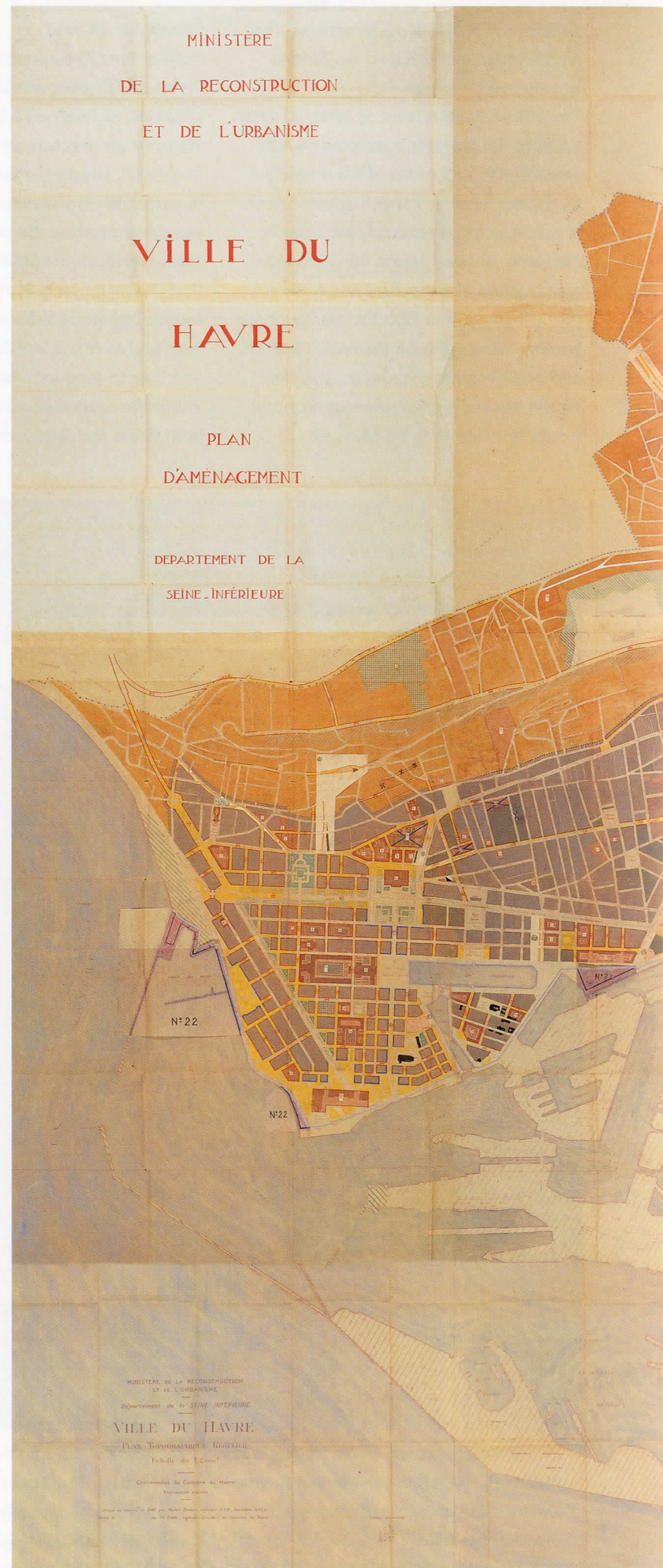
The devastation of Le Havre, viewed towards the Channel. The planned building blocks along the Rue de Paris have been drawn in



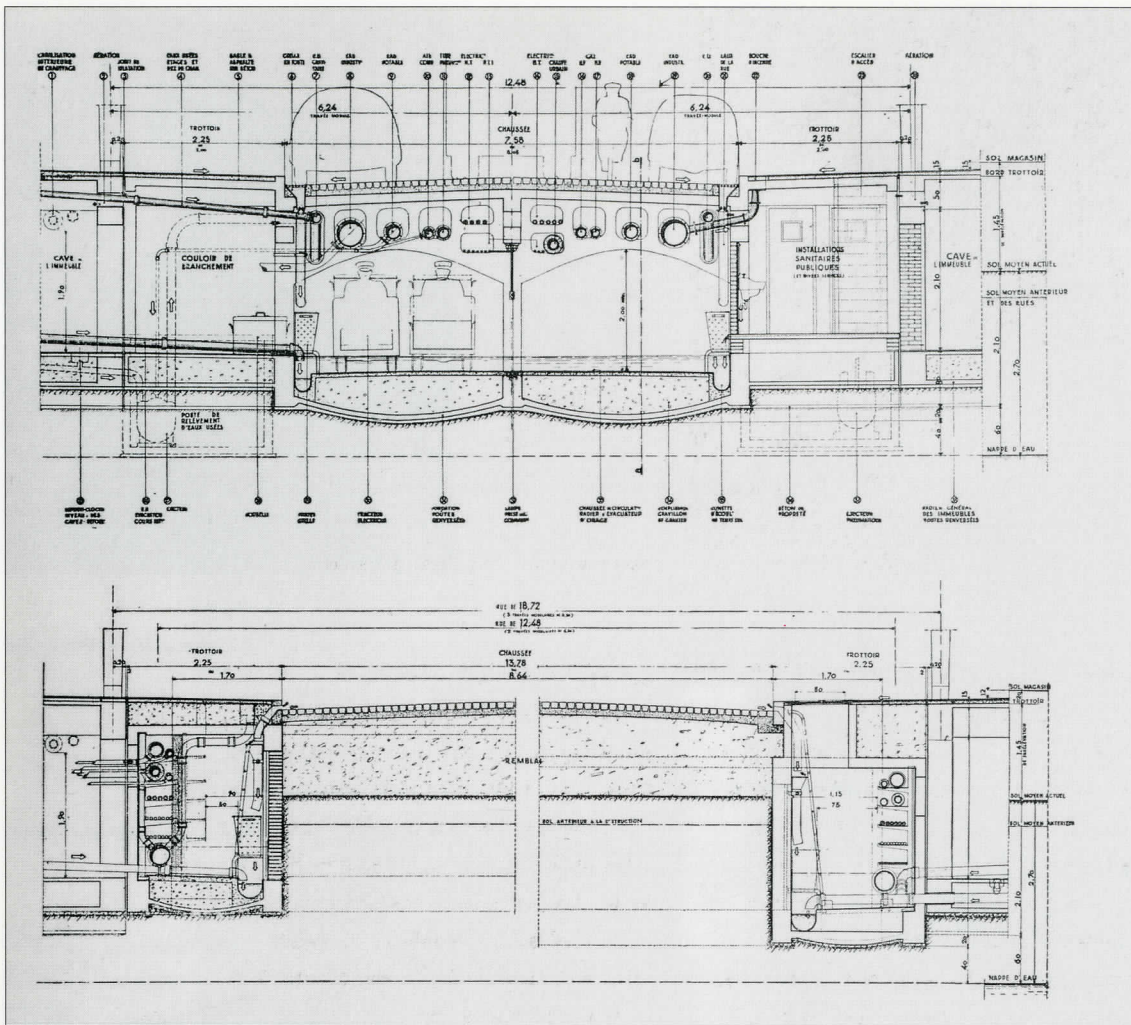
Auguste Perret (1874-1954)

The Postwar Reconstruction Plan for Le Havre, 1946

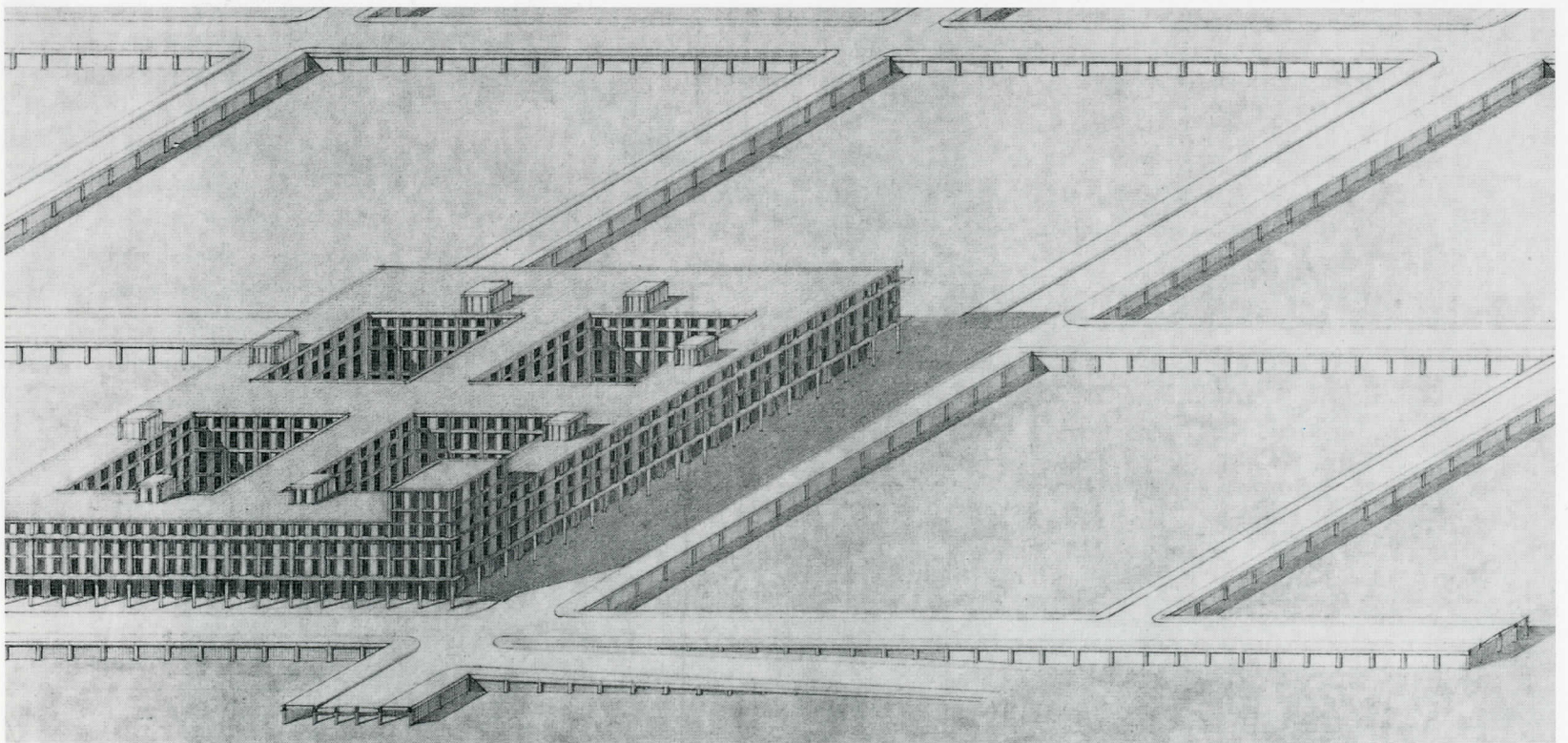
- | | |
|--|--------------------------------------|
| | proposed road |
| | reserved for public works |
| | reserved for public space |
| | existing sports fields |
| | reserved for sportfields |
| | future street-side verdure |
| | building regulation |
| | area subject to special servitude |
| | servitude prohibiting building |
| | historic buildings |
| | cemeteries (enlarged) |
| | zone of verdure |
| | zone for replanting |
| | municiple border |
| | continuously built up area |
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| | industrial zone |
| | port area |
| | railroad yards |
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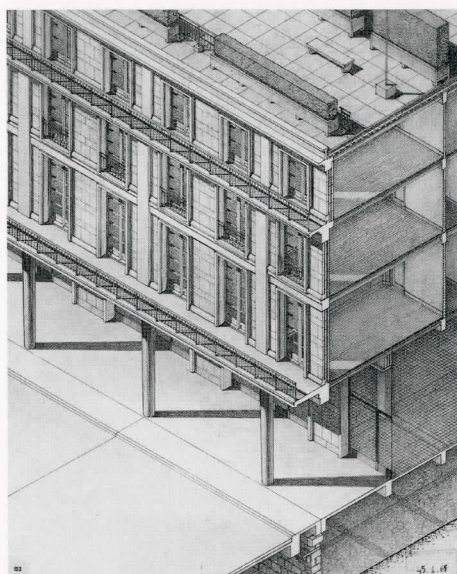




Section of the elevated street system, 1946



Atelier de la reconstruction du Havre, axonometric drawing of the elevated street system, surrounding a rectangular residential block, November 2, 1945



Axonometric drawing of a building block

pipes and conduits that would be difficult to install underground owing to a high ground-water level and marshy soil. In addition, the application of the rectangle and the efficient use of land represented a financial savings of 25 to 35 percent when compared with the plan presented by Brunau.

Finding little to remind them of the Le Havre of the past, the city's residents protested violently against Perret's plan. Because of preconditions that the government had attached to financing reconstruction work, however, the city council was unable to reject Perret's proposal outright and chose instead to ask him to submit a revised proposal. Perret honored this request by reducing the height of the street network to 1.40 meters and, at a later stage, to 80 centimeters.³ When these proposals still failed to find public acceptance, the city council opted for a compromise measure. On October 24, 1945, the council approved Brunau's urban plan on the condition that specifications be modified wherever necessary for the sake of better architectonic results. Perret's plan received a final rejection on November 20, 1945. Reasons given were that the council was not convinced the plan would save money and that realization would take too long.

The council's decision meant that Brunau and Perret would have to collaborate on a postwar reconstruction plan for Le Havre. It was quite clear, however, that such collaboration would be virtually impossible

without the mediation of the MRU. Not only did their concepts differ; Perret saw (and treated) Brunau not as a colleague but as an apprentice. The awkward collaboration between urban planner and architect led the MRU to decide, in the summer of 1946, not to renew Brunau's contract. His successor, H. Bahrman, was made responsible for reconstruction outside the city center. Thus Perret and his associates were given the task of planning the postwar reconstruction of Le Havre's inner city.

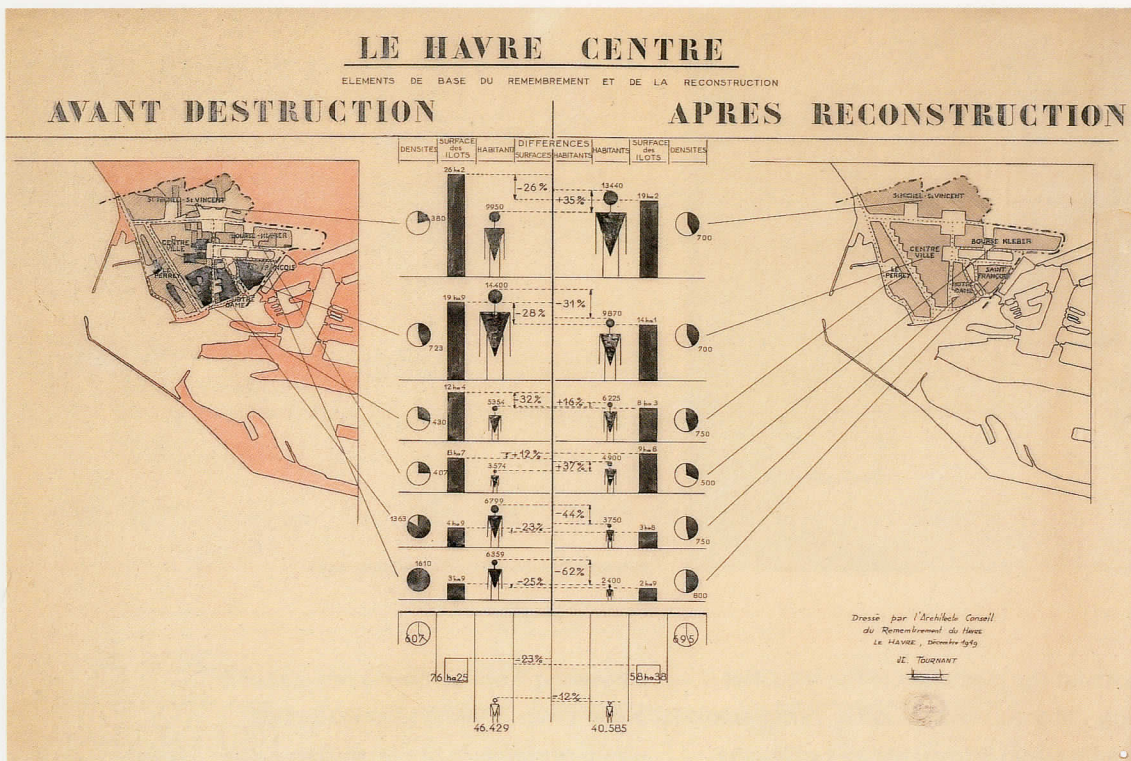
Atelier employees analyzed geographical, economic, and social aspects of Le Havre and designed – originally both on their own and in consultation with Brunau – preliminary urban and architectonic plans. In creating these skeleton plans, they paid attention to: the improvement of infrastructure and housing in both inner city and region; the distribution of industrial, commercial, public, and residential functions; the character of the districts; a balanced distribution of the population; the street plan; the siting and size of building blocks; the standardization of building components; and the need and requirements for reallocation of land.⁴ Ten urban plans are known to have been designed during this period.⁵

Broadly speaking, Le Donné, Lagneau, Lambert, and Arthur Héaume based their designs on the prewar situation. Plans created by Guilbert, Hermant, and especially Imbert demonstrated more imagination. In one of his designs, Imbert suggested

converting Place Gambetta into a round plaza: a hub at which all main streets would converge. In the same plan, he rotated all streets 45 degrees, thus making northwest-southeast the dominant direction. Guilbert created a cruciform plan in which two rows of four towers each appeared on a line running east-west. Hermant proposed building blocks that were open on one side.

Using their individual designs as a basis, members of the atelier worked collectively on the definitive postwar reconstruction plan for the inner city. With the exception of the industrial part, this plan was approved on September 7, 1946. The go-ahead signal for reconstruction to begin was given on December 9, 1946.⁶ The first pile was driven in March 1947, and the last blocks were completed in 1963.⁷

The postwar reconstruction plan included a street that linked the inner city to the higher part of town in the north, as well as connections to both national and regional highways. The layout of the city center was based on a spatial sequence of streets and plazas found in prewar Le Havre. To prevent monotonous street facades and bored pedestrians, the plan provided for plazas, porticoes, and elevated corner buildings at distances no greater than 250 meters from one another. Inner-city thoroughfares are laid out to form a triangle. Streets inside and outside this triangle are arranged in the pattern of a grid.⁸ Avenue Foch – with four traffic lanes, rows of trees, grassy verges, promenades, and



Depiction of the population density in various districts of Le Havre, before and after the reconstruction, drawing, December 1949

legend from left to right:

densités densities

surface des îlots area of the residential districts

habitants number of inhabitants

différences surface/habitants

différences in area/number of inhabitants

blocks accommodating shops and housing – forms a long, straight connection between the eastern part of the inner city and Port Océane to the west. At Port Océane, Boulevard François I continues on to the southern waterfront. Because this boulevard transects the inner-city grid diagonally, an alternating pattern of building blocks and open areas has been created on the east side of the street. The housing line of building blocks on the west side of the boulevard is parallel to the street, producing a closed street facade. Rue de Paris runs in a straight line from a small plaza on the southern waterfront, via Place Gambetta, to City Hall Square. The character of Rue de Paris, Le Havre's main shopping street, is emphasized by colonnades – 5.20 meters high – on opposite sides, and extending the entire length, of the avenue. For the sake of optimal efficiency and architectural uniformity, the plan called for the exclusive use of reinforced concrete and a module of 6.24 meters.⁹ With a view to achieving visual unity of individual building blocks, the concrete was produced in various colors. Although the height of the blocks was determined by the length of the street, this height was

not to exceed 18 meters. An exception to this rule was made for prestigious public buildings such as the Church of St. Joseph (106 meters), Porte Océane (each of its two towers is 45 meters high), the towers of City Hall (90 meters), and building blocks surrounding City Hall Square. Building blocks were sited to receive the highest incidence of natural light and, at the same time, to enjoy protection from the sea wind. Gardens and terraces were laid out in inner courtyards, above (underground) parking garages, and on the roofs of residential blocks. That the postwar reconstruction plan ultimately realized did not strictly follow the original designs created by Perret and associates is, for the most part, a result of violent protests by the local population against Perret's proposals. Owing to the total destruction of Le Havre's prewar inner city, however, he was given the opportunity to produce a city plan that represented an urban-planning and architectonic whole. He took full advantage of this opportunity. The heart of Le Havre has evolved into a monumental city, which is characterized by the equilibrium between architectonic entities and areas of public space, and which – thanks to the use of a

module, unornamented concrete, and architectonic articulation – may be called the embodiment of French modern architecture.

Pauline van Roosmalen

Notes

1. In his plea for a universal architecture, Perret never lost sight of the merits of regional architecture. Wherever needed and whenever possible, he argued for a respectful application of the latter.
2. Calculations showed that using a rectangular pattern for the plan would cut costs in half. See Léandre Vaillat, 'Une cité renaissante: Le Havre,' in *Extinfor Pages de France* (s.l., s.a.), 2.
3. An elevation of 3.50 meters was based on the height of one story; 1.40 meters was the height reached by Le Havre's postwar rubble and thus could serve as a basis for the elevated street system. Trenches 1.30 meters deep were to be dug next to the streets, which would result in a height of 2.70 meters even after the original reduction. A possible explanation for the 80-centimeter height is the fact that Le Havre's ground water is found 80 centimeters below ground level. The idea probably was that this height would still allow pipes and conduits to be located aboveground.

4. Reallocation was a precondition for the success of postwar reconstruction in Le Havre. Thanks to reallocation, it was possible to realize large building blocks. The most important regulations stated that reimbursement would be calculated per square meter of land rather than of floor area, and that compensation would be given in the form of new housing. See Damais 1963, 33-35.
5. La reconstruction du Havre 1995; Gargiani 1993.
6. Liotard 1987, 43. Liotard gives July 1946 as the month in which the urban plan was approved.
7. Corvisier 1983, 267; Cremnitzer 1988, 19, 28. Corvisier says March 1946.
8. With the exception of the district of Saint François. This is the only part of the inner city in which prewar urban-planning and architectonic features were restored as well as possible.
9. This figure is based on the dimensions of reinforced concrete components. See Gargiani 1993, 278.

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