



agence Engasser + associés

104 accession and social housing in Ivry-sur-Seine

aEa



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104 logements en
accession et sociaux
à Ivry-sur-Seine

Year	2013-2017
Location	Ivry-sur-Seine (94)
Client	Quartus Résidentiel, Ivry-sur-Seine OPH (social housing)
Team	agence Engasser & associés I+A Ingénierie (Structures) WOR (HQE) TECS (Economist) PISCOT (Acoustics) Claire Denis (Landscape) Ivoire (VRD)
Company	GCC Habitat
Programme	104 housing, 64 in accession and 40 social housing
Area	6 920 m² SHAB 7 550 m² SP
Budget	11.7 M € HT 1 690 €/m² SHAB
Environmental quality	Qualitel et H&E profil A
Project year	2017
Photographers	Mathieu Ducros / Michel Denancé

Exposure and urban integration



A density mitigated by the play of volumes, materials and colours in a rapidly changing neighbourhood.



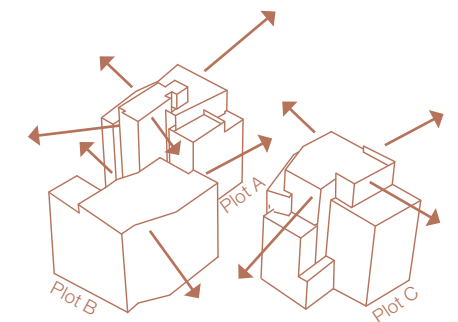
The arrangement of 3 plots in staggered rows with visual openings

The project is located in the Ivry Confluence development zone at 74-76 Avenue Jean-Jaurès. It contains 104 housing units : 64 for ownership and 40 for social rental.

There are three buildings with a shared underground parking garage between them.

The three buildings are staggered to reduce the feeling of mass, create visual openings towards the centre of the project and take advantage of the views of the Seine.

Located at the heart of a densely populated neighbourhood, the project's design maximised landscaping and opens towards the outdoors and distances. Two of the buildings are lined up along the alley while the third is a pinion on the neighbouring plot. The middle of the project is generously landscaped to give the buildings a verdant setting.



Multiple distant views



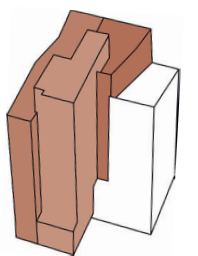
- A. Building A, 34 accession housing
- B. Building B, 30 accession housing
- C. Building C, 40 social housing
- 1. Vegetable roofs
- 2. Green roofs
- 3. Existing buildings
- 4. School



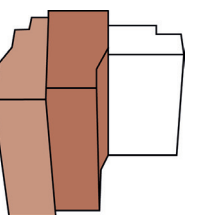
Fragmenting volumes and contrasting materials

The three buildings are broken down into varying volumes, materials and colour tones to create variations of scale and give them more slender proportions. Volume fragmentation and variations in heights help reduce the perceived density. Cladding the facades in terracotta, the shades of which range from brown to beige, contrasts with the volumes in white. This play of materials reinforces the breakdown while the ensemble of colours forms an elegant layering effect that gives rhythm to the facades.

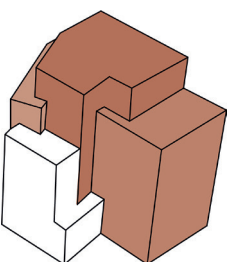
The plots are unified by identical bases in treatment and appearance. The base is split level because the land is located near the Seine, thus on a flood plain. The access paths reproduce this same terracotta theme on the ground so as to create continuity with the facades. The large windows in the bases are twinned on two levels, thereby evoking large urban windows.



Plot A



Plot B



Plot C

Facades enlivened by play of bricks

Cladding in natural terracotta, warm tones and evocative names: «Havana», «Liquorice», and «Silver», varying from brown to beige, from matt to glossy.

Graphic and chromatic research

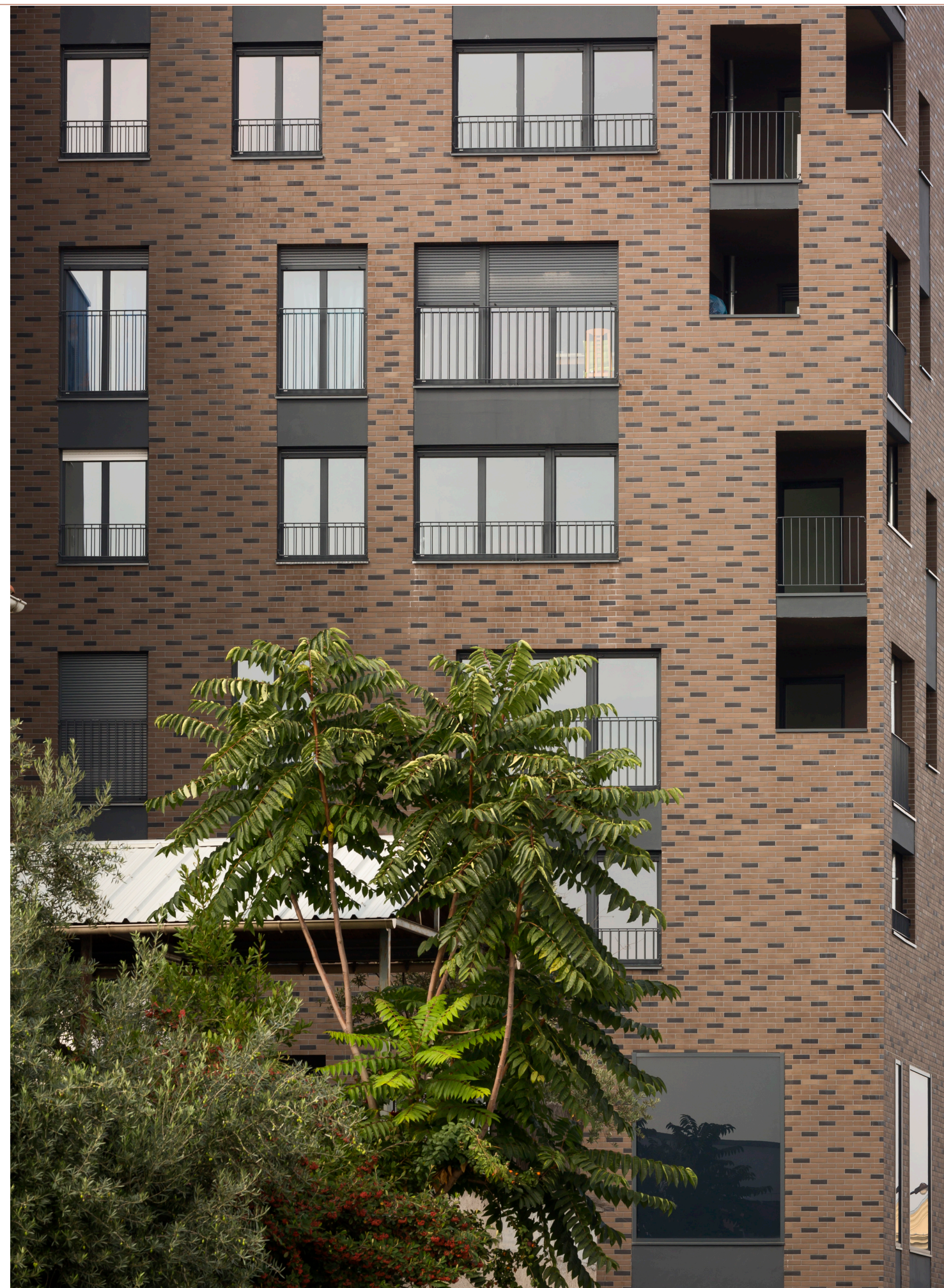
The buildings are clad in natural terracotta by the Rairies Montrieux company, varying tones from brown to beige, from matt to glossy. The dark, matt brown «Montnoir» and «Liquorice» colours contrast with the variable shades of «Havana» brown and enamelled and clear «Silver» glossy beige, setting off the volumes from each other to compose the image of the buildings' unity. This shading confers an identity to each of the plots.

The small variations between the bricks of

the same tone, a specificity of terracotta, also makes it possible to highlight the material. The use of bricks in window apexes, turned vertically as lintels of the large windows and loggias, gives the illusion that the building is built entirely of bricks.

A play of dark-brick jointing strengthens the design of the bases. «Montnoir» bricks account for 20% of the surface and fit randomly between «Liquorice» bricks and enliven the façade.

The pointing between the bricks is treated in charcoal grey. These details and colours are again seen in the treatment of the entry halls and garden walls and even in the pedestrian paths in the centre of the plot. They are composed of «Liquorice» colour paving stones also from Rairies Montrieux. The juxtaposition of these elements contributes to creating an elegant, harmonious whole.





A garden in the middle of the block

The garden and the bases of the buildings are generously landscaped with plants and trees. A lawn-covered garden on Avenue Jean-Jaurès and the alley is the main constituent of the alignment, making it possible to gauge the depth of the verdant central area from the alley and the avenue and merge the buildings into a greener environment. These green spaces are continuous and partly composed of lawns and prairie-like fields,

planted with varied clusters of blackthorn shrubs, cornelian cherry, walnut trees, bladder nut, buddleia, hornbeam, lilies, privet hedges and high branch trees such as pear and elm. The ground- and slab-planted parts contain low-lying and climbing plants. The pedestrian paths of terracotta run through the garden, inducing gentle strolls past the feet of the buildings.



The garden roofs contain kitchen garden tubs for residents to encourage gardening and urban farming



Kitchen gardens on the roofs

Flower gardens, loggias, terraces and kitchen gardens

-➤ 400 m² of kitchen gardens on roofs
-➤ 550 m² of green roofs
-➤ 650 m² of soil surface
-➤ 650 m² cm deep soil over the parking garage
-➤ 128 kitchen-garden tubs

The way in which the facades and volumes are arranged makes it possible to offer private gardens to all units on the ground-floor split-level and balconies, large terraces and loggias on the upper floors, giving onto the living room and kitchen, up to the roof itself which is shared by all residents.

The balconies and loggias enable genuine freedom on the architectural level and provide flexibility in the openings and overhangs. The facades thus become a subtle, sculptural play of fullness and emptiness, light and shadow.

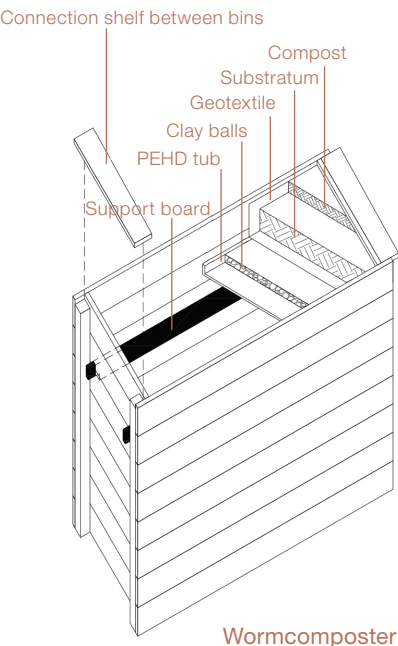
The accessible roofs of the two buildings devoted to ownership contain urban kitchen-gardens, flower gardens and pergolas for residents. Kitchen-garden tubs are placed in these gardens, offering

residents a way to take advantage of the pleasures of gardening and raise their own vegetables through ecological urban farming offered to them just overhead from where they live.

A worm-composting system has also been implemented on the roofs for organic farming and the creation of a new ecosystem.

These places are also conducive to encounters and conviviality between residents while introducing a range of possible uses other than gardening.

A large experimental green roof has been installed on top of building C for social housing. Composed of an unplanted sub-layer, the idea of this roof is that of natural fertilisation and landscaping by way of bird nesting boxes, thereby encouraging the influx of seeds and organic fertilisers.





Vines and kiwis wrap around the pergolas. They provide shade and coolness in summer.



Recreation, nature and sharing: three goals as the cornerstone of this project's design as illustrated by the flower- and kitchen-garden tubs



Large green roofs also provide sunny, peaceful spaces with incredible views far from the street and its pollution.

A creator of ecosystems and friendliness



The kitchen-garden tub-enhanced roof gardens promote encounters and neighbourliness between residents and create an ecosystem by reintroducing nature into the city centre.

Entrance hall onto the garden

The spacious, bright entrance halls reproduce the motif of the facades with «Liquorice» and «Montnoir» coloured bricks.



Opening onto the outdoors and brightness

People are greeted in the buildings by spacious, bright entrance halls. A genuine window onto the garden, they bathe in natural light through large picture windows, enhanced by the play of reflections and depth given by large mirrors on the walls. These entrances lead to all annex services (storage rooms for strollers, bicycles and rubbish bins,

etc.), the underground car garage and the upstairs flats.

Hallways enjoy natural light with the constant goal of not only comfort but also energy savings.

Both hallways and entrance halls benefit from acoustic ceilings so as to ensure peace and privacy in the flats.





Double ou triple exposure

-> Oriented double living rooms
-> Naturally lit kitchens
-> 920 m² of outdoor extensions (balconies, loggias, terraces)

Both rental and ownership units are big, enjoying double, even triple exposure. It is important for each unit to use several orientations to encourage natural lighting and freshen the air through natural ventilation. Each flat possesses large outdoor spaces leading to both the living room and kitchen.

The flats are configured in such a way as to take advantage of natural light in every kitchen and sometimes even in bathrooms. More often than not living rooms are placed in corners with double exposure to take advantage of a maximum amount of sunshine. Large picture windows let in the sunlight and provide views onto the gardens and the Seine to the east.

The higher up flats are designed on two levels. With a view to comfort and openness, these split-level flats perch on the roofs like small houses. They provide occupants with bright, triple exposure living spaces opening onto very large private terraces with uninterrupted views into the distance.



An exceptional view



Rising 5 and 9 floors high, the garden- and terrace-topped roofs of the buildings offer remarkable views of the neighbourhood and the meandering Seine.

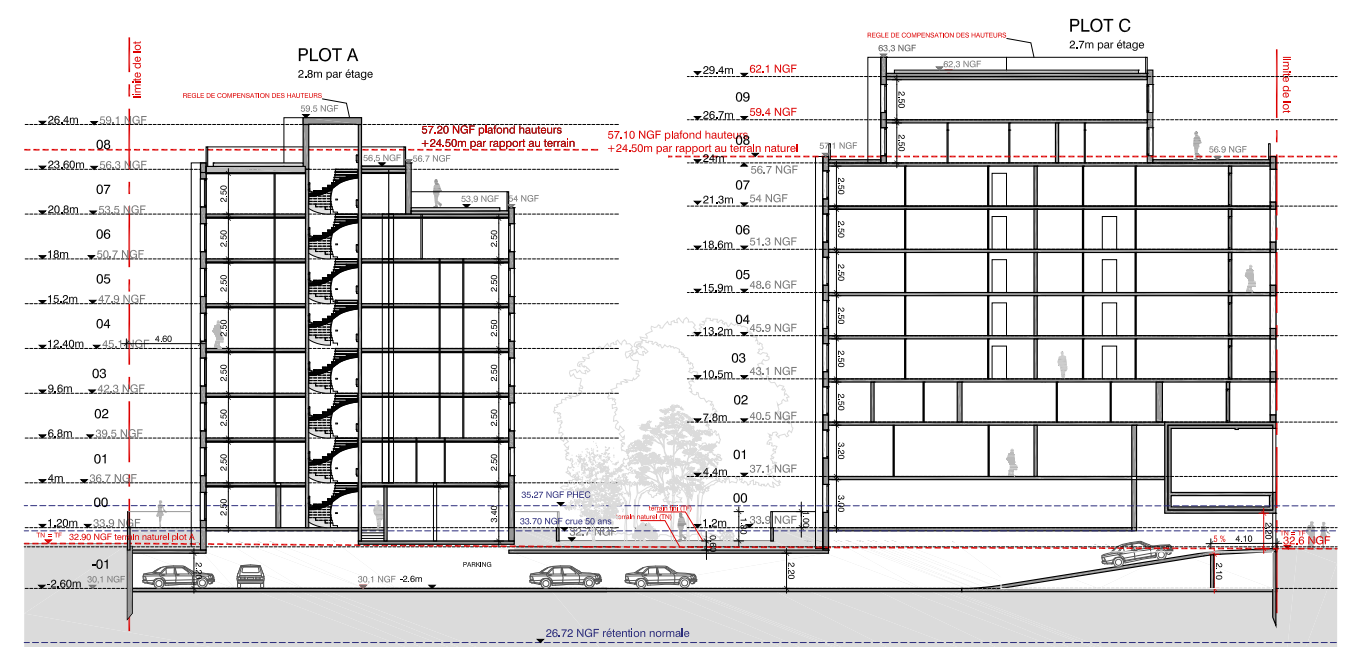


Built on a flood plain

The land on which the 104 units are built can flood when the nearby Seine reaches exceptional levels. In order to counter the risks of flooding, the ground-floor flats have been designed as split-level so that, in the event of the highest possible flood waters (highest known levels, over 30% with a minimum of 20 sq. m), at least part of the dwelling remains inhabitable. A device has also been designed so that lifts cannot descend below this level in case of a millennial flood.

Using this particular situation, each ground-level split-level opens onto a private garden that is accessible from the living room.

The buildings stand over an underground garage that is floodable. This specific was a challenge for the building site where the nearness of the water table had to be controlled when the ground was first excavated. A water-table drawdown with filtering points was installed to make the reservoir for retaining rainwater, the floor of which is extra deep in relation to the infrastructure level of the garage and has been designed to resist hydrostatic pressure.



Energy principles

BUILDING ELEMENTS		Thermal coefficient R in m²K/W
Low floor on unheated premises	Concrete slab, under slab type Ultra FM Clarity of 10 cm any surface	3
Low floor on parking	Concrete slab, under Flocking type slab of 12 cm any surface	3
Wall on unheated premises	Insulation from inside Prégymax 10 + 1,3 cm	3,4
Exterior wall	Concrete 16 cm + interior insulation Prégymax 10 + 1,3 cm	3,4
Terrace	Thane insulation 14 cm + concrete 20 cm	6,1
Windows and French doors	Low emissive glazing	Ujn = 1,2 W.m².K Uw = 1,3 W.m.K
PERFORMANCE OF THE ENVELOPPE	BUILD A BBIO = 47,3 FOR BBIO MAX = 72 BUILD B BBIO = 54,5 FOR BBIO MAX = 72 BUILD C BBIO = 42,6 FOR BBIO MAX = 72	NAMELY RT2012 - 34% NAMELY RT2012 - 24% NAMELY RT2012 - 41%
TECHNICAL EQUIPMENT		Consumption in kWhep/m².year
Heating	Network connection + thermostatic low-temperature radiators	19,5
Hot water	Connection to the network. Low hot water pressure + storage tank	32,5
Ventilation	Simple flow ventilation. Crossing dwellings	3,5
Lighting	80% of the buildings benefit from natural lighting. Low consumption lighting.	4
ENERGY CONSUMPTION	BUILD A CEP = 62,1 KWHEP/M².AN POUR CEP MAX = 69,8 BUILD B CEP = 67,4 KWHEP/M².AN POUR CEP MAX = 69,6 BUILD C CEP = 58,5 KWHEP/M².AN POUR CEP MAX = 69,2	NAMELY RT2012 - 11,5% NAMELY RT2012 - 3,5% NAMELY RT2012 - 16%



The presence of water was a challenge for the worksite



Gaétan Engasser

Interview

by Jean-Philippe Hugron

How did the project start?

Paul Chemetov brought me into a project on which we had worked for over 5 years. It was an urban study for transforming and planning an area in the near suburbs to the southeast of Paris that would join the towns of Alfortville, Choisy-le-Roi, Ivry-sur-Seine, Orly and Vitry-sur-Seine. What we learned in that time enabled Agence Engasser + Associés to build 110 housing units in Choisy, followed by 104 units in Ivry-sur-Seine.

Could you give us an idea of the operational context?

The Ivry project is located in the Ivry Confluence development zone. It was adjacent to a school designed by the Chartier Dalix Agency on one side and across from a water treatment plant on the other. Those two facilities left the views open. So we had to make sure we handled these views that give onto a broad metropolitan landscape with care.

What shape could you give to the project?

The shape of the plot itself dictated its dimensions. What's more, it forced us to accept a certain density that has become the norm for any operation carried out in Paris' near suburbs. Rather than a single building, we wanted to work on three distinct buildings, each broken down into different units. We were able to favour views through this fragmentation into micro-architecture and, despite the density, provide breathing space.

Why didn't you adhere to the single-building idea as initially stated in the spec sheet?

In my view the monolithic concept is a derogatory model. Architectural diversity responds more to the context of a suburb composed of different layers. It is also the expression of a suburb's architectural fabric. And by subdividing the plot we were able to create walk-through flats with double, even triple exposures. Constant collaborative work with town planners made it possible to redefine and redirect the initial spec sheet.

Did the town-planning scheme authorise such variety?

The town-planning rules set by Bruno Fortier enabled us to imagine a variation in the project's volumes. In fact they gave us the chance for some give-and-take. The initial height was set for 7 floors. We were able to get it up to 9 on the sole condition we also create a 5-floor volume. This freedom enabled us to create scaled volumes.

How did you work on the shape?

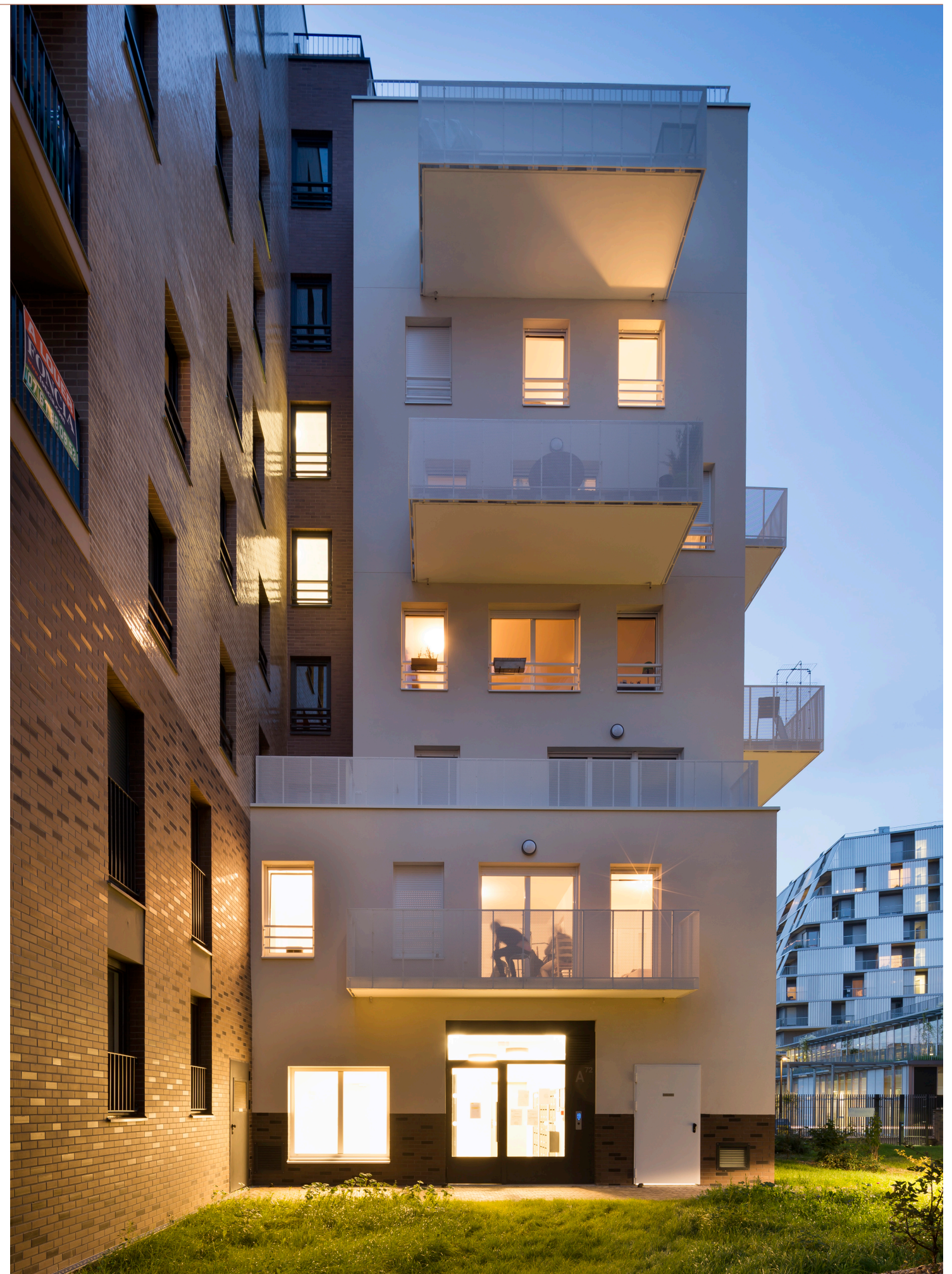
We like to work with hollows. We sculpted the mass, for example, to create loggias more than balconies. We preferred loggias as an answer to Paris' dour climate, resolve privacy issues and even manage rainwater. We also wanted to play with materials so as to give rhythm to the facades and highlight the fragmented volumes.

What did you do with the operation's green spaces?

The planning scheme called for green spaces that we saw as an opportunity to created spaces for socialising. We were resolved to balance them and permute them in height. More than just green roofs, we designed these collective terraces as genuine gardens enhanced by pergolas and many kitchen-garden tubs, thus encouraging urban farming. We worked out this experiment with the Topager company with whom we have collaborated for several years on similar projects.

How are you planning to arrange these terraces so that in the end residents can embrace them?

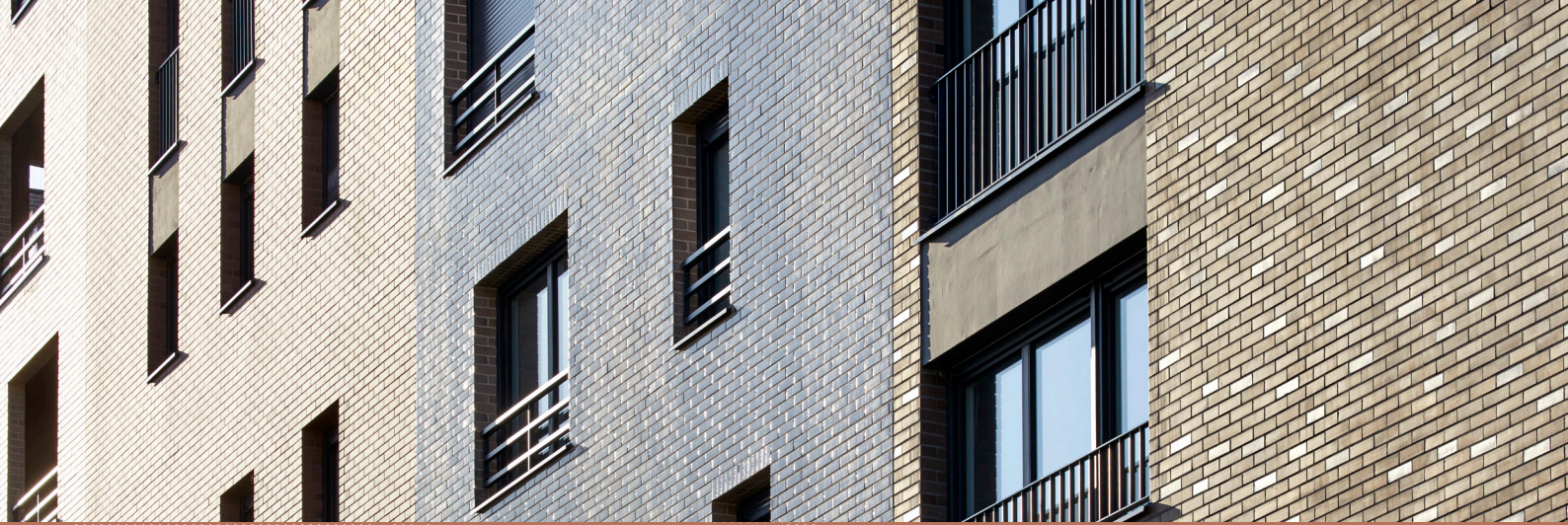
We are mentoring the buildings' residents for the first year. In order to do so, Topager has formed an association with the co-owners and co-tenants. After that Topager will do follow-up by offering training every two months so that these places can take on a life of their own.



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Located on a plot of land in Ivry-sur-Seine and close to the river, this 104-unit project had to adapt to the physical constraints of its environment while enhancing the brief with added value. Composed of three apartment buildings, two of which are for private ownership and the third for social housing, the buildings stand in a verdant environment with a landscaped inner garden, visual openings onto the Seine and roof terraces enhanced by flower- and kitchen-gardens open to everyone. Arranged in a staggered design, the three buildings are broken down into varying volumes, materials and tones so as to create variations of scale and embellish them with slimmer lines.

A dense, urban project that the agency has transformed with panache into a habitat favourable to encounters and conviviality in a bucolic setting.