

Review Article

Housing and the Construction of the City: The Paris Habitat Experience

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Between February and May 2015, the Pavillon de l’Arsenal held the exhibition *Paris Habitat: Cent ans de ville, cent ans de vie*, to commemorate one hundred years of public housing in Paris. This exhibition and the accompanying publication focused on the work undertaken over the course of a century by the largest public housing authority in Europe: Paris Habitat.

Paris Habitat manages about 1,200 buildings in the metropolitan area of Paris. Constructed over the last hundred years, this housing accommodates more than 200,000 residents. In the city of Paris alone, where this built legacy shapes much of the urban fabric, some 180,000 people (eight per cent of the population) live at affordable prices in the heart of the metropolis.

We were commissioned by the Pavillon de l’Arsenal to carry out an investigation that would bring to light a century of architectural innovations, public housing policies and, above all, the making of an entire city. This research includes a selection of buildings organised in relation to the urban fabric they compose.

Paris by Paris Habitat

To discover the form of a city, a building or a home in order to understand their process of formation... We began an investigation that, for over a year, led us from the city to the home and from the home to the city. This is not a cliché: it is this toing and froing that defines the urban.

We traversed Paris and the metropolis, visiting many homes in search of treasure. Our outsider’s vision became lost in the city. An exploratory vision that submerged itself in the unknown, the unexpected. Surprised at what it was finding, getting lost again, pausing and resuming. We searched for the appropriate tools to decode one hundred years of social housing. The scale of this production overwhelmed us; we were engulfed by history. We began by diving in and investigating the current form of the city and decided to flatten the layers of history that constitute what now exists. We walked Paris in order to inhabit it. We catalogued the heritage of Paris Habitat with the prudence of outsiders, overcoming our fear of failing in this task. We analysed the form of the present, delaying the critic’s impulse until enough evidence was gathered.

However, certain convictions accompanied us on this journey. We know that housing is a right, not merely a product. We know that housing is the thread that weaves the city. And we know that it is an extremely sensitive subject, because for many citizens it holds the hope for a better life. Thanks to these and other certainties, we selected – because in order move forward we must choose – the architecture that best responded to our concerns, while realising that by making such a selection, more than one treasure would fall by the wayside. Thus, with great care, we reconstructed the city hand-in-hand with Paris Habitat.



Fig. 1: Patrimoine Paris Habitat-OPH, 1914-2014.

Paris Habitat-OPH, the largest public housing authority in Europe, manages a legacy of 122,500 housing units that represent a total of 6,892,592 m² of net floor area. This built form shapes much of the urban fabric of Paris and includes a total of 100 hectares of gardens: the largest park within the city limits of Paris. More than 200,000 residents (about 8% of the city's population) live at affordable prices in the heart of one of the most expensive metropolises of the continent. Drawing by Fernando Altozano and Claire Graeffly. Courtesy of Pavillon de l'Arsenal, Paris.

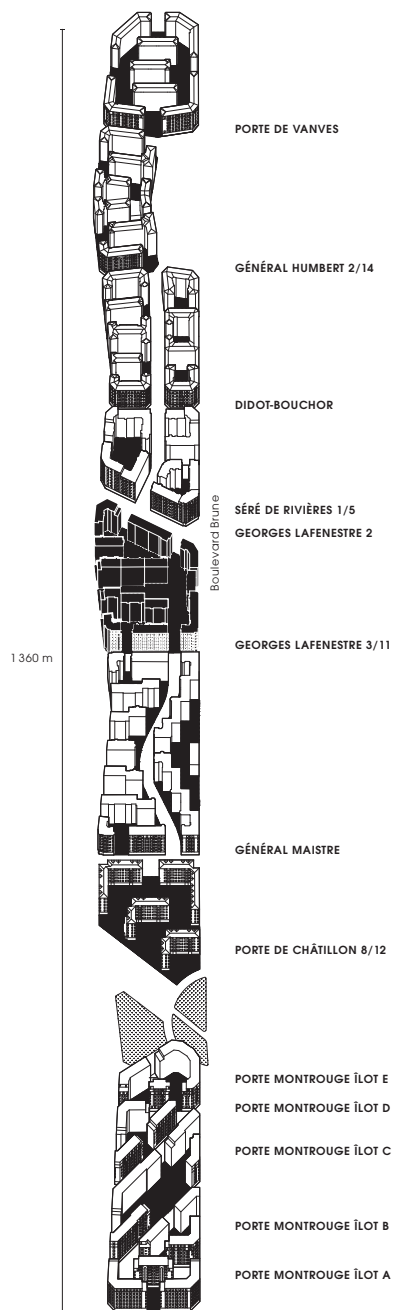


Fig. 2: HBM des Boulevards des Maréchaux. Various Architects, 1927–1950.

The demolition of the Thiers fortifications between 1919 and 1929 liberated a vast territory of 8,000 hectares that were in part occupied by a new 'wall' of social housing. This belt was built following the new hygiene criteria of the time. All units have cross ventilation, and their small size is compensated by the presence of generous green courtyards. These open spaces are linked to the street by monumental gates that offer their residents the luxury of entering, every day, the doors of a 'palace'. Drawing by Fernando Altozano, Sebastián Severino, Licinia Aliberti, Juan José Martínez, and Miguel Saiz. Courtesy of Pavillon de l'Arsenal, Paris.

Actions for the construction of the city

We have defined ten urban fragments to show Paris Habitat's contribution to the production of the metropolis. But we have also endeavoured to go a little further, because we want this analysis to serve a broader purpose: to reveal the crucial contribution of both social housing and public initiative in general to the construction of the city of the future. Of any city of the future.

These fragments do not correspond to any administrative demarcation. They are neither planning figures nor official urban sectors. They omit municipalities, districts and physical barriers. They include – or do not – urban plans in progress, in part or whole, but do not adhere to them. Sometimes they are not continuous territories but geographies linked by the power of an infrastructure. The common thread of each fragment is the Paris Habitat production, and the reason they exist is due to the ability of this heritage to respond to contemporary concerns.

We employed five filters to the analysis of these fragments: *density, diversity, intensity, fertility and agility*. These filters were our first curatorial decision and result from many questions: what is the city we want like? How is it built? What can we do without? What is missing? What will my house be like one day?

Housing is a very delicate issue, overwhelmed by policy, regulations and cost control. For this reason we avoided the 'who' (the agents) and focused our efforts on the 'what' (architecture and urban form). Policy makers, planners, designers and citizens play an evident and fundamental role in the construction of Paris by Paris Habitat, and the city is the result of their intervention. However, we decided that describing local processes of city making was not the best way to make this investigation about housing and the construction of the city transferable to other contexts.

Instead, our analysis assigns to each building one or more attributes relating to its contribution to the construction of the city (*dense, diverse, intense, fertile and agile*) in addition to the objective data available (*floor area ratio, number of households, living area and non-residential uses*).

We do not wish to pigeonhole every urban fragment or building by assigning it a single attribute: we prefer more blurred boundaries and more fluid relationships. We are attracted by the coexistence of several attributes in both urban fragments and housing complexes, because the sum total is what enriches community life. We know there are many more filters, as many as there are approximations to the city and housing. But these five are the most responsive to our vision of building the city. Each building, read through one or more filters, allows us to learn from Paris and reach another goal: to draw a vast network of transferable actions, applicable to other city or housing projects in different contexts. There are no magic recipes for building a city that is *dense, diverse, intense, fertile or agile*, but in the Paris Habitat heritage we found a number of clues.

Building the dense city

We know that density is the best ally of sustainable development. We know that a dense city consumes less land, which optimises the cost of infrastructure, transport and public facilities. This in turn reduces the cost of construction and maintenance. It is the most efficient solution because any detached house in the countryside, however efficient it may be, needs a road and, most likely, a private car to reach it. For its part, the dense city also facilitates sharing and encourages interaction with others.

Paris, the most densely populated capital in Europe, is a model of compact urban development, saving territory and resources. The Paris Habitat production has accumulated a wide range of actions for growing within and compressing the city fabric. Actions that fill voids, gaps and cracks,

that increase height, and so forth.

But the construction of the dense city must not forget that every dwelling (type) should be a unique home, and that each home should be full of reasons for its future residents to want to live there. Perhaps the living space of an apartment in the city can never compete with a house in the countryside, but we know we must contain urban sprawl. And that is where architecture must tread lightly and deploy other attractions, especially in social housing, where limited resources further reduce the available surface area.

Dense units are those integrated into the context, increasing density without the city noticing, and assuming the location data as their own. They offset the reduced size of the dwellings with generous communal spaces, well-tended gardens and appropriate connections with public space.

Dense buildings make the best use of every square metre of floor space by means of compact and well-articulated floor plans. They enable their occupants to enjoy all the spatial qualities obtainable in a small area. They establish a fluid relationship between spaces, limiting circulation, unifying rooms and deleting partitions. They provide privacy within the sphere of the collective, as well as views and varied spaces. They hold surprises. They make each house a spacious, safe and comfortable home. A house one would wish to inhabit.

Building the diverse city

One hundred years of social housing production shows that it is possible to live in the heart of the metropolis at an affordable price. We visited homes in places to dream of: on the water, opposite a park, *in* a park, next to a museum, in a square or on an avenue. The presence of more than 110,000 Paris Habitat homes in Paris alone is the best strategy for ensuring social cohesion on an urban scale. So while housing prices rise, this heritage is home to a

diverse population, and encourages us to believe that life in the city is not a privilege available only to the few.

This housing mass is distributed in towers, strips, rows and *immeubles à rédans*, or it completes city blocks through insertions between party walls. It opens patios, creates breaks and adds terraces, balconies and cantilevers. Single orientation, double orientation, corners. Elevated streets, interior corridors and central cores. The Paris Habitat heritage includes almost all possible types; it constructs the city and is a lesson in the construction of multifamily housing. If we also consider that this kind of multifamily housing is probably the principal place for interaction among many individuals, then the architectures that comprise it play a key role as tools for social integration and improving community life.

Diverse actions promote the integration of everyone within the city, introducing suitable types and sizes of housing for different lifestyles. Actions that include people of certain ages or specific groups (the disabled, people at risk of exclusion, students, etc.); actions that allow for the hybridisation of housing and work, enabling artists, professionals and workers to continue to maintain production within the city's fabric.

There are *diverse* operations that foster social relationships, breaking the isolation of domestic life: those enriched by shared spaces and those that include common areas of flexible use, collective kitchen gardens, playgrounds or generous gardens. There are *diverse* realisations that involve participation by residents in the management of these common spaces, or in the design of the housing, or in building maintenance.

There are *diverse* actions that can break the isolation of existing housing clusters and improve security and privacy. There are *diverse* actions that, in addition to improving the quality of housing,

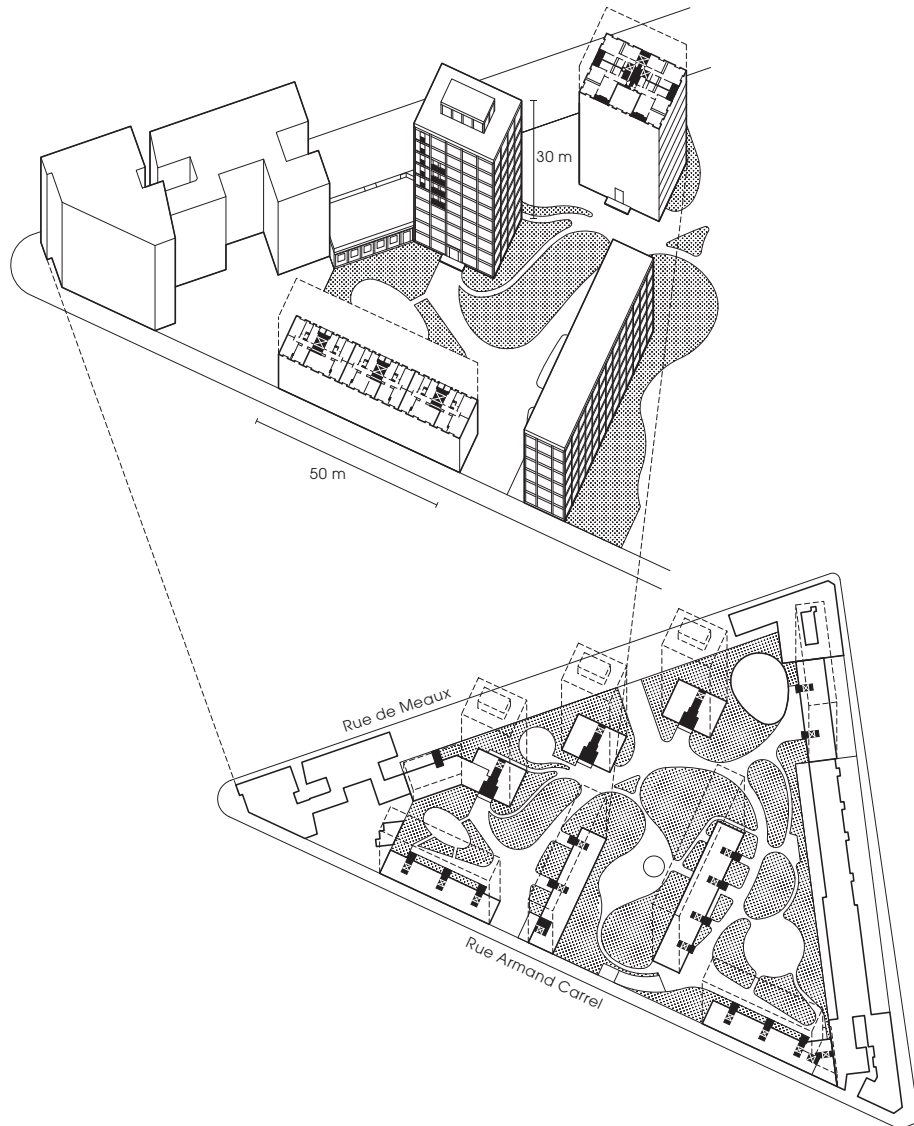


Fig. 3: 72-80 Rue de Meaux. Denis Honegger, 1957 / Rehabilitated in 1998. Number of units: 424 Net floor area: 22,514 m² Residents: 770 Net floor area per resident: 29.2 m² Non-residential uses: Retail, Church.

Denis Honegger introduces here the best elements of suburban life within the consolidated urban fabric. While respecting the existing street alignments, the architect opens a vast urban block to the city. Housing towers and slabs, as well as an array of public facilities, share a generous garden that increases the porosity of the compact surroundings. All buildings are made of the same modular system and materials: a concrete structure organizes the façades, clad of gravel panels made on site. Drawing by Fernando Altozano, Sebastián Severino, Licia Aliberti, Juan José Martínez, and Miguel Saiz. Courtesy of Pavillon de l'Arsenal, Paris.



Fig. 4: Hautes Nouses Complex. Denis Honegger, 1973 / Rehabilitated in 2000. Number of units: 1,190 Net floor area: 85,111 m², Residents: 3,261, Net floor area per resident: 26,2 m².

Denis Honegger, one of the most influential architects in the production of Paris Habitat, explores this time the 'garden city' typologies, keeping high densities in small buildings of different height. This architecture has proven an important capacity of adaption to new times: the area was rehabilitated in 2000, and is currently being regenerated again. Drawing by Fernando Altozano, Sebastián Severino, Licinia Aliberti, Juan José Martínez, and Miguel Saiz. Courtesy of Pavillon de l'Arsenal, Paris.

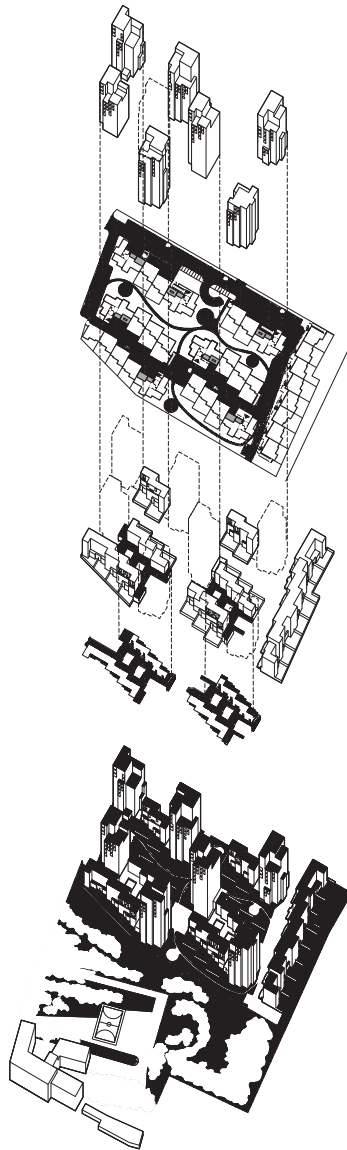


Fig. 5: 2-14 Rue de la Bièvre. Pierre-Paul Heckly, Guy Prache, Michel Rouet, Jean Simay, 1977. Number of units: 342, Net floor area: 20,712 m², Residents: 733, Net floor area per resident: 28,3 m².

This intervention is located in the town of Bagneux, between two stations of the circular metro line that will soon encircle the region of Paris. This new infrastructure will deeply alter the relationship of the residents of most of these projects in the periphery with the rest of the metropolis. The vegetation of the nearby park Robespierre colonises the communal gardens, private courts, balconies and façade planters that shape the project. The location of the seven towers respects the site's topography and reduces the visual impact of the parking areas. Drawing by Fernando Altozano, Sebastián Severino, Licia Aliberti, Juan José Martínez, and Miguel Saiz. Courtesy of Pavillon de l'Arsenal, Paris.

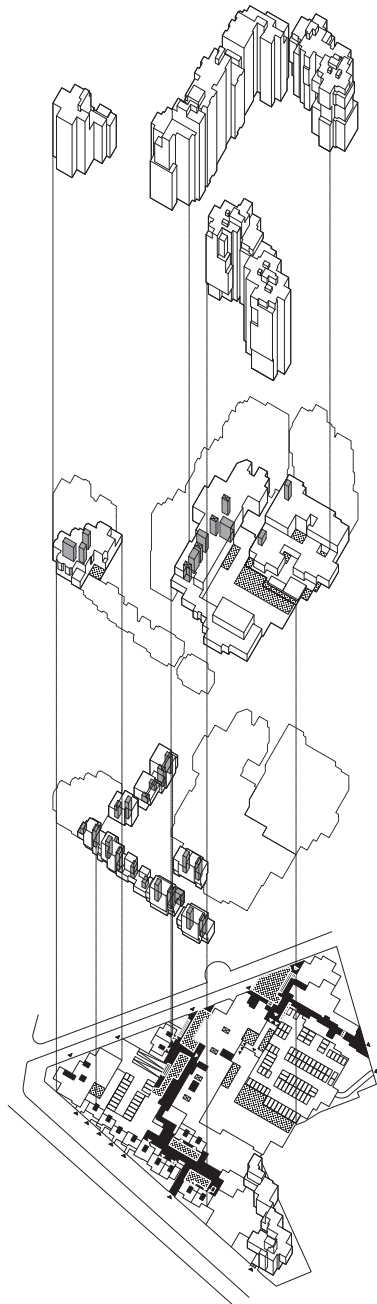


Fig. 6: 2-22 Rue du Clos. Jean Zunz, 1979. Number of units: 569, Net floor area: 35,218 m², Residents: 1,291, Net floor area per resident: 27,27 m², Non-residential uses: Retail, Workshops, School.

This unique block shakes the fabric of the Charonne quarter. The high F.A.R. introduced (3,04) is compensated by means of volumetric fragmentation and typological diversity (split level, back to back, central corridor, duplexes and row houses). The intervention contributes to the network of public spaces in the area with two triangular spaces fitted with shops, workshops and public facilities. Drawing by Fernando Altozano, Sebastián Severino, Licinia Aliberti, Juan José Martínez, and Miguel Saiz. Courtesy of Pavillon de l'Arsenal, Paris.

also help to improve the emotional state of the inhabitants.

Building the intense city

Interaction, relationship, and exchange. Everything that promotes greater closeness between housing and intermixing interests us, whether it be usage (housing or any other compatible utilisation), users (residents and non-residents), or the types of development (private or public). This is the reason why we insist on the process of hybridisation we have discovered.

We are interested in overlapping urban uses and the consequences this has on the building section, the construction of hybrid blocks, and the ability to inject intensity into areas in decline. *Intensity* derives from the closeness of public transport networks or the presence of spaces reserved for bicycles and car sharing. *Intensity* includes the introduction of pedestrian routes, because we believe that only through a strong network of public spaces it is possible to weave any physical and social discontinuities into the city fabric.

The success of the metropolis implies a polycentric conception of the city. A city understood as a fluid body, which passes through zones and sews together fragments, punctuated by pockets of activity, where housing, infrastructure and various flows exist together. This intensity promotes the social, economic and cultural regeneration of the city and depends above all on the mix of uses and to a much lesser degree on the scale. A mix of housing and open programmes ensures the intermingling of dissimilar individuals; it breaks down barriers and enriches us as people.

We are fascinated by infrastructures, because they are the backbone of the polycentric city and create enormous possibilities for the public sphere. How can we make more efficient infrastructures? Is there room for reversible infrastructures? Can we

hybridise infrastructures with other uses to make them more intense?

Intensity results from the convergence of many interests. It needs agreement between public and private actors and a consensus of users and residents. But it is worth reaching agreements because intensity can optimise land use, help combat social exclusion and counteract the centrifugal force that condemns urban development to become urban sprawl.

Building the fertile city

We have cautiously approached the old debate between town and country. Having overcome the antagonism between rural producers and urban consumers, we are searching for new pacts between man and nature. We believe *green* is much more than an aesthetic alibi, much more than a passive response to the occupation of territory. We believe that ecological principles can be an active substrate for the construction of a fertile urban form. It is therefore necessary that nature and its production capacity be incorporated into the programming of the city. If infrastructures have been the generating lines of urban development for some time, is it not time to make nature a new fermenting agent?

Paris Habitat manages the largest urban park in Paris. A vast repertoire of courtyards, communal gardens, shared kitchen gardens, buffer or private gardens that totals over one hundred hectares of permeable soils, spread throughout the city and next to homes. This surface is double the fifty-five hectares of the Parc de la Villette (the largest public park in Paris) and four times the size of the twenty-five hectares of the Parc des Buttes-Chaumont.

Maintaining this territory is itself a determined *fertile* action *because* these spaces return oxygen to the atmosphere and promote biodiversity on a metropolitan scale. And while this is happening, another one hundred hectares of flat roof belonging

to Paris Habitat await high up.

But we have also approached other scales where the fusion between natural and artificial also has a place. We have considered integrating existing vegetation into new housing projects, in situ rain-water harvesting, the introduction of agricultural production in residential areas and vegetal façades. Similarly, actions on traditional architectural elements that give importance to the shape of the building as a determining factor in limiting consumption are also *fertile*.

Although one hundred hectares on the ground and another hundred in the sky will not significantly affect climate change; and although their contribution to the circular economy is insignificant compared to the needs of Paris, what is beyond doubt is that these spaces introduce nature into our homes, alter our relationship with the environment, and teach us that agriculture, forestry and organic production can be the catalyst for other ways of making the metropolis.

Building the agile city

The future of the city depends largely on its *agile* response to changes, to new environmental requirements, and social and economic transformations. Actions aimed at building a resilient city, regenerating urban tissue and transforming architecture are *agile*. Actions that allow one to face contingencies and heal the wounds of the past are *agile*.

We have paid special attention to the introduction of Paris Habitat's housing as the main lever of regeneration in some neighbourhoods, and to the construction of social housing on land vacated by industry or infrastructures. We searched the social *bailleur* portfolio for examples of disused office transformation, in a context in which the pressing demand for housing intersects with the gold mine of a million vacant square metres. And we discovered a treasure of experience in the rehabilitation,

conversion and maintenance of a huge residential stock. These rehabilitation policies were initiated by Paris Habitat in past decades and cover all scales, from the repairing of a home to the reconciliation of *grands ensembles* between the city and its inhabitants.

The manufacturing of an agile city also involves the construction of flexible homes that are able to evolve as life evolves for its inhabitants. Neutral containers with high ceilings and serial façades are *agile*. Undifferentiated spaces with a great distance between structural axes are *agile* because they adapt best to changes in use and the needs of each user. Reversible or modifiable constructions with light construction elements and industrial methods are *agile*.

All solutions that contribute to the construction of *landscape housing* are *agile*, and which, in addition to a living area, offer their occupants an ample *habitable volume*. Let us turn the construction of a city into an act that anticipates disruptions and inflections and cushions the consequences: a demountable, elastic and malleable act.

A generous project

We went in search of treasure and found it. We found a great, unique project by Paris Habitat, which has been operating for one hundred years. A total of 1,200 collective housing interventions have produced a continuous public fabric. A project of metropolitan scope without which Paris as we know it would not exist. A lesson in maturity and urban generosity.

We have included a graphical analysis of some of the interventions, unified by a common language, because it seems the best way to present a project that is alive. All these interventions are operational and their homes occupied. All of them contribute to the production of a *dense, diverse, intense, fertile* and *agile* city.



Fig. 7: Exhibition *Paris Habitat. Cent ans de Ville-cents ans de vie*. Pavillon de l'Arsenal, Paris.

To depict the huge patrimony of Paris Habitat, the exhibition was organised around a 120 square-meter scale model-installation, a representation of Paris composed of fragments of reality, each expressing the aim to change the city through its housing. The model depicts the urban areas managed by Paris Habitat, some of which are currently under construction. Photograph by Antoine Espinasseau. Courtesy of Pavillon de l'Arsenal, Paris.



Fig. 8: Exhibition *Paris Habitat. Cent ans de Ville-cents ans de vie*. Pavillon de l'Arsenal, Paris. Photograph by Antoine Espinasseau. Courtesy of Pavillon de l'Arsenal, Paris.

Graphical analysis highlights the most relevant aspects of the built work and is accompanied in the exhibition and the attendant catalog by some of the documents originally used to build the projects. These documents reflect one hundred years of exchanges between Paris Habitat and, in many cases, anonymous architects, and give an account of the fabrication process rather than the end result.

We thank Paris Habitat, which opened its doors to us, and the archive personnel who placed at our disposal all the documentation we requested. Without their help our team would not have been able to analyse all our findings. We thank the workers and residents for giving us their time, allowing us to enter their homes and sharing their experiences with us. And we congratulate them for keeping this project alive.

Our journey exceeded all expectations. We thank the Pavillon de l’Arsenal for their generosity in giving us this treasure, allowing us to make the journey and helping us to carry it out. We arrived in Paris from another latitude, convinced of the importance of the public initiative in responding to collective aspirations, but we cannot deny we were somewhat pessimistic. Paris Habitat and the Pavillon de l’Arsenal have returned our confidence in the public sector’s ability to make the city and the home we dream of.

Note

Javier Arpa was assisted by Fernando Altozano and Sebastián Severino.

Biography

Javier Arpa is an architecture and design author, curator, researcher and lecturer. Having completed a Master of Science in Architecture at Delft University of Technology, Javier specialises in the dissemination of architectural and design practice and is currently Design Critic at the Harvard Graduate School of Design. He is the curator of the exhibitions *Paris Habitat and Paysages Habités*, held in 2015 at the Pavillon de l’Arsenal in Paris, and the author of the monograph *Paris Habitat: One Hundred Years of City, One Hundred Years of Life*. Javier was Senior Editor for a+t research group and has lectured at numerous universities, institutions and international workshops.