

Rescuing the *Machine à Habiter*: The Palladian *Villa* in the second life of Lacaton & Vassal's Transformed *Grands-Ensembles* Ana Tostões Jaime Silva

Approaching some of the questions raised in the “Material Oriented Ontology” call such as the *Aesthetics and Ethics of Sustainability*, this paper argues that the action of *Recycling Social Housing* stands for a *model of Social Regeneration*. In 1995 the awarded movie ‘La Haine’ revealed to the world the daily turmoil in which lived the inhabitants of the *grands-ensembles* (French post-war social housing): unemployment, criminality and violence were some of their constant companions. Faced by the unmistakable reality, the state promptly held as responsables the urbanistic and architectonic models, setting into motion a large demolition-reconstruction plan, that is still up to date. Since 2004, the architects Anne Lacaton and Jean-Philippe Vassal have been active opposers to this unfounded policy. Not only through writing, but also through their built work, they’ve shown that the *grands-ensembles* are passible of a second life. Taking as their prime ‘raw material’ the already built context, they’ve successively rescued the Modern Movement’s *machine à habiter* by bringing the transition spaces of the Palladian *villa* into each one of the inhabited apartments.

KEYWORDS

Social Housing, Lacaton & Vassal, Palladian Villa, Second Life, Transition Spaces

PALABRAS CLAVE

Vivienda Social, Lacaton & Vassal, Villa Palladiana, Segunda Vida, espacios de transición

Paris. The year is 1995. A group of three young men takes a train towards the city centre. Sheltered by the deceivable night, they fall into a vertigo of drugs, crime and violence, spreading a cloth of disruption over the otherwise calm Parisian *bobo*’ neighbourhoods. In the day-break one of them ends up ‘accidentally’ murdered by a biased cop. They presumably came from Chanteloup-les-Vignes, a satellite city from the outskirts of the French capital, built for social housing in the aftermath of WWII. Enormous degraded residential blocks, that like oppressing fortresses dominate the unequipped landscape, house poor families, most of them original from the old French colonies. The parents are poorly

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Fig. 01

Kader Attia, “Following Modern Genealogy”, (2012).

paid, or even unemployed, and their children are left to chance, feeling completely alienated from their fellow young citizens. A kid in a Chante-loup-les-Vignes school, couldn't be more disconnected from his peers studying in the next-door middle class 'American dream' peripheries. Furthermore, along with this precarity, the streets are dangerous battle-fields between locals and the police. Tension is a life's constant companion. How could these three young men have escaped their inescapable destiny? *Jusqu'ici tout va bien*.

This quite clumsy brief can never level the power of its origin, the extremely well-crafted black and white movie *La Haine* (1995), directed by the ingenious Mathieu Kassovitz (1967). However, it gives a glimpse of the reality that it depicts, most definitely a paradigm of the life, during the 90's², in these godforsaken social housing blocks, the so-called *grands-ensembles*³. Poorly regarded by the public opinion, these communities were increasingly problematic, having large issues of unemployment, school failure, security, criminality, violence, among others⁴. Was the French government completely oblivious of such an unmistakable reality? Well, one could say no. But that doesn't mean either that the problem was being seriously addressed. At the time, it was easier to find an escape goat. Having in mind the sad reality of the *grands-ensembles*' increasing degradation, devaluation and inadequacy – certainly three strong cornerstones for the established 'no man's land', anonymous and slowly drained of its communitarian pride – the French government promptly concluded that the cause of all the social problems was mostly in its urbanistic and architectonic model, constructed during the Modern Movement's heydays. A model so noxious, that the only solution was to put into motion a large national demolition-reconstruction program⁵. In order to revive the life of these communities one had to erase all the past memories and erect, in its place, a completely unrecognizable new low-density neighbourhood. However, the radicality of the State's program supported itself in two implicit assumptions of dubious character. The first one, was that the social policies implemented until then, by the political decision makers, had no or little responsibility in the social problematics that effervesced in the *grands-ensembles*. It was easier to see the urbanism and the architecture, that otherwise tend to be completely neglected, as demoniac creatures capable of untold terrors. The second one, was that the *grands-ensembles*' urbanistic and architectonic model was hopeless. There was no transformation that could salvage it.

By the early 2000's, unsatisfied with the solution that the new policy brought, the duo of French architects Anne Lacaton (1955) and Jean Philippe Vassal (1954), along with the architect Frédéric Druot (1958), decide to go against the well-established current and un-prejudicially investigate the potentialities of rebirth that could be latent to this heritage⁶. By other words, to take a step back and analyse the validity of the other possible path⁷. Instead of considering a scenario of total destruction, which could be the benefits of working with the existent? For them, at least the second assumption inherent to the State's program was a plain blank fallacy. Financed by the ministry of culture, they developed a study, the later well-known *Plus* study (2004), that not only implicitly showed that most of these problems were not from the architecture's sheer responsibility, but also presented a thorough group of transformation interventions set to rekindle, in a more efficient and less expensive way, the life of these communities⁸. The content of this study was such a

success, that it prompted a national and European wide discussion over the future of these buildings⁹. Furthermore, it also worked as a platform to divulge their thoughts on the matter, latter giving them the opportunity to explore it in a wide number of constructed and non-constructed projects, from which one can name the transformation of housing units in Petit-Marroc, Saint-Nazaire (2004, France-not constructed), the study for the transformation of housing units in Arlequin, Grenoble (2010, France-not constructed), the transformation of the Mail de Fontenay building in La Courneuve (2010, France-not constructed), the transformation of the Bois-le-Prêtre tower in Paris (2005-2011, France, with Frédéric Druot), the transformation of an apartment tower in La Chesnaie, Saint-Nazaire (2006-2014, France) and, of course, the 2019 Mies van der Rohe Award, the transformation of 530 dwellings in Bordeaux (2011-2016, France, with Frédéric Druot and Christophe Hutin).

In March 2015, at the end of a lecture given at Harvard, the architects Anne Lacaton and Jean Philippe Vassal clarified the audience about these same projects of transformation through the following revealing remark:

"When you live in a basic block, your space is limited by walls, with only windows looking out into a void. These are not very nice conditions for everyday life. You should be able to live there like you would live in a villa, even at the 10th or 15th level"¹⁰.

How can a *villa* be placed in a high-rise building? How can a rural and bourgeoisie model be related with an urban and disadvantaged context? How can it be taken as a reference for the reanimation of a type to which it is almost antithetical? Not only the audience then present at the lecture, but also us, later reading this comment at its published transcript, got intrigued¹¹. Perplexed, we intuitively opened *The four books on architecture* (1570)¹², from Andrea Palladio (1508-1580), and placed one of his *villas* side by side with one of the transformations of the French architects. The connection was undeniable. For our amaze, these two cases, so apart in time, shared an unquestionable set of spatial similarities that had never been studied. Could the success of these transformations be connected to architectonic mechanisms developed almost five centuries ago?

Despite the apparently obvious relation, in order to fully understand the connection, one is in need to first look at the main threads that define Lacaton & Vassal's methodology towards any given project. Only by peeking at the core that fuels their practice can one consciously be aware of the particular attitude towards the *grands-ensembles*. This is, only by knowing what they're looking for in any given building, most specifically the type of intended architectonic product and the main goal from which it flourishes, can one later understand the connection between the Palladian *villa* and the *grands-ensembles*' transformation.

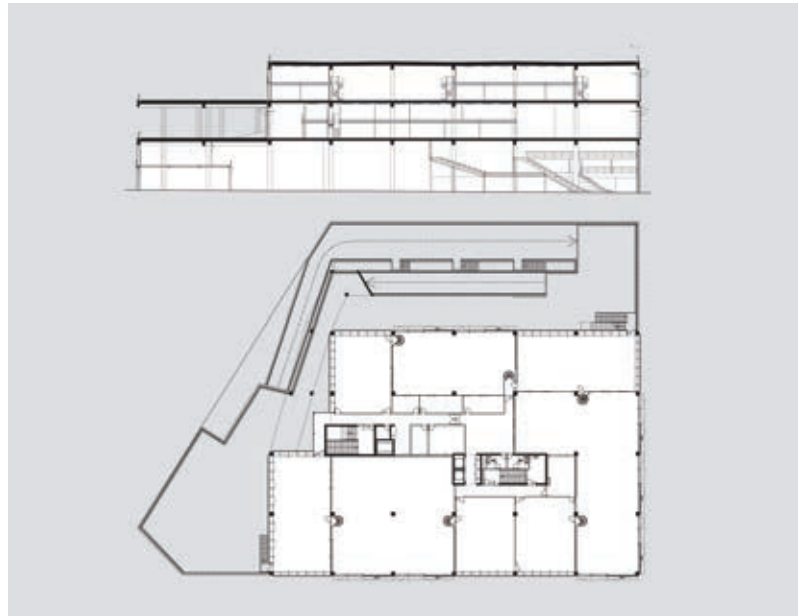
**BEYOND
SYMBOLS:
LUXURY AS
PLEASURE**

As for the first point –the intended architectonic product– Lacaton and Vassal are always looking for the achievement of a building that can be read as a "capacity system"¹³. This is, a correlated group of architectonic elements –a 'system'– that like the components of a com-

Fig. 02
Anne Lacaton and Jean Philippe Vassal,
School of Architecture (2003-2008),
Nantes. Plan at the level +19,45m and
longitudinal section.

Fig. 03
Lauren Greenfield, "Ilona at home with
her daughter Michelle, 4" (2012).

Fig. 04
Anne Lacaton and Jean Philippe Vassal,
house in Cap Ferret (1996-1998), Gironde.



02

puter hardware, work together for the achievement of a single and same purpose. A purpose, that in the case of Lacaton & Vassal, and not of the computer, of course, has as its end a high architectonic 'capacity'¹⁴. Remembering oneself that the meaning of 'capacity' is related to the ability to contain something, one can easily realize that Lacaton and Vassal want nothing more than a building that is able to efficiently and pleasantly contain human life itself, way beyond an elementary answer to any given program. By other words, for the French duo, a 'capacity system' is a group of interconnected architectonic elements that work together to rightfully contain life¹⁵.

The School of Architecture in Nantes (2003-2008) is from this an eximious example. It's generous 'system', defined by a resistant and spatially flexible concrete structure, borrowed from the parking lots (fig. 02), establishes an architectonic 'capacity' that, just like a Swiss army knife, goes beyond the classic scholar functions. Besides the expected work stations, one can easily organise lectures, workshops, parties, built a house inside and drive a car to the rooftop, a multitude of different activities can take place under the same single roof. Here, there are barely no limits for education. It's a school, but not only. It is a 'system' that is autonomous to its original function, not only able to accommodate a great deal of uses that are not contemplated in the program, but also possible of the long run inevitable programmatic modifications, or even replacements, without the need of major interventions¹⁶.

Why would Lacaton & Vassal want to give more to a project than what it necessarily needs? Why would someone give the bother to go way beyond what the program demands? The answer is in the second point, the main goal from which this desire flourishes: "luxury"¹⁷, as they have commonly named it.

Translated from the Latin *luxuria*, derived from *luxus*, the concept of 'luxury' has its meaning etymologically rooted in the term 'excess'¹⁸. This is, in a surplus from what is strictly necessary to man's

survival on earth. However, one must prompt here a disambiguation. For Lacaton & Vassal, this elementary understanding of the surplus is not, in any way connected to the development that it took in its contemporary and more prosaic assumption. This is, they do not see it as a mere accumulation of matter –substance– of high symbolic and monetary value. A surplus, just as Lauren Greenfield's (1966) lenses have captured (fig. 03), that is taken as an affirmation of power. No, for Lacaton and Vassal, the concept of 'luxury' is something much more different. For them, the idea of 'luxury' is related to a surplus that is taken, not for its symbolic value, but yes for the impact that the 'capacity' established by its 'systematic' organization can excite in the user's well-being¹⁹. And with this, one refers to the transcendent "pleasure of inhabiting"²⁰ roused by the free use of these generous spaces, with pleasant views, transparencies and luminosity, environment and comfort. In sum, as perceivable at the house in Cap Ferret (1996-1998) (fig. 04), a 'pleasure of inhabiting' roused from a high architectonic 'capacity'.

RAW MATERIALS

By now, one could argue that this is a mere utopia. Of course, that any good architect is interested in giving the best to his buildings and its inhabitants, but he just hasn't the budget for it.

The increase that it would set in the construction expenses –when compared with the offer that one is used to get from any conventional architecture– would turn these desires unfeasible. How could Lacaton & Vassal be different from the *status quo*?

The stunning truth is that they found a way to turn around it. In order to materialize this utopia of generosity, that is set to give 'more' with the same budget as any conventional architecture, they turned themselves to the 'unconventional'. This is, in order to obtain the assets necessary to the addition of this surplus –the true responsible for the aimed 'luxury'– Lacaton & Vassal not only decided to develop, and take use of, a very precise and effective group of operational principles, but also un-prejudicially swapped the source of the architectonic raw materials with which one operates. In one hand they set their minds to always operate with performance, optimization, sustainability, precision and economy. And in the other, they started to see the context in which they intervene as a source of free, but priceless, raw materials²¹. Either constructed –as in the case of the Palais de Tokyo (2001-2012)– either non constructed, natural –like in the house in Cap Ferret– or social –as seen at Léon Aucoc Square (1996). Such attitude explains why they initiate each one of their projects, not with the common *tabula rasa*, but yes with a thorough analysis of the problematics and latent potentialities found at the context in which they intervene²².

The raw materials, and the way how they are operated, are most definitely two strong key points to explain the success of Lacaton and Vassal's methodology when applied to the French *grands-ensembles*. Presented for the first time in 2004, through the already named *Plus* study, developed in co-authorship with the architect Frédéric Druot, it was their ground-breaking attitude towards this particular heritage that triggered, for the first time, a major discussion and contestation for what seemed to be its inevitable future. Being consider by the political classes as the prime cause of the emanated poverty, criminality and violence,



03



04



05

Fig. 05
Raymond Lopez, Bois-le-Prêtre tower
(1959-1961), Paris.



06

Fig. 06
Paul Klee, "Super-Chess" (1937).

this great housing structures where, at the time, target for a demolition-reconstruction program. Nonetheless what seems to be an inevitable course of action, the study developed by the three French architects shed a bright light over an alternative path. They demonstrated that instead of a demolition-reconstruction attitude, if one took the existing buildings, and their inhabitants, as part of a 'capacity system', one could arrive to a solution not only more efficient, but also less expensive²³.

The fruits of this study wouldn't take long to grow. Just one year later, the three architects won the contest for the transformation of the Bois-le-Prêtre tower and were able to establish the first constructed example of such an original approach. Built between 1959 and 1961, this 96 apartments tower was originally designed by the French architect Raymond Lopez (1904-1966), integrating a larger residential complex –the Porte Pouchet *grand-ensemble*– located within the city centre of Paris, nearby its northern limit, next to the Boulevard Périphérique²⁴. This tower's design was borrowed from a sophisticated *immeuble-tour* model, first developed by Raymond Lopez and Eugène Beaudouin (1898-1983) for the 1957 Interbau exhibition, in Berlin. A model that exemplarily expressed the paradigm that, at that time, ruled the construction of French collective social housing: the association between an unprecedented industrialisation of the construction with the trigger off the Modern Movement's architectural culture²⁵. Both adopted in order to try to reduce the huge habitational crisis then felt. In this exemplary building, it were not only applied the rationalisation and standardisation measures affiliated to the *existenzminimum* –in order to achieve the maximum commodity with the minimum use of space²⁶– but also the development of new constructive solutions in

association with the improvement of pre-fabrication and standardization methodologies –verified not only in its tunnel structure in armed concrete, but also in its system of light pre-fabricated and standardized façade modules, aleatorily intercalated by small balconies, in order to achieve a similarly appealing rhythm to Paul Klee's "Super-Chess" (1937)²⁷ (figs. 05 and 06).

Unfortunately, due to the degradation caused by time and use, this rich modern base would later be completely transfigured by a requalification applied in 1990 (fig. 07). Their blind quest for an optimal sound-proof and thermal efficiency, would result in the revetment of this careful façade system with amorphous, bright coloured, insulation boards, that also lead to the closing of the original balconies²⁸. This was the reality found by Druot, Lacaton and Vassal when, in 2005, they first started to work in the project for the transformation of the tower. Just like in Lacaton & Vassal's previous works, they preceded any kind of projetual decision with its unprejudiced analysis. From it, they identified as potentialities: its constructive solidity; its architectural minimalism; its potential of views and transparencies; the densification potential of its surrounding non-occupied territories; and, above all, the value of the intimacy and personalisation developed in each of the inhabited apartments²⁹. And, as problematics: the reduced space of the domestic environments; its lack of relation with the exterior; and the monofunctionality of the building³⁰.

These are the 'raw materials' that later would be taken as the prime elements for the development of the transformation solution. For their reprocessing, the architects would then recur to three major modelling principles: preservation, recycling, and adding. They would develop the project, first, by preserving everything of beneficial already present in the context, then, by recycling everything that was harmful to a renewed favourable purpose, and lastly, by complementing –adding– these previous two with the new 'materials' that were still lacking for the implementation of the desired 'luxury'³¹.

**ANDREA
PALLADIO:
A READING
BEYOND FORM**

Let us now take a pause. What does anything of the above explained has to do with the initial interest of Anne Lacaton and Jean Philippe Vassal to transform each one of the *grands-ensembles*' apartments into a pleasant *villa*?

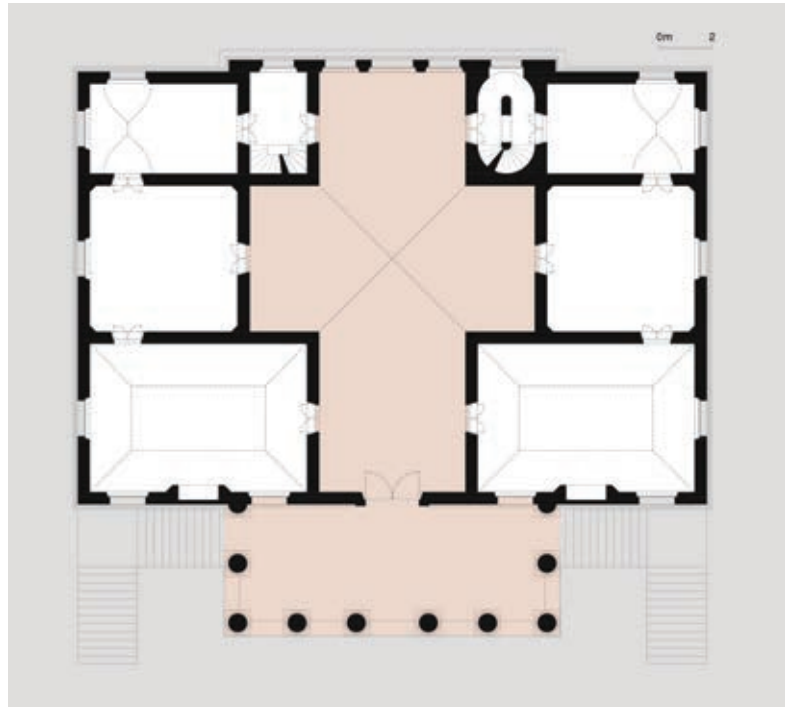
Doesn't it all seem a bit unrelated? Well, impressively far from the contrary. Because we haven't yet spoken of the space that is 'modelled' with these 'raw materials', and, even more, of how it can relate to the architectonic 'luxury' responsible for a 'pleasure of inhabiting'. This is where the *villa* finds its spotlight.

Truly, the endorsement of this ancient habitational type, as a model for the transformation of the tower, is far from being innocent. The ideology that sustains its *raison d'être* is composed by premises far too similar to Lacaton & Vassal's understanding of the term 'luxury'. In reality, the purpose in establishing a house in the country-side, that due to its proximity to nature, allows the relaxation and the recreation of its bourgeois owner, that intends to escape the busy and unhealthy city life, has also as its final goal the establishment of the 'pleasure of inhabiting'³². A 'pleasure of inhabiting' that does not arise from the fulfilment of the basic domestic needs, otherwise one would have stayed in his city



Fig. 07
TECTEAM, rehabilitation of the Bois-le-Prêtre tower (1990), Paris.

Fig. 08
Andrea Palladio, villa Foscari (c.1555),
Malcontenta. Plan of the piano nobile.



08

house, but yes from the delights given by nature, or at least, its proximity, just as depicted in Giorgione's "Pastoral Concert" (1509). This ideology has maintained itself almost unchanged throughout the centuries, since it first appeared in the roman empire³³, and maybe has not been more admirably explored than by the hands of Andrea Palladio. Perhaps, that is why one could find such a strong link to these *grands-ensembles* transformations.

However, taking *villa Foscari* as an example³⁴ (fig. 08), this great master seems to install the 'pleasure of inhabiting' in the base of the *villa*'s ideology, not through the arrangement of the exterior landscape, but yes through the establishment of spaces that work as mediators between the domestic environments and nature. In other words, by exploring two important transition spaces located at the *piano nobile*: the central hall, and its subsequent entry *loggia*³⁵. Together, they define a 'system' that not only allows the gradual transition between the exterior and the private chambers –located at the lateral wings– but also, in the several levels of this transition, two complementary spaces, that due to the highly recreative and relaxing potential of its characteristics, allow, according to Palladio himself, the most diverse types of uses: the *loggia*³⁶, with its exterior but covered space, that at the same time is opened to nature's brises, smells and panoramas; and the interior hall³⁷ (fig. 09), with its large dimensions (covering almost 1/3 of the *piano nobile*'s floor plan), its climatic ambiguity, its access to most of the remaining rooms and its openness to the gardens and landscape. It are places to eat, to read, to sing, to paint, to rest, to receive friends or acquainted, to give a banquet, to give a ball, to give a concert, to organize a wedding, or even a funeral, at the same time that one enjoys the shadow, the sun, the rain, the brises,

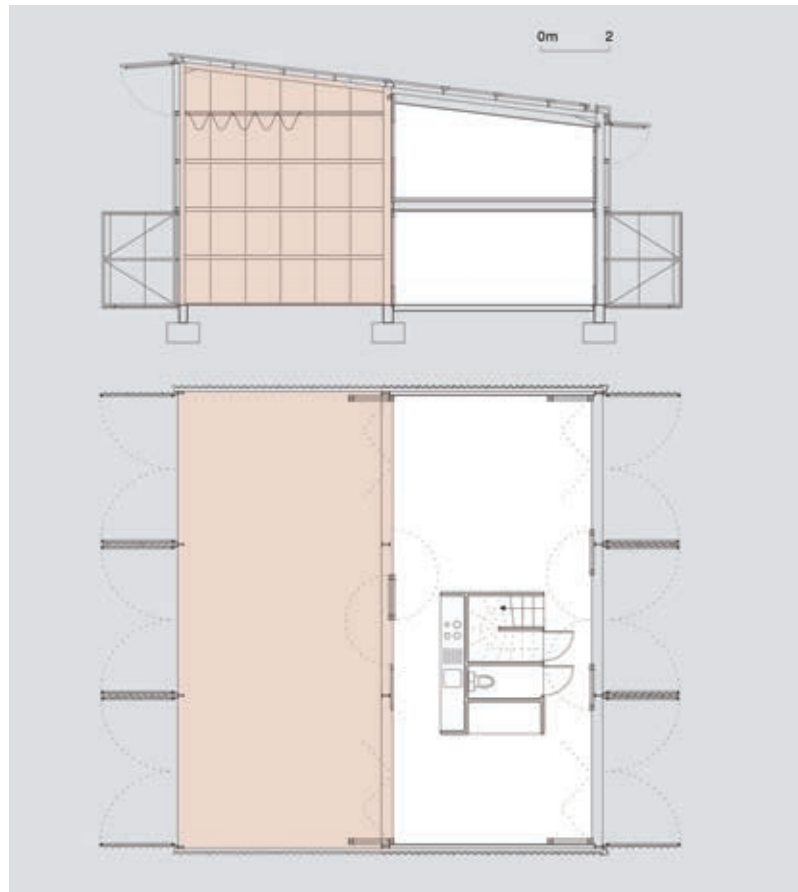
the views, the smell of the flowers and the protection of the trees... it are a true habitation's multipurpose tool that allow its users to do whatever might please them whenever they might want. This is the pleasure of inhabiting associated to a *villa*, translated through the 'capacity system' orchestrated by Palladio.

No wonder that Lacaton & Vassal, some centuries later, would have this same interest for the establishment of transition spaces in their projects for individual housing. Yet, let us not forget that the society and the constructive solutions have since deeply changed, and that, at the same time, Lacaton & Vassal's clientele, even for individual housing, are of far more modest means. That is why, in one of their very first projects, Latapie house (1991-1993), they decided to develop an ambitious transition space through a very original constructive solution, that would set the precedent for most of their posterior projects. At hands with a couple that had a plot in the suburbs of Bordeaux, in which they intended to set a 75 m² prefabricated house, the French duo of architects ingeniously turned their minds around and allowed space to dream³⁸. Lacaton & Vassal demonstrated that with almost the same budget they could have a house twice as big, with 180 m², and far more useful³⁹. A 'capacity system', named by the architects as "dou-

Fig. 09
Andrea Palladio, villa Foscari (c.1555),
Malcontenta. Hall.



Fig. 10
Anne Lacaton and Jean Philippe Vassal,
Latapie house (1991-1993), Bordeaux.
Cross section and ground floor plan.



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ble space"⁴⁰, would do the trick. It consisted in the duplication of the domestic areas reserved to the elemental inhabiting functions –living room, kitchen, bedrooms and bathrooms– by an unprogrammed “extra-space”⁴¹ (fig. 10). An ‘extra-space’, that just like in the transition spaces of a Palladian *villa*, was there to be freely and alternately used for relaxation or for the most distinct leisure activities, a space for the ‘pleasure of inhabiting’.

Which were then the spatial principles that, in the French case, would give it its desired transitional character? In reality, nothing very far from Palladio: fluidity, transparency, luminosity, climate ambiguity and freedom of use. How could it be constructed having in mind the client’s economic constraints and the new constructive paradigm? Very simply by looking out of the invisible square. By swapping the use associated to a given object, just as the Dadaist Marcel Duchamp had done with his ready-made from *objects trouvés*⁴². A urinal is now a fountain, an affordable agricultural greenhouse is now a domestic winter garden (fig. 11). *Voilà!* Lacaton and Vassal saw in these utilitarian structures, the luminosity, the transparency, the climate ambiguity and freedom of use, that they were looking for in their domestic transition spaces, at a price that would allow them to be feasible. A true housing’s Swiss army knife –sorry– housing’s ‘French’ army knife, that could be used from a multipurpose living room to a voluptuous garden. In sum, whatever would please the most its owners.



Fig. 11
Anne Lacaton and Jean Philippe Vassal,
Latapie house (1991-1993), Bordeaux.
Winter garden.

Fig. 12
"1909 theorem", Life Magazine (1909).

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THE AMERICAN UTOPIA BROUGHT INTO REALITY

It lacks the answer to one final question: How did they transpose, in the transformation of the Bois-le-Prêtre tower, this isolated and rural model, into an agglomerated and urban context? The answer is hidden in the utopic "1909 theorem"⁴³ (fig. 12), that was later seriously

addressed, most likely without knowing this first experience, by Le Corbusier through the *immeuble-villas* (1922). In this project, inspired by the crossing of his admiration for the Monastery of Ema, in Florence, with the architectonic developments of his Citrohan house (1920), the Swiss architect demonstrated that one could transpose the model of the *villa* to the collective residential building, by 'simply' superposing, one on top of another, several habitational cellules defined by the characteristics of the rural model⁴⁴.

It was this same solution of transposition, this is, to stack up several *villas*, just as Legos, one on top of another, that would later be appropriated at the Bois-le-Prêtre tower's transformation⁴⁵ (fig. 13). Nonetheless, since the French architects intended to preserve the pre-existent apartments –that could not be replaced by Le Corbusier's *tabula rasa* solution– they recurred to a different model of habitational cellule: the 'double space' originally developed at Latapie house. If taken the pre-existent apartment as the elemental half of this 'system', one just needed to add its complementary winter garden, now also joined by a small balcony (fig. 14). Something that they easily did by placing a new structure, almost like a 2nd skin, around the original building façade: steel pre-fabricated modules, each one with a base of 7x3 m (defining a winter garden 2m deep and a balcony 1m deep), related with the metric of the original structure, were stacked throughout the building's heights in its larger facades, facing east and west⁴⁶.

The resulting winter gardens were thus contained between two lines of sliding windows: one interior, in glass, replacing the old facade and connecting the winter garden to most of the rooms of the pre-exist-



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Fig. 13
Frédéric Druot, Anne Lacaton and Jean
Philippe Vassal, transformation of the
Bois-le-Prêtre tower (2005-2011), Paris.

Fig. 14
Frédéric Druot, Anne Lacaton and Jean
Philippe Vassal,
transformation of the Bois-le-Prêtre
tower (2005-2011), Paris.

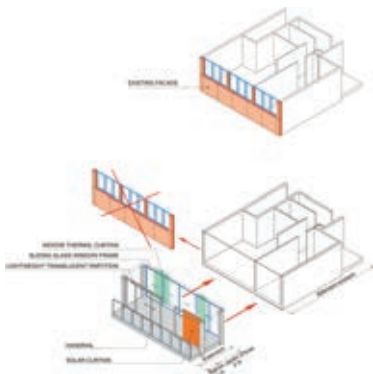


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ent apartments; and another exterior, in sheets of corrugated translucent polycarbonate, that operated the transition between the winter garden and the balcony. With these two lines of windows enclosing a space that, just like in Latapie house, worked as a diaphragm passible of being freely used (fig. 15).

In the end, unconscious of the similarities and most definitely without having taken Palladio as a direct reference for their work, Lacaton & Vassal developed a solution that culminated in a system of spatial relations and proportions –although not verified at a geometric level– that is very similar to *villa Foscari's piano nobile*. In both cases the heart of the house is defined by a space of large dimensions, correspondent to 1/3 of the total area, branded by a certain climatic ambiguity, that is not only accessible to the majority of the remaining rooms, but also operates the transition between these and the exterior (fig. 16). Giving onto the *loggia*, in the *villa*, and onto the balcony, in the tower's transformation.

The analogy between the transformed apartments and *villa Foscari* ends up by testifying the existence of a group of architectonic characteristics, that seem to have an interporal tendency to efficiently answer to the most primordial psychological human needs associated to the 'pleasure of inhabiting'. Besides, it also proves that it is possible to transfer them onto an urban context without losing their meaning. Thus, leading us to consider that the *villa's* crucial key is in the use of the spaces



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that mediate the transition with the exterior, and not that much of the surrounding environment. However, this does not mean that nature's importance disappears in the high-rise building. As seen in the transformation of the tower, nature still remains as one of its prime influences: in the fresh air and in the sun that freely enter through the winter garden, in the silence and in the amazing views that are granted by the building's height, and at last, but not least, in the inevitable contamination of the balconies and winter gardens with the most varied types of plants and flowers, the best representatives of nature itself.

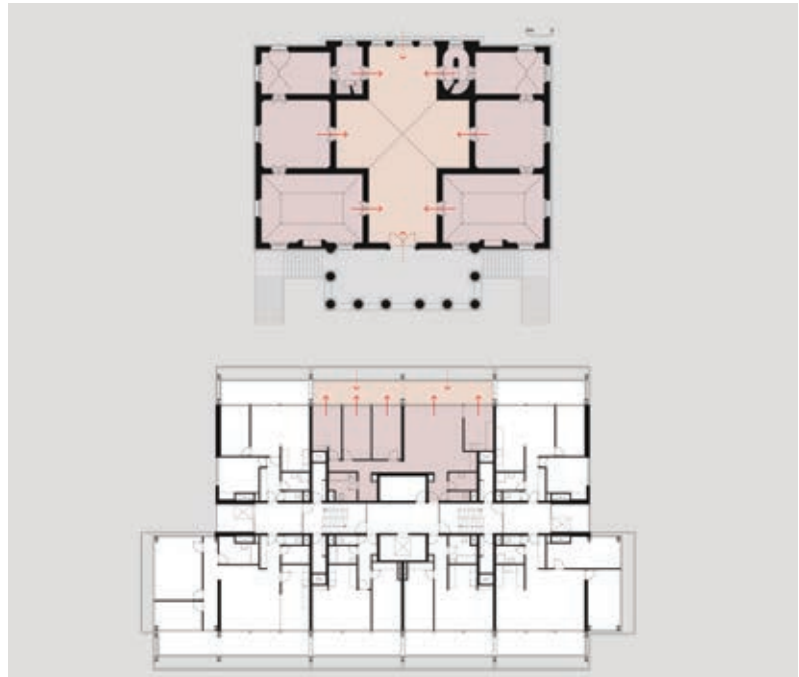
It is thus a transformation solution that demonstrates that not everything is lost in what respects to the French *grands-ensembles*. It can still be a useful, and above all, highly sustainable raw material. There is in it a set of valuable principles, outlined by the Modern Movement, that just need to be completed and/or readjusted. Almost simplistically one could say that the functional efficiency was already more than established, being the only thing missing the characteristics that distinguishes us, humans, from mere machines. More than answering to the basic needs for our survival, the *machine à habiter* from de Modern Movement was still lacking the characteristics that allow us 'to be' instead of just 'to stay'. By other words, the characteristics that outline the base which can grant us the ability to have pleasure in inhabiting a space, in enjoying life. Something that is even more important when one takes conscience that the *grands-ensembles*' inhabitants do not have the means to recurrently

Fig. 15
Frédéric Druot, Anne Lacaton and Jean-Philippe Vassal, transformation of the Bois-le-Prêtre tower (2005-2011), Paris. Winter garden.



Fig. 16

Above: Andrea Palladio, villa Foscari (c.1555), Malcontenta. Plan of the piano nobile. Below: Frédéric Druot, Anne Lacaton and Jean-Philippe Vassal, transformation of the Bois-le-Prêtre tower (2005-2011), Paris.



enjoy the middle class pleasures –to go to a restaurant, the cinema, the theatre, to a concert, to go to the Disneyland or even on trip abroad⁴⁷. That is why the ‘capacity system’ developed by Lacaton & Vassal through the addition of the package winter garden plus balcony is such a valuable ‘luxury’: one can create his own garden, give a large dinner or even organise a party, play freely with their children, forge his own refuge, using the same space. To these people their house is perhaps the most precious tool at their disposable to be happy. A tool that, at the end, did not need to be replaced, only repaired. RA

Notes

01. Short for the French expression *bourgeois bohème*. Its literal translation is 'bourgeois bohemian' and is normally used to name part of the Parisians resident at the city centre: rich and cultivated people that lead a rather bohemian and free-spirited life.

02. Unfortunately, as the recently awarded movie *Les Misérables* (2019), directed by Ladj Ly (1978), has denounce, this reality continues to deeply define these neighborhoods.

03. Large residential complexes normally located in the suburbs –banlieue– of sizable urban centres. In France, most of this architecture was constructed and managed by a group of public institutions, each one responsible for a city, in the aftermath of WWII named as *Offices publics d'habitation à loyer modéré* (OPHLM).

04. For a broader understanding of the problematics associated to these neighborhoods see the Annex 1 of the French law n. 2003-710, from the 1st of august 2003. "Loi n. 2003-710 du 1er août 2003 d'orientation et de programmation pour la ville et la rénovation urbaine", [in line], [Consult. 7 dec. 2018], available at <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000428979&categorieLien=id>.

05. Programme national de rénovation urbaine (PNRU), translated as National program of urban renovation, implemented through the French law n. 2003-710, from the 1st of august 2003. Either the PNRU, either its substitute, implemented in 2014, the Nouveau programme national de renouvellement urbain (NPNRU), translated as New national program of urban renewal, are managed by the Agence nationale pour la rénovation urbaine (ANRU), translated as National agency for the urban renovation, created for this effect by the law named above. Ibid.

06. Complementing the present study –only focused in the role of Lacaton & Vassal– it would be also necessary an additional study that could shed some light in Frédéric Druot's practice and its consecutive influence in the development of the grands-ensembles interventions here analyzed.

07. For a broader understanding of the thematic of how to contemporarily deal

with the Modern Movement's social housing heritage see: TOSTÕES, Ana, "Modern Built Heritage Conservation Policies: How to Keep Authenticity and Emotion in the Age of Digital Culture", *Built Heritage*, 2018, vol. 2, n. 2, pp. 17-34; TOSTÕES, Ana and KECHENG, Liu (eds.), *Docomomo International 1988-2012: Key Papers in Modern Architectural Heritage Conservation*, China Architecture & Building Press, Beijing, 2012.

08. Study that in 2007 would be published by Gustavo Gili with an introduction written by Ilka and Andreas Ruby. DRUOT, Frédéric, LACATON, Anne and VASSAL, Jean-Philippe, Plus, Gustavo Gili, Barcelona, 2007.

09. The study would come to have a tremendous importance in the shifting of opinion over the future of this heritage, resulting in several built repercussions throughout Europe, from which the rehabilitation process of the Lignon complex (originally built between 1963 and 1971), in Geneva, is a fine example. For a further understanding of this singular case see: GRAF, Franz and MARINO, Giulia, "Modern and Green: Heritage, Energy, Economy", *Docomomo Journal*, 2011, n. 44, pp. 24-31.

10. LACATON, Anne and VASSAL, Jean-Philippe, *Freedom of use*, Harvard University Graduate School of Design/ Sternberg Press, Cambridge Mass/Berlin, 2015, p. 51.

11. The transcript of the 2015 lecture, given at Harvard, was published in the same year by the Harvard University Graduate School of Design/ Sternberg Press through a book named *Freedom of use*. Ibid.

12. PALLADIO, Andrea, *The four books on architecture [I Quattro Libri dell'Architettura]*, The MIT Press, Cambridge/London, 1997 [1570].

13. Definition used by Anne Lacaton, during the interview that we undertook for the development of the present investigation. SILVA, Jaime and TOSTÕES, Ana, "Interview with Anne Lacaton", 2018, Paris, p. 1.

14. Ibid., pp. 1-4.

15. Ibid.

16. DÍAZ MORENO, Cristina and GARCÍA GRINDA, Efrén, "A Conversation with Anne Lacaton and Jean Philippe Vassal", *El Croquis*, 2015, n. 177/178, p. 25.

17. DRUOT, F., LACATON, A., and VASSAL, J., Plus, cit., p. 41.

18. SUSATO, R., "Hume's Nuanced Defense of Luxury", *Hume Studies*, 2006, Volume 32, n. 1, p. 171. Excess, if one compares it with the Modern Movement's concept of existenzminimum launched by the German group during the CIAM II (Frankfurt, 1929) and CIAM III (Brussels, 1930).

19. DÍAZ MORENO, C., and GARCÍA GRINDA, E., "A Conversation with Anne Lacaton and Jean Philippe Vassal", cit., p. 17.

20. DRUOT, F., LACATON, A., and VASSAL, J., Plus, cit., p. 29.

21. Ibid., p. 73.

22. RUBY, Ilka, *Lacaton & Vassal*, Gustavo Gili, Barcelona, 2006, p. 8.

23. See DRUOT, F., LACATON, A., and VASSAL, J., Plus, cit.

24. BLUMENTHAL, Max (ed.), "Porte Pouchet", *Techniques & Architecture*, 1962, 22nd series, special number, p. 66.

25. See ABRAM, Joseph, *L'architecture moderne en France: Du chaos à la croissance: 1940-1966*, Picard, Paris, 1999.

26. TOSTÕES, Ana, *A Idade Maior*, FAUP publicações, Oporto, 2015, p. 304.

27. HUGRON, Jean-Philippe, "Controversé, politiquement incorrect, Michel Holley. Et alors?" [Consult. on jan. 22, 2018], available at http://www.lecourrierdelarchitecte.com/article_2899.

28. PAVILLON DE L'ARSENAL, transformation de la tour Bois-le-Prêtre 1959/2006, Pavillon de l'Arsenal, Paris, 2006, [Consult. on sep. 5, 2018], available at <http://www.pavillon-arsenal.com/fr/expositions/9764-transformation-de-la-tour-bois-le-pretre-1959-2006.html>, p. 4.

29. DRUOT, F., LACATON, A., and VASSAL, J., Plus, cit.

30. Ibid.

31. Ibid.

32. ACKERMAN, James, *The villa: form and ideology of country houses*, Princeton University Press, Princeton, 1990, p. 9.

33. Ibid., p. 7.

34. About the Palladian villa and villa Foscari see: WITTKOWER, Rudolf, *Architectural principles in the age of Humanism*, Alec Tiranti, London, 1971 [1949]; TAFURI, Manfredo, *Interpreting the renaissance*, Yale University Press, New Haven, 2006; FORSSMAN, Erik, *Visible harmony: Palladio's Villa Foscari at Malcontenta*, Sveriges arkitekturmuseum/Konsthögskolans arkitekturskola, Stockholm, 1973; and BELTRAMINI, Guido, "La villa Foscari o 'La Malcontenta'", A.A.V.V., in *Palladio*, Fundación "la Caixa"/Turner, Barcelona/Madrid, 2009, pp. 95-97.

35. About the thematic of the transition spaces and of the relation between interior and exterior spaces see: VIEIRA CALDAS, João and GONÇALVES, Ana Rita, "Between Inside and Outside - Between Retreat and Delight. The Transition Spaces of the Portuguese Early Modern Villa", A.A.V.V., in *The Early Modern Villa: Senses and Perceptions versus Materiality*, Museum of King Jan III's Palace, Wilanów, 2017, pp. 49-60.

36. PALLADIO, A., *The four books on architecture*, cit., p. 27.

37. Ibid.

38. DÍAZ MORENO, C. and GARCÍA GRINDA, E., "A Conversation with Anne Lacaton and Jean Philippe Vassal", cit., pp. 7-9.

39. Ibid.

40. LACATON, A. and VASSAL, J., *Freedom of use*, cit., p. 17.

41. RUBY, I., Lacaton & Vassal, cit., p. 6.

42. Ibid., p. 18.

43. Cit. by KOOLHAAS, Rem in *Delirious New York: a retroactive manifesto for Manhattan*, O10 Publishers, Rotterdam, 1994.

44. CROSET, Pierre-Alain, "Immeuble-villas: Les origines d'un type", A.A.V.V., in *Le Corbusier, une encyclopédie*, Centre Georges Pompidou, Paris, 1987, p. 178.

45. LACATON, Anne and VASSAL, Jean-Philippe, "Architecture must be direct, useful, precise, economical, free, joyful, poetic and cosmopolitan", *a+u*, 2012, n. 498, p. 10.

46. LACATON, Anne and VASSAL, Jean-Philippe, "Transformation of Housing Block, Tour Bois le Prêtre", *a+u*, 2012, n. 498, p. 80.

47. SILVA, J., TOSTÕES, A., "Interview with Anne Lacaton", cit., pp. 4-5.

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