

ADAPTIVE RE-USE OF RESIDENTIAL BUILDINGS: THE CASE OF LACATON&VASSAL AND DRUOT’S ARCHITECTURE

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Introduction

Architects who aim to address social issues or to be cost conscious in construction are often treated as ‘socially responsible activists’ but are given very little say regarding the fundamentals of design problems. In this mindset, an approach to design that takes into account sociology or economics can also be considered detrimental to creative process - from the viewpoint of the architect’s outdated self-image. This particular position disguises how creativity itself can be stimulated by “real world constraints”, as revealed in the works of architects Anne Lacaton & Jean-Philippe Vassal and Frédéric Druot. This paper argues that their approach to residential design and renovation does not rely on a “conventional” understanding of architecture. Rather, they provide us with a rare conceptual point of view (and accomplished project) that ask us to re-think residential design and renovation projects, especially with respect to modern housing developments that were built in 1960s and 1970s.

Mass housing built in modernist period and with totalitarian tendencies is criticized because of different reasons. The common point of those critiques is the architects’ approach of tabula rasa which mostly means to start every project on a clean sheet, wherever the context is. Because of tabula rasa method is socio-culturally and economically less and less viable today, contemporary architects find themselves within the position to act like bricoleurs, as individuals who take existing tools and materials and creatively use them for new purposes. Lacaton & Vassal and Druot’s singular architecture isn’t based on abstract concepts; it is based on “making” and the concepts of bricolage and tactic, as borrowed from social sciences can be a fertile ground to assess the potential offered by their architecture.

Conceptual Framework: Bricolage and Tactic in Spatial Practices

The methods suggested by Lacaton & Vassal and Druot can be thought in the light of the concept of bricolage. *Bricolage* is a French word that is used to express the creative activity of any person who performs not as an expert or a professional but as an amateur and without the very tools he needs in order to achieve his goal. According to Claude Lévi-Strauss, “bricoleur is someone who works with his hands and uses devious means compared to those of a craftsman”.¹ “The 'bricoleur' is adept at performing a large number of diverse tasks; but, unlike the engineer, he does not subordinate each of them to the availability of raw materials and tools conceived and procured for the purpose of the project. His universe of instruments is closed and the rules of his game are always to make do with 'whatever is at hand', that is to say with a set of tools and materials which is always finite and is also heterogeneous because what it contains bears no relation to the current project, or indeed to any particular project, but is the contingent result of all the occasions there have been to renew or enrich

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the stock or to maintain it with the remains of previous constructions or destructions. The set of the 'bricoleur's' means cannot therefore be defined in terms of a project".ⁱⁱ

The bricoleur has to turn back to an already existent set made up of tools and materials, to consider or reconsider what it contains and, finally to engage in a sort of dialogue with it and, before choosing between them, to index the possible answers which the whole set can offer to his problem. He interrogates all the heterogeneous objects of which his toolbox is composed to discover its potential. Those objects are specialized up to a point, sufficiently for the 'bricoleur' not to need the equipment and knowledge of all trades and professions, but not enough for each of them to have only one definite and determinate use. Contemporary architecture benefits from those tools offered by bricolage. Assemblage, collage, adaptation, manipulation, transformation, juxtaposition, montage, ready-made, selection, experiment/experience penetrated the vocabulary of architecture in a way to challenge the rather totalizing, complete and fixed conceptualization of the modernist period. Architects acknowledge the value of an "incomplete" architecture, as an affirmation of the "existing conditions of life", open to further adaptation and recognize users' experience as a component of design. The term bricolage is especially used to denote methods or techniques for the reappropriation and reinvention of collective spaces with available tools. Lacaton & Vassal take the available building materials, components, techniques and usages and appropriate them for their new purposes. For them, "it's a matter of never demolishing, subtracting or replacing things, but always adding, transforming and utilizing them"ⁱⁱⁱ.

Another concept to complement architectural bricolage would be "tactic" (along with strategy), a term developed by Michel de Certeau in the relation to the practices of everyday life in various spaces. "The space of the tactic is the space of the other" says de Certeau.^{iv} It means that the absence of authority is the tactic's strength. Individuals don't 'plan' the tactics before the project. They appear in time and opportunistic in their method.

De Certeau argues that, in the activity of re-use lies an abundance of opportunities for people to subvert the rituals and representations imposed upon them. Therefore similar to tactics, an architect can act in the margins of the regulations that they estimate inappropriate. Even though they operate within the system, they are able to create positions that they exclude an authoritarian approach. The everyday life of the existing spatial structures serves as a toolbox offering a variety of components. Architects transform and reproduce the meanings of the components of an ex-system that no longer exists. Seen through the lenses of de Certeau, their architecture vacillates between the constructive and economic rationality on the one side, and the "anthropological, poetic and mythic experience of space"^v on the other.

Lacaton & Vassal and Druot's Architectural Practices

Anne Lacaton was born in 1955 in the South-West of France. She studied architecture in Bordeaux with Jean-Philippe Vassal (born in 1954, in Casablanca). In 1987, they founded their architecture studio. "During the 1990's they mostly worked on individual houses in the region of Bordeaux, working on the relationship between the house and the context it was conceived for, and promoting an approach to housing that already insisted on the quality of life as perceived and experimented by the inhabitants in their daily life".^{vi} With Frédéric Druot (born in 1958 in Bordeaux), their research shows in what ways architects can contribute to providing more affordable homes and if adaptive-reuse of an existing building is a viable solution.

The architectural practice of Lacaton & Vassal and Druot can be thought against the background of a period in which cities present acute economic, social and technological challenges for planners and architects who are continuously confronted with the redevelopment, regeneration and renewal of the existing urban fabric. While the renovation of the existing residential buildings seems necessary due

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their deteriorating physical conditions, it is very questionable to what extent the ongoing projects take into account socio-economic and cultural dimensions. By demolishing and renovating buildings, reconstruction changes the environment and the lives of most habitants. Although the structural quality of the buildings may increase, the process leaves a footprint of social, physical and economic disturbances, which will take years to deal with until the existing residential environment turns into a proper urban fabric.

Lacaton & Vassal and Druot's rejection of demolition opposes the drift of recent urban policies in Europe. Their stance is motivated less by a concern to preserve such buildings as monuments than an attempt to engage with the potential to keep the residents in their place and then rehabilitate. Given the magnitude of aging housing infrastructures, the argument of the project is for social sustainability, investment, expansion rather than austerity or luxury. In the domain of housing, this alternative approach starts by making a coherent analysis of the current social and economic situation like every bricoleur would do. The effective use of simple materials permits them to handle the concept of space differently, without idealizing the aesthetic. The use of lightweight materials, prefabricated constructed elements and industrialized building systems create opportunities for the enjoyment of ample space and light. The production of pragmatic and cost-effective solutions has a social function, which leads them to produce new strategies for the regeneration of mass housing.

Urban public housing investments' purpose isn't simply to create habitations for the city residents or capital for the development of the country. We should think the transformation of the city and the buildings to open everyday life to new and various experiences as "the self-nature of all kind of interventions". Lacaton & Vassal and Druot, put people/ users into the center of architecture in order to reveal the potential to produce quality related to space vitality. Mass housing projects, which are rigid from a structural, typological and programmatic point of view, become in their hands, sources to regenerate.

Lacaton & Vassal use bricolage as a tactic to find the voids or grey areas in the regulations. This doesn't mean constructing illegally. But this means they develop de Certeauian type of tactics to push spatial boundaries by staying within the limits of legality without repeating the norms *mot-à-mot* and by proposing original solutions. They have recourse to an exceptional practice such as conversion in order to escape the building standards. "The potentialities and capacities of everything that exists are integrated, reactivated, reused and enrich new projects. Every restriction can be positively turned around".^{vii}

The method used is mainly developed for the rehabilitation of the *grands ensembles*, which are French low-cost housing. According to Borella^{viii}, Lacaton & Vassal and Druot have developed their strategy in smaller projects: "addition rather than demolition, economy of means (utilization of spartan and mass-produced structures and finishes) and insertion of self air conditioning constructions (green-houses) for free, multiple and unspecified use".

The original aspect of their anti tabula-rasa proposals lie in the capacity to deal with multiple contemporary questions: i) ecological questions: climate, energy consumption, thermal performance; ii) social questions: everyday life, lifestyles, computability with the continuing presence of residents in the buildings; iii) constructive questions: standardization, structural components, façade, prefabrication, industrial materials; iv) economic questions: demonstration of figures comparing demolishing and reconstruction and manipulation and maintenance.

The Project of Paris 17th , Bois-le Prêtre

The group of architects Lacaton&Vassal and Druot's pioneering study "Plus" may provide an alternative design tool that invites us to leave our comfort zone by practicing a simple, calm, modest, economic architecture, which focuses on the user as the essence of the design. As a project, which

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enables to see a creative process of production (from idea-representation to construction), Bois-le-Prêtre (Paris, 17th 2011) will be the main focus of this section.

Originally, built in 1959, the block (50 m) has 16 floors and 96 flats. In the early 1990s, the original chequerboard façade was replaced to improve insulation (which is not considered a style improvement by the residents). Rather than demolishing an existing building in order to build a new one, the architects completely transformed a low rent housing block over the period of half a decade (Fig. 1). This application is as much a manifesto as it is a project, because architects reject the approach of the *tabula rasa* and refuse large-scale demolition in order to reveal the potential for transformation and rehabilitation of the existing building. It is a very common scenario for metropolis to demolish housing blocks while dislocating their inhabitants and to construct new luxury residences instead. Lacaton&Vassal and Druot suggests not to demolish it but to extend the building outwards of its border. That is how architects stick to and put into practice their concept of “spacious apartments on small budgets”.

With Paris 17th, architects developed an exceptional scenario of adaptation without demolition, convinced householders, inhabitants and city authorities with their project and cost calculations. This creates a spatial potential which is fulfilled differently by every inhabitant during the life of the building. The project also proposed to do generous additional spaces to the building's common areas. These additional areas, with their own structural systems, are expanding habitats at each floor.



Figure 1. Bois-le-prêtre Tower, Paris, (before, after and today)
(<http://www.lacatonvassal.com>)

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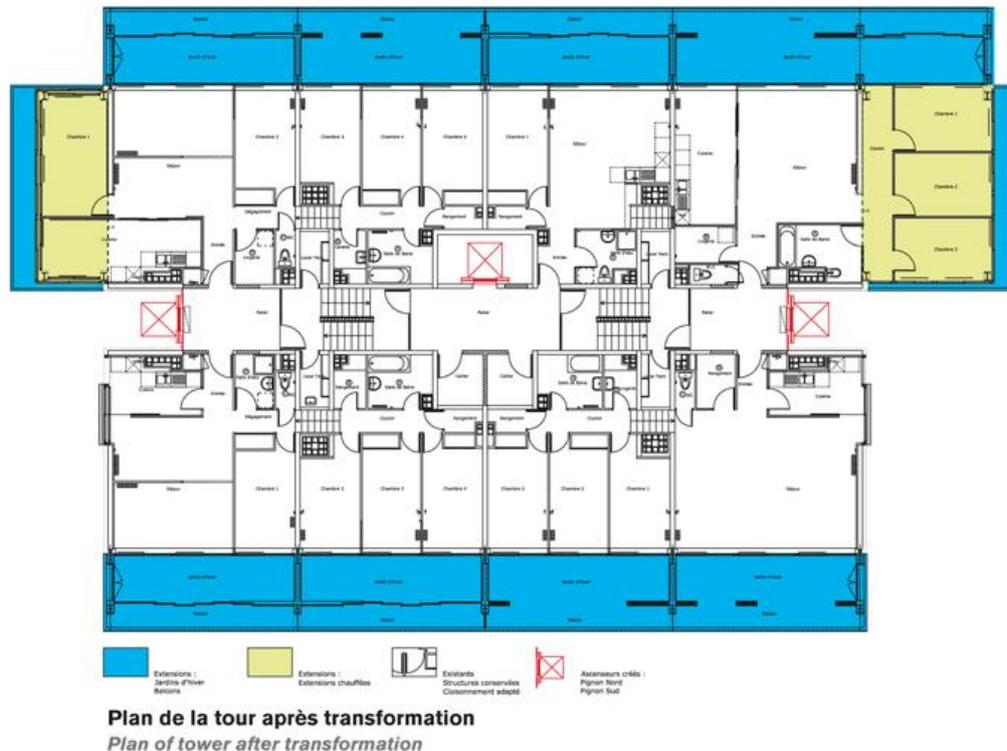


Figure 2. Bois-le-prêtre Tower, Paris, Plan of adaptive re-use
(<http://www.lacatonvassal.com>)

The architects start with the facades and change the existing external walls perforated with small windows to be able to enjoy the panoramic views. They continue the transformation by increasing the area of living space and by expanding each apartment outwards with a kind of integrated loggia. (Those additions are entirely structurally independent of the existing building). They put extra spaces in front of the actual living areas, which resembles to winter gardens that can be programmed by the residents themselves (Fig. 2). That is how, today, the inhabitants appropriate and continue to transform the spaces that have been produced.

Demolishing the existing external walls and facades and placing a transparent front gave each apartment day light and city views. The ground floor entrance hall was also converted and expanded through additional space. The cancellation of some of the walls provided bright, spacious and open spaces for a variety of uses. Thus emerged gardens and green areas that can be used collectively. Moreover, prefabricated solutions were provided so that residents could continue to live in their home during the adaptation process. “On the one hand they displace the outer boundary between architecture and its surroundings in the sense that the extra space introduces an area of outdoor space into the controlled interior of the building; while on the other hand they also displace the internal boundaries of their spatial organization, since the integration of the extra space in the cubage of the building questions the logic of every conventional floor plan”.

The adaptation/ renovation of the aging building involve an expansion in which the new almost buries the old. Lacaton & Vassal imaginatively reconfigure the existing structure without overpowering the existing everyday life of the original. The project demonstrates that architectural adaptation is challenging and inspired because the old everyday life is contained and enriched within the parameters of the new. Architects show how the idea of building without demolishing takes life, which layers

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should superpose or change places. They suggest ways of rethinking what is already there even it is neglected and discarded. As Anne Lacaton puts it, one of the keenest challenges facing today's architects is how to transform and rejuvenate what's already there.^{ix}

Use of Materials and Techniques as Architectural Bricolage and Tactic

Lacaton & Vassal and Druot's toolbox contains various tools for achieving their purpose. On their project, both industrial components and hands-on work find place. They choose only readily available prefabricated elements, because specially manufactured non-standard components would make them expensive. The additional cost is minimized thanks to the use of economically priced structural systems and light, cheap and ordinary materials. They make some kind of bricolage not with in situ materials but, using materials and techniques from typologically different buildings (agricultural constructions, parkings, industrial buildings etc.). A product derived from a different typology of building finds its place and a new meaning in their architectural project, thanks to the research of an artisanal type that borders on bricolage.

They prefer inexpensive material such as corrugated panels of polycarbonate and aluminum or timber shuttering. They also use raw-concrete floor finishes, galvanized steel railings, lacquered aluminum panels, silver foil curtain linings. Costly or precious materials such as natural stone or hardwoods are deliberately avoided. They appropriate components as ready-mades whenever they can be used for their architectural aims. The greenhouse pieces are often implemented as architecturally modified products, because they are easy to construct, climatically efficient and cheap. The winter gardens system provides both extra space and bioclimatic insulation.

In situ materials are combined sometimes as detached from existing layers, sometimes as used in relation to everyday life. Those coexisting multiplicities are assembled together like a collage. They find their expression in the movement to create new multiplicities. This is the place to do assemblage of the pre-existing production tools in order to create housing according to the specific characteristics of each resident.

The visualization of the project with a collage, rather than as a simulation of a moment, suggests a variety of experiences and performative opportunities that occur during everyday life.^x The process refers to the "collage of found objects", which are, in this case, elementary façade typologies, and semi transparent corrugated polycarbonate panels. One can also argue that they use *arte povera* vocabulary borrowed from agricultural and light-industrial buildings. Lacaton & Vassal is known for its *arte povera* aesthetic, and it's deployed to full effect here—hard-nosed, pared-down, streetwise.^{xi} They are constantly creating a dialogue between concrete and lightweight, permanent and impermanent, conservation and recycling.

Conclusion

By naming the added spaces "unprogrammed extra space", architects investigate how one can open up a space for subjectivity in the practice of architecture. Lacaton & Vassal and Druot's approach to housing derive from and penetrate into everyday life without binding the habitants to norms or standards. While we design space, if we don't close the space to the subjectivity, housing can be considered as a flexible program open to differentiation. Thus the need to explore further the possibilities of an "unprogrammed extra space".

The incorporation of those new design tools, as discussed in the case of Lacaton&Vassal can lead architects to think with new conceptual tools other than form or function in design. As it stands, the current state of contemporary architecture does not prepare the architects' mental map to be alerted to

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record those architectural strategies sensible to multiple adjacencies. Evidence of this problem can be observed in professional architects' systematic complaints about how they feel apologetic for compromising social sensibilities in favour of economic gain. Diversified and enriched referential tools such as the critical intervention of Lacaton&Vassal and Druot's Bois-le-Prêtre Tower allows us to make cross-cultural comparisons, with an interdisciplinary approach between architecture, economics and social sciences. They open ways of aligning or contrasting reflections related to different "exemplary cases" and, by doing so, they allow us to use practice itself as research.

Creating awareness and exploring the examples of the adaptive re-use of residential buildings - without demolition and displacing residents - can contribute to the formation of a sustainable and enriched urban fabric today. As Ednie-Brown puts it, the physical aspect of architectural production itself can have a transformative effect on our very ideas and perceptions about architecture. Concrete experiments such as Bois-Le-Prêtre can thus be intellectually emancipating in the way we conceive and theorize the very practice of architecture.

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ⁱ Claude Lévi-Strauss, *The Savage Mind*, (Chicago, IL: The University of Chicago Press, 1966 [1962]).

ⁱⁱ Claude Lévi-Strauss, *ibid*.

ⁱⁱⁱ Frédéric Druot, Anne Lacaton & Jean-Philippe Vassal, *Plus (Large Scale Housing Developments An Exceptional Case)* (Barcelona : Editorial Gustavo Gili, 2007), 29.

^{iv} Michel de Certeau, *The Practice of Every Day Life*, trans. S. Rendall, University of California press (Berkeley: CA, 1984), 37.

^v Michel de Certeau, *ibid*.

^{vi} Denis Bocquet, "Anne Lacaton, More space, more light, more green: a new vision of social housing", *Speech: Affordable Housing*, 12 (2014): 239.

^{vii} Anne Lacaton, & Jean-Philippe Vassal, *Lacaton et Vassal, Catalogue d'exposition « Lacaton & Vassal, Grand Prix National de l'architecture 2008 »*, Paris : Edition HYX et Cité de l'architecture et du patrimoine, 2009, 192.

^{viii} Giacomo Borella, "The Work Of Addition, For An Architecture Of Manipulation", *Lotus International* 133 (2008): 57.

^{ix} Angela Rui, "Rivoluzione soft/ Soft Revolution", *Abitare* 520 (2012): 155.

^x Ilka & Andreas Ruby, *2G Libros Books* (text), (Spain: Gustavo Gili, 2007).

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