



Syllabus

**Fragments of a Theoretical  
Discourse in  
Architectural Design Research**

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Syllabus is a Pedagogical Issue of "Fuoco Amico" Architectural Review which presents the results of academic seminars and workshops. The goal is to offer these documents, provisional and incomplete as they can be, to the scientific community, enhancing dialogues and exchanges.

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## Fragments of a Theoretical Discourse in Architectural Design Research

**The Architecture's Environmental Performance  
between Criticism and Speculation, Theory and  
Practice**

**This issue is curated by Stamatina Kousidi and presents the contributions elaborated by the Candidates of the Ph.D. Program of Architectural Urban Interior Design, Department of Architecture and Urban Studies, Politecnico di Milano, after the seminars "Forms of Theoretical Discourse in Architectural Design Research", held by professor Kousidi in the spring semesters of the years 2023 and 2024.**

<b>Architectural Raiders</b> Alessandro Rocca	9
<b>Discourse/Design Production in Architectural Research: Addressing the Issue of Environmental Performance</b> Stamatina Kousidi	13
<b>Section A - Environments   From Discourse to Project</b>	
<b>Re-Establishing Epistemes of Performance: Cultural Shifts in Architectural Media Discourse in the Work of Philippe Rahm</b> Thomas Cabai	33
<b>In-Between the Environment and the Existing in the Work of Lacaton &amp; Vassal</b> Silvia Di Mauro	55
<b>Re-Envisioning Adaptive Reuse Through Building Envelopes: An Exploration of OMA's Approach</b> Xiao Hu	81
<b>A Reading of Lacaton &amp; Vassal's projects Housing Design as a Response to Environmental Issues</b> Nisa Nur Ozkan	99
<b>Breaking Boundaries: Design Strategies for Building. Nature Integration in Herzog &amp; de Meuron's Hospital Projects</b> Liheng Zhu	113
<b>Greenhouse Space: Gentle Repair in Lacaton &amp; Vassal's Residential Projects</b> Likun Shen	133

**Rethinking Architectural Thresholds:  
The 'Utopian Present' of Theory and Practice  
in Alison and Peter Smithson's "Streets-in-the-Sky"** 153  
Nicolò Chierichetti

**New Brutalism in Alison and Peter  
Smithson's Design Research: The Robin Hood  
Gardens as a Case Study** 181  
Yuhan Zhou

### Section B - Envelopes | From Project to Discourse

**Jean Prouvé and Architectural Environmental  
Performance: The Iconic *Maison Tropicale*** 213  
Maddalena Laddaga

**Polychromy and Sustainability: Building  
Envelope as Symbolism in the Work  
of Sauerbruch Hutton** 241  
Zhihang Lin

**Natural Structures: Tracing Form-Finding  
Experimentation in the Architectural Practice of  
Frei Otto** 259  
Junliang Zhou

**The Architectural Paradigm and Discourse  
of Solar-Control Design: A Case Study of  
Victor Olgyay's Shading Devices** 283  
Rui Ren

**Building Utopia: Richard Buckminster  
Fuller's Total Envelope** 307  
Margherita Marri

**The "Unspeakable Beauty" of Herbal Candy  
Boxes: through the Dialogue Between  
Herzog & De Meuron and Ricola** 327  
Raffaella Cavallaro

**Cunning Make-up: the Environmental  
Performance of Herzog and de Meuron's Projects** 347  
Yang Qianqian

### Section C - Events | Project/Discourse

**Spatial Discontinuity: Theory of Cinematic  
Montage in the Work of Bernard Tschumi** 367  
Đorđe Bulajić

**A Choreographic Perimeter: The Rentsch  
House in the Swiss Alps by Richard Neutra** 391  
Duccio Fantoni

**Synchronized Patterns in Eileen Gray's  
Tempe à pailla** 407  
Hao Wang

**A Theory of (Unspoken) Beauty: Lacaton  
& Vassal. Practising Architecture with the Existing** 427  
Andrea Fopplani

**The Blur Building: Examining Diller+Scofidio's  
Critical Spatial Practice** 443  
Yiling Fu

**Bodies, Space, Project: A Long (Hi)story** 463  
Davide Montanari

**Body Eraser: Rebellious and Broken Edges** 479  
Yuwei Ren

**In-Between the Environment and the Existing  
in the Work of Lacaton & Vassal**

Silvia Di Mauro

In the context of the climate crisis, the issues of adaptation and transformation of the existing built environment are becoming central. Due to this transition, which is characterized by uncertainty, non-physical aspects, and transient traits are becoming increasingly important (Kousidi 2022) in determining the properties of space. The non-physical aspects that define the environment and characterize the spatial experience – light, comfort – what Leatherbarrow in his text ‘Architecture oriented otherwise’ identifies as performance (Leatherbarrow 2009, 44-45)<sup>1</sup> releasing this term from a merely technical sphere, becomes a central issue in the overall reasoning regarding architectural quality with a view to sustainability.

In the research for design strategies able to develop a discourse about a spatial innovation that combines technical requirements with an ethical and poetic architectural expression, Lacaton and Vassal’s studio makes its contribution to the discipline by investigating the reinterpretation of the greenhouse as a device for the transformation of the existing with the design of double space. The paper will address the topic of the relationship between spatial quality and performance through the work of these architects to reflect on the role that this in-between space assumes in adaptation projects, to respond to the process of change, regarding the mediation between the natural environment, the built environment-city, and the interior space-human,

and to deepen their theoretical discourse on design.

From their earliest work experiences, their design approach began to take shape towards a profound observation of the potential of things, developed during Nigier's period, in which they set the foundations for an attitude that would drive their transformation processes: Everything has the same value the moment you can do something with it. And it is very interesting because it is not defined by its cost, but whether it is nice, or beautiful or solid. It is not just a pragmatic or efficient usage of things, but also the care and creativity they invest in reusing and assembling them beautifully (Grinda and Moreno 2017, 11), said Anne Lacaton about the locals' approach, opening up to a project that is a response to the complexity of a condition.

Their ability to synthesize theory is well expressed by Robin Wilson in his article "Horizon remix: A 'crisis' in the architectural image – representations of Lacaton & Vassal's 'double space', in which he describes the objectives and strategies of their work as follows: Operating on the basis of a lucid, critical analysis of the range of possibilities and constraints offered by the specifics of the given situation in order to facilitate a spatially generous and pragmatic architecture that provides the support for a freedom of action and appropriation.

In this approach, the in-between space is configured as a recurring theme, capable of synthesizing their discourse

through its variations, described by Robin Wilson as a consistent ambition and core of propositional spatial tactic, the double space becomes a subject of research by design with broad possibilities.

Looking through two case studies, the Bois le Pretre Tower in Paris and the 530 dwellings in Bordeaux, both residential projects of transformation of the existing, we will analyze the architects' theoretical approach towards the environment and the way it emerges in the project and in the media that describe it.

### **In-between: context, typology and performance**

The two projects confront each other with the question: How to make sustainable what already exists? (Lacaton and Vassal 2015, 35). The reflection around this question is developed together with F. Druot in the Plus research, exposing an attitude based on "never demolishing, subtracting or replacing things, but always adding, transforming and utilizing them", in which the Plus expresses not only an act of expansion but of 'luxury' related to spatial generosity, light and comfort (Druot 2007, 41) in relation with the environment, which takes shape through the reinterpretation and typological transposition (Herreros 2017) of the greenhouse as a cost-effective and replicable element, composed by simple materials and technologies.

The 2011 Transformation of Bois le Pretre Tower was an



*Fig. 1 - Transformation of 530 dwellings, buildings G, H, I, quartier du Grand Parc, Bordeaux, France, 2017. Source: [www.lacatonvassal.com](http://www.lacatonvassal.com). Photo by Philippe Ruault.*



*Fig. 2a - Pre-projects status. Transformation de la Tour Bois le Prêtre, Paris 17<sup>e</sup>, Paris, France, 2011. Source: [www.lacatonvassal.com](http://www.lacatonvassal.com).*



*Fig. 2b - Pre-projects status of one of the building G. quartier du Grand Parc, Bordeaux, France, 2017. Source: [www.lacatonvassal.com](http://www.lacatonvassal.com). Photo by Philippe Ruault.*

opportunity to demonstrate the cost-effectiveness of this design strategy against the demolition policy proposed by the state in 2003 that would have involved the Villes Nouvelles, residential buildings from the 1960s and 1970s in Paris inhabited by people from lower income groups. Assuming the character of a political, social but also ecological protest, the project, together with the others developed in the Plus research, designs an expansion in which the double space is configured as an addition, not equal on all sides but taking on variations in relation to the interior spaces and the city. The intervention not only adds balconies and private spaces to the dwellings, but also makes the communal spaces more accessible and welcoming, reconfiguring the ground floor allowing the transition between the public space and the garden, adding two lifts, and improving the brightness of the distribution.

At the urban scale, the expansion takes on the role of densification (Grinda and Moreno 2017, 19), a fragment reorganizing parts of the city and previous concepts into a new configuration that adapts them to the current situation with the precision of the small scale.

The idea of fragments, and the role of these in the creation of a system, with the environment and the building, derives from the development of the ideas introduced into the debate by Cedric Price and Yona Friedman, with the possibilities opened up by the use of the device as a 'no-

madic' space within a system, by Frei Otto and his work on the theme of the membrane, and of stratification, through the design of the *Oko-House*, and Buckminster Fuller with the 'independent' ecosystem between inhabited space and environment. The city and the individual building become grids supporting new living situations, never imitative but always performative (Ruby and Ruby 2007, 25).

In "Reclaiming Modernist", the introduction to *Plus*, Ilka e Andreas Ruby talks about Lacaton and Vassal's approach to the city and to modernist architecture. Recalling the concept of 'Suspension of Judgement' transferred by Rem Koolhaas from the artistic world, with reference to the work of Duchamp, to the architectural sphere, they talk about their approach to modern residential architecture that rejects the basic ideology of the modern movement, the *tabula rasa*, in preserving the buildings of that period to start an urban transformation that applies a new layer, composed of pieces and materials that escape from homologation, relying instead on specific conditions, with the ambition to reanimate and emphasize latent potentials. The addition is composed of a freestanding structure juxtaposed to the pre-existing one by adding an extra openable space thanks to sliding polycarbonate panels and open balcony spaces, acting on the existing structures only by removing some internal panels and replacing the prefabricated cladding panels with sliding glass window frame.



*Fig. 3a - Transformation de la Tour Bois le Prêtre, Paris 17<sup>e</sup>, Paris, France, 2011. Source: [www.lacatonvassal.com](http://www.lacatonvassal.com). Photo by Philippe Ruault.*



*Fig. 3b - Transformation of 530 dwellings, buildings G, H, I, quartier du Grand Parc, Bordeaux, France, 2017. Source: [www.lacatonvassal.com](http://www.lacatonvassal.com).*

The space “in-between” takes on different configurations according to its position in the building, maintaining its role as a mediator. One constant in the Plus is in adding possibilities of use and performance, freeing itself from the need for a precise function and offering a space to be inhabited, open to the interpretation of the inhabitants. It is in freedom of use, and in the possibility of immediate typological and spatial interpretation of the configuration, that lies the intelligence of this device, whose scale, use, and form can be adapted to each case while maintaining its qualities constant. In the Transformation of the Cité du Grand Parc project, the double space modifies its dimension by increasing its depth. The project consists of an intervention in three occupied buildings in which the addition of a system of independent prefabricated structures of precast concrete columns and slabs composes a diaphanous body of regular modules, where the design of the elements imbibes and sheds light (Rivkin 2017).

The social sensitivity towards the starting conditions stimulated the designers to adopt a technical solution of prefabrication and minimal intervention, which allowed the inhabitants to continue living in the flats during the construction, taking less than 15 days to transform each unit. The double space takes the characteristics of a winter garden and increases the surface area of the open plan by approximately one-third, connecting to all rooms in the

house, with which it communicates through openings of the entire height of the wall or filter devices.

The design focus of the additional space is identified in the spatial quality it adds to the interior, creating new conditions of pleasure and comfort. The research for a performance based on comfort that derives from the feeling, atmosphere, possibility of use, and connection with the context takes shape in the double space through the minimal devices that composed the mediation between interior and exterior. Through sliding movements and the poetics of polycarbonate, able to amplify light with a translucent surface that creates a blurred effect on the outside. In addition to enhancing the interior through the sense of continuity given by new openings in the façade and the amount of light, the double space takes over the regulation of the indoor environmental conditions. The buffer zone created along the entire façade makes it possible to significantly reduce the waste of energy, and an additional layer of prefabricated insulation was added to the existing masonry, further improving internal living conditions.

The elements of the sequence, sliding devices in glass, polycarbonate, and curtains, give the possibility of individualizing their interior climate, building their own ‘geography’ (Grinda and Moreno 2017, 5-31) of the house, a term used by architects as the meaning of geometry, to identify a set of mutually related conditions and spaces.

### Open research process

Looking at the section of these projects, one finds a synthesis of the elements that resonate with the in-between. The drawing and collage speak of a process through the sequence, even superimposing diagrams of design actions, complementing the technical section with the immaterial and material factors, represented through photography, that characterize the performance: the inside, the open space, the city, and man in his role of modification and interpretation.

Their apparently linear approach contains something that Herreros (2017, 386-395) describes as apparently accessible, familiar, and friendly, while on the other, this immediately comprehensible content coexists with an eloquent ambiguity that generates a critical space open to experimentation and innovation, an attitude that is also reflected in their communicative strategy of theoretical thought, which often uses the tool of the double interview, as in the research Plus, in the interviews conducted by Ruby and Ruby and in the contents of the magazine *El Croquis*, to build a dialogue between them and the reader, and during the academic activities carried out by both of them throughout their careers in which the theoretical discourse was deepened (Lacaton and Vassal 2015). The pragmatism that permeates every aspect of their approach shows a complete vision of the relationship with the environment that passes

through economic, social, and environmental sustainability, demonstrating an ecological approach capable of investing the entire process in a systemic and poetic view of the elements.

The value of the double space lies in the ability to bring about a behavioral transformation through environmental imagination, in the way Hawkes defines it, in which techniques are used to reach performances that are part of a poetic intention (Hawkes 2019). Through the superimposition of a new system, the difference and proximity to the original building transform the aesthetics and behavior of the existing structures, creating a new living condition projected into the future by a process of stratification of temporalities.

This third situation, generated by the product of the two interventions, can only take place if there is confidence in the future and if there is an acceptance of a certain lack of definition of usages and place. (Lacaton and Vassal 2011) Looking at the transformation as an act of creation in itself (Rambert, Colombet, and Carbon 2015) Lacaton and Vassal's reasoning on the greenhouse demonstrates the possibility of expanding the discourse on architecture and the environment, opening up a contingent design with the current issues of uncertainty and transition in which the "in-between" can open possibilities in architectural experimentation.



Fig. 4 - From above: existent and transformation projects. Perspective section of the project 'from the inside'. Transformation de la Tour Bois le Prêtre, Paris 17<sup>e</sup>, Paris, France, 2011. Source: El Croquis "Lacaton & Vassal 1993 2015 - Post media horizon", 177/178. p 228.



*Fig. 5 - From above: existent and transformation projects. Perspective section of the project 'from the inside'. Transformation of 530 dwellings, buildings G, H, I, quartier du Grand Parc, Bordeaux, France, 2017. Source: [www.lacatonvassal.com](http://www.lacatonvassal.com).*

## Notes

1 “Other and essential aspects of buildings come into view if one supposes that the actuality of the building consists largely in its acts, its performances. [...] attention to the ways buildings act will contribute to a new understanding of the manner in which they are imagined, made, and experienced. [...] we must take the side of the perceiving subject and must implicitly consider experience to be the light that illuminates the building’s performance.” David Leatherbarrow, “Unscripted performances,” in *Architecture Oriented Otherwise*, New York: Princeton Architectural Press, 2009, pp. 44, 45.

2 “For us is extremely important to consider that we are working in the existing city and therefore the tabula rasa is not an alternative. Even the master plan is not relevant anymore. [...] We think it is more valuable to start from inside, from the inhabitants’ situation, and then develop space around it at different scales. So it is about trying to be extremely intelligent about designing many small projects or fragments of projects from the bedroom, and then the bathroom, and then another dwelling and then all the levels, and the whole building, and then two buildings or more, and then another school, a public space and then something else, in an infinite series of spaces. The city is then made of many fragments connected and intersected with one another. This alternative consists of developing

transformations of the existing city, densifying it with a maximum of delicacy [...]” E. Garcia Grinda and C. Díaz Moreno, “Everyday Delights: A Conversation with Lacaton & Vassal,” in *El Croquis 177/178*, Madrid, 2017, p. 19.

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