FROM COHERENCE TO CONTRADICTION, AND FROM CONTRADICTION TO PARADOX: OR WHAT TO DO WITH THE ARBITRARINESS OF ARCHITECTURE.

Architecture is supported, as a discipline, on the concept of necessity. This might be programmatic, climatic, aesthetic or of another na-ture. Arbitrariness, on the contrary, is thought as alien and incompatible.

However, in all architectonic problems there are a number of open or even imprecise variables, whose determination can only be the result of a superimposed construction.

Domesticated in perspective construction, hidden behind geometry, or exhorted by functionalism, arbitrariness and its manipulation is a fundamental component in architectonic problems. Paradoxical thought, capable of questioning the liking of coherence that we believed co-substantial to architecture, nowadays puts arbitrariness in an exceptionally visible position.

ON COHERENT THOUGHT

The mark of rationalism, and the concept of function associated to it, was treated with a stroke more faltering than firm in the ideological origins of the modern project. Through the French route of the constructive rationality of Viollet-Le-Duc, or the Anglo-Saxon route of the systems associated with the industrial production of Paxton, modern thought built on the pillars of technological development and the functional specificity part of its program of renovation.

The objectionable relation between cause and effect, as well as the principles of inner coherence and systematisation, were obviously found in the root of this thought. The mechanisation of productive systems brought with it not only the desire to overcome aesthetic and composition problems through, and as a consequence, of technological rationalisation -but also left behind the concepts and techniques of craftsmanship and ornament.

The proposals of architects like Hannes Meyer or Karel Teige finally gave a radical slant to the rationalist discourse, orientating it towards scientific models of thought. The introduction of concepts such as efficiency and productivity, as well as universality, categorization and standardization derived directly from the central nucleus of the New Objectivity.

The rationalisation of productive techniques and the objectifying of architectonic problems through economy and technology allowed them to propose the substitution of the concept of architecture as a work of art for architecture as a tool. This fact was manifested, literally, in the words of Teige when he said:

> *"Instead of monuments, architecture creates instruments."* N1

Architecture was not understood as and end in itself anymore to become environment for a purpose. In short, and as a consequence of technolo-gical rationalisation, architecture lost the autonomy to integrate in the new economic and productive system.

The basic problem, however, was not making functionality and technology part of architectonic problems, because they had always been so, by their own right, necessity or common sense. The objective

was to make both, function and technique, a priority manifestation. Direct manifestation, in the case of Fuller, or figured, in the case of Le Corbusier or Archigram.

For Le Corbusier, as for many modern architects, the fascination with technology had its roots in the writings of Viollet-le-Duc and in the work of August Perret, orientating apparently towards a consistent relationship between techniques and forms through coherent and adequate constructive systems. But, in fact, in the work of Le Corbusier the new lead taken by function and technique moved finally to surfaces, configuring themselves as a problem of representation and expression. The peculiar "spatial poetic" of Le Corbusier did not surrender architecture to an instrumental, secondary or anti-artistic condition. On the contrary, Le Corbusier made technique and function instrumental through rhetorical and representational means traditionally at the disposal of architecture (facades, frontality, systems of order and proportion, etc.)
However, when asking "Madam, do you know how much your house weighs?" Fuller banished any rhetorical ambition or representative of architecture, actually concentrating on technical and instrumental problems. On the way to optimisation and standardization, Fuller wanted to check the capacity of functional and technological principles for overcoming the arbitrariness of the design process, elevating the relation of cause-effect to the rank of generative principle.

Opposed to the libertarian hedonism of his European contemporaries related to Archigram N2, the American positivism of Fuller did not have a sense of humour.

For the former, the configuration of architecture parting from the conjunction of a group of pre-fabricated and standardized elements had as objective establishing an adequate relationship with emergent technologies, as well as proposing an understanding of architecture as an instrument of pleasure and individual gratification. Architecture was equally conceived as a tool or instrument, but its end was the creation of conditions of equilibrium between the system (infrastructure) and freedom (individual) or between control and exception.

For Archigram the new productive systems (industrialisation, new technologies, etc.), as well as the new analysis parameters (mobility, velocity, infrastructure, etc.) should exercise a multiple and substantial transformation on architecture. However, as in the case of Le Corbusier, this should manifest itself not only in the constructive field of pre-fabrication and industrialisation, but also preferably in the symbolic field of expression and representation. Architecture was a tool for the building of a habitat, but was also the most expressive resource for stressing a way of life in which individual and random freedom should be taken into account as significant parameters.

Fuller, on the contrary, avoided such a paradox and applied these principles with rotundity almost alien to rhetoric, even saying in 1946, infected by the delirium of the post-war years, that the military needs had done more for industrial and technological development than peace times.

> "Overnight (there was) the necessity of democracy for a great number of planes to accommodate the increasing mobility of man brought by war, because man had not provided ways of developing that air technology expansion through peaceful means.

*I think our house is going to have an important part in helping us
to keep on upward instead of downward in historical degree of
technical advantage that was developed during World War II."* N3

From the utopia of the New Objectivity to the efficient pragmatism,
though tinted with the black humour that characterised Fuller's work
there is a route marked by the loss of ingenuity. In particular in
relation to the capacity of technology and function for objectifying
architectonic problems, it is ironic that the point of destiny of
functionalist thought, characterised by the desire of optimisation of
the relationship between form and function through the new
technologies, was precisely the container, whose fundamental
characteristic being configuration, is the overcoming of such
relationship.

That thought, the main objective of which was the elimination of
arbitrariness from the designing process, drives, not without
admiration, to an architecture in which the relationship between
content and container is arbitrary in principle. Flexibility, the most
radical and effective consequence of functionalist pragmatism and of
substituting form by technology, confronts us with the lack of formal
specificity as technique but also as crisis. In the container, natural
offspring of flexibility, the dictum 'form follows function' is never
abided by. Functional indifference, on the contrary, is a basic part
of its formal strategy.

From the techniques of aggregation of programmatic increments of the
first functionalism, still depending on the strategies of planimetric
organization, to the meshed and homogeneous structures of the
containers, alien to planimetric and functional order, an arch whose
geometry tends to close on itself has been travelled. A circular drift
that take us back, in a way, to the original problem: how to confront
the arbitrariness of architecture.
For many this drift meant not only the end of an architectonic
program, but also the end of a way of thinking, marked by the
subordination of character over function, and by the identification
between ends and tools.

In the particular field of architecture the manifestation of this
crisis allowed making the differences between the two fundamental ways
of production of the vanguards evident. Not the most literal
differences between rationalism and expressionism, but the more
complex ones existing between rationalism and surrealism.

ON CONTRADICTORY THOUGHT

The decade of the seventies was characterised by a considerable
intellectual confusion. In the middle of that eclectic and inter-
disciplinary agitation, baptised as "postmodernism", there was a
fundamental crisis in the historical conscience, resulting from the
loss of legitimacy of the ideals of progress and overcoming that had
characterised the first half of the 20th century N4. It was,
therefore, a crisis so pessimistic in its critical analysis of the
modernist project as eclectic in the proposed mechanisms to dismount
it.

Modern orthodoxy, with its tendency to abstract sublimation, was
substituted, in the particular case of architecture, by a procedure
capable of recognising the singularities arising in each case. A long
series of countered concepts, operatives in the modern thought of
architecture, definitely lost their validity: new/old, present/past,

right/left, progress/conservation, representation/abstraction or kitsch/vanguard. In its place the ideas of pollution and ambiguity in the thought of architecture were introduced, as well as instability and heterogeneity.

> "I prefer hybrid to pure elements, compromised to clean, ambiguous to articulated... redundant to simple, irregular and mistaken to direct and clear. I defend the richness of meanings ...I prefer 'this and that' to 'that and the other." N5

In this intellectual and productive context each thing can exist in its place of origin, associated to a stable meaning, but also be displaced to any other place, taking advantage of the alterations produced in reaction to a new environment or new circumstances. The movements in space and time, outside of their historical or physical contexts, imposed themselves as basic mechanisms in the production of meaning.

However, this was only the first step towards the more radical concept of 'autonomy of architecture'.

A way in which an understanding radically anti-instrumental of architecture was based, devoted to the autonomous development of the discipline, alien to functional or social programs precisely in the name of arbitrariness and its explicit manifestation for the first time.

A way that, in coherence with its structuralist roots not only put into a crisis the linear concepts of time, history or thought. In dissolving the disciplinary limits to propose not only the proliferation of inter-disciplinary contamination, but also movements or transgressions between them, was, in fact, a further step taken. And, as a consequence, in the debate the notion of 'thinking one discipline with the tools of another' was introduced.

> "The idea of temporality and of originating value is key if this notion of 'second language' is transferred to the idea of architecture. Firstly, in the sense of architecture as 'second language' would suggest that architecture is always a second language even for those who use it. In another sense the term 'second language' could suggest that architecture was founded on other disciplines, that is to say, that it would be secondary to philosophy, science, literature, art and technology. But, finally, there is a third possibility for the idea of 'second language', this is, architecture as text.

> One last question must be considered: what desire or need is there to dismember architecture, which, in fact, is the most resistant discipline to dismemberment? The answer, necessarily, is that dismemberment or dislocation is the own and basic consequence of architecture itself. Since the development of modern psychology, with the division between ego and psyche, it is not possible to understand the relationship between subject and object as an univocal authority of presence, time and space; that is to say, 'here and now' as singular entities. The idea of 'text' obliges us to a reading and experience of alternative architecture, in a way that was not available to us before. Therefore this new point of view its offered in opposition to the idea that architecture has, contained in its own discourse, a future, which does not derived necessarily and naturally from its own past." N6

The consequences to this approach were necessarily multiple. One among them was, precisely, the change in critical filter through which to perceive and analyse the recent history of architecture, that is, of the modernist project.

Functionality, with its rationalist matrix, had been superposed over architecture in the same way geometry had been over classical architecture, assuring an inner continuous, visible and legible structure, capable of giving coherent reason to its intentions. In such a model of representation the dilemma of arbitrariness, which necessarily comes with architectonic problems, was hidden and obviated, as it put in danger some of its basic postulates.

However, even for a critic as orthodox as Summerson, there was another component in the game, which was not reflected or described by the parameters of rationality and inner coherence that presumably came with the ideological program of modern architecture.

> *"Just as Picasso's work is, as he (Picasso) has said, a sum destructions, so, in a sense, is Le Corbusier's; for to him the obvious solution of a problem, however charming, cannot possibly be the right solution. Just as in a painting by Picasso, Braque and Leger the appearance of a thing is torn to pieces, broken into bits and reconstituted in a ridiculous jigsaw which has, nevertheless, a perfect logic of its own, so a building by Le Corbusier is a ruthless dismemberment of the building program and a reconstitution on a plane where the unexpected always, unfailingly, happens...*
> *He sees the reverse of every situation... His architecture is full of glorious, exciting contrariness – contrariness which is never affection because it invariably is a solution of a hard and fundamental problem of use."* N7

It is difficult to know nowadays with what critical intention Summerson said these things. However, in the light of the new sensibility, they allow us to identify the confrontation between inner coherence and contradictory complexity latent in architecture. The Berastegui apartment, the *Petit Maison* or the Carpenter Centre of the Visual Arts by Le Corbusier, among many other projects, make this evident.

It was only left that the sensibility of the observer changed not the object of analysis. That, the observer, with a different priority system, was capable of localising in the body of modern architecture the symptoms of its alter ego: rooms without ceilings, exteriors as interiors, buildings as machines, routes as landscapes, immaterial limits and a long list of operations that can only be explained as logical inversions or distortions. That is to say, like contradictions inside a system built in principle on concepts like inner coherence and difference. What could already have been hinted as necessary in the criticisms of Colin Rowe and Alan Colquhoun, was evident as positive value with Bruno Reichlin and Yves Alain Bois.

Operations that made evident how the functional and technical specificity of architectonic problems coexist with the arbitrariness of metaphoric substitutions through which, often times, meaning is enlarged.

Not in vane, by that time, the autonomy not only of architecture in relation to function, but also in relation with the program, context or history had already been announced. Architecture had been digested

by language and semiotic, and arbitrariness had naturalised as the internal relationship characteristic of the sign.

<div align="right">**ON PARADOXICAL THOUGHT**</div>

At the end of the century, to the extent in which it is liberated from identity and difference synopsis, architecture conquers one more level in the freedom of form and in the manipulation of structure. The geometric machine 'working the other way round'' annuls identities, imposing, in their place, continuity. Finally we face a scenario dominated not by contradiction or arbitrariness, but by paradox, in which the object, or architecture, does not aspire to a coherent identity but to a figure with no contour.

The objective of architecture had been to escape to entropy. Architecture guaranteed the imposition of an order, the structured organization of solids and gaps, and the implantation of a hierarchy. Architecture, through its form, ought to occupy spaces and move within them, therefore, controlling experience. In this orthodoxy form was the generator of architecture.

"Without form there will only be disorder and arbitrariness." N9

Understood in those terms, architecture was assimilated to an ideal concept of order and structure, built around a transcendent subject that visually dominates it. It was linked, therefore, to the definition of borders and limits, that is to say, to the mechanisms of identity and difference, whose translation to the visual, in its most operative expression, is the distinction between background and figure.

Accepting the inter-disciplinary challenge, architecture not only studied with the tools of analysis of linguistics and semiotics – theory of signs, communication, etc. Architectonic thought went, through deconstruction and inter-textuality, into a process of dismantling of any system of bases, abandoning, for being suspected, of any reflection that could be assimilated to its 'metaphysic'.

In the seventies, with the object of putting in crisis from the critic the operative principles of the practical discipline, the concept of autonomy in relation to parameters of necessity/need, history or structure had been proposed.

However, the reflection on arbitrariness, and the notion of necessity as social or cultural construction, was developed within the boundaries of architectonic discipline. Thus, a functional program could be substituted by a literary narration, but this acted as exterior support for an end or an occupation; a certain place could be replaced by a historic sequence arbitrarily chosen, but finally served as the function of a context; or a planimetric strategy was generated as scalar manipulation thought the figures and their relationships maintained it in the field of form.

The final purpose was to think about the conventions of architecture, exposing the arbitrary, camouflaged or interwoven components in the concept of need and its diverse constructions.

However, today we find ourselves immersed in an even more complex intellectual environment, by-product of, in great measure, inter-disciplinary movements and the promise of an endless multiplication of meaning not as the result of the generation of new ideas, concepts or

objects, but of the multiple relations that with them or among them could be established by critical discourse.

In application of this intellectual program, we have proceeded to de-contextualising architecture as a whole, re-situating its thinking in a different and alien environment. An environment situated half way between the theory of games and post-structuralism philosophy, in which all reflection must be done in the light of the relationships between language and the subconscious.

The subconscious is the place of paradox; this is understood as the overcoming of the limited concept of difference and contradiction. In the subconscious, as in Alice's world, the Platonic duality that opposes sensible to intelligible, matter to ideas, bodies to ideas about bodies, is not operative.

In the subconscious, as Deleuze or Yves Alain Bois, or Rosalind Krauss; along with a long list of thinkers propose, the system of identities and differences is cancelled, substituted by a model that operates in a similar way to a surface.

In the realm of the subconscious the techniques that allow movement from reality to dreams, and from bodies to ideas, are activated without interruption. They enjoy a kind of continuity similar to the one that operates on a surface whose lineal border, belonging to both sides, allow us to go through from one to the other without interruption. The relation between beam and underside is of continuity, overturning the differences and undermining the identities.

Such techniques are characterised by paradox, and its way of thinking.

> "*The paradox of this pure becoming with its capacity to elude the present, is the paradox of the infinite identity (the infinite identity of both directions or senses at the same time -of future and past, of the day before and the day after, of more and less, of too much and not enough, of active and passive, and of cause and effect).*" N10

A certain echo cannot go unnoticed, a certain similarity between Deleuze's words and Venturi's, mentioned before. In both cases it shows the liking of the heterogeneous, by the richness of meaning resulting from ambiguity or duality, or by overcoming the articulation between the parts in favour of juxtaposition and mixing, at the same time that it goes deeper into the loss of prestige of the relation of cause-effect.

However, for Venturi the objective was the manifestation of contradiction which, as a result of the magnitude and complexity of architectonic problems -conditioned at the same time by factors of different scale and nature: economic, aesthetic, cultural, technical or sociological-, characterises the techniques at the architect's disposal. Venturi defended the identification of those contradictions, avoiding their repression or dilution in the name of an aesthetic program integrator and synthesiser -abstract, in the end.

On the contrary, these conflicts, co-substantial to architecture, should be postponed and localised along with its disciplinary history. And, with independence from their historical or geographic context, they should be identified as the instruments and resources that allowed the resolution, manifestation and expression of architectonic

problems until now, through planimetry as well as iconography -that is to say, through the tools of architectonic technique.

On the contrary, paradox proposes that we overcome the concept of contradiction and takes a step further:

> "The force of paradoxes is that they are not contradictory; they rather allow us to be present at the genesis of contradiction. The principle of contradiction is applicable to the real and the possible, but not to the impossible from which it derives, that is, to paradox or rather to what paradoxes represent." N11

For Deleuze, as for post-structuralism in general, the concept of difference is part of the principle of identity (sign). And once the thought of architecture has been put in his hands, having moved to its territory, the system of dualities with which it operates in the physical world -and with which architecture operated- is left in doubt.

> *"Not only does Lewis Carroll invent games, or transform the rules of known games (tennis, croquet), but he invokes a sort of ideal game whose meaning and function are at first glance difficult to asses: for example, the caucus-race in Alice, in which one begins when one wishes and stops at will; and the croquet match in which the balls are hedgehogs... These games have the following in common: they have a great deal of movement, they seem to have no precise rules, and they permit neither winner nor looser. We are not 'acquainted' which such games which seem to contradict themselves.*
> *The games with which we are acquainted respond to a certain number of principles, which may make the object of a theory." N12*

Having reached this point it is only left to ask ourselves, today, what type of game is architecture. Is it one with rules, known, established a priori and accepted as conventions -program, structure, etc.- or is it a game whose rules are produced or changed while you are playing?
The differences that exist between one type of game and the other are, actually, the same that exist between architecture and language. And they show us the consequences of not analysing the contents of a discipline with the tools of another, but of substituting the contents of a discipline for the tools of analysis of another.

Architecture, in regard to its needs for expression or communication, might be described as a language. And it could even be analysed with the tools of linguistics. But, notwithstanding this fact, the relationship will always be metaphoric or, at best, an analogy.

As an alternative I propose this other problem, which takes us back to the world of material restrictions: the sculptor Robert Morris extends a felt material on the floor, cutting it in straight lines. While it is on the floor, the parallel and repetitive order of the cuts is perceptible. There is a form. However, when it is taken off the floor and it is hung on the wall, its own weight deforms the material. Now it is only an irregular thing with felt stripes and gaps between them. The force of gravity, which operates in a vertical axis, makes evident the inform character of the felt, that is, not having a supporting structure, and the irregular gaps between the stripes, its manifestation.

On the horizontal plane gravity is not operative, the restrictions of weight and structure disappearing. Because of this surfaces works as material, as abstract and ornamental problems. But, when folding the horizontal plane and having available the vertical axis, the most significant thing is not the order in which this is done, but the deformations with which it transforms.

Analogy permits us to think in a discipline with the tools of another, but the result is measured with the rules of both.

In the history of architecture of the 20th Century there is a progressive approximation between the concepts of order and freedom, finally they are equivalent in our thought. Such direction is parallel to social and economic development, and allows us to see the transcendence of ideas over the disciplinary limits.

In architecture such direction has manifested itself, among other forms, with the irruption of the concept of arbitrariness. This concept is articulated in the sequence that take us from surrealism and the theories of the subconscious to the notion of contradiction as a generative system and, finally, to the paradox as a tool of analysis capable of reflecting the complexity of realty and of our advanced description of the same.

Liberated of the imposition of a built superstructure that hides it, the concept of arbitrariness allow us to recuperate, paradoxically, the trust in the disciplinary techniques of architecture, because through them the complexity of architectonic problems can be described precisely without shading or despising its dependence on physical reality and its measurable parameters.

footnotes
N1 Karel Teige. In response to Le Corbusier, 1929
N2 G. Baird. The Space of Appearance, MIT Press, 1995
N3 R. Buckminster Fuller. Designing a New Industry, USA, 1946
N4 A. Compagnon. The five paradoxes of Modernity, Columbia University Press, New York, 1994
N5 R. Venturi. Complexity and Contradiction in architecture, MOMA, New York., 1996
N6 P. Eissenman. Architecture as second language: inter-texts, New York, 1985
N7 J. Summerson. Architecture, Painting and Le Corbusier, Norton Library, 1947
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N9 Le Corbusier. Towards a New Architecture, Paris, 1923.
N10 G. Deleuze. The Logic of Sense, Columbia University Press, New York, 1969
N11 Ibid
N12 Ibid