

*The true problem in history is not about the invention of facts that did not really happen,
but misinterpret those facts we all know took place.
Analyzing them from different perspectives, allow us find out fascinating relations.*



La Divina Razón. Francisco de Goya (museo del Prado)

COMPOSITION II

SHORT LESSONS FOR UNDERSTANDING SOME OF THE ORIGINS OF MODERN ARCHITECTURE

fernando bajo mtz. de murguía
PhD architect

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UNDERSTANDING SOME OF THE ORIGINS OF MODERN ARCHITECTURE

(and the importance of precedents in pursue of Modern Architecture features)

Briefing:

The aim of the present text is to discuss about this question:

When does the so-called 'Modern Architecture' start?

In pursuit of that origin, previously we have to deal with issues such as the way we look at things depending on time and place, and how societies, and by extension the entire world, changes according to how we perceive, feel through our senses, and finally process our understanding of those things that in the end affect our behavior. Demanding, at the same time, new kind of urban scenarios and architectural facilities for their upcoming needs to be satisfied.

The starting point could be no other than the revolutionary moment when humankind finally becomes aware that when the scientific method can be applied successfully, and consequently faith or dogmas are avoided, knowledge becomes universally transferable. Therefore, under the rules of reason, we have managed to make humans equal in their exploration of any discipline, without discarding however, the power of personal emotion in whatever field of the Arts. But according to this particular feeling traditionally related to beauty (pure or intellectually justifiable), there is another important point rising from the distinction between the fine arts and the useful arts that appears in the eighteenth century too¹, and affects in a very particular way to Architecture (undoubtedly a useful art). It comes from the fact that an accurate knowledge of the function is closely related to the final form, something far away from the possible arbitrariness of the latter that has ruled the evolution of the discipline apart from frivolous approaches until not long ago. This legitimation, supported by a great technology development based on the scientific knowledge, took place under those specific conditions and made modern Architecture possible. Since then, its swinging pendulum has gone back and forth; trying to find an equilibrium from mere aesthetics to mainly technical issues.

To explore this difficult balance within the discipline of Architecture, we dare to use a mayor binary counter-relation between reason and senses. Two main features of a double-sided activity related at

¹ That will lead into the following century to the distinction between the "free arts" defended by the ideals of the Romanticism, and the "applied arts" represented by the craftsmen. Two perspectives that will be melted in the beginning of the twentieth century under the idea of the "*Gesamtkunstwerk*" (the total work of art, or synthesis of the arts)

the same level both with the realm of the arts and the domain of science. Apparently two opposites that nevertheless can help us better perceive and emotionally understand their complex relation in the elusive world we live in.

Introduction

The questions I'm posing in this text have to do with the following:

Where can we find the first sources of what we consider as modern Architecture nowadays?

How it was created or invented, and where does it come from?

When do the so called "modern architects" start?

Is it a binding trend of the discipline based just on an accurate positivism?

Do they just belong to a specific architectural drift known as the Modern Movement, born specifically as we have been taught in the first quarter of the twentieth century, or perhaps their origin can be traced back further? ²

In order to find a proper answer (or answers) we explore some of the social and intellectual features considered "modern" and the causes whose consequences have framed these new situations. It is impossible to achieve the evolution of a social environment if we do not previously understand a little bit of the society itself. The zeitgeist that relates the arts and science with the society, and the desires this latter one expects to be satisfied. At least the core of its related issues. This allows us to dive in the understanding of specific new concepts or into others that had not been considered important before, in this case about art and Architecture. Getting rid of generic methods such as the "copy and repeat" or "follow the dogma" ones, to jump into some more personal approaches focused on particular creative processes, than can be based from the pursue of pure emotion to the challenge about achieving a pragmatic appearance. And finally, can lead us to the conclusion that in finding out what the concept of modern means, with its dogmas and fixed understandings, we can end up grasping its opposite one.

We have to remind this is not at all an art history text, and therefore the given data do not pretend to cover thoroughly all of the facts and lives cited. Instead, it intends to frame specific contexts and careers where remarkable ideas and architectonic works took place, and tries to make readers think about the birth and development of those still living ideas, and their evolution into contemporary situations that conceptually are not that different. Of course, its intention is to be read, but above all to be discussed

² Scholars such as E. Kaufmann (1891-1953) in *From Ledoux to Le Corbusier* 1968, P. Collins (1920-1981) in *Changing Ideals in Modern Architecture* (1750-1950) or A. Vidler (1941-) in *El espacio de la Ilustración* 1986, have supported this idea with great authority.

from alternative perspectives and points of view, in order to figure up and develop new sets of complementary ideas from the ones highlighted in it.

This broad apprenticeship, based on concepts exemplified by specific authors carefully chosen because of their significant contributions, means in fact a fragmented discourse, and pays recognition to the freedom of personal creativity and its importance to find out new horizons: Individuality within a given social environment. Another conquest of modernity that in this case is defended from those values that have pervaded at least throughout the last three centuries, and still can be found in contemporary examples we can compare with.

To the reader, we could also compare this work with a room with different doors (the footnotes and references) carefully disposed, everyone can open if there is some interest. Because today it is very fast and easy to simultaneously browse the web looking for information following these footnotes given throughout the entire text. They unfold a great deal of histories, some of which constitute a significant part of the references considered in contemporary Architecture. These scattered histories have been grouped according to specific approaches in order to better understand their focus, and their contingent consequences. But always with the due respect to their fragmented nature.

This fragmentation is indeed reflected in the structure of the text by its different chapters, which can be read independently or just in pairs, gathered in four main bodies:

APPROACHES (through intuitions)
EMOTIONS (based on feelings)
IDEAS (applied by methods)
MARKETING (due to appearances)

Each one enjoys its own particular, complete and highly recommended bibliographic references, and a "check box" resuming the key ideas defended. And although there is a sequential relation among them, they can be understood as different approaches (coming from alternative directions, and therefore can be looked through randomly) according to the concept behind the previously stated questions whose final objective is to surround part of this elusive term.

Artistic movements tend not to simply pop up, but slowly develop from merging tendencies that eventually forge a recognizable way of understanding and doing things consequently. Thus, it makes sense to explore further back, with no fixed limits, the origins of the manner in which architects do things in what today we still name as "Modern Architecture".

And discover that perhaps it is not that modern...

APPROACHES



INTUITIONS & STARTING SPARKS

0.-

One Starting Point to “The Modern” in Architecture

A new grasp

We should look back to a remarkable and historical event known as “*le Querelle*” that took place in France, the heart of Europe during the second half of the eighteenth century. From an academic point of view, we could say this was the quarrel between the *Ecole de Baux Arts and the Ecole de Ponts et Chausses*³: In other terms, between Artists following the tradition of the classics (Greece and Rome) and Engineers applying to technology the advantages coming from acquiring knowledge through the new scientific method. This quarrel has pervaded Architecture since that eighteenth century, and meanwhile has created a dynamic ‘in-between’ space of creation, full of ideas and procedures. The thesis I intend to defend is that it is precisely in that ‘in-between’ space of opportunities created by this new way of understanding things, where some maverick architects drift, emerging from the eternal balance between artists (*homme de lettres driven by emotion*) and scientists (*philosophs influenced by reason*), and working (both in professional practice and academic theory) within this always difficult balance.

From that moment on, these interesting but not so well-known authors began approaching different visions of Architecture based on new kind of premises: Space prominence, extreme emotions, the power of dreams... but practical formal schemes and recognizable elements too. An attitude we can still observe in the work of some contemporary authors struggling between existentialism and positivism, whose habitat is slightly outside of the establishment or worldwide fashion based on single thoughts. A situation that somehow still remains until today.

It is during this revolutionary eighteenth century too, when we can find authors such as the friar M.A. Laugier (1713-1769) celebrating the origin of Architecture with his *primitive hut* proposal, denouncing the “faults” of Renaissance and post-Renaissance architectural practice which did not take into account the primordial importance of nature, or J.J. Winckelmann (1717-1768) defending the idea that knowledge can be transmitted; and therefore learnt. In this situation, we see the birth about the belief that there are universal rules and orders that deal with material and form (the question of Form) And consequently we can witness the emerging interest in the values such as the haptic and the optic (the

³ The *Querelle*, origin of the Architecture of the Enlightenment (European intellectual movement of the late seventeenth and eighteenth centuries emphasizing reason and individualism rather than tradition. It was heavily influenced by eighteenth century philosophers such as Descartes, Locke, and Newton, and its prominent exponents include Kant, Goethe, Voltaire, Rousseau, and Adam Smith)

thickness and depth qualities in Architecture) Once again coming across the struggle between a nostalgic admiration for the good old times ruled by the beauty of handmade products, and an unabashed vision of a rampant future under the technological domain; between the veneration of ruins and the fascination for modern creations.

London in ruins vs LA today

Previously, in the seventeenth century, a general interest supported by kings and the incipient academic institutions can be detected in a new understanding of the natural world through this so-called scientific method that spread around Europe, and soon after all over the new world. And it is certainly true that the Science Academies began to make strides, gaining relevance throughout the most important European countries. In the end, this situation led to new philanthropic trends and social revolutions such as the outstanding one in France, in 1789, that influenced the whole occidental world for the coming years. We can call this period the beginning of The Age of Enlightenment (or simply the Enlightenment, and also the Age of Reason) ⁴.

Eventually this meant a new approach to reality, focused midway from reason to emotion, but far from any dogmas. And in the discipline of Architecture, it led to the technical study of first-hand resources and precedents reflected on the ancient ruins: its origins, evolution, geometry, proportions, materials, technology, and so on and so forth. While at the same time the medieval system of crafts, workshops and apprentices, was slowly being brushed aside.

Definition of the Enlightenment

One renowned example from a specific architectonic point of view trend (and also usually associated with the origins of modern Architecture) is the development and the construction of the new Eastern façade of the Louvre (1664-1667) by Claude Perrault (1613-1688) ⁵, where the famous double column recessed gallery between the entrance and each side block, announces another manner of composition for a whole new set of modern buildings all over the western world. Nonetheless, it retained a historical reference through the use of classical elements to legitimize representative issues focused on art history, classical monumentality, and social representation; without forgetting the upcoming importance of those inevitable technical issues discussed in the new Academies.

Louvre East Façade design and construction images

⁴ In his famous essay *What is Enlightenment?* (1784), Immanuel Kant (1724-1804) described it simply as freedom to use one's own intelligence. More broadly, the Enlightenment period is marked by increasing empiricism, scientific rigor, and reductionism, along with increasing questioning of religious orthodoxy.

⁵ In fact, officially designed by a small council appointed by Colbert. It was integrated by Louis Le Vau (1612-1670) (author of the Southern façade), Charles Le Brun (1619-1690), Claude Perrault (1613-1688) and since 1667 Roland Fréart de Chambray (1606-1676). Claude was the brother of Charles Perrault, famous writer and a prominent member of the French Academy who led "The Moderns" against "The Ancients". Claude had been commissioned in 1666 to translate into French the treatise of the ancient Roman architect Vitruvius, and Charles was a significant one of those "moderns" or "philosophs" in "The Quarrel of the Ancients and the Moderns" in the field of Literature. His association to modernity probably relies more in his ideas about the theory of Architecture (beauty, proportion and invention) expressed in his treatise *Ordonnance des cinq espèces de colonnes selon la méthode des Anciens*, 1683.

This interpretation of the balance between tradition and technology is based on the belief that knowledge is transferrable to anyone, an idea far detached from the mysterious and limited ways of acquiring whatever kind of mastery that was predominant in the Middle Ages. A good example of this new trend is the life and work of the previously cited Johann Joachim Winckelmann (1717-1768) who, within the discipline of art history, and aside of any religious compromises ⁶, became the flagship for many other authors who began to rescue the figure of humankind as the center of this new real world. He dared to defend humans have the courage to think for themselves, accepting self-consciousness, and the risk that taste is inextricably entwined with judgment and emotion.

Johann Joachim Winckelmann and other figures of the enlightenment

And that is precisely the context where a radical paradigm shift took place: A revolution when the Classical Episteme, or the system of understanding the world through direct observation, reason, and scientific method, supplanted the previous Pre-classical Episteme, based strictly on faith and mystical affinities. This is the spark which provoked the possibility of immense works dedicated to spread knowledge such as the Encyclopedia ⁷, an almost endless instrument that registered mankind's knowledge about all the known physical world; similar to a modern web browser under a powerful search engine, but centuries ago.

"Classical Episteme" vs "Pre-classical Episteme"

This shift causes antagonism between the old world ruled by religion, feudal institutions and bigotry, and the emerging world with its new ideas of progress and education that pretend people must think (and feel) for themselves, accept tolerance, freedom, equal rights, and so forth. This is something that many authors have since highlighted from differing points of view, and in some way these ideas have molded the way we look at things today ⁸. This is also the origin of the cited "paradigm shift" that takes place precisely in the tossed latter years of the eighteenth century, and it has also been researched by significant authors from the disciplines of art and Architecture.

Professional architects aware of these issues uncovered this point of view due to the needs of a new born society, and consequently worked for the community (although under royal or government

⁶ Born protestant, he converted himself into Catholicism with the only objective of studying the impressive collection of art masterpieces own by cardinal Alessandro Albani (1692-1779) whose became his librarian and by extension the Vatican Museums in Rome, under the Pope's permission.

⁷ The *Encyclopedia* is not really the first document to compile all the existing knowledge, and was not a D. Diderot's (1713-1784) initiative. The original idea came up from an immigrant from Danzig (today's Gdansk) called Gottfried Sellius, who in 1745 contacted the French editor André-Francois Le Breton to translate one of the first universal encyclopedias previously published, *The Cyclopedia* 1728 by the British Ephraim Chambers. It was meant good business, but it did not work until 1746 when D. Diderot, who had previous experience in translating texts from English into French (for example *The Medicine Dictionary*, by Robert James) and J.I.R. d'Alembert (1717-1783) took the challenge to produce the work. (Curran, 2020. p 105-107)

⁸ The thoughts of M. Foucault (1926-1984) developed in *The Order of Things* when talking about "Las Meninas" by D. Velázquez 1656, is an interesting approach to this point of looking at things in a different and modern way. But we could highlight many others belonging to different artistic disciplines such as J. Joyce, R. Magritte, J.L. Borges, A. Tarkowsky, and so on.

commissions) on the development of new types of buildings and programs about education, health, or social facilities for the people. For example, the panopticon (an interesting new typology that is closely related to how we are able to surveil people and things ⁹) is a good example within architectural design to explain this issue. Insane institutions or alternative types of jails, fortresses or infrastructures, could be other interesting types of panopticons too...

*Examples of the panopticon and similar typologies...
jails, hospitals, insane institutions and bunkers*

About the connections between these concerns and today's modern ones, notice the panopticons represent surveillance architectonically, and this is a main feature in the definition of our contemporary era under digital control, since we are constantly drawn-out by surveillance (of course because of smart purposes). Something inherent to modern movement Architecture, associated with cleanliness and transparency and far from any kind of suspicious concealment. Where fluid spaces allow dominant views all over, including private areas. Besides, this kind of new typology is also able to convert the wild terrain into an image, conquering nature as a tame creature, another interesting modern feature. Something similar could be said for example about lighthouses, watchtowers and some other different types of singular tech buildings such as piers, decks, bunkers, silos...

Therefore, the modern society that emerged from the movements and the concerns of these years demanded new kinds of architectonic spaces, due to the deep and fundamental change that had occurred within it. The way people began to discern things, and the methods used to observe and learn from nature, society and history, had led to a far-reaching revolution (one of the most important in history), and not only social and economic in nature, but one that touched on and finally changed all aspects of human existence.

From this period on, we can see Architecture and urbanism in the pursuit of a better life for everyone, organized around everyday convenience, no matter one's origin, race or wealth. Something that is still part of our undertaking today, and therefore a true feature of the broad concept of Modernity ¹⁰; that endless project to allocate Reason above Dogma.

⁹ Defended by a social reformer such as Jeremy Bentham (1748-1832) in the design of his Inspection House, precursor of modern rehabilitation institutions. And identified with the fluid space of modernity, where everything must be seen.

¹⁰ Not to be confused with the Modern Movement, which essentially has meant a positivist approach to Architecture, and denies any particular interpretation away from its dogmas. Modernity spans over a longer period of time, and means a broader concept in balance between the structure of reason and the power of personal feelings and emotions; specially related to Architecture in the way we build and inhabit.

CHECK BOX N°0

- The starting point of the duality between antiquity and modernity in Architecture and urbanism can be explained with the single view of two opposite models of well-known cities that, from a different point of view, represent two kinds of societies related to different times and cultures. And by the quarrel between *homme de lettres* (the ancients) and *philosophes* (the moderns) that kick-starts what we know as the "Enlightenment" (eighteenth century)
- Examples about the state-of-the-art interest in acquiring knowledge through the scientific method in balanced with human senses, developed by specific authors from the eighteenth century.
- The idea of the paradigm shift: The Classical Episteme, (observation, reason, science) vs Pre-classical Episteme (faith and non-transferrable knowledge)
- A different way of looking at things, producing new typologies of buildings for a brand-new society (social facilities such as educational institutions, hospitals, parliaments, academies, or even jails, and a widespread different kind of panopticons)

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The Power of the Sublime, a Kind of Suffering (Images by G.B. Piranesi)

The power of images

The appearance of these new demands in terms of the architectural program, and the different ways of looking at things applied not only by the regular people but also by artists and technicians (architects and engineers as well) will trigger alternative points of view to approach, from its professional production, to a broad discipline such as Architecture.

For instance, we have seen that the implementation of the concept of surveillance, being a new worry for the society as we have already mentioned, produces a set of typologies featuring modern needs. And it also gives rise to a different range of complementary architectural programs, a fact that in turn is precisely what always happens when any kind of an important social change or revolution takes place.

Up to this moment we have already introduced a list of binary concepts derived from the pursuit of the idea of “the Modern” in Architecture, that far from distant erudition can be detected by our senses -for example, considering the architectonic space as an atmosphere- And they can result useful to define it from alternative ways we could consider kind of timeless. In order to clarify them, their features can be easily identified in different acknowledged examples (those who we will go over in the coming chapters), where slight contrast should be understood as a source of power. We can highlight the following:

- The haptic (related to touch and texture) and the optic (related to sight)
- The thickness and the depth.
- The space and the void.
- The emotion and the tension.
- The scariness and the drama.
- The similarity and the contrast.
- The beauty and the sublime.

They all show the importance of perception trough visual or tactile approaches out of individual categories, personal feelings and thoughts; based mainly on reason but magnified by emotion too. And to some degree they are present in almost every remarkable case study in Architecture. As mentioned,

we can find them in recurring examples located in different places or associated to diverse contexts, and somehow distinguish their features too, no matter the time they belong to. Detecting them let us learn -and enjoy- more about the discipline, and this is because at this time, we are fully aware that any kind of knowledge can be transferred universally.

Piranesi medallion

A good example for exploring some of these concepts is to go over the work of G.B. Piranesi (1720-1778), a minor Italian professional architect, but a worldwide famous engraver. An artist that somehow opened our eyes through imagination, and still today stirs our minds. He looked back onto the magnificent ruins of ancient Rome in different ways, and consequently represents a new kind of their vision; mixing classical language with a still Baroque perspective related to Gothic spatiality. While at the same time, not forgetting the Romanesque suffering of Pre-classical Episteme human beings. He is one of the first artists to mix all these up under the eternal auspices of nature. Because the consideration of nature as a layer of Time is something that is always present in his work.

Besides, the study of ancient ruins of any civilization represents another perspective of analysis to understand the paradigm shift, due that now we are aware we can learn by ourselves from our past history, and compare the new with the precedents. Their study, analysis and interpretation become tools for improving our understanding of preexistences and convert them into sources of inspiration. Without forgetting the importance of their representation, specially significant at the time of enhancing some impressive programs based on ruined fortresses such as the castle, the basilica, the cemetery and of course, the prison. And Piranesi fully masters this approach. He makes us move towards the objective of developing the idea of the sublime as a new category in Architecture ¹¹, introducing its inherent suffering and drama in his overwhelming representations.

The career of Piranesi runs from his first stage as a "*vedutista*" in Rome, selling reproductions to visiting "Grand Tour" architects interested in collecting images of its magnificent antiquities, to a much more dramatic representation -through the use of time and nature on his graphic layouts- of different possible futures for those existing and wrecked monuments.

First stage images, and the case of St. Stefano Rotondo

In his pursuit of new and more expressive graphic languages, he went even further by using scattered fragments of ruins to compose alternative visions of reality, or to analyze and represent in detail the way those huge structures were built in ancient Rome, and again doing what he knew best; portraying monumental classical elements showing their technical ins and outs. But he used these techniques not only to compose and give life to his dramatic sceneries through renderings, but for representing plans, sections and all kind of details too. Mixing with absolute freedom the picturesque and emotional

¹¹ This suffering feeling is attached to the concept of sublime according to Edmund Burke (1729-1797) in his *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful* 1757, and opposite to the general understanding of the sublime as a beautiful easy feeling.

contemplation with a much more technical approach. Somehow, we could consider him kind of a precursor of the *collage* as a creative tool; in this case within the representation of Architecture.

Fragmented plan of Rome, and construction detailing

In the end, recreating a sunken world that eventually leads to the concept of "sunken Architecture" that we will admire afterwards in the work of some future European architects. This could be considered as the third step in his work. Within the series known as the "*Capricios*", he manages to represent an overwhelmed scenery of ruins and monuments stacked in a surreal way, triggering our imagination. The final phase of this stage is represented by his renowned set of "*Carceri*" or prisons; a series of sixteen prints produced in two alternative states that used different techniques, and therefore look different. While applying the same tricks to magnify the awkward feeling of the sublime in art. A concept that, opposite to the general understanding, is not at all exempted from the idea of a little bit of shuddering and horror.

Images, comments, and connections with other artists and authors

Among those architectonic tricks we can highlight some of the following:

- The ground floor, where the scene appears to be located, is never but partially seen.
- Nature invades every surface in a subtle way; as a proof of the time passed.
- Recognizable architectonic fragments scattered and stacked in a kind of unstable order.
- The endless depth through layered backgrounds, huge scales, cavern-like sceneries full of diagonal perspectives.
- Abrupt termination of piled decks without any protection for the scarce and somehow lost inhabitants, or unstable architectonic structures about to collapse.
- Light, always coming from unknown or hidden upper spots, reaches casting mysterious shadows, and some more creepy situations...

All of them combining the emotional power of still destruction with the understanding of the nature of the built object itself. This modern like approach also means the use of strategies and equipment that would much later be seen in some other artistic and visual disciplines, for example in opera and theatre's sets, or around the film industry.

And the 4D movie

CHECK BOX N°1

- The importance of exploring alternative ways of looking at things, specially focused on the analysis of the past (through the discovery and study of ancient ruins), its application to state-of-the-art programs (new types of buildings), and the way of getting inspiration.
- This situation brings us to a state of permanent surveillance due to the new order of things, where the small size of human beings (and not only their importance) faces the greatness of the entire world (beheld clearly by the upcoming of Scientific knowledge, and not any more under Faith)
- And the appearance of a new set of concepts (lead by the emotion as a relevant category) related to art and Architecture that can be better understood in pairs. With the final aim of considering the architectonic space as an atmosphere.
- The example of the work by Piranesi as a remarkable case study of the sublime concept (not exempt from a kind of suffering) in terms of layers of time and nature. The depth of time in architecture and the collage tool in urbanism.
- The reinforcement of the idea of the Enlightenment as a significant "paradigm shift" that changed everything within society from that moment on.

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EMOTIONS



FEELINGS & SCARY TOUCHES

2.-

The Poetry of Space; an Approach to the Emotion (The Example of a “Rationalist Dreamer” E.L. Boullée)

In the realm of the essential

But within this context of scientific and technological advances, we must be aware about the dangers coming from the supremacy of reason, and the importance of the balance required in the quarrel between humanists and scientists. A grown society cannot simply get rid of a sensitive approach to reality, because life can't only be represented under a scientific or technological panorama. And it is precisely in the turmoil of this situation where our next character turns up to be a milestone.

“*Architecture is the art of showing the image through the setting of volumes*”, although very similar to that one stated by Le Corbusier later on, this is the definition given in the “*Essai sur L'Art*”, by E.L. Boullée (1728-1799) A manuscript treatise that had remained unpublished for two centuries prior to 1953¹². According to this text, we could say that he is probably the first to speak about this kind of new concepts applied to Architecture, especially about the emotion coming through poetry within the art of designing buildings: “*The true talent for Architecture is to represent the sublime attraction of poetry*”. Not in vain, he is also considered the inventor of the so-called as *the Architecture of shadows* or *the sunken Architecture*, a tricky technique of representation to enhance the sensitive qualities of the built and the unbuilt, an original approach that sparks off the origins of experimental Architecture.

The son of an architect, he became chief architect to the king and a developer too, achieving considerable professional expertise. But despite that, he never forgot the deepness of the intellectual dimension of the discipline, and eventually found shelter within its realm.

We can distinguish up to three different stages in his career. During the first one, we can consider him as a renowned domestic architect, combining academics (from as early as nineteen years old) with the

¹² And notice that in these twentieth Century years (same to the eighteenth Century's last years), technology was also gaining importance above other humanistic approaches that had prevailed in western Architecture.

construction of noteworthy dwellings for the court; mainly Hôtels, or large urban houses for the aristocracy or the rich bourgeoisie. But within this starting period, as a young talented architect ¹³, he also experiments with less common typologies such as cruciform chapels ¹⁴ (Calvary chapel in Saint-Roch, 1754), and variations of free plans. And soon after begins to speak seriously about the character of the design in Architecture as an autonomous feature of the discipline.

Hôtels and salons

His second professional period is dedicated to his role as a government architect, working on plenty important public commissions, and it ends up in an abrupt and early retirement from professional work; a fact which allows him enough time to seek for the essence of Architecture. Coming from this last and most interesting phase of proposals, we can highlight his famous designs for a metropolitan church and a royal theatre (1781), a public national library (1785), or the outstanding Newton's cenotaph (1785) a whole statement about a brand-new sensitive relation between science and Architecture.

Examples that mean universal references in the history of the discipline, and are repeated and interpreted relentlessly in different times and situations by many different professionals form that moment on ¹⁵.

From a conceptual approach, and on the contrary to Vitruvio, he recommends thinking first and building after, distinguishing between the job of an architect and that one of the craftsmen. Thus, he defends that form comes out of thought, and not merely from hands, meaning that Architecture emerges from the mind. Therefore, supports the importance of the concept as the starting point for a proper final result. And among these reasonings we can highlight again nature and emotion (light, volume, simple forms, scale, extension and so on) as layers of the idea of space in Architecture; a theoretical approach to the design process based on formal resources such as symmetry, axiality, regularity, variety, rhythm, and in the end beauty. However, it is not a matter of a personal view of beauty, but the natural, holistic and universal sense of it ¹⁶.

If we observe the thoughts of a contemporary scientist such as I. Newton (1643-1727), we can learn that nature should be the core of our knowledge ¹⁷. And that is precisely what E.L. Boullée tries to translate into Architecture, using carefully disposed regular elements like basic units in order to build

¹³ Highly recommended by influent and consolidated architects such as J.G. Soufflot (1713-1780).

¹⁴ Let us remember the quarrel between cruciform plans -Greek cross (similar arms) or Latin cross (longer longitudinal arm than the transversal)- in religious buildings. The first understood as more perfect, although closer to Protestantism, and the second one as the preferred by Roman ecclesiastic authorities.

¹⁵ As a first important reference, we can cite the famous German architect F.D. Gilly (1772-1800) and his proposal of a monument to Frederick II of Prusia (the Great) in Berlin, 1797.

¹⁶ Something that has been put on the table recently by authors such as Sir Roger Scruton (2009) defending the importance of beauty to keep and protect historic districts within the British cities and urban areas.

¹⁷ Not forgetting the ideas of the contemporary and influential abbé Condillac; defending that without the trigger of our senses we cannot learn anything. A counterbalance of an emotional approach with the scientific premises.

huge and monumental scenarios where we, as insignificant humans, feel overwhelmed. Unfolding the primordial rules of nature into the realm of Architecture. Pure volumes -like those primary and recognizable elements- playing symbolism (by casting shadows), that in the end represent a new kind of "speaking Architecture"

Ideal designs for a new city

According to a scholar such as J. Summerson (1904-1992), we can extract some common and new features from his Architecture:

- The plans; different from the straight forward classicism-type plan, but always under specific rules of order.
- The sections; producing interactive spaces in their interior-exterior relation.
- The perspectives; different from the sections and the elevations, producing volumes in an artificial and "Piranesian" way, always enhanced by an artificial light, and sometimes fading into endless and permanent fumes.
- The facades; composed by volumes with blank walls of sublime steadiness, signal the legibility of the program.

Shadows and Sunken Architecture

And therefore, we have a set of intentions that rely on smart procedures common to almost all of his proposals:

- Pretend a bigger scale than what it really is; introducing the surrounding territory as an abstract background.
- "Architectonic urbanism" or the representation of the city through Architecture allocated over a regular and orthogonal grid; in contrast to the Baroque embracement.
- The terrain considered as part of the concept; the architectonic object leads to a sense of its apprehension.
- The "spiderweb" as a relation between Architecture and place; ending up in a geometrical site that is created artificially.
- The constant attempt to give form to the void, creating the notion of a pure and empty architectonic space.

Contests and real proposals of his Architecture

In this way, the essence of Architecture is for him the only and absolute truth, and the reason why it has a poetic dimension. Struggling to get liberated from any constructive or material limitation, in order to conquer the new dimension of the architectural space. Applying his point of view, we can discover a combination of expressiveness (through form) with convenience (coming out of function). Therefore,

and due to his relentless effort trying to reach balance between these two concepts, he could be considered as a "rationalist dreamer"

In the words of E.L. Boullée: "Architecture is the only art capable of using nature (through light)". Of course, if we are open to consider the changing of real light as a natural ingredient of it. A true statement valid only until Cinema showed up as an art discipline one century after.

Newton Cenotaph and Royal Library designs

AND ORIGIN FOR A "MODERN URBANISM" TOO

Added to his magnificent building designs, there is no doubt about an abstract urban dimension of Boullée's work. And we could come up to that the most ambitious idea for these first modern architects is the dream of a totally new ideal city, suited for the state-of-the-art society resulted after the revolution. There, where a whole set of new buildings can be scattered over the vast terrain of imagination, following patterns given by an endless geometrical grid, ruled under the power of reason. Mainly due because the specific architectural features developed within these conditions are impossible to be built without any given regular order.

When you imagine a newborn society, the first thing you tend to figure out is the ideal form of its urban frame, where everything takes place and therefore shapes each individual world too. From this traditional procedure there is kind of a paradox, since nowadays we take for granted that the urban form is given in real time by people's desires and needs, driven through public participative processes. But what if it is just the contrary? Let's mean, if it is precisely the urban context designed and built by the decision-makers or the market's interests which molds inhabitants' needs, ideas, and even political affinities? And in the end, if the endless sought utopias are not any more the ideal urban framework for a better society, but nothing else than the first step to take control, or at least configure the origin of a desireless society looking for its own identity?

This situation can lead to many interpretations of state-of-the-art urban frames. But let us focus on a practical approach to the built Architecture and urbanism, where usually two different mechanisms can come together in balance: On the one hand the applied pragmatism we can see in the urban planning discipline, where the program is respected only in a functional way under the rule of previously given numbers. And on the other hand the representative way, closer to the urban design field, which is communicated via images according both to the hidden geometry of the grid and the outstanding presence of the buildings, appealing to our senses through the emotion they produce.

This double approach can be exemplified by diverse case studies throughout history that share interesting procedures of design or tools of development; for example by the sophisticated urban mechanism such as the interlocked double square geometry in the plan, used not only during this revolutionary period, but also in some other interesting and subsequent cases. Let's highlight two of them from different times and opposite scales:

- Chandigarh (central square of the administrative district) by Le Corbusier (1886-1965)

Original schemes for the capital of the Punjab

- Monticello, by Thomas Jefferson (1743-1826)

Plan and view of Monticello, Charlottesville VA

Despite their different ages and scales, they both indicate a similar strategy of a plan design, and a useful method for overlaying and combine a self-folding grid (artificial 2D) in order to conquer whatever piece of land (natural 3D) and thus convert it into an interesting urban fabric full of interactions. A timeless reference plan where to allocate architectural objects in the proper spots under established relations of a virtual topology. And in the end, applying the abstract footprint of the always pursued ideal city as the inevitable frame where social utopias take place (and in this way allow and even oblige its communities to behave in some pre-established ways)

But E.L. Boullée's Architecture, and its urban dimension, goes even further. It celebrates the achievements of modern science (through homages to representative characters, for example I. Newton) and the spread of whatever kind of knowledge (with the use of historical connections recognizable for everyone) by offering different specific designs full of references and nuances. Eventually, they constitute remarkable and admired models that have provided inspiration for brilliant future examples that have been built since.

CHECK BOX N°2

- The first Moderns in Architecture could be considered those who begin to tackle pure poetry within the discipline, and in order to do it, tend to use simple volume compositions.
- But they do not get rid of Classicism, because it is their acquired language. Although through their great skill, they manage to manipulate its resources finding new formal solutions; such as blank elevations, open pediments and columns, lowered vaults, open domes, solid attics, text on the walls, and so on and so forth. And push it towards a more powerful abstraction in the pursue of emotion.
- The strive for an ideal Architecture capable of faithfully represent the ideal Society flourishing out of the incoming revolution.
- Architecture, on the contrary to craft, comes from your mind and not from your hands; "think, and then build". The importance of the project as an intellectual activity.
- E.L: Boullée could be also considered as a "rationalist" (rationalist dreamer) architect in terms of his balance between convenience (function) and expression (form)
- The importance of the concept as the generator of primordial ideas in the design of Architecture.
- The use of a set of "tricks" for a more "poetic" approach to Architecture, the "only art capable of using nature in terms of light" (a changing natural ingredient to build up atmospheres)
- A specific way of designing the new ideal city (the utopia as the eternal assignment in the search for a better future world and society), signaling the territory using geometric mechanisms (both in 2D and 3D) such us obelisks, nodes, diagonals, series of squares, and fold-out grids like the "spiderweb" tool or the "interlocked double square geometry" in the plan.
- The idea of monumentality stemmed from these new programs, aimed for a new and modern society seeking for new icons, but still connected to previous history in terms of formal language.

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3.-

The Attraction of the Ugliness

(Two Real Mavericks; L.J. Desprez & J.J. Lequeu)

Some creepy steps

But do we all understand beauty in the same way? Surely not, and probably we could hold a high-level discussion about that; closer to philosophical aspects than other more practical ones. However, it is easier to agree about such an opposite quality as ugliness. And thus, taking one step beyond, we continue our exploration with the work by two architects who are again (but from another perspective) deeply concerned about the way we look at things; an activity where an architectural tool like drawing is of capital importance ¹⁸. In this occasion, we turn to a pair of unusual characters who, we can confirm, were no longer interested in regular beauty. Instead, they explored the ugly aspects of life and death; the unpleasantness feeling of impossible spaces in an attempt to reach a more widespread approach to the sublime. Because as we have already seen, it is much easier to reach a higher state of emotion through the sublime than from simple beauty.

They both combined tough professional careers with the portrayal of new ways of emotional exploration, illustrating the poetry that emerges from that sublime feeling that implies a little bit of suffering. The ruin, the darkness, the nature of death and its paraphernalia ¹⁹, mystery and drama... All of them located in impossible scenarios that represent other faces of the discipline not any more interested in regular beauty, but in what has also been source of inspiration for all sort of arrangements used in cinema, theatre, and even opera sets.

Their work recalls odd dreams whose objectives -because we cannot forget we are talking about unbuilt architectural projects- reach unclassified designs that do not fulfill any recognizable ends, apart from

¹⁸ As Michelangelo Buonarroti (1475-1564) stated centuries before, when he defends the importance of drawing as the quintessence of Painting, Sculpture and Architecture. And the root of every art and science. Cited by the contemporary humanist, painter and architect Francisco de Holanda (1517-1584) in the dialogues *Pintura em a cidade de Roma*, included at the end of the treatise *Da pintura Antigua*.

¹⁹ Let's remember the importance of funerary art (a subject itself for a whole doctoral Thesis), a fact that proves the upcoming importance of the Architecture of cemeteries. There are at least 179 cemeteries in Europe considered as monuments, and there is an increasing interest about them, represented by the different guides issued for the occasion.

unbelievable proposals. It is at this stage when the concept of experimental Architecture shows up as a reference, like a storm drifting into the vast territory of unbuilt ideas.

Examples of the work by Desprez

Examples of the work by Lequeu

Afterwards, there are widespread examples as a consequence of this experimental Architecture, specially within the twentieth century's turmoil. And normally they become an evolution of those new programs envisioned during the eighteenth century's revolutionary times; to this point already reviewed up (lighthouses, cenotaphs, cemeteries, caverns, altars, temples, or even coffins). In the case of these authors, we can consider them as precursors of this specific optic branch of the discipline. Their proposals are rendered in fantastic drawings full of details, and depending on the personal features of each author, go from the magnificent spaces laid out to fulfill the court's requirements -L.J. Desprez (1743-1804) worked for the Russian czar and ended his life in Sweden working for the king during twenty years- to the technical details of much more domestic and accurate Architecture in the case of J.J. Lequeu (1757-1826)

Examples of "weird Architecture"

But most of the importance of the atypical work of these two eighteenth century architects lies in the particular use of the drawing and draft as an autonomous creative procedure. It means an expressive research tool that goes deep inside the most disturbing feelings of space and form, and something close to what we can admire in other twentieth century subsequent mavericks such as Antonio Sant'Elia (1888-1916) Hugh Ferriss (1889-1962) Constant Nieuwenhuys (1920-2005) Lebbeus Woods (1940-2012) or Raimund Abraham (1933-2010) an architect who dedicated a good part of his academic career to the research activity of exploring and representing his "architectural dreams". Curiously, all of them focused on the power of emotions as an inspirational tool.

Examples of "Experimental Architecture"

The work by H. Ferriss, L. Woods, and R. Abraham

Notice that apart from these emotional ways of understanding this artistic branch of the discipline, mainly dedicated to peers and concerned professionals, nowadays there are other ugly Architectures spread among the contemporary panorama. Slaves to today's fame for the weird, and only worried about the impact they can produce on an eager audience without any criteria. And a taste for the odd just to be different and apart from whatever conventional image. But we must highlight this situation is superficial, and somehow avoids any interest in peoples' cultural enjoyment. Eventually, it means probably the opposite to the pictorial approach based on the effectiveness of scary feelings and oneiric scenarios, and their relation with the architectural journey within our minds; an adventure understood as an intellectual activity that interestingly enough can be not only depicted but also transferred with drawing tools, and constitutes an important support for this incipient experimental Architecture. Probably the most imaginative sphere of the discipline, starting out from these authors' proposals.

CHECK BOX N°3

Consequences of the importance of the sublime;

- The idea that unpleasantness can grasp the feeling of emotion even more immediately and powerfully than from any other resource.
- The change of interests in Architecture depending on the final aims (not only the universal pursuit of beauty) leading to what we could call "Experimental Architecture". A new dimension of the discipline -the framing of impossible scenarios- other arts have usually taken advantage from; theatre, film, literature, or nowadays even video games...
- But the danger of trying to look for the ugliness for the sake of just being different.
- The feasibility of turning this "Experimental Architecture" that comes from the record of our dreams, or nightmares, into reality; a feature possible only for those talented artists we consider as "Modern Mavericks"

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IDEAS



METHODS & SYSTEMS

4.-

Speaking Architecture and the Pavilion System (The Inventions of an “Architect Between Two Worlds” C.N. Ledoux)

No signs or labels needed

Although previously any architectural trend was bound up in a repertoire of recognizable forms, there is a time when it first becomes dependent on a set of concepts; and the upcoming challenge will be to figure out its formal frame. This is precisely the context we are beginning to deal with. Where the final appearance of Architecture is the result of intellectual processes in balance between emotions and scientific or more practical approaches.

Despite being a disciple of J.F. Blondel (1705-1774), we could say C.N. Ledoux (1736-1806) does not cherish him much, something that gives us a clue about his independent personality, and the autonomy of his Architecture. However, he is somehow stuck in the middle of two worlds, the Pre-revolutionary (with an admiration for pure nature, like some of the ideas defended by J.J. Rousseau (1712-1778) and the Post-revolutionary (ruled under rationalism, and applying a critical attitude to almost everything)

But we should pay attention that in terms of an architectural design contribution, he used to design compositions using antique forms that had been simplified enough to comply with modern functions, that were tainted with a pragmatic hue; old procedures with new approaches specially based on pristine pure forms. Or in other words, a full control of the Classicism under a completely personal vision. Quite a weird character. Nevertheless, today he would be the model for any budding architect. He had a brilliant career that was full of commissions as an independent professional and as a supervising architect, for both the court and later on for the government. Meticulous, humble and an admirer of good architects, he was however very poorly considered in his own lifetime.

Domestic examples of the work by C.N. Ledoux

Working for the administration first, he had the opportunity to travel and apply his ideas to new programs that were being implemented to develop those provinces far from Paris and all around the country,

mainly in the East. And of course, as many other utopians, he was one of the first to put into practice the widespread desire of building an ideal city (in his particular case, the urban developments for the working salt mines at Chaux) and although he proposed different and interesting options according to alternative pure geometries, he was only able to build a minimal part of the design.

This commission was started to be built up around 1780 as a visionary project, but soon after he was forced to retire and therefore committed to his personal work. His proposals, eventually and partially published in an amended version in 1804, are gathered under the title *Architecture considered in relation to Art, Morals and Legislation*, and gives us an accurate vision of what he was thinking about. In fact, his second layout for the Royal Saltworks at Arc-et-Senans, between the villages of Arc and Senans, is a clear example of his idea for an ideal city; a panopticon scheme which was followed by other social reformers such as J. Bentham (1748-1832), who also melted social issues with Architecture. Like him, Ledoux tried to rework Architecture from history, applying layers of feelings, beliefs and compromises, with the final objective of shaping an ideal world: a sort of urbanistic utopia.

The different proposals for the city of Chaux

At the same time, his work in Paris on the "Barrieres" or tax gates, made him a figure who was disliked among a vast majority of the people, who besides did not understand the cutting-edge image of his proposals, based on plain and extremely simple compositions of autonomous elements or independent parts. It meant kind of an architectonic game of pure volumes ²⁰ under a strategy that has been later called the "pavilion system". Something that was totally opposite to the previous baroque unity that had applied an organic development composition on the whole building. And this is precisely one of the important issues highlighted by E. Kaufmann (1891-1953) ²¹ about the modern character of an author who was mainly worried about the symbolic value of forms.

The "Barrieres"

Within this context, it is important not to forget a kind of evolution in the relation between the ugliness (explored by the contemporary architects previously studied) and the work by this author during this specific phase; somehow impressive enough to trigger the citizens' fears about the eternal certainty related to taxes ²².

In fact, the secret of C.N. Ledoux was to shape ideas that had not been realized yet through the use of pure forms. Renovating Architecture -and not only the disposition of volumes- within a whole new system, considering that the important issue is not where it comes from (the past) but where it is heading to (the future). This independence of parts within his language relies on an internal law that in the end determines its final appearance. It is therefore nonsense to use picturesque effects, ornaments, or any

²⁰ A shorter statement like the later one by Le Corbusier defining Architecture as "the beautiful game of volumes under the sunlight".

²¹ Emil Kaufmann, "De Ledoux a Le Corbusier. Origen y desarrollo de la arquitectura autónoma". GG punto y línea. Barcelona, 1992

²² As Benjamin Franklin wisely stated, "Nothing is certain but death and taxes"

kind of traditional *Beaux Arts* resources. In the end, this suppression of ornament renders a sense of arrogant isolation that is probably one of the reasons why he was so rejected.

He expounded on these approaches in his texts -five volumes of which only one, as we have cited, was published in 1804; originally entitled *L'Architecture Considérée Sous le Rapport de L'Art, des Mœurs et de la Législation*-. We learn in them that this autonomy of forms (corresponding to the idea of Plato's solid volumes) also demands an exquisite taste for the corresponding material in order to confer life even to a bare wall (a pure artificial surface against a natural background). Because the blank wall increases the perception of the play of volumes, leading to a geometric process equivalent -in an intellectually grown society- to independence and freedom. Thus, we can presume that the liberated and cultured citizen tend to admire pure geometry, and rejects the complexity and bigotry of the old regime.

Examples of pure geometry Architecture by Ledoux and others

These strategies about the pavilion disposition will be developed later on by architects such as J.N.J. Durand (1760-1834) although perhaps more influenced by E.L. Boullée, and L.A. Dubut (1769-1845), who consolidated themselves as second followers of the importance of C.N. Ledoux: Probably the most revolutionary architect, paradoxically prosecuted by the Revolution, and the true inventor of the so-called "Speaking Architecture"

AND ORIGIN FOR OTHER "ARCHITECTURAL COMPOSITIONS" TOO

Architectural composition using the "Pavilion System" (these pavilions being a number of abstract solids that represent the basic ideal forms in Architecture) has been used since those revolutionary days by many interesting architects. Subsequently, this procedure has given form to future and innovative ideas in this discipline, setting the stage for a new whole system of renovated Architecture.

The purity of the object represents the autonomy and self-confidence of the architectural fact, and thus its importance. And this undertaking has been updated over the years up to the present day:

	<i>The former way:</i>	
PAST & TRADITION BASED ON FORMS	CLASSICAL SYSTEM	COMBINATION OF ELABORATED FORMS
	<i>The modern way:</i>	
INSPIRATION BASED ON IDEAS	NEW SYSTEM	COMBINATION OF ESSENTIAL FORMS

And in this way Architecture reinvents itself constantly, interpreting its own past and proposing alternative futures, as in the case of the "primitive hut"²³. But what other connections can we find between old and new Architecture?

From the Enlightenment to today, it is relatively easy to come across connections, further proof to consider that this period is somehow the beginning of the "Modern". The idea is that we must follow these promising paths and explore possible connections, throughout this slow and intermittent evolution in order to understand the "Modern" in the discipline.

But we already know that nothing new in the intellectual realm simply pops up, like a spark out of thin air. It always comes from a complex process whose challenge is to discover (or at least to seek) the origins of this fabulous adventure, where concepts and ideas leading to an emotional approach are the core of a new way of understanding Architecture. And while we pursue the future, somehow we are reinventing the past too; in this case over the cited game based on those simple forms full with symbolic value; the so called "Pavilion System".

The two proposals for the cemetery in the city of Chaux

The fragmentation that comes from the use of these simple volumes removes everything superfluous, clarifies their reading, and reinforces the sense and strength of the buildings through their pure forms - clearly detached and commonly identified with specific functions- while simultaneously involving our senses.

Examples of the "Speaking Architecture"

And this "Speaking Architecture" first used by C.N. Ledoux, expresses precisely and seriously the functioning of any building, avoiding the use of titles or billboards. An issue first addressed by G. Boffrand (1667-1754) in his *Livre d'Architecture* when talking about the "character" in Architecture²⁴. From that moment on, we should know what purpose the building we behold is for; a feature the Modern Movement has always considered as a quality of good and accurate Architecture. Therefore, at this point we could definitely consider C.N. Ledoux, and by extension all these architects from the Enlightenment, as the real precursors of modern art disciplines. Besides, we can relate them to other closer authors that afterwards have used their same ideas and procedures. That is the case of painters such as G. de Chirico (1888-1978) or architects like A. Rossi (1931-1997), and more recently even F. O. Gehry (1929-) among others.

²³ The abbé Marc-Antoine Laugier (1713–1769) was a Jesuit priest and architectural theorist. He was born in Manosque, Provence. Laugier is best known for his *Essay on Architecture* published in 1753. In 1755 he published the second edition with a famous, often reproduced illustration of a primitive hut. His approach is to discuss some familiar aspects of Renaissance and post-Renaissance architectural practice, which he describes as 'faults'. These 'faults' induce his commentary on columns, the entablature, and on pediments.

²⁴ And later on, his trainee J.F. Blondel (1705-1774) who stated; «Every different architectural production has to show the imprint for the particular destination of the building, each of them has to enjoy a specific character that determines its general form, thus announcing what is the construction purpose»

Examples of the "Pavilion System" composition by these two architects

Perhaps one of the riskiest connections would be with another real maverick from the mid-twentieth century; the American architect E. Saarinen (1910-1961) A brilliant architect who enjoyed a successful professional career and left an important office with singular commissions ²⁵, but who has been somehow disregarded since his early death in 1961. And he really has things in common, both professionally and in terms of their acknowledgments, with C.N. Ledoux.

Examples of the work by Saarinen, and its connection with the ideas explained

Eventually, we should highlight the "Pavilion System" as a method, and the "Speaking Architecture" as an objective; pure and abstract volumes as the raw material for Architecture... Simple forms in the pursuit of the essence, a powerful path no matter whether the final result is beautiful or dangerously close to the ugly.

²⁵ Inherited by his trainees Kevin Roche and John Dinkeloo (KRJDA) who, after working with him, established in 1966 his new and successful firm. Kevin Roche (Pritzker Prize 1993) has been considered by Eva Lissa Pelkonen as the "first architect to see architecture and nature as one"

CHECK BOX N°4

- The most revolutionary architect who was in fact ignored by the Revolution. An in-between character into two worlds, the pre-revolutionary and the post-revolutionary.
- Antique forms settled under new procedures, adapted to the newborn needs and programs of a budding society.
- Composition with recognizable parts out of simple Plato solids, under the strategy of the "Pavilion System", different from the previous Baroque unity organized by an organic development.
- Casting out forms from new ideas that had not been explored before, through easy-to-read compositions without any kind of ornament. Giving importance to the blank wall in order to enhance the perception of the material and the geometry; that which the modern individual loves as a result of a cultivated mind, led by the power of reason.
- The real inventor of the "Speaking Architecture" as an objective, using the "Pavilion System" as a method.
- C.N. Ledoux, the architect of powerful images, and his influence on future colleagues, because he was capable of giving form to ideas; reinforcing the intellectual dimension of Architecture (expressed through the composition of autonomous volumes)
- From his work, the connection between old and new Architecture is easy to be detected; and represents the historic transition from the Enlightenment to today's procedures.
- New use of an essentialized classical language, based on simple combination of "Speaking Architectures" and the systematic use of the "Pavilion System"
- The Architecture of the simple but not necessarily of the beautiful, removing everything superfluous, and supported by emphatic forms and volumes that can powerfully affect our senses.
- While we pursue the future, we are somehow re-inventing the past too.
- Fragmentation of Architecture = process of knowledge (similar to the scientific method that began to fascinate artists and authors from that time on)

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5.-

Freedom and Order from the Type, the Model and the Prototype (The Inevitable J.N. Durand)

Let's put some order

The idea of typology, although considered a bit out of fashion, is a core issue within Architecture. The meaning of Type is also closely related to the nature of the modern concept of the discipline, and it is the keystone to a set of new building programs that were spreading all over the developing territories of the most modern countries in the western world during the late eighteenth century. However, and this means a new research line, we should point out that from that era on, and probably because of the importance of the context (nature and society) it is no longer recommendable to clone Architecture, and therefore we must always deal with the singularity of any artificially created object. This is far different from prehistoric times, when in fact, and due to its single practical dimension, Architecture was reproducible, just the same as a chest, or any other piece of furniture, or even a tool²⁶. A situation that is in crisis today, mainly because of the broad versatility of contemporary Architecture...

So, the idea of Type is part of an evolution of the formal problems about the creation and use of a building. And a fact that, at least for some architects, has been gotten over today, making useless to speak about typology because almost every function can be held in whatever kind of building.

All the modern facilities we are considering in this text (the hospital, the cemetery, the popular assembly, etc.) deal with the concept of Type because they needed to be reproduced in different places with the same final purpose. So it makes sense that they share some common conditions such as the appearance, the composition in plan, section and elevation, general organization and so on and so forth. Therefore, the application of any specific typology is a way of categorizing architectural concepts in the same way as the scientific method does.

But we must be careful and make a difference between Types and models, because they are not the same, and it is easy to confuse one for the other. The Type is a concept describing a group of objects

²⁶ Go to the famous Rafael Moneo's article "On Typology", published in *Oppositions* N° 13, 1978

that follow the same formal structure -as an a priori- a kind of family or group of objects with no pre-established hierarchy. The model however, is a reference, the former object of a subsequent set of examples that are based on it ²⁷.

When we talk about the concept of Type in Architecture (different and recognizable basic forms for buildings, or a priori references) it is mandatory to recall the name of J.N.L. Durand (1760-1834). But in fact, although we tend to identify Durand with the idea of Type (because some authors do so), what he really offers in his manuals is an array of models in order to develop different sets of buildings out of any evolution. While at the same time staying committed to the achievement of the most fitting, and the most economic arrangement of a building's given genre.

J.N.L. Durand and his statements

From this point of view, Durand is somehow the great enemy of Laugier, because he just defends that Architecture must simply satisfy the necessities of the people through the program, disregarding other more spiritual or representative issues. Its final objective is just the usefulness, based on two main famous principles:

- **Convenience:** endeavoring for health, hygiene, salubriousness, comfort, solidity etc.
- **Economy:** in terms of geometry, regularity, simplicity, symmetry etc.

The procedure scheme, that must be developed to give form to the program according to the right methodology -valid not only for new buildings or renewals, but for the architectural education too- is as follows:

A PROPER DISPOSITION OF THE PARTS >> COMPOSITION, AS A COMBINATION OF PREVIOUSLY VALIDATED ELEMENTS ≠ TYPOLOGY (concerning a more global, sophisticated unity not necessarily conducted under a linear process)

The Precis 1802

So, his work considers different detached architectural elements in accordance with a background grid, following a step-by-step method. Defending its economy by the use of perpendicular axes (horizontal and vertical), elemental geometry, readable parts leading to the previously cited unity, and its convenience based on numbers. In order to support his proposals, he also uses the method of comparison to defend practical targets such as net surfaces, built volumes, needed resources, and of course final estimates.

Drawings in the Precis 1802

²⁷ Look it up at George Kubler's book "The Shape of Time" Yale University Press 1962, where the author goes into and develops these ideas through the concept of series of objects and the difficulties of identifying the appearance of the first, the original one.

We could defend that Durand is the inventor of Architectural Composition through the systematic disposal of generic elements. He simply applies organizing schemes to the benefit of public utility, representing the will of a revolutionary architect committed to satisfy the needs of the society. However, he is not really worried about Beauty, something that in any case will surely appear afterwards. For him, the core problem of designing a building is just following a proper organization. The actual use we can make of it is of secondary importance because the uses of the building change, and beauty does not only come from greatness, character, variety or magnificent solutions. The important thing is to solve any specific need economically, and that sounds absolutely contemporary; on budget and of course on time. In fact, following this generic approach to Architecture, means many of his famous designs are so versatile that in the end they lack any kind of programmatic issues, playing no specific roles and resembling just like containers. And somehow result distant from the ideas that withstand the concept of Typology; historically related to recognizable uses.

Schemes in the "Precis" 1802

To do that, Durand proposes a process beginning with the plan (the most important drawing for designing a building) followed by the section (necessary for measuring it up) and finally the elevations, which are merely the support of any kind of ornamentation. So, the style is something that appears at a final stage of the design process. For him the space is no longer important (a non-Modern feature) despite he also defends the character in Architecture is something related even to the construction qualities of the building (and this is a Modern feature). His method is based on a kind of deductive process that starts with the primary axes, and goes through from the general layout down to the final detail, attempting to solve any of the cases he proposes "with all its consequences"

Eventually, he decided to flesh out his catalogue with models for entire new buildings through the combination of the basic architectural elements, aiming to build and develop facilities for an ideal city as a formal framework for an entire, different world that was emerging out of the revolutionary period. Yet again, we can see a glimpse of a philanthropic dream shared with some other contemporary architects which has led to a practice that has been repeated throughout history.

Ideal new cities in the 50's in Spain

But the idea of Type goes further than any of the practical proposals of the kind made by J.N. Durand. It is a more sophisticated and global concept that surpasses just the term "model". It means an intellectual entity at the level of an art concept... From a professional perspective, Durand never considered the architectonic building as a singular and unrepeatable fact like in any other artistic term; on the contrary, he was deeply interested in its reproduction and not worried about any sort of plagiarism. And that is the reason for him to explore the general attributes, and the useful formal features architectural objects can have in common ²⁸.

²⁸ In order to explore more on the influence this concept of repetition has had later on, look Walter Benjamin's book *The Work of art in the age of mechanical reproduction*, Classic Books America, NY 2009

Going further with the concept of Type, we can consider it is even inside the nature of Architecture... Therefore, what is really the Type? We have already defined it as a group of objects that share the same formal structure. So, we are not speaking just about a diagram, but of groups and series of groups - different but identifiable as coming from the same family- that can even evolve in time. We can use Durand's models to learn to produce proper buildings based on repeatable compositions, but the difference is that the real evolution in Architecture occurs with the appearance of a new Type; a new formal structure that does not resemble any previous one, and more importantly; it is capable of creating a family.

Images of different kind of types

There are many kinds of Types; depending on their purpose, the geometry they follow, the way of construction, or even the social issues they stand for. And this fact shows the specificity of the concept of Type, an origin that can also lead to a series of Types coming from the original one. So, we can consider that Types are in constant evolution, and can be transformed into other different Types whereby they change their formal structure. Thus, we can conclude that the Type is not a rigid issue, but a moldable structure to use for discovering new opportunities through its development and innovation. In fact, the Type is a frame where change happens in Architecture: not forgetting that we can overlap different Types and use fragmented ones at the same time, and even for the same building.

The evolution of a Type

It would be supercilious to defend that the concept of Type is superseded. And as we have said, when a new Type appears out of these possibilities, it is an intense moment in Architecture, one when new formal relations take place. However, it is a difficult task for an architect to reach this situation; probably one of the most challenging. Not that many have been successful in this situation. Besides an immense personal talent, the external demand of social changes is also needed. On the other hand, the concept of Type has often been considered under different recognitions within the architectural theory and urbanism, and has suffered alternative approaches depending on the author's focus.

*Quatremère de Quincy
JNL Durand*

It ranges from the connection with the past, based on history, nature, and customs, to the relation with the model or the mechanical reproduction of an object that is useful for allocating and putting into practice a previously determined program. The first one is a classical approach related to traditional theory, and perhaps today it may result somewhat old-fashioned. The latter is much more contemporary, and uses the architectural composition as an instrument to solve the problems between form and

program. And sometimes, by doing so, becomes a prototype, instead of following the original idea of the Type ²⁹.

But it will not be until the Modern Movement, taking advantage of a consolidated industrial production, when the evolution from the elusive concept of the Type will finally coalesce into the Prototype; a totally different idea that is no longer related to the singularity of previous objects from the preindustrial period. Looking back to the concept of the Type, we would retrieve it as a tool to enhance the value of the reproducible object, and without losing its roots, trying to make it flexible and more adapted to its context.

From L-C to Mies, and other examples of Types (in Architecture and urbanism)

The problem of the Type within the city is, however slightly different, and since this state has been oscillating between the consideration as an abstract work of art (for example in the Western Modern Movement), to its framing as an industrial product (in the Russian Avant-Garde). We will have to wait for the Italian architects (such as J.C. Argan 1909-1992, S. Muratori 1910-1973, or A. Rossi 1931-1997) in the second part of the twentieth century to find a place for the Type as a connection between the individual elements and the global forms. Recalling the concept of morphology in order to understand the urban structure based on streets, piazzas, and courtyards. They were the ones who rescued Quatremère's ³⁰ idea of the "a priori" formal structure to rediscover the reservoir of Types within the traditional city, where time is somewhat frozen, and let us refresh our collective memories.

The Italian heritage and the new urbanism

Another different approach comes from A. Colquhoun, who indicates that the idea of Type implies a tight relation between Architecture and society, because for him the former is nothing but a set of conventions throughout history, and therefore makes an ideological content. Thus, behind the election of a specific Type, we can find a whole ideology ³¹. And this is something that conflicts with the previous position, held by those that we could consider more as iconographers -nostalgic people pursuing an idea of Type distanced from the present- due that for Colquhoun, the image of Architecture is much more concerned with its contemporary recognition than with its own formal structure.

The doughnut and R. Venturi's monument

²⁹ The first approach is the Quatremère's consideration of the Type as the main feature of a given building, followed by the Durand's opinion about the importance of the program or convenience, and the economy of it. And afterwards it will be the space what replaces the program. For example, with L. Mies van der Rohe (1886-1969), who will consider the use as something you put into the architectural space previously designed by the architect, and that it is really the most important thing for him. For example, in his patio houses series.

³⁰ Defined by Quatremère de Quincy (1755 –1849) in his *Dictionnaire d'Architecture* (1825) the Type "presents less the image of a thing to copy or imitate completely, than the idea of an element which ought itself to serve as a rule for the model" Quatremère de Quincy, "Type" in *Encyclopédie Méthodique*, vol. 3, trans. Samir Younés, reprinted in *The Historical Dictionary of Architecture of Quatremère de Quincy*. London: Papadakis Publisher, 2000

³¹ And that relates to George Kubler's ideas about art, history and time too, when he defends there is a limited set of Types that appear in the huge ocean of history and follow a pattern of series of objects related with the original Type.

But nowadays the question about the Type seems again to be somehow overcome. There is kind of an indifference about recognizable formal structures in our buildings. Times change fast and uses too, and the latter are not any more connected to a specific typology. Nevertheless, that also indicates that Types can and must be versatile to be applied to alternative programs, demanding in the end flexible buildings, and not identifying an acknowledged structure with just one only purpose.

We could even go further and ask ourselves if the appearance of the notion of Type means precisely the beginning of its end, when its nature is replicated up to the point of being diluted, and therefore loses its formal structure and social attitude. Understanding that the concept of Type (and its different implications) means dealing, even today, with one of the primordial natures of Architecture.

CHECK BOX N°5

- The importance of a regulated method of design in order to produce clear examples to follow under whatever kind of conditions.
- The logical disposition of the elements through the use of axes, grids, squares, diagonals, dotted spaces and folding schemes. This leads to a final design that is rich in symmetries and correspondences, and therefore it is easy to build and repeat.
- First of all, the Plan (to ensure usefulness through composition) then the Sections (to gauge everything up) and in the end the Elevations (supporting any kind of ornament), as a consequence of following the previous steps. Going further into every final tiny detail within a coherent whole. From the general to the detail (to build) and from the detail to the general (in order to analyze)
- The issue of Beauty as a non-important quality for a practical Architecture in modern society, where Convenience and Economy are the most demanded features (on time, and on budget). This is quite a different point of view from previous authors, more absorbed in aesthetic issues, but undoubtedly a modern feature too.
- The Beauty will appear afterwards; a predictable consequence only if we just comply with the program and fulfill the method properly.
- Durand represents modernity (without taking into account the importance of the style, because the proper construction process will guarantee the building's character) And a non-modern feature too (the Space is not an important issue for him)
- His manual (The *Precis*, 1802) has been used as a tool for designing not brilliant, but successful buildings and sets of buildings. We could admit this procedure is valid, even for ideal or model small towns (for example the rural new towns built in Spain during the forties and fifties on highly depressed and empty regions)
- We have to be aware that the concept of Type (and its different meanings; that run from the same shared formal structure to the "a priori") means still today understanding part of the nature of Architecture.
- The Type is a flexible frame where the change in Architecture happens.
- Difference between Types and models (and even the prototype in a mass production system)
- The evolution of the idea of Type (that relates to the past, exploring the connections between form and nature), and the consideration of the Style as a layer of meaning over the model (which relates to the modern, introducing natural or artificial replicable forms) and finally the prototype.
- The idea of the city as the perfect scenario for studying the concept of type: Firstly, as a reservoir of types with a same formal structure alluding to the urban morphology (S. Muratori, A. Rossi.... or tendencies such as the *New Urbanism*, *Smart Growth*, *Lean Urbanism*...) and secondly, that the election of a specific Type means an ideological position between Architecture and society (A. Colquhoun)

- The reading and comments of the article by R. Moneo "On Typology" is highly recommended if not mandatory. *Oppositions 13*, Summer 1978. The MIT Press.

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ABOUT THE ARCHITECTURE OF PROTOTYPES FOR THE CONSTRUCTION OF THE IDEAL CITY. BUILT AND UNBUILT UTOPIAS. AND THE CITY OF THE FUTURE.

We have been considering the use of Reason filtered by the power of emotion as a key tool for understanding some of the origins of “the modern”. Therefore, an interesting hypothesis would be that according to the importance of Reason, and its balance with the four main bodies of this text’s structure, APPROACHES (through intuitions) EMOTIONS (based on feelings) IDEAS (applied by methods) MARKETING (due to appearances)³², can somehow represent a holistic approach to Architecture. With the final objective of getting a broader vision of the discipline leaded by this tandem³³.

By applying this exploration to the content seen until now, specifically through the ideal scenario represented by “the ideal city” (the best possible physical place for living) and the achievement of egalitarian social conditions (the Age of the Enlightenment dream), we will surely end up in the entelechy of the utopia. That will eventually evolve into the *eutopia* (good place), *outopia* (no place) or even the more on fashion *distopias* (in fact, opposites to the utopia). Concepts that commonly we simply tend to classify as utopias.

³² A singular approach to the theory of Architecture is possible in terms of the use of the “four quadrants” theory inspired by Marten Kuilman, which establishes a four-fold interaction between the four-square plan and the different visibilities. We are talking again about how we look at things, which surely is an interesting way of developing future knowledge. The framework of the concept is explained in the graphic as follows:

HISTORY	Quadralectic interpretation		Extended dualistic vision	
	QUADRANT	VISIBILITY	EXPRESSION	JUNG
0-600	First Quadrant	Invisible invisibility	Intuition	Intuition
600-1200	Second Quadrant	Invisible visibility	Thoughts	Denken
1200-1800	Third Quadrant	Visible visibility	Reality	Empfinden
1800-	Fourth Quadrant	Visible invisibility	Feelings	Fühlen

A chart based on Carl Jung’s concepts. Taken from the school of “*Quadralectic Architecture*” which its webpage constitutes a complete reservoir of architectural references under the “*Quadralectic*” point of view. This is a contextual approach to the discipline, mainly based on numbers that establishes a division thinking that goes from history (0-600 a.d. First Quadrant, 600-1200 a.d. Second Quadrant, 1200-1800 a.d. Third Quadrant, 1800- Fourth Quadrant) to the pure geometry of any architectural event.

³³ We must not forget that in western countries Architecture today is only based on Form, Function and Construction, whereas in the eastern world this list is enlarged with issues such as Numbers, Geometry and Symbolism. Abdel-Wahed El-Wakil (COAVN Bilbao, 2018)

According to 1922 Mumford's famous book ³⁴, it is revealing to highlight some of the utopias that have taken place throughout history in terms of their own particular living features (mainly social) But we can find it also interesting to do so through the proposals by authors who have been worried about the city form. Thus, we can introduce inquiring architects, some of those we have already gone through, within the process of the evolution and pursuit of the ideal city.

Images of different of urban utopias

Since the times of the contrasting visionaries G.B. Piranesi (1720-1778) and E.L. Boullée (1728-1799), Architecture has been projected into the future via imagination. Each of those architects applied his own personal character; the former with a more "romantic view" of the ancient ruins based on the power of images, and the latter using his geometric style full of abstraction, seeking for the essential. Since then, reforming thinkers have followed their example, and not only in the discipline of Architecture. Some of them attached to an idealistic image, but others far away from the idea of beauty itself, in favor of usefulness, utility and even social justice. Following J. N. L. Durand (1760-1834), L. A. Dubut (1760-1846) and his *Architecture Civile* (1803-1837-1842) was probably the outstanding primordial example of an architect who tried to provide examples of his ideal city components; although he did not get to the level of fame C. N. Ledoux (1736-1806) reached with his previous work in Chaux.

But we must remember that the consequences of the idea of Utopia ³⁵ usually result in other kind of utopias, if not in a clear disaster. That is the case of other visionary architects, some of them contemporary, who have struggle within the broad denomination of *Experimental Architecture* that has been explained before. Thus, this means another reason why we could establish a relation among them, launching the hypothesis of considering these particular eighteenth century's architects as the cradle of contemporary *Experimental Architecture* ³⁶.

³⁴ Lewis Mumford, "*Historia de las Utopías*", Pepitas de Calabaza, Logroño 2013. Ed. Original "*The Story of Utopias*" 1922 a 1962

Among them we could highlight as most significant those from the following authors and social reformers; T. Moro 1470-1535 / F. Bacon 1561-1626 / C. Fourier 1772-1837 (Falanstery, 1822 followed by V. Considerant 1808-1893) / E. Cabet 1788-1856 (Icaria, 1840) / T. Spence 1750-1814 / J. S. Buckingham 1786-1855 / P-J. Proudhon 1809-1865, E. Bellamy 1850-1898 / W. Morris 1834-1896 / E. Howard 1850-1928 / G. Tarde 1843-1904 / H.G. Wells 1866-1946. And the more formal ones by J.M. Morgan 1782-1854, (Edward Wakefield within his reformulated Greek practice) and R. Owen 1771-1858 (in his Harmony, Cooperation, 1817-1820 and New Harmony in America, given by the architect Stedman Whitwell 1784-1840 and opposing R. Pemberton's ideal plan for the ideal city of Happy Colony in New Zealand 1854) / J-B.A. Godin 1817-1888 (Famillistery, 1877) / B.W. Richardson 1828-1896 (Hygeia, a City of Health, 1876) / G. Cadbury 1839-1922 (with the famous example of Bournville Village 1900 following the trust inspired by his brother Richard), or even J. Paxton 1803-1865 who later influenced B. Taut 1880-1938 and his Stadtkrone and "Alpin Architecture". But all the thoughts of these utopias take a realistic turn with E. Howard 1850-1928, and his "Garden cities of To-morrow", inspired in the former author Bellamy, and finally in R. Unwin 1863-1940, F. LL. Wright 1867-1959 (Broadacre City 1932) in the swarming USA and L-C 1887-1965 (Plan Voisin 1925), leading to a new whole set of worldwide urban utopias.

³⁵ "The utopia, is one of the most destructive ideas of humankind throughout history" Stated by Ian McEvan: El Pais, Babelia 25-11-2015

³⁶ Among them, and with all due respect to J.M. Gandy (1771-1843) we can cite the Europeans R.J.L. Steiner (1861-1925), Antonio Sant'Elia (1888-1916), H. L. W. Finsterlin (1887-1973), Constant Nieuwenhuys (1920-2005), Claude Parent (1923-2016) and the Russians Alexander Brodsky (1955 -) and Ilya Utkin (1955 -). Or the Americans Hugh Ferriss (1889-1962), Frederick John Kiesler (1890-1965), John Hejduk (1929-2000), John Johansen (1916-2012), Lebbeus Woods (1940-2012) (founder with his wife Olive Brown of the Research Institute for Experimental Architecture (RIEA) that in its first conference held in 1989, gathered architects such as Gordon Gilbert, Michael Webb, Hani Rashid, Michael Sorkin, Ken Kaplan, Ted Krueger, Peter Cook, and Neil Denari). Raimund Abraham (1933-2010) or Glenn Howard Small (1937-)

THE IDEAL CITY >> **THE UTOPIAS** >> **EXPERIMENTAL ARCHITECTURE**
PRACTICAL APPROACHES? >> **THE FUTURE CITY** >> **THE SMART CITY**

There are times (such as this eighteenth century) when the society decides (because it has the ability) to look at things differently, exploring other qualities of the visible invisibilities that sometimes do not show up so easily during the course of history... Utopias that serve as lighthouses for Architecture. And we can discover some of the most interesting ones in the Revolutionary times; those milestones featuring at least occidental history (for example the Roman Empire, the Renaissance, the French Revolution, the Industrial Revolution, and surely today's Digital Revolution).

We could conclude that every original urban development proposal is part of a social statement (or the social statement itself, as it occurs in Disneyland ³⁷) and again, these are good examples of the idea that no architectural turnout can occur if it is not previously demanded by society.

³⁷ According to Charles Moore (1925-1993), who considers Disneyland as “the most influential piece of postwar American urbanism” *Perspecta* 9-10, 1965

CHECK BOX N°5 bis

- The Utopia as the engine for the development of a whole new Architecture, interestingly not only on urban terms, but according to social or even political issues too: The first framework as necessary condition for a new design, that goes further on than complying just with the program under a new set of forms.
- We must be aware of those architectural evolutions whose starting point is the pursue of "the ideal city", followed with the dream of "the utopia", and nowadays only resigned to the elusive idea of "the future city". Or even worse, "the smart city"
- The hypothesis of considering these particular eighteenth century's architects as the cradle of *Experimental Architecture and Urban design*.
- And in the end, the drama and emotional responses for a never-reachable pursuit of a wonderful reality to live in. Or just the contrary: The dream of Disneyland.

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MARKETING

APPEARANCES & WAYS OF PRODUCTION

6.-

The Question of Style

(Two Opposites from the Same Side; J. Nash & J. Soane)

Being practical

The question of the Style is quite a pragmatic one, and will be an important issue in the Architecture of famous architects during the nineteenth and twentieth centuries (for example those from the Nordic countries such as E.G. Asplund (1885-1940), and his involvement in movements such as the Swedish Grace). Probably until today, when although the general feeling within the discipline is that it is a hindrance, there are still groups of professionals and scholars who consider it as a guarantee of success if properly applied. But we can think about the Style as an overlap; a layer of significance linked to some historical period or specific activity easily recognizable. This fact has also given rise to what we dare to refer as “Stylish Architecture” attached to specific programs: for example the Architecture of the money (banks), education (schools), or religion (churches) that in general tend to be clearly identified, not only by the typology applied to the building, but because of the noticeable style they usually dress in too.

So the Style has been somehow always present in Architecture, due to appearances are absolutely evident and no doubt in general count more than the intentions.

Within this context, the Anglo-Saxon approach to this theme stands detached for example from the theoretical and dogmatic one of the French. On the islands of Great Britain, according to their pragmatic nature, the problems are focused on differently to those in continental Europe. However, they will represent one stage forward both in domestic and industrial Architecture, and will become a reference for their European peers, at least until the first twentieth century years ³⁸.

³⁸ We can remember the different trips European architects did to Great Britain in order to better know about Architecture breakthroughs. Among them, we can highlight those by K.F. Schinkel (1781-1841) who admired the British industrial buildings according to his manuscript the *English Journey Journal of a Visit to France and Britain* in 1826. Or H. Muthesius (1861-1927) cultural attaché to the German Embassy at London, cofounder of the *Deutsche Werkbund*, and author of the book *Das Englische Haus* (The English House) in 1904.

It is important to question ourselves why this is possible and what is the nature of its precedents. By doing so, we could characterize this situation from a double -and certainly opposite too- point of view in terms of the practice of Architecture adopted by two brilliant authors; but also understand it as part of a purely British idiosyncrasy:

- The picturesque work by J. Nash, and his lack of concern about the use of alternative styles.
- The quality of space and its magic in terms of light by J. Soane.

Here we have two absolutely different architects, the former more worried about the exterior look of Architecture and its general presence, and the latter probably more concerned about the array of interior qualities an architect can pursue ³⁹. But both are interesting examples of the question of the Style as a modern and broad concern, far from the continental worries, and apart from those past issues of typology and program. Following their own personal ways, they also represent the appearance of new subjects in Architecture such as the importance of the image, the materiality, the development processes, and even the construction techniques: all of them practical procedures detached from the mainstream discourse about the theory of Architecture followed in continental Europe.

Examples of "Stylish Architecture"

A quick glance at the work of J. Nash (1752-1835) would give us a hint of the versatile and successful use of the Style in Architecture, depending on the final destiny and the clients of his work, and even within the same program (mainly residential, both in rural and urban contexts). In fact, he was commissioned by a broad array of clients, from the royals (Buckingham Palace western front 1825-1830, and the rebuilding of the Royal Pavilion at Brighton 1815-1822) to real estate developers (Park Crescent 1806 and Park Square 1823, Regent Street 1809-1826, and Cumberland Terrace 1826) who always became satisfied customers. No matter if the formal sources were medieval, classical, or even from the far East. This, not being a problem about the functional dimension of the plans, perfectly adapted to the demanded needs. He was a master at adapting any kind of desirable image to his buildings, giving them a unique character that is still present and very appreciated today. A feature that in fact successfully represents the global appearance of significant urban districts (for example those in central London that made him famous apart from the previously cited ⁴⁰).

The Architecture of J. Nash

The case of J. Soane (1753-1837) is somewhat opposite. Although he has been called as an "accidental romantic" we prefer to consider him as a "poet of light" due to the smart use of it he manages to develop

³⁹ Let's not forget two of the more remarkable works by J. Soane, which took a good part of his life, are really interiors: The rooms within the Bank of England building (1792-1823), and his own house and museum at Lincoln Inn Fields (1792-1824).

⁴⁰ Such as Regent's street, 1812. Regent's Park, 1809-1832, Chester Terrace, 1825. Cornwall and Clarence Terrace, 1827, or Marble Arch, 1828. All of them in central London.

throughout his life. His professional career is usually divided into five periods ⁴¹, but from his first watercolors we discover an extremely sensitive author interested in history, and capable of subtle allusions from the union of arts that enrich his labor. Following the steps of his tutor George Dance the Younger (1741-1825), who was probably the first British to give importance to ancient Roman influences (vaulted rooms, clerestory lights, internal buttresses, lowered domes and oculi) and later H. Holland (1745-1806) he developed a kind of refined classical Architecture that results not only eternal, but also very personal in essence.

Due to his committable studies and brilliant final thesis project, that granted him an international scholarship, he had the opportunity to know Piranesi's work in Rome, Italy, learn from the emotion of his sceneries, admire in situ the Classical and Renaissance Italian art, and be fascinated by the southern light that he tried to gather and brilliantly manipulate for the rest of his life in his native England ⁴². Something that is still present in his work, and makes him a singular author.

And somehow, he was aware of that. Otherwise, he wouldn't have commissioned J.M. Gandy (1771-1843) those wonderful and laborious drawings of his work; both, perfectly built up or even as ruins. Renders that represent a whole set not only of his different designs, but of his thoughts and doubts related to the process and the essence of Architecture itself. Statements for architectural history that ended up becoming significant precedents for all of us.

The Architecture of J. Soane

He understands Architecture as an assemblage of elements which determine its significance, being probably the first in doing so. A sort of refined fragmentation, one step beyond the "pavilion system" we have gone through, and another before the modern way of using composition in today's Architecture. Besides J. Soane successfully explores other interesting concepts in the discipline. For example, the so-called *poche* (French term meaning pocket), identified with the thickness of the walls defining the Architecture that in his works, instead of being solid -or bold- are void, letting the light in mysteriously. Or the particular use he makes of the classical orders (for instance in the front façade of his own house in Lincoln Inn Fields, London) part of them being absent. A fact that leads to a subtle transformation into an intense moment in Architecture: the invention of a wonderful new sort of classicism without the full presence of classical orders.

Lincoln Inn Fields (a whole new session)

⁴¹ Student period (1776-1780), first practice (1780-1791), central period (1791-1806), picturesque period (1806-1821), and the final period (1821-1833)

⁴² For example, in his own house and museum in Lincoln Inn Fields, whose main feature, despite the collection of so many masterpieces of art, is just the manipulation of natural light considered on its own as a modern architectural concept. It is interesting to remark that in the Parliament Act that announces the opening of his house to the public in 1833, J. Soane specified it could not be visited on those days (humid and wet), when there was not a proper natural light.

By studying this couple of architects, we are not just talking about brilliant mixtures or interpretations of the neoclassical language. The domestic monumentality of Nash not only appeals to wealthy citizens seeking for worthy dwellings; it also satisfies those representative roles of urban sceneries which take into account the power of uniformity and repetition. In the case of Soane, we are considering the importance of the atmosphere in Architecture; a new quality in the discipline that is actually part of its modern challenges, something that in the end has made him immortal.

Because J. Soane is not only a poet of light, but many other things altogether: an architect of the essential, a re-user of forms extracted from History, an overwhelming art collector, a risk-taker with architectural space, a stylist, a representative of the sublime, a "thickness and depth" magician ⁴³, and a master maverick. J. Soane is neither classic nor baroque, instead he is completely human; complex, generous, distant, nostalgic, difficult, sensitive and melancholic, while at the same time being absolutely real.

Examples of other artists, and the work of S. Holl

⁴³ There are many other masters of "thickness and depth" throughout the history of Architecture; the Egyptians, the Mesopotamians, the Romans, but also Piranesi, Boullée, Ledoux, Schwitters, Holl, Aires Mateus, and so on. Present in other artistic disciplines too; for example, in J.L Borges literature.

CHECK BOX N°6

- The Style as an interchangeable layer over the function in Architecture. Different styles, different approaches, even within the same program and cultural context.
- The Style as one of the main features in Architecture during the nineteenth century related to the taste, and still a definitive way to identify and classify different branches of action within the discipline, apart from the idea of Type. It is the architectural material we can use depending on the program features (institutional, religious, domestic, etc.)
- The Classical canon is no longer the only architectural language... and the architectural heritage offers the opportunity in the manipulation of form
- The so-called *poche* (French term meaning pocket); thick defining walls, empty of any material in this case, but full of light and space (with a recognizable internal atmosphere)
- The Style as a formal issue related to the appearance, leading to other inherent qualities in Architecture such as what we can call the "Thickness and Depth" concept (another important issue to discuss throughout the history of Architecture)

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7.-

Mass Production, a Relation Between Industrialization and Architectural Design (P. Behrens)

In the age of industrial reproduction

While the Anglo-Saxons focused on more practical issues based on the markets' interests, such as designing Architecture in stylish ways according to people's tastes, the Germans initially adopted this attitude with a kind of admiration ⁴⁴, but rapidly it shifted into a more productive point of view. The industrial revolution had made possible the massive production of better products that could be constantly improved by a proper design. Thus, the importance of the quality of raw materials and the good design became fundamental. Aspects where first the Germans, and shortly after the Nordic countries became real masters, because to some point they were able to join the knowhow and quality of their traditional crafts with the new ways of production.

La fascination by the power of industry

We have already defended there are just a small number of significant revolutions throughout our world's history: The Neolithic, Ancient Rome, The Renaissance, the French Revolution (we have analyzed some features of the Enlightenment earlier in this text), the Industrial Revolution, and surely today's Digital Revolution too. Those few moments always mean changes of paradigms, and become remarkable episodes for architectural revolutions too, due to the shifts in the demands and needs required by alerted societies seeking for a better life.

The Industrial Revolution started first in England but very soon jumped into continental Europe (initially into Germany), promptly spreading the pragmatism of the Anglo-Saxons to other countries. But in all of them, with greater or lesser intensity, a bitter fight between traditional crafts and industrialized ways of production took place. Because we must remember that in the second half of the nineteenth century there is also another significant quarrel between this industrial and modern spirit, and the deep

⁴⁴ We should not forget architects such as Herman Muthesius, who went to Great Britain under his government auspicious with the hidden objective of copying as much as possible of the well-developed industrial production of the British. And his book (three volumes) *Das Englische Haus* (The English House, 1904) is a clear example of his admiration.

romanticism of the "Arts and Crafts" trend defended by British authors such as J. Ruskin (1819-1900) and architects like W. Morris (1834-1896) ⁴⁵.

The opposition of J. Ruskin and W. Morris

Let's notice again that during their trips to Great Britain, German architects such as K. F. Schinkel (1781-1841) or H. Muthesius (1861-1927) had been fascinated by the British industrial potential, its power of transformation, and the new world that was being rapidly built around it. Something to be imported effectively if their native country intended to play an international role. In this context of rampant development, we can highlight the "Deutsche Werkbund" ⁴⁶ as the milestone of the continental reaction to the importance of the relation between industrial production and design; within the final desire of getting better and inexpensive products. Although it is commonly focused on Germany and German authors, we have to remind ourselves that this path was followed by architects and designers from many different countries in central Europe: the Netherlands, Scandinavia, the Balkans, France, of course Great Britain, and in lesser proportion meridional Europe, Italy, Greece and Spain; with different and interesting examples in all of them ⁴⁷.

The industrialization of Architecture through different examples

The case of H. P. Berlage

The case of H. Labrouste

A German author that represents this balance between accurate design and industrial production is P. Behrens (1868-1940), who spans from the delicate craftsmanship of his early years (within the Jugendstil movement) to the practical and beautiful industrial design of his most famous works (for example, those developed for the AEG industrial group) Following his principle about melting art and technology under the possibilities the industrial processes offer (stated in his book *Art in Technology*, 1907) ⁴⁸. His modern goal was to drive technology into an artistic quality, something that had not been considered before. This is a remarkable evolution that shows, in the specific environment of a versatile artist, designer and architect, the amazing change performed by the mass production system in western countries during the first part of the twentieth century.

The case of P. Behrens

⁴⁵ The well-known case of W. Morris 1834-1896 and his "*Arts and Crafts Movement*", trying to recover the nostalgic way of production from ancient craftsmen, opposite to the industrialized procedures that spread all over his country (Great Britain), vanishing the primitive, bucolic, and artistic approach he defended.

⁴⁶ The "Deutsche Werkbund" was less an artistic movement than a state-sponsored effort to integrate traditional crafts and industrial mass-production techniques, to put Germany on a competitive footing with England and the United States of America. Its motto *Vom Sofakissen zum Städtebau* (from sofa cushions to city-building) indicates its broad range of interest.

⁴⁷ In fact, we can consider it is a heritage whose fathers in Architecture are usually identified with some famous characters: J. Paxton 1803-1865 (Great Britain) H. Labrouste 1801-1875 (France) H. P. Berlage 1856-1934 (The Netherlands) and of course P. Behrens 1868-1940 (Germany) Who powerfully influenced next generations of European architects. If we had to highlight a Spanish reference related to this pragmatic approach, probably the Guastavino family (Rafael 1842-1908 as the first character) would represent this Mediterranean balance between remarkable results within a tight estimate.

⁴⁸ A statement which will constitute part of the motto of the "Deutsche Werkbund" founded among others by him, and H. Muthesius in 1907, which goal was "the improvement of professional work through the cooperation of art, industry and the crafts, education, propaganda, and united attitudes to pertinent questions"

Behrens began his activity as a painter, influenced by artistic trends concerned about a holistic reform of life, and despite he went through different phases and styles throughout his professional and academic career ⁴⁹, spent his whole life in pursue of the "total work of art". No matter if it was based on pure symbolism, an integration of all forms of art, and the application of state-of-the-art technology. This made him end up with a coherent production that is still considered a blend of exquisite taste and proper efficiency (and an influence for design institutions of reference such as the Bauhaus and the subsequent Ulm school of design HfG)

To some point, he represents the difficult balance between domestic Architecture -private homes and residences- and the public or productive domain (industrial facilities), showing diverse typologies, different styles, and a whole set of new materials and building techniques. Probably, no other architect has shown, with such a talent, the challenge of evolving through styles and programs framed in adverse political and economic contexts. Behrens is a significant personality who definitely deserves to be recovered for the hall of fame of European architects. Somehow, he is a unique example that represents the difficulty of piloting an involved architectural career while continuously reinventing oneself and who, for still unknown reasons, lacks the deserved recognition.

About the "Deutsche Werkbund"

Within the "Deutsche Werkbund", Behrens and other important (and also forgotten) architects had the opportunity to show up in the international context. They enjoyed a common starting point based on the importance of good design on an industrial basis, which allowed them to pursue different careers in later life. But they never forgot their shared origin based on practical issues about production ⁵⁰. In fact, some other contemporary authors such as B. Taut (1880-1938), H. Meyer (1889-1954), W. Gropius (1883-1969) and the extended influence of the Bauhaus, are inevitable references in modern Architecture under these premises.

They explored new lines of research in terms of distinct programs, advanced materials and construction procedures. And a renovated relation with the community, considered as the final client of Architecture, began to take shape in the central core of architects' interests. Within this new situation, the origin of the contemporary professional career as we understand it today, was finally set up.

⁴⁹ In Munich 1890, He began the artistic career of painter, joining the popular art movement Jugendstil. Founding member of the Munich Secession in 1893. Invited in 1899 by the Grand-duke Ernst-Ludwig of Hesse-Darmstadt Artists' Colony, where he designed and built his own house, 1901. Director of Düsseldorf Arts and Crafts School in 1903. Founder, among others of the Deutsche Werkbund in 1907, and in the same year appointed by the AEG as artistic adviser in charge of its product design, logos, corporate image, advertising, and even its most famous buildings. Between 1922 and 1936, Vienna's School of Architecture professor, and in 1936 Architecture Department director at the Berlin's Art Academy. All that without being trained in any school or academy as an architect.

⁵⁰ And since then and up to the present days, concepts such as industrialization, standardization, prefabrication and other technical procedures related, have become increasing core issues in building construction and in the practice of professional Architecture.

CHECK BOX N°7

- "*The Work of Art in the Age of Mechanical Reproduction*" means a completely new approach to the discipline of Architecture, where "material" and "design" in terms of economy issues and successful results become capital.
- The practical focus Anglo-Saxon and German countries applied in this field, turned out to be the basis of the job of contemporary professional architects.
- New materials and new ways of using them under the rule of industrial production can mean alternative languages and further opportunities, in many cases opposed to those traditional ones just derived from craft.
- But out of nostalgic views, there are remarkable examples of Architecture that taking advantage of these issues, still consider the "presence" and the "representative role" as eternal values in whatever kind of context.

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EPILOGUE

Although the main idea addressed in this text is not at all a new hypothesis, it makes sense to insist and place the birth of the theory corpus of what we understand globally as Modern Architecture in the latter years of the eighteenth century; long before any consideration strictly related to the Modern Movement in Architecture, commonly settled in the first part of the twentieth century. By unfolding that idea on a basis of contemporary concepts, we attempt to relate specific features from some of the architects of those old times right after the French Revolution, with the work of today authors who, belonging to different schools and tendencies, share the same interest in going through new ways.

It constitutes a broad approach whose feedback is based on intuitions, feelings, methods and appearances as part of a supporting spine in order to understand remarkable milestones we have learnt about in a wrong way; as closed compartments. With the subtle intention of relating them within an evolutionary process that brings us farther back than what we previously thought. This process takes place within a symmetric time span, much longer than the isolated periods we usually apply in order to classify any artistic movement. Interestingly enough, notice it goes from one of those major revolutions in humankind, the age of "Enlightenment" (between the eighteenth-nineteenth centuries) to another outstanding one, such as the Industrial Revolution (between the nineteenth-twentieth centuries) A close period of time we are now able to analyze in perspective.

And we do this by exploring timeless approaches finally based on an equilibrium between reason and feelings, a resource still useful for today's practice in whatever artistic discipline. And properly defining the concepts that serve as a thread for the consideration of remarkable pieces of Architecture and Urban Design, without forgetting state-of-the-art cultural, social, and economic contexts that explain the general evolution of architectural theory throughout history. Showing that the process of researching different practices in the discipline also constitutes an interesting mirror for analyzing, interpreting and understanding these cultural issues, while simultaneously acquiring a critical knowledge out of them.

It is true that modernity has somehow been exceeded, but we would dare to say that only the positivist side of it. We are not machines, and our buildings and cities are not merely technological devices. So, the important lesson we should keep with us is the need for discovering balances among human creations and nature (our past, present, and above all future challenges), just as we have seen in the previous examples. They transcend their times to become references and sources of inspiration, thus being eternally modern.

But let's remember that in today's world we are eager about burning new episodes relentlessly, figuring out what is next. And as many professionals cannot wait for a quiet evolution of their careers, plenty of talented architects are in danger trying to invent out of the blue, unbelievable and never seen objects to

shake our perception. But there are signs that tell us this situation is coming to an end, as we are fed up of rampant innovations and crazy eyesores that are far away from our real needs, and frankly do not last for a minute. In fact, this lack of orthodoxy also proves the end of the Modern Movement and its revolutionary but single faith; absolutely alien to real modernity. Now and more than ever, we should look back for a while. Because it is precisely the consideration of the precedent what can make us jump safely into the future; opening doors with an authority based on a wise experience. Due to the knowledge of the past is the real trigger for the discovery of the future. A fascinating experience we should never neglect.

And finally, by doing so, there is the humble intention of recuperating some wonderful, but at times consigned to oblivion authors, who, by the study of their ideas, designs and built work, we could consider to be brilliant and unforgettable mavericks still capable of keeping our eyes wide open. Because reality depends on how we look at things.

Donostia-San Sebastian, Basque Country, Dec. 2021

Back cover

It is obvious we can trace back any stylistic trend from its official inauguration. The primordial soup, from where whatever modus operandi takes place always boils previously, melting among different ingredients. These "Sort Lessons" try to make us understand a little bit more accurately some of the origins that give place to what is commonly described as Modern Architecture. Far from any kind of dogma, or formal approaches, they let us dive into part of its essence through some of the ideas still stirring today's panorama of the discipline. Ideas that are not at all new, despite their contemporary features, but come up from a long line of events we can already track and identify in the past centuries.

Based on four main bodies of general knowledge, APPROACHES, EMOTIONS, IDEAS, and MARKETING, this text spans from the Enlightenment revolution times to the dusk of the influence of the Modern Movement, focusing on concepts and authors who represent this evolution through their proposals... Always dealing with the keystone in Architecture, the difficult balance between emotion and reason. Two human attributes in fact complementary, but most of the times understood as opposites.