A design concept can be regarded as a logical proposition formed by different elements related to one another. The structure of the concept depends not only on the elements that make it up, but also on the order established among them. Hence, an alteration in this order is enough to modify the logical construction of the concept. Consequently, one can generate new design concepts by modifying the internal order of already-known propositions.

As a construction formed by elements connected to one another, the ‘design concept’ can be compared to a grammatical form. If syntax is “the part of grammar that shows how to coordinate and join words in order to form sentences and express concepts”, then manipulating the order of the elements of a design concept is a syntactic operation.

As a result of his approach to architecture and the role of the architect, Rem Koolhaas’ way of designing is a paradigmatic example of how to use syntax as a strategy to create design concepts.

According to Koolhaas, the construction of a building is not an isolated event, it belongs to a bigger picture: a physical, social, and political framework whose outreach exceeds the spatial location of the project.

He frequently focuses on the fact that architecture is an activity that takes place in a given environment and can, therefore, be understood as an action-reaction phenomenon within that particular environment. The aim of architecture is to contribute to the shaping of the ‘world’, the inhabited environment. However, not as an action motivated by the architect’s individual will, but as a reaction to the requests raised by those who inhabit the space. Thus, a defining feature of Koolhaas’ attitude as an architect is his will to have an effect on the environment.

An aspect of this environment is, obviously, the material context where the architecture is built. The site, the place, the territory, the city, etc. What could be called ‘the realm of physical objects’. However, architecture also exists in a cultural context where it has value as an event, a space that could be called ‘the realm of ideas’.

Koolhaas is very conscious about the fact that, even though architecture occurs in a
physical space, it also occurs in a cultural space that he considers as important as the physical one. If not more, Koolhaas aims to transform reality through architecture and, in his view, the best way to have an effect on the global space is to do so by taking action within the realm of ideas.

At a time when both transfer and obsolescence of ideas seem to take place at an increasingly fast pace, Koolhaas decides to ‘patent’ and publish the ideas shaping the logical structure of his projects as if they were the real objects for which it is imperative to claim authorship.1

Architecture occurs in an environment and is understood as a reaction to it, but it does not consist solely of reacting to a given situation. As Koolhaas stated, his aim is to suggest a new kind of architecture. It is not enough to be the one who does better than anyone else in something that is already known; a new vision coherent with the present context is needed.

Having said that, one can only suggest something new once one knows History well. By definition, newness exists only by contrast to that which is established, one cannot be understood without the other. Koolhaas thinks that the impact of architecture on the environment is determined by the tradition of discipline. For this reason, the architectural tradition is at the same time the departure platform and the baggage that one should leave behind in order to take off. As a consequence, Koolhaas' projective practice often follows the pattern of reviewing the current status of a topic and then proposing an alternative solution as a critical response to a given situation.

The cultural environment is where architecture intervenes, but it is also the place where architectural food for thought comes from. This way of proceeding is determined by his interpretation of architecture as an essential part of the cultural context; he uses architectural criticism as the fuel for creative thinking.

In a paper published in Architectural Design in 1972, Alan Colquhoun says that Le Corbusier makes so many references to the architectural tradition in his projects that a certain knowledge of this tradition is required in order to understand his architectural message. Colquhoun calls Le Corbusier's creative strategy “displacement of concepts.”2 This argument can be applied to Rem Koolhaas' projective process too, as Cortés states3 and the architect himself admits.4

The term 'displacement' implies that the re-interpretation of concepts goes beyond a personal understanding of a familiar concept—as a performer would do with a piece of classical music—and becomes a creative action that involves the redefinition of a concept. In this case, re-interpretation is regarded as re-working. For Colquhoun and other authors,5 every creative act would be doomed to be a re-working of the past, either conscious or unconscious.

With regard to Koolhaas, re-interpretation often consists of a syntactic manipulation of the conceptual frame of reference. That is to say, the re-working of a concept or a reference model is based on the manipulation of the logical order of its elements.

In Castilian grammar, syntax is traditionally considered to be the construction of the logical order of thinking.6 Transferring the term syntax to the discussion on the creative process, it aims at allowing the focus to be set on the construction of the logical order of a design concept.7 Syntax as a project strategy means modifying the logical order of the parts that form a concept in order to create new alternative concepts.

It is therefore necessary to insist on a relevant issue: ever since Reinaissance, successive grammatical treatises have considered the existence of a logical syntactic order called the ‘natural order’. That is to say, it is believed that there is a natural order of thinking that can be opposed to an anomalous one.

This distinction between a natural order and an anomalous order is key. If the existence of a natural order is accepted (a reasonable or a rational one, too), a syntactic alteration would imply by definition the replacement of this order with an alternative one. In the case of Koolhaas, the process of re-working architectural concepts implies the replacement of a traditionally accepted order (the counterpart of the syntactic natural order) with a new one that is inevitably an anomaly.8

Since antiquity, orators and writers have used the manipulation of the natural order of elements as a resource to attract the receiver's attention, with the aim of persuading and/or thrilling his audience. These procedures with this particular purpose are known as ‘figures’ and ‘tropes’ and they operate in different levels of the language. The most frequent definition of ‘figure’, inherited from antiquity and clearly defined by Quintilian, is a conscious modification of language.

The inclusion of the term “conscious” in this definition is important because it implies accepting that the figure is not an accidental corruption of the common language; on the contrary, it is a deliberate and innovative manipulation carried out by the author. The figure is an intentional breakdown or an alteration of the logical order with the aim of surprising the reader. Therefore, figure and trope are deviating uses of the language, but they do not represent a corruption of it, since both are deliberately used to embellish the text and to persuade the interlocutor.

Historically, grammatical studies have treated figures as «speech disorders». However, at the same time, as ‘intentional deviations of the logical order» they are the object of rhetorical studies.9 From a rhetorical point of view, a ‘figure’ is a change, a mutation of the logical order of the common speech and it is recognised as an elocutio-oriented part of the dispositio.10

When applied to Koolhaas' projective practice, this reasoning shows that his syntactic manipulations clearly belong to the field of rhetoric.

The design concept of the Seattle Central Library, for example, sets off from the analysis of the natural order that is usually associated to a library with the aim of suggesting a new one to take its place. It is not only about constructing a building, the goal is the redefinition of the ‘idea’ of library. He aspires to nothing short of redefining a concept that belongs to the ‘natural’ order and therefore his argument has to be absolutely convincing. Its presentation has to be totally persuasive.

The modification of the usual ‘speech’—that which is understood as the natural order in a conventional library—and its mutation into a new speech aim to convince with arguments, they intend to seduce. This, it is possible to state that this is a rhetorical operation in the sense defined by Quintilian: an alteration of the dispositio oriented to favour elocutio. As with the use of rhetoric in literature or public speaking, Koolhaas' design for Seattle alters the natural order with the purpose of surprising, providing the image of an unseen idea, maybe a shocking one, but seductive and intriguing.

The example of Seattle is not an isolated case; on the contrary, a relevant part of Koolhaas’ creative production can be examined through the lens of rhetoric.

Generating design concepts by manipulating logical propositions can be compared with the use of figures since they are a purposeful and conscious modification of the way we think. Given that rhetoric lays out a number of figures as classical verbal procedures associated with syntax, the classificatory scheme of ‘syntactic figures’ is suited to analyse the use of rhetorical syntax in the work of Rem Koolhaas. 'Tropes on rhetoric', from Aristotle through to the present day, have always given particular importance to the study of rhetorical figures, including syntactic ones.

Since antiquity, rhetorical figures fall under four categories, according to the modifications of the common use of language outlined by Quintilian: addition (adiecitio), omission (detractio), order variation or transposition (transmutatio) and permutation (inmutatio).11 Syntactic figures are those that play with the position of words, their omission, redundancy, repetition, etc. In poetic language, the common syntax is disturbed. An idea, a verse, can be emphasized, and it is possible to create sequences that we potentially give cohesion or dispersion to the poem.

The order established by Quintilian, and still widely accepted, is followed below with the purpose of reviewing several design concepts in the work of Rem Koolhaas.12 The main goal is to explain the syntactic nature of these concepts, the role of syntax in their formation process, and the influence of rhetorical figures in their logical construction.
FIGURES CREATED BY ADDITION

Isocolon or parallelism⁴⁶

Your only possible body: your sweet remembered body.⁴⁷ Pedro Salinas.

It is the very figure of speech for repetition, isocolon involves the repetition of similar or identical structures.

The residential compound Nexus World in Fukuoka (1988-1991) shows several characteristics associated with the figures of repetition. It can be regarded as a parallelism since it is equivalent to a proposition comprised of two structures that are so similar as to be almost indistinguishable. Even if this approach could also be extended to every project that involves symmetry, in this case, the similarity between architecture and rhetoric is strengthened by the fact that each proposition consists of a repetition of the same syntagm—the housing unit—, which is juxtaposed without the assistance of connective elements. Thus, it is an asyndeton too.⁴⁸

The key to enabling this situation lies in the section. Unlike standard situations, juxtaposition is possible because of the fact that the residential units are raised above the ground, allowing access from below and presenting a syntactic relation with the ground plane that reverses the traditional one.

Chiasmus⁴⁹

They take away pleasure and jealousy they bring.”—Tirso de Molina.

Chiasmus is a variant of parallelism with a tendency towards symmetry and formed by crossing the elements of a parallelism. In a way, it could be regarded as a figure of thinking, since it is a game of relationships more complex than parallelism. The term refers to a type of constructive scheme, the components of which, arranged in a single inverted sequence, are related by an equivalence relation in syntagmatic and functional terms.

The design concept of the House in the Forest (OMA 1992-1993) can be regarded as a clear example of chiasmus.

Chiasmus implies a crisscrossed position of two comparable elements in order to express an antithesis, which obliges to set out an equivalence between two syntagms. In this case, two logical propositions represented by two examples of Mies van der Rohe's architecture may be considered equivalent: the Fansworth House and the courtyard house. The first represents the idea of a transparent piece, open to the outside, which contains a solid object. The courtyard house, on the contrary, reflects the idea of an opaque piece, introvert, which contains a void inside.⁵⁰

At this point, these fragments are opposed, forming an antithetic symmetry. As evidenced by the longitudinal section, the pieces are arranged above and below a horizontal plane of reference. The transparent piece is placed above the plane, opposed to the opaque piece, which is placed below the plane. In this way, the singularity of chiasmus is fulfilled since the proposition consists solely of two fractions synchronised with one another. That is to say, the figure of repetition is used so that the second fraction is attuned to the first in a syntactic way.

In a further illustration of the equivalence between the rhetorical figure and the design concept, the binding conjunction between syntagms precisely corresponds to a connecting element: the ramp that is located in the meeting point between the opposing pieces.

Polysyndeton⁵¹

There is a palace and a river and a lake and an old bridge, and fountains with moss and tall grass and silence… ⁵² Juan Ramón Jiménez.

Polysyndeton is the repeated use of conjunctions, a contrast to the traditional rule of scarcely using them and only when they are technically necessary.

In the Netherlands Embassy in Berlin (1997-2003), the connective element is exaggeratedly large and gains more importance than it normally would. The hallway stands out as the key element that links the significant parts of the project.

The design of the unfolded floor plan may be graphically read in much the same way one reads Juan Ramón Jiménez's poem: the drawn pieces would be the highlighted elements of the place described by Jiménez. By ascending, one discovers a sequence where there is an auditorium and a library and meeting rooms and a gymnasium and a restaurant… a restaurant in the sky.⁵³ The promenade architecturale emphasizes those places as it comes into contact with them, increasing their value as shared-activity spaces, in contrast to the private space of the offices which comprises the rest of the building.

FIGURES CREATED BY OMISSION

Asyndeton⁵⁴

Come, run, fly, pass through the mountain, dwell in the plain.⁵⁵ Fray Luis de León.

Asyndeton is the opposite of polysyndeton. Coordinating conjunctions are omitted. Asyndeton is a figure that produces a break, not repetition.

In his book Delirious New York, Koolhaas reflects on the impact that the invention of the elevator had both in the building's physical configuration in height and in the consolidation of its conceptual underpinning. The elevator breaks the direct link that existed until then between the different floors of a building, making the relation of contiguity or distance irrelevant. Thus, the necessity of an articulation of the different floors disappears.⁵⁶

Koolhaas uses a comic strip published in the magazine Life in 1909 to describe the ideal logic of the skyscraper: a slender steel structure supports 84 horizontal planes, all the size of the original plot. This structure takes the form of giant shelves, and each of these levels is treated as a virgin site, as if the others did not exist, to establish a strictly-private realm around a single country house. According to Koolhaas, the logic of the skyscraper involves the stacking of multiple, unrelated realities that are simply juxtaposed to one another.

The Downtown Athletic Club in New York is a paradigmatic case.⁵⁷ The building's section graphically illustrates this fact by showing that each floor has a different free height. Also, each floor has a different plan, and only the communication cores are repeated in all floors.

In the idea of skyscraper, an “absence” takes the place of walking from one floor to another thanks to the elevator. The experience of using an elevator is like a sort of an absence, a gap in time. Being in an elevator is waiting and, as Estragon says in Beckett's play, “In the meantime, nothing happens.”⁵⁸ Thus, the time spent in the elevator acquires the value of a comma in the logical structure of the skyscraper, that is to say, the space between successive terms occupied by a brief time spent waiting. The effect of the elevator on a building could be regarded as an action that is equivalent to eliminating conjunctions in a proposition.

Hence, the logical construction of the skyscraper is similar to an asyndeton and, consequently, opposed to the logic represented by the Netherlands Embassy in Berlin, which can be considered a polysyndeton.

Koolhaas implemented this juxtaposition strategy in other projects such as his proposal for the Parc de la Villette in Paris (1982). Essentially, this proposal is to take the section of the traditional skyscraper typology, reclining it and then to consider the space of each floor as a programmatic stripe.⁵⁹

The project for Congrexpo in Lille (1990-1994) is based on the same idea. There are three main elements: a concert hall, a congress centre, and an exhibition hall. Their juxtaposition forms a ‘proposition’ enclosed by an ovoidal perimeter. The only gesture towards integration is the fact that all the elements are covered by the same roof. The tangent points of contact between the different areas offer new programmatic opportunities. Thus, it is precisely the exaggerated absence of connective elements what is used as a resource fin order to create rhetoric intensity.

FIGURES CREATED BY TRANSPOSITION

Anastrophe⁶⁰

Joined the Dark Side, Dooku has. Lies, deceit, creating mistrust are his ways now.⁶¹ Master Yoda in Star Wars: Attack of the Clones.
Anastrophe, derived from the Greek anastrophé, ‘reversal’, is the inversion of the usual syntactical order of two or more successive words in a proposition. In rhetoric, changing the conventional position of words is called inversion too.

This literary practice is typical of the classical poetry genre. In present day literature, it is generally used to emphasize —especially in poetry— because it helps to arrange the poem in a way that catches the attention of the reader not only because of its content, but also by its physical appearance; a peculiar result of the structuring.

In Rem Koolhaas’ architecture, the approach to a project is often the result of inverting the usual order of the terms in a given situation.

For example, the previously commented case of the Parc de la Villette (1982) can also be regarded as an anastrophe since the first syntactic manipulation is an inversion.23

A logical proposition is the point of departure: its development axis is vertical, but it is inverted and horizontally developed. Inversion does not mean reclinign an object that remains unchanged. Instead, it implies the transposition of the usual order of the terms of a concept by considering a plan from what was formerly understood as a section.

In the project for the Ascot Residence (2003), an inversion operation is developed in the scheme of a courtyard house by putting it on its side. What used to be drawn as a plan to describe the layout of the rooms around a patio automatically becomes a section, without changing a single line. In this way, there are two options: a vertical house and a horizontal house, both of them based on the exact same configuration.

Interestingly enough, the intensity of this rhetorical operation inevitably depends on the fact that the two versions of the same house should be presented together. If they are displayed separately, the syntactic figure would disappear and, along with it, its capacity to seduce. Without its twin, each version seems banal. It is necessary to know the usual order of the elements in order for the inversion to make sense and, in this case, this will only happen when the two versions are presented together. The rhetorical power of this duality is supported by the fact that, months later, Koolhaas will use the same resort in another project.

In the project for HafenCity in Hamburg (2004), two apparently identical pieces are arranged inversely, facing each other, on the bank of the Elbe River.

These two pieces fulfill different programs: the first one hosts a cruise terminal, a hotel, and facilities for conferences; the second one, an aquarium, a science centre, and a large theatre. However, they have the same appearance, however, inverted.

Hosting functions that are so varied makes the form of the pieces irrelevant to their function. In a sense, this fact limits the expressive capacity of the object, since its internal logic cannot be displayed. For this reason, the syntactic figure supports the rhetorical load of the proposal. The fascination of the passerby derives from the intrigue at seeing two strange objects, both of them unaware of what is happening internally and externally, but closely connected by the syntactic inversion which is present.

In this project, the use of a syntactic figure results in another one. As described above, these two pieces form a parallelism charged with poetry as a product of inversion.

If HafenCity straddles inversion and parallelism, it might be possible to consider the project for a building to be built on the Koningin Julianaplein, in The Hague (2002), as a clear case of anastrophe since it is an inversion of a common logical proposition.

The action of merging several towers at the top reverses the classical situation where they would be fused at the bottom in order to form a whole. Simply by turning 180 degrees the architectural model of this project, one can clearly see a standard vision of the assembly, but the usual elements’ order is so familiar that this action becomes unnecessary.

The proposal for the Port of Genoa (1998) is a clear case of anastrophe. The digging a hole in the sea is suggested, an inverted island below sea level. It is a type of land reclamation, as we say, but instead of filling the area with dirt to create new terrain on which to build in a traditional way, a square shaped dike is built in order to drain an area. The classical public square, configured as a void in the urban fabric, is suggested now as a cutout in the marine environment.

Even though this proposal may seem unreasonable—a space with no escape, exposed to the rising water—, from a rhetoric point of view it is a vigorous action.

Hyperbaton*4

Of the room in a corner all darkened.24 Gustavo Adolfo Bécquer

Hyperbaton is the very figure of rupture. It breaks the usual order of the syntactic structure of the proposition.

The case of the Dee and Charles Wyly Theatre (2001-2009) is probably the perfect example of hyperbaton. The opening paragraph of the project description published in El croquis contains all the key elements that justify this claim:

“In a typical theatre, the front-of-house and back-of-house functions imprison the performance chamber. By re-positioning all support spaces below-house and above-house, the Wyly Theatre’s chamber is liberated from captivity to engage the city around it. The entire building becomes a large fly tower, a ‘theatre machine’ that eliminates the traditional distinction between stage and auditorium.”33

The starting point is the notion of ‘conventional theatre’, which can be regarded as a logical proposition that represents the natural order of things. Hence, the proposition ‘conventional theatre’ is equivalent to the usual order of the words in the discourse. Based on this premise, a change is made in the arrangement of the pieces of the initial proposition, and this is totally comparable to an alteration in the order of the words in a sentence. This change is made with the aim of eliminating the traditional relationship between the different spaces, and questioning the conventional sequences of the functioning of a theatre.

Hence, it has a clear rhetoric intention, with the purpose of surprising and amazing the audience by changing the expected order of events. The concept of the project for the Wyly Theatre is, first of all, and above everything, a syntactic operation.

The idea for this project has a precedent in a previous one that OMA uses in the project for the Cardiff Opera House (1994).25 In that case, a first operation is made: a syntactic analysis of the proposition <conventional theatre> with the aim of determining which ‘syntags’ are relevant.

Historically, the model of theatre has been the subject of multiple variations that have given way to different classic types. When Koolhaas mentioned the ‘conventional’ theatre in the quote above, he actually referred to only one of the most common configurations: the italian model developed during the eighteenth century, exemplified by La Scala Theatre in Milan among others.

The fact of being able to distinguish the fundamental ‘syntagms’ or pieces in the theatre model is relevant because it prepares the next action: altering their order.

In the classic solution, a single object contains all the pieces and forms a unit, like in the case of the Odéon Theatre in Paris and many others. Instead, in Cardiff Koolhaas tests a contradiction between already-assumed logics.

To come back to the case of the Wyly Theatre, in the makeup of the concept of this project, several layers of syntactic operations can be detected.

The first one is an inversion; if the development of the conventional logical proposition mainly takes place in the plan, in the layout of the elements on a horizontal plane, in the Wyly Theatre this diagram is flipped and placed upright in order to transform almost the same scheme into a section. This inversion allows the conventional model of theatre to be replaced with a vertical theatre. In the classic model exemplified by the Odéon Theatre, one has to climb some steps to reach the entrance, in line with the palatial magnificence of the model, while in the Wyly Theatre an inclined plane gives access to the main entrance, as in the Centre Pompidou in Paris.

But one of the main consequences of the syntactic operations in the Wyly Theatre is precisely a forced situation in which the concept of processional entrance to

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*33 Anastrophe, derived from the Greek ἀναστροφή, ‘reversal’, is the inversion of the usual syntactical order of two or more successive words in a proposition. In rhetoric, changing the conventional position of words is called inversion too.

*34 Hyperbaton is a rhetorical device in which the order of words is reversed, typically to create emphasis or contrast.

*23 A logical proposition is the point of departure: its development axis is vertical, but it is inverted and horizontally developed. Inversion does not mean reclinign an object that remains unchanged. Instead, it implies the transposition of the usual order of the terms of a concept by considering a plan from what was formerly understood as a section.

*24 Hyperbaton is the very figure of rupture. It breaks the usual order of the syntactic structure of the proposition.

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theatre disappears. The classic spatial sequence of access / representative foyer / stage / stage is replaced by an abrupt juxtaposition of the exterior space and the auditorium. Since the duo stalls / stage is placed at ground level, the access can be arranged in different ways, according to the needs of the artistic direction, and the entrance is also freed from lateral constraints.

The primary justification given by OMA for the idea of the Wyly Theatre project is that, it allows for flexibility and freedom generating a wide range of theatrical situations, from the traditional configuration with the stage in front of the stalls to the studio theatre.

The search for multifunctionality leads to the transformation of the main floor into a single stage house with the potential of holding multiple configurations. This action is a hyperbole, since the value of one of the elements, the stage house, is exaggerated, and the whole project can be understood as a large stage machinery that, essentially, reflects the program. The metaphor of the theatre as a fiction-making machine gains strength and is the logical essence of the project, but one arrives to this metaphor through the syntactic operations.

Because of the syntactic operation of reordering the elements, it seems that everything that does not belong to the core of the concept—the fiction-making machine—is eliminated or reduced. All the other programmatic functions and activities—dressing rooms, warehouses, ancillary rooms, etc.—are actually there, of course, but they are camouflaged since their expression is limited to being a cog in the machine. Hence, the concept is represented as a big machine that floats above an empty space, a complex object that does magic where there is nothing. The development of the work and for the impinged on its ability to communicate. The use of syntax as a strategy for generating concepts from other concepts requires making reference to tradition, either to reaffirm or to contradict it. For this reason, concept re-working operates under an explicit or implicit cultural framework where the proposed concepts only make sense against the background of those basic propositions used as a reference. Thus, the syntactic strategy is clearly in contrast with the projective logic based on diagnostic procedures and solving problems, usually associated with the Modern Movement. The internal logic of these syntactic operations links propositive thinking and rhetoric.

Analyzing the ideas of these design concepts by Rem Koolhaas reveals their syntactic nature. The logical structure of his approaches is clearly the result of the re-working of already-known concepts which are changed by altering the grammatical order. In addition, by representing alternative situations, different from the ‘natural order’ of the architectural tradition, the figures analyzed in the work of Rem Koolhaas point to the intentional use of rhetoric as a mechanism to have an effect on the cultural environment where he operates.

1. First entry for syntax in the Dictionary of Spanish Language of the Royal Spanish Academy (DRAE).
7. For a detailed description of the historical evolution in the use of the terms syntax and construction see Paz Carrillo Navarro, “Conceptos y heurísticas filosóficas”, in: Temas 11 (2004): The notes about grammar in this paper are clearly as debt with this text.
8. In this regard, it is important to specify that the issue here is not syntax from the point of view of tautician architectural language. In this case, the use of this term is limited to the field of concepts and must not be confused with its applications in other areas.
9. Rem Koolhaas, El croquis n°134/135, 2007 . p. 120.
10. SÁNCHEZ, José. La voz a ti debida. Signo, Madrid, 1933. p. 93.
11. Traditional configuration with the stage in the center.