Alvar Aalto and Álvaro Siza. 
Construction of Place and Landscape

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Abstract

The link between architecture and nature, from the standpoint of the relation of architecture with its place and, in a broader sense, with the landscape it integrates, is one of the main concerns explicit in Alvar Aalto’s and Álvaro Siza’s design processes, works and writings. We propose to explore it as an existing parallelism between both architects’ practices and as a problem whose understanding has a constancy in each one’s career related both to their methodological approach and to their continuous postponement of the theoretical systematization of their convictions.

Aalto and Siza seek a cohesive balance between man’s interventions and pre-existing nature. For both, architecture is something that contrasts with nature by alterity, but that also adapts and complements it. The relation with place and landscape has a propellant role in their design processes, enhanced by their distrust of an a priori theory. Their projects are born from the place they simultaneously define by a pondered search, developed case by case, for naturalness, for the same sense of evidence, proportion and simplicity they find in nature. Therefore, we explore the use they make of conceptual analogies with nature's formative processes, and even of formal analogies with the surrounding nature, which Bruno Zevi considered the naturalist misconception of organic architecture.

To better understand and relate Aalto’s and Siza’s approaches to the problems outlined, a comparison was made with other architects whenever relevant, like Le Corbusier and Aldo Rossi, whose practices and positions towards project theory are thought to be distinctive.

Keywords: Alvar Aalto, Álvaro Siza, theory, methodology, place, nature, alterity, complementarity, analogy.

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Relation with Place and Landscape

The relation of architecture with the place and, in a broader sense, with the landscape it integrates, is one of the design problems to which Alvar Aalto and Álvaro Siza give higher importance in their project processes, and whose understanding has constancy in each one’s career, as well as parallelism between both architects’ practices.

Aalto and Siza seek a cohesive balance between man’s interventions and pre-existing nature. For both, architecture is something that contrasts with nature by alterity, but that also complements it, emphasizes it and seizes its naturalness by analogy not only with its formative processes but also, sometimes, with its forms.

According to Antonio Monestiroli (1993: 193), throughout history, architecture imitated nature – ‘from the simple reproduction of natural forms, to the more complex analogy between the artistic construction and the construction of nature’ – and architecture itself – ‘based on the idea that there should be an artistic form of reference (…) and, therefore, based on the concept of historical continuity of the artistic achievement.’ Resorting to a pre-existing formal world built by man, enables architects to circumvent the direct analogy with nature, avoiding naturalism. But it also tends to a formal conventionalism, that the analogy with nature makes possible to renew (Monestiroli, 1993: 204-205). Hence the complementarity between these two sources and their cyclical valuation throughout history.

For Aalto and Siza, nature and the best constructions of the history of architecture summon simultaneously reasoning, senses and feelings for its naturalness, order, coherence, proportion and simplicity; i.e. for the ‘singularity of the evident things’, that Siza (1983, in Morais [ed.], 2009: 29), claimed to be necessary to rediscover.

Therefore, in their search for a natural or evident way of relating their works with the place and landscape in which to intervene, Aalto and Siza resort to analogy with nature, but also with the buildings of history which they consider the best. They adopt a common understanding since the Enlightenment when, according to Monestiroli (1993: 205-223), nature and history were frankly perceived as two complementary terms of reference for architecture, as it continued to be for Modern architects, although there are differences in the way each one understands and values them.

In this paper, we will explore the way Aalto and Siza understand the relation of alterity and complementarity between architecture and nature, as well as the use of conceptual and formal analogies between both.

Whenever relevant, we will compare Aalto’s and Siza’s understanding with the one of other architects whose practices and positions towards project theory are thought to be distinctive, like Le Corbusier – from a previous generation, but close to the one of Aalto – and Aldo Rossi – from Siza’s generation.
**Alterity and Complementarity between Architecture and Nature**

In one of his first texts, Siza (1964, in Morais [ed.], 2009: 17) referred to the ancient chapel built on a rocky outcrop between land and sea, close to the site of the Boa Nova Tea House (Figure 1). He considered it exemplary due to the ‘free and natural way as it becomes part of the landscape’. This chapel, like the ancient Finnish architectures lauded by Aalto (1921; 1922, in Schildt [ed.], 1997: 32-37), integrates the landscape with a ‘simplicity’, Siza (1964, in Morais [ed.], 2009: 17), at the time, recognized to be rare and difficult, but necessary to study and rediscover. A simplicity that comes from the sensitive relation of alterity and complementary that it sets with the place.

Relating their works with the place and landscape in which to intervene, Aalto and Siza never get completely apart from the classic and rationalist gesture of emphasising the contrast between nature and man’s creations, through the abstraction of geometric figures explicit, for example, in Le Corbusier’s Villa Savoye (1928-31). That is echo, in Aalto’s case, of his first neoclassic works and his posterior interest in the Central European Modern Movement; and in Siza’s case, of his academic background (Figure 2).

Nevertheless, they tend to soften this alterity between architecture and nature, detaching themselves from the rationalist architects, by: 1) the complete adaptation of their works to the particularities of the place in which to intervene, searching for a geometric order in what is more related to the specific aspects of the near reality (Figure 3); 2) the intentional use of plants, such as trees and creepers along walls, that on the one hand, punctuate and help to clarify by contrast the built work, but on the other hand, ‘soften the violence of light and shapes’ (Siza, 1995, in Morais [ed.], 2009: 171), naturalising the geometric volume and incorporating it into the surroundings (Figure 4); 3) emphasizing and/or reproducing morphological characteristics of the place in which to intervene through formal analogy – a theme developed ahead in this paper.

For Siza (1993: 17) ‘architecture, construction made by man, geometry, rigor, etc., is always in an organic connection with the landscape’. However, ‘architecture generally detaches itself from natural, exactly because it needs to demarcate to exist, it does not detach itself by turning its back, but it is born form natural and it needs to demarcate to establish the wise frontiers for its elaboration.’ As he stated (1998: 9), ‘that alterity is essential to the conception of the project.’

Siza (1998: 9) believes that architecture, and therefore the city, need nature as a distinctive, but also complementary entity with which to relate. As he explained (ibidem / 1995, in Morais [ed.], 2009: 151-154), the city that extends and finds its limits in nature, establishing a relationship of continuity and complementarity with it, has an identity. It is different from others more and more similar to each other, which do end at any point, but are rather characterised by the constant growing and stretching of the construction to the horizon.

Oporto is one of the cities that Siza likes the most. There, as he points out (1998, in Morais [ed.], 2009: 201), the rugged topography ‘for centuries
repelled hasty urban plans’ and received in a natural way ‘as no manual could propose’ the buildings where the terrain allowed.

Siza also refers several times to the cities of Portuguese foundation and especially to Rio de Janeiro (Figure 5). Those cities are encrusted in rough places ‘chosen with ancient wisdom’ where there is no need to build everything: ‘what Nature gives does not need to be made’, Siza explains. Orography gives meaning and identity to the city whose contours are adapted to the topography and whose buildings are born from the complex relation of complementarity and counterpoint with the place. ‘What is being built closely coexists with nature’, shaping the landscape as a whole. There, ‘above all, nothing is continuous, or closed, or systematic’ (Siza, 1988, in Morais [ed.], 2009: 51-52). It results from an intuitive way of building that, as Siza wrote, ‘does not explain or teach’, that is not therefore deductible in a theory, but whose study he (ibidem) considers necessary and urgent.

According to Siza (1998: 19), ‘architecture does not end at any point, it goes from the object to the space and, as a consequence, to the relation between spaces, to the encounter with nature,’ becoming an integrant part of the landscape. The ‘relation between nature and construction is decisive in architecture’, Siza stated (1998: 5). ‘This relation, permanent source of any project, is for me like an obsession; has always been determinant throughout history and yet today tends to a progressive extinction’ (ibidem).

This way, Siza makes explicit the common denominator of the places and landscapes that attract him and of those which fascinated Aalto, like his beloved hilltop towns (Figure 6): the symbiotic relationship between natural context and man-made shapes. ‘Nature and Art in continuity and rupture’ (Siza, 1995, in Morais [ed.], 2009: 171).

Aalto was never as clear as Siza describing the symbiosis between nature and culture he appreciated and searched when adapting his buildings to the place and landscape. Not even in his writings from the twenties, when he intensely discussed this topic influenced by his interest in the Nordic Classicism and by his fascination with the landscape of Tuscany (resulting from his trip to Italy with Aino in 1924).

But, he believed (1925, in Schildt [ed.], 1997: 21) architecture ‘should be placed in the landscape in a natural way, in harmony with its general contours’, without following ‘aesthetic norms’, but rather what he called ‘a natural sensitivity for beauty.’

**Conceptual Analogy: The Sense of Naturalness in Architecture**

According to Aalto (1925, in Schildt [ed.], 1997: 18), ‘there is but one rule that holds in architecture: build naturally.’

As Siza further explained (2005, in Morais [ed.], 2009: 329), ‘developing a project is to overcome the eternal opposition between nature and man’s creation. Everything should come unavoidably evident’, like in nature constructions.

Aalto and Siza approach another aspect of the relation between architecture and nature in those last two statements: the use of conceptual
analogies with nature formative processes in their architectural practices, which for both is enhanced by a visual, sensorial and emotional apprehension of the reality, understood and internalized through drawing.

Aalto and Siza seek to discover a gist they consider not deductible in a rational process in the way nature forms itself.

In their design practices, the search for naturalness and evidence, for simplicity, for fair proportion, and for the ability to reconcile opposites constructing a harmonious whole is mainly guided by memory, by experience and by intuition.

Also the rationalists – like Le Corbusier and Aldo Rossi – consider nature a system of reference for their works. According to Le Corbusier (1966: 56), ‘a sovereign determinism illuminates nature’s creations, in our eyes, and gives us the safety of a thing which is balanced and rationally done, of a thing infinitely modulated, evolutive, varied and unitarian’, holding the same intelligibility and poetic quality he tries to achieve in his architecture. However, for him, unlike Aalto and Siza, the poetic quality of nature comes from a system rationally deductible in a theory and in sequences of harmonious proportions that inform the geometry – remember his studies about \textit{Le Modulor}.

In his \textit{A Scientific Autobiography}, Rossi (1981: 5) confessed he feels ‘attracted by stasis and naturalness, by the classicism of architecture and by the naturalism of people and objects. (...) In all of my projects and drawings, I believe there may be a hint of this naturalism which transcends their oddities and defects.’ But, as Le Corbusier, he has a rationalistic conviction. In a text about Étienne-Louis Boullée, Rossi (1967: XXVIII-XXIX) stressed the importance of building a theory, a ‘logical system, valid in itself’, ‘common to all works conceived, designed or built that we know. (...) to, thereby, try to answer all the problems man and civil progress put to architecture.’ And, agreeing with Boullée’s proposition that simplicity in architecture results from the adhesion of the work to the laws of nature, Rossi (1967: XXXVI-XXXVII) pointed nature as a source of this system. This way, he concluded (\textit{ibidem}), ‘classic architecture which was born from an \textit{a priori} idea, closed in a geometric thought, returns to nature; has therefore the value of a natural thing.’ Something that, in his view, ‘no organic adjustment of forms can achieve’.

Both Le Corbusier and Rossi seek to extract from nature rational principles and compositive logics through which they believe to be possible to formulate a transmissible system, a theory, capable of serving as a basis for architectural work.

On the contrary, Aalto’s and Siza’s design practices do not start from a theoretical basis. As Aalto (1967:17) explained, ‘each order is different, so we can not take solutions in a systematic way.’ Their theoretical views are built case by case, theme by theme, through partial and fragmented approaches, which they never come to systematize because, as Siza said (1978: 36), ‘from one place to another everything is very different, very complex.’ Thus, both tend to an organicist understanding of architecture that Adolf Behne (1926, in Esquide [ed.], 1994: 53-82) called functionalist and opposed to the rationalist.
According to Behne (1926, in Esquide [ed.], 1994: 72), the ‘rationalist’ – like Le Corbusier –, ‘seeks the most conformity to distinctive situations, (...) the most possibly adjusted to the general needs, the norm.’ ‘His way of thinking proceeds from the wholeness to particularity’ (*ibidem*: 66).

While, the organicist, or as Behne wrote (*ibidem*: 72), ‘the functionalist’ – like Aalto and Siza – ‘wants the most absolutely adjusted, the unique in each concrete situation’. He understands that each project needs a different approach adapted to the unfinished nature that, case by case, he has to complete. And in this sense, he gives to the character of the place a propellant role in the specificity of each project. ‘For him, the ideal building would grow from the soil like an organic plant’, because he considers ‘construction not as volume stranger to nature, but rather as one of its organic components’, Behne explained (*ibidem*: 62). Therefore, unlike he rationalist, the organicist tends ‘to make the building participate, by a sort of mimesis, in the existence of living organisms’ (*ibidem*: 69).

*Formal Analogy with Nature Forms in Architecture*

Hence, in their search for a natural way of adapting their buildings to place and landscape, Aalto and Siza use not only the conceptual dimension of the analogy with nature – i.e. the analogy between the architectural practice and nature formative process – but also, sometimes, formal analogies with it, recreating in their buildings shapes and metaphorical references of the place and landscape in which they are inserted.

Among the multiple forms and textures that formally approach Aalto’s Villa Mairea (1937-39) (Figure 7) to the pine forest around it, for instance, at the studio that stands out from the built mass, beyond the wooden slats lining it that evoke the vertical rhythm of the Nordic forest, the two divergent poles which apparently support it recall, as proposed by Richard Weston (1995: 88-90), a birch tree whose trunk forks (a common tree in the edges of the Nordic pine forests).

At the Helsinki House of Culture (1955-58) (Figure 8), Aalto divided the program in two volumes which relate to the dual character of the surroundings by their configuration: the rounded volume of the concert hall evokes the organic nature of the adjacent park; while the orthogonal volume of offices seeks a parallel with the desired regularity of what, at the time, was already a residential area formed by low wooden buildings which came to be replaced by banal high blocks of apartments.

At the Finlandia Hall (1962-71) (Figure 9), built in a park on the Töölönlahti lakeshore, Aalto worked out the relation of the building with the cityscape and designed it as a rocky formation. Seen from the opposite shore of the lake, the volume of the auditorium rises in the landscape and dialogues with the tower of the National Museum, while the rest of the building characterised by its horizontal mass and visible metric on the façade is related to the Parliament building that stands in the landscape with its colonnade. On the opposite side, the building standing at a lower level than the street that gives access to its entrance is almost unnoticed: during winter, when the white
mantle of snow covering the park merges with its petrous finish; in the summer, when the surrounding vegetation, apart from masking parts of its white façade, blends chromatically with the green patina of the copper sloping roof of the auditorium.

In Siza’s work, for instance, the Iberê Camargo Museum, in Porto Alegre, in Brasil (1998-2008) (Figure 10), echoes through its higher volume the cliff whose concavity it occupies. As a counterpoint to the geometric regularity of the façades that face directly the slope, the main façade of this volume evokes, by its undulation, the orographic organicity that involves it and the water movement of the river Guaíba in front of it. Besides, Siza divided the program in other non-orthogonal lower volumes that, like the little constructions complementary to the main body of Aalto’s Summer House of Muuratsalo (1953) (Figure 11), refer to a natural or spontaneous disposition of things, to an informality, which Siza and Aalto believe to be inherent to the way nature proceeds when its turn comes.

Using formal analogies with the surrounding nature as in the examples above mentioned, Aalto and Siza fall in what Bruno Zevi (1950: 73) considered to be the naturalistic fallacy of organic architecture: ‘through saying that we must keep our eyes on nature there is a danger of a mistaken belief that we ought to imitate nature.’ In Zevi’s view organic architecture resort to the analogy with the way nature forms itself, but not with its shapes.

It is mainly Aalto – whose academic education at the turn of the twentieth century was strongly marked by the Finish National Romantic movement – who tends to bring to architecture ‘the halo of a romantic naturalism, of a mechanical return to nature’ which Zevi (ibidem) considered to be unrelated to the true meaning of organic architecture.

Still, Zevi (1950: 60) trusted the purity of the functional justifications given by Aalto for his works and did not recognise in them the naturalistic and romantic side evident, for instance: at the Villa Mairea; in the Savoy vases from 1937, in whose shapes Siza (1998, in Morais [ed.], 2008: 211) saw with fascination an allusion to ‘the curves of lakes in Finland’; or at M.I.T. Senior Dormitory (1947-1948) (Figure 12), whose winding façade, finished in imperfect manufactured bricks and designed to receive creepers, evokes the upstream sinuosity of the river in front of it.

In Aalto’s and Siza’s design practices formal analogies with nature stem from their subjective and autobiographical contribution when searching for the evidence and simplicity they find in nature.

**Intuition and Reason**

Aalto and Siza relate their works with nature from three converging aspects already discussed in this paper: 1) the relation of alterity and complementarity between architecture and nature, in the sense of continuity in space; 2) the search for naturalness in architecture through the conceptual analogy between the architectural practice and nature's formative process; 3)
the formal analogy with nature, this is the mimesis of the nature shapes in architecture.

For both, the relation between architecture and nature is mainly enhanced by an intuitive and empirical approach stimulated by artistic practices developed in parallel to it, which inform the design process and unlock the mind when the solution to a specific problem hardly comes clear – Aalto painted, Siza draws continuously and occasionally, also the sculpture is part of the artistic practice of both. The forms of nature are sometimes summoned as the origin or the source of the architectural form in this intuitive process Aalto clearly explained in a text (1948, in Schildt [ed.], 1997: 108) Siza quoted (1983) considering it a sharp description of the ‘thinking process of designing’:

‘I forget the whole maze of problems for a while, as soon as the feel of the assignment and the innumerable demands it involves have sunk into my subconscious. I then move on to a method of working that is very much like abstract art. I simply draw by instinct, not architectural syntheses, but what are sometimes quite childlike compositions, and in this way, on an abstract basis, the main idea gradually takes shape, a kind of universal substance that helps me to bring the numerous contradictory components into harmony.’

According to Aalto (1925, in Schildt [ed.], 1997: 37), ‘purity of form can only arise from careful and highly developed artistic work’. It is, therefore, regrettable, he wrote (1925, in Schildt [ed.], 1997: 57), that the analytical trend of the modern western man has as progressive effects: the blurring of its ‘natural insight’ and the weakening of its ‘immediate receptiveness’. In his view (1940, in Schildt [ed.], 1997: 103), ‘architectural research can be more and more methodical, but the substance of it can never be solely analytical. Always there will be more of instinct and art in architectural research.’ As he later clarified (1947, in Schildt [ed.], 1997: 136), ‘our senses transmit to us the raw materials on which our thinking is based’, even though, he warned, ‘we must make sure that the world of the senses remains our servant, not vice versa’ since the concepts of naturalness, evidence and clarity grasped by our senses can only be achieved in architecture by the synthesis between intuition and reason enhanced by the artistic practice.

For Siza the design process starts from an ‘immediate impression’ (1980: 2), an ‘emotion’ (1992, in Morais [ed.], 2009: 109) that arises from facing the place in which to intervene at a particular time, ‘without an a priori idea, but only with an approximate knowledge of the program’ (1986). Siza design projects are developed from an ‘intuited idea’ (1988, in Morais [ed.], 2009: 53) in a first visit to the place (1986), or, sometimes, even before visiting it and without knowing it profoundly, using only what is already known about it (1983, in Morais [ed.], 2009: 27 / 1991: 59). From this intuition comes ‘a subjective (imperfect, or incomplete) composition’ (1988, in Morais [ed.], 2009: 53), a picture ‘that is never rigorous’ (1980: 2), as it precedes the depth knowledge of the objectives and conditions to be considered in the course of a
continuous and patient process, full of doubts, progresses and setbacks, where
the initial idea is progressively informed, worked and tested through a
compromise between intuition and rigorous verification, based on drawing.

Also Le Corbusier and Rossi recognized the subjective and
autobiographical contribution of the architect when searching for the poetic
dimension they found in nature. ‘Painting, architecture, sculpture are a unique
phenomena of plastic nature in the service of poetic research’, explained Le
Corbusier (1953: 11). ‘There is no art that is not autobiographical’ stated Rossi
(1967: XXXVI). Both of them painted and drew in parallel to their
architectural practices. However, unlike Aalto and Siza, they depart from a
rationalistic base to which they intend to return.

From an opposite standpoint, in Aalto and Siza’s practices, although the
project is not made from a ‘sudden inspiration’ (Siza, 1992, in Morais [ed.],
2009: 109), it is thoroughly developed after it.

They both agree that ‘harmony cannot be achieved by any other means
than art. (...) A harmonious result cannot be achieved with mathematics,
There is no theory that can ensure it. For them, harmony comes from what Siza
conquered.’

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Figure 1. Boa Nova Chapel and Tea House

Figure 2. Aalto’s Muurame Church (1926) and Sunila Pulp Mill (1935-39), on the left | Siza’s Quinta da Conceição Swimming Pool (1958-65) and Malagueira Residential Area (1977-...), on the right.

(Top left and right; bottom right) Photographs by Sampaio, C. (2012)

Figure 3. Aalto’s Kauttua Terraced Houses (1937-40), on the left | Siza’s Swimming Pool at Leça da Palmeira (1959-73), on the right.

(Right) In: A Revista da Caixa nr.9, October 2012, 35.
Figure 4. Aalto’s Paimio Sanatorium (1928-33) and Own House at Helsinki (1934-36), on the left | Siza’s College of Education of Setúbal (1986-94) and Terraços de Bragança Residential Buildings (1991-2004), on the right


Figure 5. Rio de Janeiro – Siza sketch: 1982

Figure 6. The hilltop town. Example: Calascibetta, Sicily – Aalto sketch: 1952


Figure 7. Villa Mairea (1937-39)

Figure 8. *Helsinki House of Culture (1955-58)*


Figure 9. *Finlandia Hall (1962-71)*

**Figure 10.** Iberê Camargo Museum (1998-2008) – Siza sketch: 1998


**Figure 11.** Summer House at Muuratsalo (1952-53) – Aalto drawing: 1952

Figure 12. M.I.T. Senior Dormitory (1947-48)


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