# Mediterranean determinism in the architecture of Alvaro Siza and Eduardo Soto de Moura

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#### **ABSTRACT**

Appearance of modernism in the history of architecture was marked by revolutionary changes in architectural design and very radical break with previous practices and aesthetic styles-oriented approach. From modernism architecture declared more functional, rational and human oriented ideas. However, the wish to establish universal values in design all around the world, has resulted with same or very similar architecture disconnected from context and all its parameters. Nevertheless, during the all time of modernism, some of the most important representatives of the movement were aware of specific importance of context and its relations with proper architectural design. The Mediterranean area had very particular role in this attitude, during the entire modernist history of 20th century, but especially after postmodernism with reincarnation of modernist ideas in the form of neo-modernism. Such revival of pure, functionalist and minimalist design was accompanied with new "genius loci" orientation and full respect to traditional, social, climate, topography and natural aspects of architectural context. Some of the most prominent representatives of this approach are two Portuguese architects, both awarded by the Pritzker Prize for Architecture; Alvaro Siza and Eduardo Soto de Moura, which work and study cases of some of their projects could be relevant examples and proof of value and adjustment possibilities of modernist ideas in accordance to architect's creativity and wish to respect all the particularities of any site.

**Keywords**: Modern architecture, Mediterranean, context, environment

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#### 1. Introduction

The last decades brought great challenges to architecture related to the context oriented architectural design. Ecological, green and natural has become a trend, but even more imperative in various areas of human life. Solving of the numerous accumulated problems related to the environment has to be the most important global priority. In the current times there are two directions of architectural green thinking that try to find solutions in order to reduce harmful effects and increase energy efficiency and sustainability. A model that involves the use of technologically advanced solutions in the spirit of "hi tech" philosophy and a model of returning to traditional building concepts that were more in harmony with nature, less arrogant and self-sufficient. Proper understanding is oriented to direction of accepting these two concepts as not exclusive but should be complemented in accordance to times in which we live. Through study cases in design career of two Portuguese architects, Alvaro Siza and Eduardo Soto de Moura, we are searching for possible compromises between modern and traditional. The minimalist design and whiteness of modernity reach into the vernacular tradition of the Mediterranean and remind of the strong inspiring connection between modern and autochthonous architecture of the area to which Portugal; historically, culturally and traditionally belongs. Correct understanding of the traditional component of the context is a base for the notion that the primary geometry of modern design is an evolutionary continuation of the same form, present during the centuries in this part of the Mediterranean. Work of two the most important Portuguese and globally recognized architects is the best example of this philosophy.



# 2. Mediterranean modernism

Affirmative studies of vernacular architecture in the Mediterranean have taken into consideration by some of the greatest modern architects in order to find the source of their purist architecture. Beside the functionalism in design and new concept of space, modern brings understanding of the importance of harmony with natural laws and the need to respect them. Achieving of high aesthetic values should not be load with pretentious elitism of any kind [1].

"By its disposition, construction and materialization, it directly depicts both man and the natural environment in which he finds himself; messages of any kind are absent, thus transcending its purpose fullness and rationality into true beauty [2]."

"Rational use of the materials taken from the immediate surroundings, adapted to the site, to climate conditions, and man own needs become the goals that define the new modernism of the Mediterranean. Reflections based on the consistent and comprehensive contextualization of architecture that understands and recognizes the tradition, the immediate environment, nature and environmental responsibility are the basis of bioclimatic architecture [1]." "Modern Mediterranean homes are born of respect for the environment and the landscape, as well as the fashionable yet vital issue of sustainability [3]."

Courtyard housing concepts, swimming pools, gardens and terraces with direct connection to the interior spaces are not only formal and conceptual, but bioclimatic design solutions accepted from the traditional way of living in the Mediterranean. Outdoor living, that is possible during bigger part of the year, increases the quality of living and significantly reduces excessive heating of the interior in the summer. Proper using the benefits of winter sunshine and intelligent protection from the summer sun are not unknown for traditional builders, but should be an integral part of contemporary architectural design. Pergolas, eaves, shutters, green roofs, surrounding greenery, stone materialization and white facades are just some of the elements of Mediterranean vernacular architecture derived from the need to be in the harmony to the local climate and site, and that could be applied to the contemporary modernist architecture.

"Mediterranean modernism"— modern architecture that responds to program with cues derived from vernacular buildings so as to infuse spatial and material concerns with context and culture [4]."

Such definitions of Mediterranean modernism form the approach of many Mediterranean contemporary architects. I their work we can recognize clear pioneer ideas of original modernism placed in the Mediterranean context. The progressive aspirations of the neo-modern approach are based on respect for specific natural features, the principles of ecologically sustainable architecture and social environment, with highly aestheticized design and refined elegance of modernity. They represent an evolutionary shift in the development of modern architecture, accompanied by bioclimatic reflection and contextual determinants.

"However, it can be argued that a pursuit of the new modern is progressive approach, not decadent, based on respect of specific natural givens, principles of environmentally sustainable architecture and social environment, with highly aesthetic and scrubbed design of modern elegance. Accompanied by bioclimatic reflection and contextual guidelines represent an evolutionary step forward in the development of modern architecture[1].", The best of Mediterranean architecture takes account of context, landscape, and sustainability, drawing on local traditions and vernacular styles, while still creating highly original building [3]."

Based on these principles architecture cannot be just reflection of fashion or current trends, but should be rooted in context, take into account function, comfort, human needs and to be an aesthetic experience. Modern principles of architectural design could be used as tool for the contextualization of the contemporary house in the Mediterranean, not just as superficial stylistic classification, but with deeper meaning based on the philosophy and aesthetics of modernity that respects and correspond to the context.

Design is not the only thing that connects the contemporary, modern approach and vernacular architecture of Mediterranean houses. In his "Journeys to the East, the Mediterranean and the Balkans", Le Corbusier established the existence of a specific spatial organization of houses. Fluid flow of the outer and inner, without a clearly visible border, openness to nature, greenery and sunlight.

# 3. Mediterranean approach in Alvaro Siza's architecture

Professional development of young Alvaro Siza was influenced and determined by his collaboration with Fernando Tavora, a Portuguese modernist architect who was interested in Portuguese and Mediterranean vernacular architecture. Tavora has recognized in vernacularism values that are created as a product of life's needs and specific conditions, very much independent of stylistic determinants that have changed throughout history. During the same period of 1950s and 1960s in Portugal architects Paulo Varela Gomes and Keil Amaral was thinking on similar way. Domestic vernacular architecture was recognized as origin functionalist rationalism, so close to the ideas of prominent architecture modernists from the first half of the 20th century. Pure geometric design with no decoration, rational composition, white painted walls, open plan, fluid permeation of open and closed spaces are the basic elements of vernacular architecture in the Mediterranean, that are very often literally transferred to the modern architecture. The architecture of one of the greatest recent architects is based on the mentioned principles and models. Intellectual elegance and clarity of pure forms in Alvaro Siza's architecture occurs from emotional, spiritual and practical sense, very far from an aspiration to satisfy current aesthetic or fashion tendencies [1].

"Simplicity and simplism are known to be opposites, just as unity and diversity are not. Simplicity results from the control of complexity and the contradictions of any programe [5]."

Architecture of Siza and its artistic expression and recognizability is close and based to the rationalism of vernacular architecture, although it is not predisposed. His intention is to builds in harmony to the location and context, without any particular mannerist pretensions, accordingly his refusing to be classified in any style or direction. Siza's architecture is mostly white due to climatic conditions, not because a trend, just as the wall is a product of the desire to create an enclosed space, not because wish to create some design element.

"My architecture does not have a pre-established language nor does it establish a language. It is a response to a concrete problem, a situation in transformation in which I participate... In architecture, we have already passed the phase during which we thought that the unity of language would resolve everything. A pre-established language, pure, beautiful, does not interest me [6]."

It is interesting to observe the architecture of Alvaro Size through the architecture of family houses where work with clients is usually very intense, while Siza himself likes to work on his projects very independently and with clear attitudes such as: "an architect who gives people what they want is demagogue." Therefore, its architecture is probably more authentic and less a reflection of certain compromises that architects are often forced to make due to various circumstances. The white architecture of primary cubist forms, spatial organization and climate-oriented design correlated with the immediate environment is visible in the compact design of Casa Viera de Castro, the triangular, almost atrial organization of Casa de Pasos or the complex, fortification fragmentation of house in Mallorca. Despite the differences, the similarities are clearly legible based on the traditional clarity of form and the rationalist outgrowth of architecture from the environment in order to harmonize the utilitarian, aesthetic and nature-conditioned circumstances.

# 3.1. Casa Vieira de Castro, 1994, Vila Nova de Famalica

Starting from the theory that the house is the bearer of personal and regional identity, Alvaro Siza designs this house of clear geometric form, incorporated into tradition. With its design, the building respects the fact that it is in a dominant position above the place, and from its interior it offers the possibility of vivid views. In same time house does not protrude in the area, but merges into the surroundings. Architecture, environment,

sculpturality of space and materials form a compact unity. On the ground floor there are living rooms directly connected to the outdoor area with a swimming pool and Mediterranean greenery, while on the first floor there are four bedrooms, each with its own bathroom and exits to the terraces.



Figures 1 and 2. Casa Viera de Castro, Vila Nova de Famelica, Portugal, 1994. Source: Adapted from [7]



Figures 3,4,5,6. Casa de Armanda Pasos, 2005, Porto. Source: Adapted from [8]

# 3.2. Casa de Armanda Pasos, 2005, Porto

The house designed for the painter, in addition to a living space with a multifunctional living room directly open to the atrium. There is also an art studio for working with a shed roof, oriented to the light from the north side. The light was used in a way taken from the Arab, Mediterranean tradition, by grading the amount of light from the glittering patio, over the porch which is a preparation for the shaded interior. Such treatment of light enables the gradation of intimacy, so shaded spaces are also more intimate. In his design, Siza took care about sun protection by placing sunshades, while trees and shrubs were planted with the primary purpose of protection from unwanted summer sun. Bioclimatic and low-energy design principles have been respected through the use of 45 cm thick, multi-layered, external walls and green flat roof.

# 3.3. House in Mallorca, 2008

It represents the crown of a philosophy in which context and bioclimatic principles form the basic guidelines and prerequisites of successful architecture. The house is entirely inspired by the rocky surroundings of the location oriented towards the Mediterranean Sea. Composition of the house is fragmented like the surrounding rocks and the basic three divided volumes are even further fragmented. Despite this structure, the basic composition is functionally simple and organized into three basic blocks. This structure has enabled the recognizable architecture of Alvaro Siza with high aesthetic criteria which reach the standards of environmentally sustainable architecture by lucid design that aloud proper sun protection and the application of measures such as green roof and energy efficient materialization. Harmony and aesthetics of the Mediterranean landscape are reflected in Siza's design in the greenery of the Mediterranean pines, the characteristic blue of the sky and the Mediterranean Sea, and the dazzling whiteness of the crystal clear geometric forms of traditional architecture.

Clean and simple volumes in architecture of Mediterranean villages and towns were recognized and applied in Siza's Mallorca project as philosophy in which seemingly irregularly forms arrange harmonious compositions of housing agglomerations, which contribute to new recognizable note of the existing context. At the house of Armanda Pasos is recognizable typology of a traditional patio house and a house in which the courtyard and closed space form an integral unity. Fluidity in the penetration of the open into the closed and vice versa is present in the house of Viera de Castro through direct communication between house and surrounding views and natural environment.

This is modern architecture which is not alienated from the context because it was created on the premises of the autochthonous architecture of the Mediterranean and sought its origin in pure geometry, design, composition and clear utilitarianism. Understanding the philosophy and essence, taking a stand and determining oneself according to the climatic, landscape and cultural-historical facts of the Mediterranean made it possible to breathe new life into the recognizable forms and atmosphere of this climate. Alvaro Siza clearly relies on tradition with no intention of imitating it, he only thinks like previous builders and creates at the same time a rational and spiritualized, highly aestheticized and bioclimatic, contemporary and indigenous architecture. This kind of architecture is not revolutionary, but evolutionary and represents only one of the layers in the rich history of Mediterranean art and architecture.

The Mediterranean area was inspiring for many modern architects, but also for other artists. If we look at some of Paul Cezanne's Mont Sainte-Victoire, listen to Miles Davis' Sketches of Spain and Siesta, and compare them to the architecture of Alvaro Siza, we will feel the same amount of genuine sensibility for the Mediterranean space and tradition that is mold in contemporary arrangement made by Cubist painter, jazz musician and modernist architect.

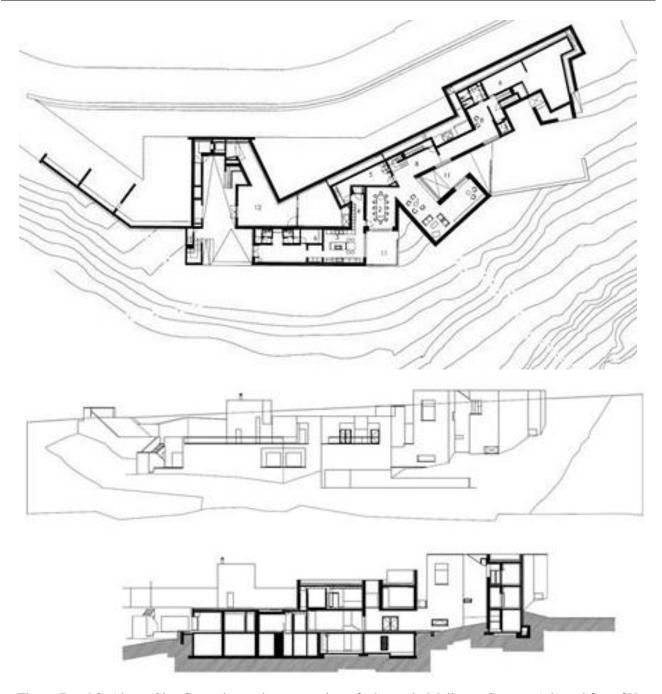


Figure 7 and 8. Alvaro Siza floor plan and cross section of a house in Mallorca. Source: Adapted from [9]



Figures 9 and 10. Alvaro Siza; house in Mallorca. Source: Adapted from [9]

#### 4. Eduardo Souto de Moura, minimalism and Mediterranean context

The harmony of the Mediterranean landscape, tradition, climate and vegetation with modern architecture is legible in the work of another of the greats of contemporary modernist architecture. Soto de Moura persevered in establishing a link between the Mediterranean environment and architectural design, and he was awarded by the Pritzker Prize for Architecture in 2011 for his dedicated work. His expression does not strive for glamour, but is aimed to creating a sense of intimacy and a subtle blend and harmonious balance of old and new. At the same time, his objects are not nostalgic, they do not lose their connection with the present time, on the contrary they are contemporary and they are a reflection of thinking about the needs of today's man. Humanism and a rationalist approach to design is a feature that, along with minimalism and attention to detail, places him among the modernist architects often compared to Mies van der Rohe. "Eduardo Souto de Moura, a Portuguese architect whose work combines the abstract minimalism of Mies van der Rohe with a preference for local materials and building techniques [10]."

Influences of the artists such as Donald Judd or Sol Le Witt are also visible; they follow the idea of understanding architecture as inserting geometric elements into the landscape and treating the terrain, not as a fateful, decisive factor, but only as one of the parameters that influence construction [11].

Moura's effort to understand the features of the place where he builds and to base architectural design and concept accordingly to context is that essential distinguishes from Mies. Like his mentor and friend Alvaro Siza, he opposes trendy architecture, but also its current prefixes: "sustainable" or "intelligent". He believes that architecture should be sustainable by definition, while the use of modern technology, in itself, does not classify a particular building as "intelligent", and by analogy some of the top achievements of architecture from history as non-intelligent.

" For me, architecture is a global issue. There is no ecological, no intelligent architecture and no sustainable architecture - there is only good architecture [12]."

Simple, purist and geometric design is emphasized by the permeation of full and empty, light and shadow, which achieves the physical and metaphysical dimension of architecture. The creation of such architecture is deeply rooted in the Mediterranean space, with the application of traditional materials in the manner and methods of previous builders; de Moura presents an understanding of the vernacular and the skill in achieving harmony of the authentic and the new. "Always mindful of context, understood in the broadest sense, and grounded in place, time, and function, Souto de Moura's architecture reinforces a sense of history while expanding the range of contemporary expression [12]."

Souto de Moura believes that architecture should be the result of a balanced permeation of the natural environment and human action. Therefore, the use of local materials should be considered as something that is a product of a certain natural environment. Hence his opposition to globalization tendencies in architecture that neglect regional features and produce buildings of equal appearance and inappropriate solutions everywhere in the world, regardless of climatic, cultural, and traditional differences. An obstacle to the more frequent use of local materials is their higher price compared to materials from mass production, which especially refers to the use of stone and its installation.

He recognizes in contemporary architecture two basic aspirations in which there is one dominantly technological pattern that forces a hi-tech approach and dematerialization and another that seeks to revive the tectonic architecture of purist geometry. De Moura believes that it is necessary to recognize the values of both directions, and apply them in a harmonious balance without mutual exclusion. The transparency of glass and the possibility of connecting with nature that its application offers is great, but complete application, without the possibility to hide from the view or climatic action is unnatural. A balanced combination of full and empty can offer optimal solutions for connectivity with the environment and the need for protection and intimacy offered by the application of solid walls [13].

On the other hand, the use of wood as a natural, and aesthetically, thermally and functionally high-value material, offers the possibility of forest regeneration and revitalization. Dependence of architecture on technology and mechanization, in his opinion, must not be as pronounced as it has been in the last two decades. Design solutions must not ignore, but must be in line with climate requirements and functionally correct [13].

Faced with a drastic reduction of available resources and a whole range of environmental problems, we need to develop a culture of saving and rational spending, as opposed to consumerism and the consumer hysteria of neoliberal, global capitalism. Architecture should be a reflection of such new thinking adapted to the place where it remains, contextualized in a spiritual, material, and natural sense.



Figure 11. House in Cascais; arch. E.S. de Moura, 2002. Source: Adapted from [14]

# 5. Perspectives

"It is likely that developments of architectural theory will continue to reflect the basic concepts and methods of modernism, either through extensions and variations or reactions [15]."

Due to the clearly defined principles on which it is based, the philosophy of modernism will continue to be present in architecture despite the criticisms in the past, present or future. A similar wave of mass criticism in the postmodern period influenced the evident changes that led to improvements, above all, in the relationship between architecture and the environment. Interestingly, by the end of the twentieth century, the postmodern trend in architecture had disappeared, and that modernity had reincarnated taking into account the arguments of critics and in spite of them. It is expected that the example of the closeness of Mediterranean traditional and modernist architecture in the future will serve as an example for a similar interpretation of modernism elsewhere in the world. Such modernism in architecture can be based on universal values that are able to go beyond the framework of uniform design and deal with the contextual features of the site. According to its philosophy, modern architecture is focused and open to technological advances, so it is natural that it will be in accordance to all improvements that lead to progress and improvement, and as such will remain relevant in the future. Rationalism in architecture and the connection between function and design will remain an integral part of the education and later work of new generations of architects. Environmental issues should not be a reflection of a current moment that will certainly take due to the growing tendency of man's influence on nature and its processes, but architecture should be sustainable in its essence and as Eduardo Souto de Moura interprets it [12].

#### 6. Conclusion

Mediterranean modernism of Alvaro Siza and Eduardo Soto de Moura is deeply intuitive and honest, rooted in experience of previous builders and tradition, in the same time rational and free from the dictates of current styles, which gives it a spirit of timelessness. Two Portuguese architects successfully reconciles Le Corbusier's notion of primary and secondary feelings. Siza applies elements of ecological and bioclimatic architecture, understanding it as a fundamental need, but not as a trendy addition to the house. Alvaro Siza's and Eduardo Soto de Moura's minimalist architecture is guided by a strict logic of exterior and interior interrelations, it is essentially modernist and so close to Mies's concept - more is less. It is architectural design which is delivering emotional, almost poetic reminiscence of the Mediterranean landscape. Architecture that is reflected in the spatial concept, rational design, harmonic proportions, sophisticated composition and materialization, but above the all in specific atmosphere that always unmistakably creates the impression of a new and contemporary, but context-adopted architecture.

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