INTERPLAY BETWEEN ARCHITECTURE AND LANDSCAPE THROUGH TADAO ANDO'S ARCHITECTURE

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ABSTRACT

INTERPLAY BETWEEN ARCHITECTURE AND LANDSCAPE THROUGH TADAO ANDO'S ARCHITECTURE

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Regardless of the common grounds and shared entities, landscape and architecture have been segregated in theory and professional practice since late 19th century. This longstanding disciplinary division resulted in unhealthy built environment, composed of isolated buildings from their surroundings, which can be healed by an integrated practice of landscape and architecture. Thus, this study seeks to reveal conceptual frameworks that question the false dichotomy between architecture and landscape by analyzing Tadao Ando's theories and practice. In order to contextualize the relation between architecture and landscape; this study grasps the division of these disciplines from the ideological roots to contemporary situation. Then the roots of Tadao Ando's architectural vocabulary and philosophy are analyzed to provide a background information on which his interplay between architecture and landscape dwells. As the final output of this study, five conceptual frameworks are proposed to integrate architecture and landscape in varying contexts.

Keywords: Tadao Ando, Integrated Practice, Architecture and Landscape

ÖZ

MİMARİ VE PEYZAJ İLİŞKİSİNİN TADAO ANDO ÜZERİNDEN İNCELENMESİ

Çeşmeli, Cenk
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Birçok ortak payda ve özellikleri olmasına ragmen, mimari ve peyzaj özellikle 19. yy sonlarından itibaren kuram ve uygulamada ayrışmıştır. Bu uzun soluklu mesleki ayrışma da birbirlerinden ve bağlamlarından kopuk yapılardan oluşmuş sağlıksız bir yapısal çevre üretmiştir. Bu ayrışmanın önüne geçebilmek için disiplinler arası bütünleşik bir tasarım yaklaşımı benimsenmesi gerekmektedir. Bu tez; Tadao Ando'nun mimari kuram ve pratiğini inceleyerek, mimari ve peyzaj arasındaki sorunlu dikotominin önüne geçebilecek disiplinler arası bütünleşik tasarım fikirleri ve yaklaşımları önermeyi amaçlar. Bu doğrultuda; hem mimari ve peyzaj ayrışması, hem de Tadao Ando'nun tasarım fikirileri derinlemesine irdelenerek; Tadao Ando'nun mimarisinden yola çıkarak belirlenen kavramsal bir çerçeve önerilecektir.

Anahtar Kelimeler: Tadao Ando, Bütünleşik Pratik, Mimari ve Peyzaj İlişkisi

To my family

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CHAPTER 1

INTRODUCTION



Fig.1 Thick Line[1]

I have often used a thick line to represent the interface between architecture and landscape: a tangible spatial unit between a building and its surroundings, a line that is wide and varied and that changes in thickness and intensity, vanishing at times, densifying at others. This thickened irregular juncture between landscape and architecture comes from erasing the clearly defined, continuous line of separation drawn by the modern movement. It entails considering the site and the building as a continuum, each modifying and being modified by the other to different degrees.[2]

[1]Diana Balmori. "Across the Divide: Between Nature and Culture", *Groundwork: Between Landscape and Architecture*, edited by Joel Sanders, Diana Balmori, The Monacelli Press, New York, 2011, p.35
[2] Ibid p.34

Regardless of the shared entities, the relation between architecture and landscape has been a controversial issue on which theorists and practitioners have been developing varying theories and methods for the integration of these cognate disciplines. Diana Balmori represents the relation of architecture and landscape with a thick line to abstract the integration of these interrelated disciplines. Although this representation is strongly supported and accepted by this study, an additional statement will be proposed to the explanation of Balmori. Whereas she related *the thick line* only to the tangible and spatial unit between a building and its surroundings; this thesis will propose that the physical and spatial integration can be supported by abstract and intangible approaches as well.

Considering the definitions of architecture and landscape by Garrett Eckbo, they appeared as reciprocal entities. He claims that landscape is mostly accepted as the synonymous of environment or nature while architecture accepted as opposed to them. In other words; landscape is natural and architecture is artificial by the definitions of Eckbo.[3]

Although the duality between architecture and landscape is defined and widely accepted as a "false dichotomy"[4], the binary terms such as; natural – manmade, formal – informal, object – field, human – nature, built – unbuilt, etc. which are caused by this duality within the process have still affecting the professional and theoretical content.

If these binary terms are followed, the dual relation can be traced back to the first settlers since each construction - architecture by definition - requires an alteration in the natural setting of the site - landscape by definition.

[3]Garrett Eckbo. "Is Landscape Architecture?", *Is Landscape: Essays on the Identity of Landscape*, ed. Gareth Doherty, Charles Waldheim, Routledge, New York, 2016, p.9

[4]The term "false dichotomy" is proposed by Diana Balmori and Joel Sanders since it is a controversial issue that the relatonship between landscape and architecture is a dichotomy or not. Diana Balmori, Joel Sanders. "Preface", *Groundwork: Between Landscape and Architecture*, The Monacelli Press, New York, 2011, p.8



Fig.2 The Primitive Hut[5]

Vitruvius relates the origins of structures on the nature, as dwellings, to the discovery of fire and need of gathering around it. As the number of gatherers increased, neither caves nor groves respond the need of covered place. Hence, they started to use their abilities of altering the surrounding environment by cutting trees, digging the earth, to construct a shelter to sit close to fire and protected. That helped the man to move from barbarism to civilization.[6]

As Vitruvius stated, even the most primitive shelter requires a physical connection to the ground which alters the natural condition of the environment. At first, this physical connection of primitive shelters and nature was dialectic, since the scale, materials,

[5]An illustration named as The Primitive Hut by Marc-Antonie Laugier, 1753. Retrieved from: www.researchgate.net
[6]Vitrivius. The Ten Books of Architecture, trans. M. H. Morgan, Dover Publications, New York, 1960, p.38

and construction techniques of shelters were naïve. Then with various developments of civilization, this dialectic between man and nature, architecture and landscape, evolved to a problematic relation which can be regarded as "false dichotomy". Hence these cognate disciplines, architecture and landscape, have been divided professionally, theoretically and physically for decades.

Joel Sanders and Diana Balmori claim that this longstanding disciplinary division resulted in unhealthy environment composed of disconnected structures and open spaces which can be healed by an integrated practice of architecture and landscape. They insist that although professionals and theorists have been pursuing new design methods and philosophies for an integrated practice of architecture and landscape to overcome the "false dichotomy", the attempts have failed to establish a common ground.[7]

In his seminal article named "Is Landscape Architecture?", 1983, Garrett Eckbo related the failure of the discussions for the integration of architecture and landscape to the lack of inter-professional communication. Both architects and landscape architects approach to subject from their own perspective and interests. He claims that architects mostly interested in construction related arguments whereas landscape architects in non-construction.[8] However, as a landscape architect, he also contributes these biased arguments by addressing the landscape architecture as responsible for the integration of architecture and landscape.

> 'To be true, landscape architecture must do what its name implies – it must integrate landscape and architecture. True landscape architecture produces systems or relations in which neither "landscape" nor "architecture" loses its integrity, disappears, or becomes mere decoration for the other.[9]

[7] Ibid.
[8] Op.cit. Garrett Eckbo, p.9
[9] Ibid. p.10

Eckbo states that, these biased arguments, which are for the sake of integration in principle, fostered the intellectual separations by creating professional, academic and legal boundaries between these cognate disciplines. In order to ground the arguments about the integration of architecture and landscape to an interdisciplinary field, he proposes to use the term "built environment" as a common ground.[10]

The term, built environment involves buildings and the open spaces which are inseparable with buildings. In other words, it covers the both sides of the architecture-landscape relation, which are mostly accepted as independent fields and disciplines in theory and practice, as indispensable components. Considering the theoretical and practical discussions raised by Garrett Eckbo in his article, although the relation of architecture and landscape is accepted as a false dichotomy, the absence of a common ground, to dwell the discussion on, misdirects the discussions and enhances the false dichotomy. By using the term, built environment as a common ground for discussions, Eckbo aims to demonstrate the relation between architecture and landscape, to ensure the interdisciplinary thinking and acting of these interrelated disciplines.

The term "built environment" is a very appropriate term in order to define the argument of this thesis. In a parallel manner with Eckbo's purpose of proposing the term "built environment", the "thick line" can be interpreted in order to further clarify the aim of this thesis which is a search for an integrated practice of architecture and landscape through which these two disciplines together constitute a whole.

In the illustration of "thick line", Balmori defines the page or the background as environment, synonymously nature by definition. The line itself represents the act of architecture which is construction. At this point, she points the landscape as blurring agent which diminishes the physical boundaries of architecture. According to the illustration, architecture becomes more integrated with nature as landscape and architecture constitutes a greater whole. Considering the disputes and discussions

[10] Ibid. p.9

about these two disciplines are mostly originated from the boundaries and intersections of them; this representation can be very beneficial and crucial.

However, Balmori expresses only the physical aspects of the relation between architecture and landscape in the explanation of the "thick line". On the other hand, this thesis aims to demonstrate that the integration can be abstracted or spiritual as well as physical. Because, as Garrett Eckbo stated, the environment, architecture and landscape are comprehended not only visually but through all senses.

In this regard, this thesis will deeply analyze the interplay between architecture and landscape in theories and the practice of the Japanese architect, Tadao Ando. His design theories and projects reflect his interdisciplinary design thinking that provides a successful integration of architecture and landscape both spatially and spiritually. Therefore, Ando is selected as the key figure of this study which purposes to overcome the outdated dichotomy between architecture and landscape.

In order to analyze the design thinking and practice of Tadao Ando to reveal the concepts for an integrated practice of architecture and landscape; firstly, the division of these disciplines will be discussed deeply in the second chapter. The division will be rooted in the wilderness concept which eventually ended up with the emergence of the landscape architecture as a new design discipline. After setting up the roots of the division, modernism which has affected dramatically the relation of architecture and landscape will be analyzed from the scope of each discipline.

> Born and bred in Japan, I do my architectural work here. And I suppose it would be possible to say that the method I have selected is to apply the vocabulary and techniques developed by an open, universalist Modernism in an enclosed realm of individual life styles and regional differentiation.[11]

Since Ando labels himself as a modernist architect, analysis of modernism is very crucial for this thesis in order to understand the dialectical approach of Tadao Ando

[11]Tadao Ando. "From Self-Enclosed Modern Architecture Towards Universality", *Tadao Ando Complete Works,* edited by Francesco Dal Co, Phaidon Press, London, 1995, p.8

besides modernism's affects over the relation between architecture and landscape. Although Ando labels himself as a modernist architect, he goes beyond the predefined stylistic features of modernism and integrates regional, cultural and contextual features into his design philosophy and vocabulary. For this reason, Kenneth Frampton defines Tadao Ando as a critical regionalist.[12]Hence, in order to contextualize Tadao Ando in the controversial issue between architecture and landscape; critical regionalism, which has evolved for the making up the deficiencies of modernism will be mentioned briefly in the second chapter. Then the approach of Tadao Ando will be investigated from the scope of critical regionalism in order to reveal his phenomenology an ideology about architecture and landscape.

In order to deeply understand the design thinking and philosophy of Ando; his whole life, from the childhood and to the contemporary situation, will be examined chronologically in the third chapter. Firstly; the ideological roots of his design philosophy will be traced back to his childhood and Japanese culture and tradition. Then his early architectural practice will be examined as the physical and spatial prototypes formed directly by this specific ideology and phenomenology. After setting up his spatial and spiritual approaches from the scope of both architecture and phenomenology; his enlarging architectural reputation and practice will be analyzed as an interface and confrontation between Japanese tradition and universal modernism. Finally, his new uniting architectural style will be discussed to completely grasp his architectural philosophy.

In the fourth chapter, integration of architecture and landscape in Ando's architecture will be analyzed through his projects in order to concretize his approaches and propose conceptual frameworks which could overcome the false dichotomy between architecture and landscape. In this regard, Ando's approaches to architecture and landscape will be reexamined from the scope of materials and natural elements

[12] Kenneth Frampton. "Tadao Ando' Critical Modernism", *Tadao Ando: Buildings, Projects, Writings*, edited by Tadao Ando and Kenneth Frampton, Rizzoli International Publications, New York, 1984, p.6

through which he assigns phenomenological meanings to his architectural vocabulary. After dissecting and exemplifying his spatial and spiritual approaches through his projects, five conceptual frameworks for the integration of architecture and landscape, which are visual manipulation, stressing a natural phenomenon, manipulating the topography, creating introverted domains and creating intermediary spaces, will be proposed and exemplified.

CHAPTER 2

THE RELATION BETWEEN ARCHITECTURE AND LANDSCAPE

2.1. The Ideological Roots of the Division

> As structures decrease, open space and/or natural landscape increases and it is possible for us to get away from buildings more and more. This is the dream of all park lovers, suburbanites, exurbanites, and country-life and wilderness lovers. Buildings have become associated with the ugliness and the evils of urbanism; therefore, the fewer buildings, the better life we have. The whole American park movement, beginning with Central Park, has been founded on the notion that urbanism and construction are inherently and automatically ugly and unhealthy, saved only by the introduction of natural green breathing pores. This unsophisticated idea still lingers in many minds, including those of some architects.[13]

In 1969, Garrett Eckbo illustrated how architecture and landscape were perceived by people and outlined the separation of architecture and landscape that does not actually exist. As one of these two cognate disciplines that together constitutes the built environment, landscape provides site, site sources, and inspiration for the use of architecture. The task of architecture is to structure and adapt the landscape to human life using these site related data. At this point; if architecture considers the features provided by the landscape and incorporates them into the design, an integrated practice

[13] Garrett Eckbo. "Architecture", *The Landscape We See*, McGraw-Hill, New York, 1969, p.83

between landscape and architecture may evolve, otherwise these two fields constitute completely separated entities in the design field.[14]

In any case, every new building has to set up some contradictions with the site on which it was built. But with an integrated design approach of architecture and landscape, these contradictions can be eliminated. In order to develop integrated design approaches and practices as mentioned, first the "deep-rooted cultural, ideological and area-related prejudices"[15] must be fully grasped.

Joel Sanders traces the roots of this disciplinary division between landscape and architecture back to the concept of wilderness which based upon the opposition between nature and human. This concept of wilderness had been accepted by such masses that it still guides the relationship between architecture and landscape, even the professional conduct of these disciplines.[16]

Joel Sanders relates the root of this concept to the American environmentalist thinkers and writers of mid-19th century, who praised the ethical and spiritual benefits of living in pristine nature, unspoiled by the American urban industrialization.[17] Environmentalists, who were supporting this idea, embraced their commitment to wilderness by thinking that the American urban industrialization would destroy the natural landscape which was related to the national identity of America. One of the American environmentalist writers of 19th century, Henry David Thoreau aggravated the situation by saying: "In Wildness is the preservation of the World."[18]

Not only literature, but also other mass communication devices such as media and popular culture overstated the so-called benefits of wilderness. Hence the relationship

[14] Ibid.
[15] The term "deep-rooted cultural, ideological and area-related prejudices" is stated by Diana Balmori and Joel Sanders. See. Op.cit. Diana Balmori, Joel Sanders. p.10
[16]Joel Sanders. "Human/Nature: Wilderness and the Landscape/Architecture Divide", *Groundwork: Between Landscape and Architecture*, edited by Joel Sanders, Diana Balmori, The Monacelli Press, New York, 2011, p.12
[17]Ibid., pp.13-15
[18] Henry David Thoreau. "Walking", *The Works of Thoreau*, edited by Henry S. Canby, Houghton Mifflin, Boston, 1937, p.69

between architecture and landscape became to approached prejudicially such that the architecture started to blamed as the scapegoat of built environment destroying the national identity of America. This biased approach not only affected the thinking and the philosophy, but also the professional conduct.

> If buildings were different from landscapes, then a new type of landscape professional was required to fill the gap and complement the work of architecture.[19]

Following this statement, in 1899 under the leadership of Frederick Law Olmsted, a group of gardeners, horticulturalists and designers established the American Society of Landscape Architects – ASLA - as the professional academy for the landscape – related professionals. Hence besides being segregated philosophically, two cognate disciplines, landscape and architecture, segregated professionally.

Starting from the Olmsted's and peers' practices, the wilderness concept reigned over the theoretical and practical activities on landscape for nearly three decades. However, at the same time, the professionals and theoreticians were struggling with a paradox related with the very essence of the wilderness concept:

> How to reconcile the ideal of untouched nature with the imprint of humans and human design.[20]

In other words; if wilderness requires protecting untouched nature, any design attempt by landscape architects spoil the virginity of nature, and so wilderness. This paradox made things difficult for the landscape architects. Some of the practitioners chose to refuse the design practices in the urban context and found redemption in the wild nature of American landscape. Unlike these practitioners, Olmsted pursued a professional practice situated in dense urban context. However, since he grounded his design thinking and practice on wilderness, the urban context and his projects became controversial and contradictory. Joel Sanders points Central Park and Boston

[19]Op.cit. Joel Sanders. p.16
[20] Ibid.

Riverway projects in order to reveal these controversial issues about wilderness and practice.[21] Sanders defines Olmsted's design approach, which includes massive constructions and also advocates wilderness as double edged legacy.



Fig.3 An Aerial View of Central Park[22]

> Olmsted was so skillful at concealing the artifice that both the projects he had so brilliantly constructed and the profession he had worked so hard to establish became largely invisible. Today the works of the profession of landscape architecture are often not 'seen', not understood as having been designed and

[21] Ibid. p.17
[22] An Aerial View of Central Park designed by Frederick Law Olmsted. Retrieved from: https://www.manhattan-institute.org/html/how-central-park-was-saved-11328.html

> deliberately constructed, even when the landscape has been radically reshaped.[23]

In other words, Olmsted, as the founding father of landscape architecture, discredited architecture since it requires construction, while he was constructing "natural landscapes" in favor of wilderness thinking.

2.2. The Relation within the Context of Modernism

2.2.1. From the Scope of Landscape

In early 20th century, Olmsted was the leading figure of the landscape architecture, as a new discipline and profession in the design field, with his design philosophy and practice which were grounded on wilderness thinking. When it comes to 1930s, new generation practitioners and thinkers of landscape architecture had to leave the path drawn by Olmsted. This was because of the Modern Movement and fast improving technology which caused radical disciplinary shifts in all art–related design disciplines.[24]

> What a modernistic garden may be is everybody's guess. The reason is that it does not yet exist as a type. We gardeners have always been behind other artists in adapting new ideas.[25]

As Fletcher Steel stated, landscape architecture failed to react to modern movement as quickly and successfully as other art-related disciplines for various reasons. One of the reasons of this situation is that; since the landscape defined as natural and

[23] Anne Whiston Spirn. "Constructing Nature: The Legacy of Frederick Law Olmsted", Uncommon Ground, edited by William Cronon, W.W. Norton, New York, 1995, p.91
[24]Op.cit. Joel Sanders, p.18
[25] Fletcher Steele quoted in Ibid.

untouched environment, it should have stand against any kind of alteration which would eventually alter the nature. Another reason is stated by Marc Treib as the dependency of landscape architecture to the natural materials. He explains the irrationality of landscape which uses natural and changeless materials to respond the technological and ideological innovations of modernism equally as architecture and other related disciplines.[26]

Elizabeth Meyer attributes this situation of landscape architecture falling behind to complementing new features of modernism to the dependency of landscape architecture to site more than any other design fields and arts. She claims that site matters marginalized landscape architecture since it has contrasting set of criteria, such as abstraction, objecthood, uniqueness and universality, characterized modern[27] architecture art and design.[28]

> For the garden of today cannot be called contemporary in spirit, as can the modern movements in architecture, sculpture and painting. It is not of our time, but of the sentimental past; a body with no head and very little heart. Imagination is dead, romance a mere excuse for extravagance in decoration.[29]

As Christopher Tunnard stated, the landscape architecture of the early 19th century could not complement the sprouting modernism. Therefore, theoreticians and practitioners were struggling to invent a new vocabulary for landscape architecture which would fulfill the requirements of new movement. For that purpose, Henry Russell Hitchcock curated an exhibition to guide the searches of new vocabulary for landscape architecture and legitimate the new movement by exhibiting a range of projects that representing the contemporary practice. Although the exhibition, named "Contemporary Landscape Architecture and Its Sources" took place at San Francisco

[26] Marc Treib. "Landscape Transitional, Modern, Modernistic, Modernist", *Journal of Landscape Architecture*, vol.8, no.1, 2013, published online: https://doi.org/10.1080/18626033.2013.798917
[27]The term modern may also refer to contemporary. However, in this study it refers to architectural style defined by the Modern Movement.
[28] Elizabeth Meyer. "Site Citations: The Grounds of Modern Landscape Architecture", *Site Matters*, edited by Carol J. Burns, Andrea Kahn, Routledge, New York, 2005, p.94
[29]Christopher Tunnard. *Gardens in the Modern Landscape*, Architectural Press, London, 1938, p.126

Museum of Modern Art in 1937, aimed to promote the respectability of landscape architecture among other design disciplines and arts, revealed the unsuccessful attempts of landscape architecture to complement modern movement. Since the discussion about landscape architecture had reduced to residential garden design and borrowing a few terminologies from architecture, the projects at the exhibition and the perspective guidelines of the exhibition increased the deep-seated disciplinary prejudice by defining landscape architecture as residential garden design and decorative planting.[30]

In other words, while the architecture's purpose defined as pursuing solutions for essential human problems, "landscape professional concerned themselves with trivial pursuits."[31]

Ironically, although the exhibition was curated to raise the respectability of landscape architecture, it resulted with the glorifying architecture over landscape architecture by transferring the features and terminology of modern architecture to landscape architecture. By considering even the subjects that fall within the field of landscape architecture were as components of architecture, landscape architecture defined as outdoor architecture by the exhibition. It also insisted that the roof terraces and close surroundings of the buildings should be accepted as the integral parts of architecture and designed architecturally, whereas other parts of the site should be left as they were.

> The house with its living terraces forms a single formal unit, controlled by geometrical principles of design, set down on a well-chosen site, otherwise almost completely untouched.[32]

This statement led isolated buildings on pastoral sites which means landscape accepted as a picturesque background for architectural objects.

[30] Henry Russell Hitchcock. *Contemporary Landscape Architecture and Its Sources (exhibition catalog)*, San Francisco Museum of Art, San Francisco, 1937, p.13
[31]Op.cit. Joel Sanders. p.20
[32]Ibid.



Fig.4 Farnsworth House designed by Mies van der Rohe[33]

Elizabeth Meyer describes the attitude and result of the exhibition as unsurprising by claiming the theory and history of landscape architecture were written by architects. Thus, as a consequence, the definition of landscape regarded inevitably as not architecture in modern movement and vice versa. Hence most of the modernist theoreticians and practitioners accepted landscape as a mute backdrop, or a picturesque background in service of architecture.[34]

In a parallel manner, while "the International Style"[35] defining the boundaries of "modern" architecture, it accepted landscape as the supplementary discipline. Furthermore, International Style reduced site-related features of landscape, which

[33] Farnsworth House designed by Mies van der Rohe. Retrieved from: https://www.archdaily.com/59719/ad-classics-the-farnsworth-house-mies-van-der-rohe
[34] Elizabeth Meyer. "The Expanded Field of Architecture", *Ecological Design and Planning*, edited byGeorge Thompson, Frederick Steiner, John Wiley&SonsInc, New York, 1997, p.47
[35]*The International Style* is a popular book published as a catalogue at the same time as MOMA's Modern Architecture: International Exhibition by Henry-Russell Hitchcock and Philip Johnson in 1932

differ landscape from other disciplines and arts, to site-planning. By doing so, landscape was again accepted as in service of architecture.[36]

Yet only one year later after San Francisco exhibition, Christopher Tunnard objected the dictated situation of landscape as a background for architecture and "utilitarian building in the garden"[37], by claiming the relation between nature and building or landscape and architecture are inevitable as equals. He also insisted that every site may not suit the definition of modernist landscapes as wild and beautiful countryside.[38]

The same idea is supported by Elizabeth Meyer by insisting that, with the urbanization and modernization of cities, the site conception has shifted from transposed ideal sites, as such in Olmsted's early works, to specific sites.[39] Because dense urban fabric made hard for modern architects to find ideal sites, defined by International Style as picturesque, pastoral and unspoiled, to construct buildings as isolated objects on. In other words, the background of buildings became the other buildings, not wild or natural landscapes defined by international style.

While landscape architecture dealing with theoretical and practical discussions about the discipline's legacy, by the mid-20th century Garrett Eckbo started to lead the discipline in the pursuit of generation of a new vocabulary. He published *Landscape for Living*, a book as a manifesto for his practice as a landscape architect, in which site practices connected directly to architectural practice. By doing so, he repositioned landscape architecture as an equivalent and complementary discipline with architecture.[40]

[36]Op.cit. Elizabeth Meyer, "Site Citations: The Grounds of Modern Landscape Architecture", p.114
[37] Christopher Tunnard used this term to address the relation between architecture and landscape defined by the International Style
[38]Op.cit. Joel Sanders, p.22
[39]Op.cit. Elizabeth Meyer, Site Citations: The Grounds of Modern Landscape Architecture, p.98
[40] Ibid. p.115

> … the site only exists, in its visual and spatial relation to people, through the introduction of the building which establishes a permanent relation between people and site. The building and site are one in fact and in use.[41]

As mentioned earlier, Eckbo used the term, built environment to grasp architecture and landscape as a whole for generating integrative design philosophies and practices. Similarly, he accepted landscape architecture as "site-space design" or "land-and-building" design as an integrative practice between architecture and landscape. Unlike modern architecture, he approached sites as inseparable parts of buildings and designed landscapes belong to these specific sites. He named this practice as "site planning" to offer a common ground or a shared entity for architecture and landscape architecture. Eckbo's site-space planning constituted a shared vocabulary for integrated practices by attempting to reduce the division between architecture and landscape architecture. He set frameworks such as spatial, environmental and functional for site-related practices.[42]

By means of his integrated design initiatives, Eckbo became one of the most successful figures in integration of the design fields of architecture and landscape. Borrowing terminology and design approaches from other modern arts, he tried to set a new and "modern" design thinking and practice. In order to produce projects in favor of integration and modernism, he used modern technology and new materials besides applying Cubism and Surrealism to his designs mostly in residential scale.[43]

[41] Garrett Eckbo. *Landscape for Living*, Dodge, New York, 1950, p.238
[42]Op.cit. Elizabeth Meyer. p.117
[43]Op.cit. Joel Sanders. pp.23-24

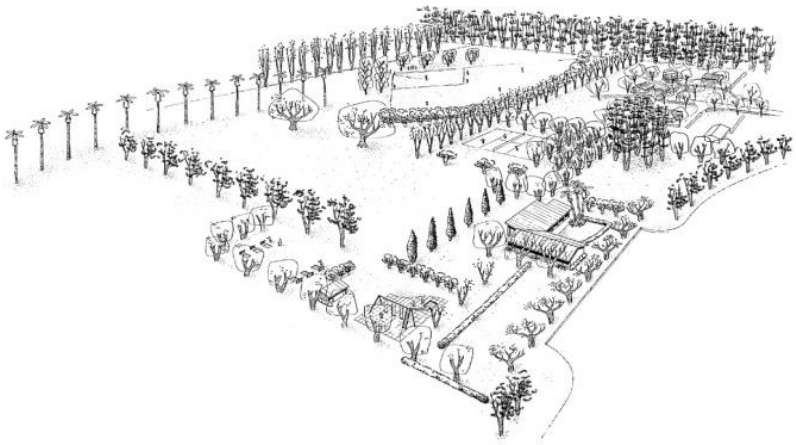


Fig.5 Ceres Camp designed by Garrett Eckbo[44]



Fig.6 ALCOA Forecast Garden designed by Garrett Eckbo[45]

[44] An illustration of Ceres Camp project designed by Garrett Eckbo in 1940. Copied from Ibid.
[45] A photo of ALCOA Forecast Garden designed by Garrett Eckbo in 1959. Copied from Ibid. p.13

For instance, in his Ceres Camp project, he used lines as trees in order to vegetal planes to define spaces and movements. While configuring a pattern derived from modern arts, just as the walls of Barcelona Pavilion's freestanding walls, he also benefited from these vegetal planes for protection from the wind was an outcome of functionalism, one of the key elements of modernism.[46]

In another project, he was approached by an aluminum company to design a garden for their Forecast program. It was a great opportunity to design a modernist landscape since it contains new shapes, new spaces, new materials and new functions. He incorporated aluminum in different functions in the project in a harmony with natural elements.[47]

Although his practice was so promising in order to establish a new modernist vocabulary for an integrated practice of landscape and architecture, he shifted his interest from residential projects to large scale projects such as university campuses, corporate office parks, etc. The shifting practice of Eckbo, who was the leading figure of landscape architect of his time, affected the whole practitioners and theoreticians and caused a disciplinary shift. Hence the promising design thinking of Eckbo for integrating architecture and landscape in a modernist manner was abandoned without setting a common vocabulary for built environment.

2.2.2. From the Scope of Architecture

Towards the end of 19th century, the modern movement that emerged simultaneously with the developments in technology and industry gave the opportunity to question the relationship between architecture and landscape. But despite the promising potentials for the integration of architecture and landscape or nature and buildings, the

[46]Op.cit. Marc Treib. p.12
[47]Ibid.

outcome of modernism was even worse and fostered the division between these duals. Architecture, accepted as the leading discipline, addressed as the chief responsible of this situation.

The modern movement seems to have involved in architecture with ideas about city planning and urbanization. Since the fast-growing industrialization and urbanization affected cities in unfavorably, the professionals of disciplines related with built environment first examined the city planning alternatives to heal the environment.

In 1898, Ebenezer Howard proposed "the Garden City" which is constituted of small towns surrounded and connected each other by green belts to prevent the drawbacks of growth and industrialization of London city. Although the proposed idea was not implemented, it became a pioneer and caused to new ideas and proposal based on its features and promises about the integration of landscape and architecture.[48]

Among all these attempts, one of the most important and promising one is proposed by Le Corbusier, who is widely accepted as the key figure of modern architecture. In 1920, he proposed "the Radiant City" which consisted of high-rise buildings constructed in large park. As a similar approach, Mies van der Rohe proposed "City in the Landscape" collaterally with Le Corbusier's proposal. However, all these anti-city attempts proposed high-rise buildings in order to enlarge the green areas and protect the nature, ended up with isolation of man and nature.[49]

Marc Treib points modern architecture, which defines buildings as "discrete objects set in undifferentiated green space", as the responsible for this isolation as the leading discipline in the built environment. He evaluates landscape in modern architecture as the vegetal buffer in between buildings. He also claims that the free plan approach of

[48] David John Billy. The Integral Building – Landscape Developing a Language of Integration, Master Thesis, The University of British Colombia, Vancouver, Canada, 2001, p.52
[49] Ibid. p.58

modern architecture ends sharply at the boundaries of buildings instead of expanding to exterior and become complementary parts with the surrounding landscape.[50]

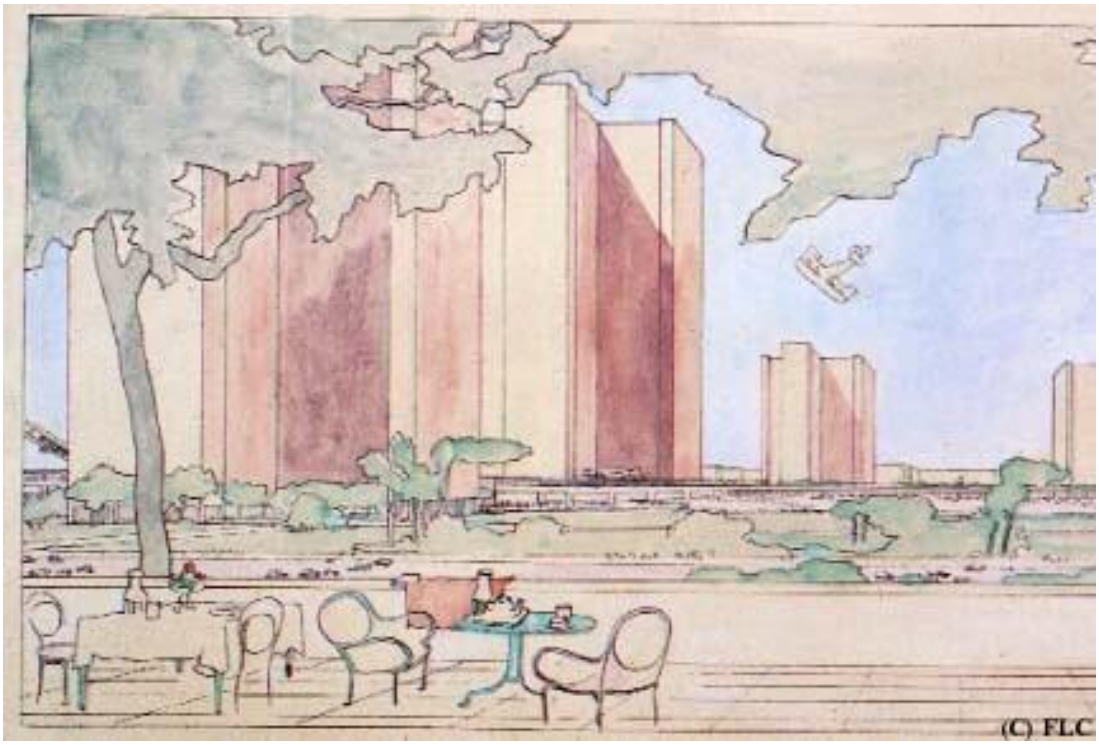


Fig.7 The Radiant City (Ville Radieuse) designed by Le Corbusier[51]

Besides city planning ideas and proposals, modernism also revolutionized directly architecture. Although the modern movement offered so much potential for integration of architecture and landscape, similar to city planning, it ended up with disappointment for built environment. Jan Birksted exemplifies this situation with a statement of Le Corbusier:

[50] Marc Treib. "Nature Recalled", Recovering Landscape: Essays in Contemporary Landscape Architecture, edited by James Corner, Princeton Architecture Press, New York, 1999, pp.29-30
[51] A watercolor illustration of The Radiant City project designed by Le Corbusier in 1920s. Retrieved from: https://www.archdaily.com/411878/ad-classics-ville-radieuse-le-corbusier

> One clear image will stand in my mind forever; the Parthenon, Stark, stripped, economical violent; a clamorous outcry against a landscape of grace and terror. All strength and purity.[52]

Although most of the criticism blaming modernism and Corbusier as the representative of modernist architecture may valid about his conception of architecture-landscape relation, Corbusier's approach to landscape and the integration of architecture with it had many potentials and positive aspects in order to get and integrated design thinking and practice. As mostly accepted and stated, it is not completely valid that he utilized from landscape just as a background of his buildings. In most of his projects and writings, he stated repeatedly the assigned meanings of landscape in his thinking but they regarded as failure for the integration of architecture and landscape.

> I shall place this house on columns in a beautiful corner on the countryside… Grass will border the roads: nothing will be disturbed – neither the trees, the flowers, nor the flocks and herds. The dweller in these houses, drawn hence through love of the life of the countryside, will be able to see it maintained from their hanging gardens or from their ample windows. Their domestic lives will be set within a Virgilian dream.[53]

As can be understood by this statement of Corbusier, although all the approach and design thinking were about landscape, the end products of his practice were isolated objects in untouched nature. This situation is mostly explained by the fact that Corbusier's relationship with landscape is mostly visual.

[52] Le Corbusier quoted in Op.cit. David John Billy. p.54
[53] Le Corbusier quoted in Christopher Tunnard. *Gardens in Modern Landscape*, Architectural Press, London, 1938, p.126

> A site or a landscape does not exist – except as our eyes see it. The idea therefore is to make it visibly present, choosing the best of the whole or parts of it. This source of inestimable benefit must be grasped.[54]

Beatriz Colomina clarifies this situation as: "a machine to see, a cinematographic camera" by referring to Le Corbusier's well-known motto about modern architecture "a machine to live in".[55]As a corroborative statement:

> When you buy a camera, you are determined to take photographs in the crepuscular winter of Paris, or in the brilliant sands of an oasis; how do you do it? You use a diaphragm. Your glass panes, your horizontal windows are already to be diaphragmed at will. You will let light in wherever you like.[56]

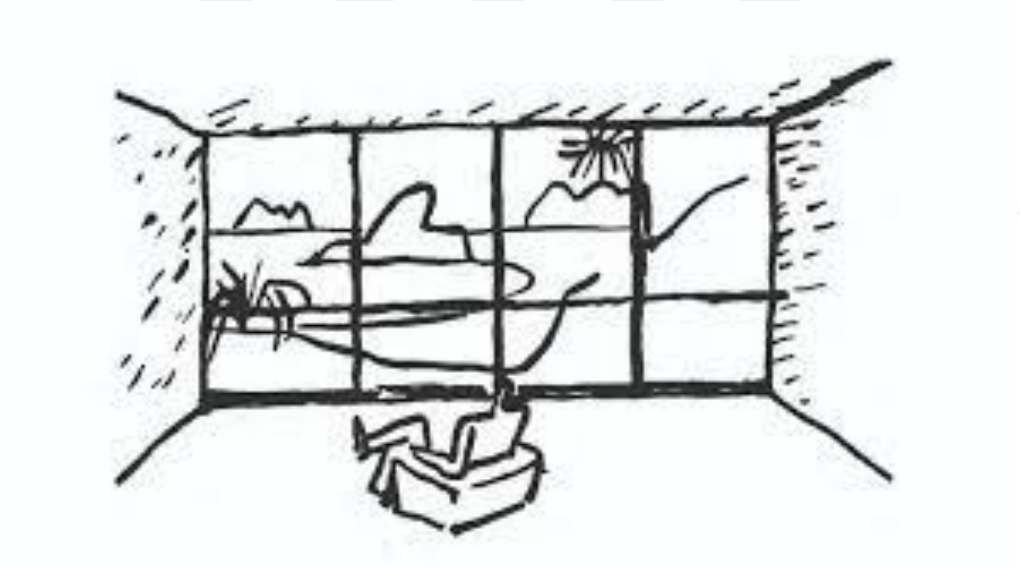


Fig.8 An illustration of a view from interior of an apartment in Plan for Rio de Janerio drawn by Le Corbusier[57]

[54]Le Corbusier quoted in Jean-Louis Cohen. "In the Cause of Landscape", *Le Corbusier an Atlas of Modern Landscapes*, MOMA, New York, 2013, p.41
[55]Beatriz Colomina. *Sexuality & Space*, Princeton Architectural Press, New York, 1992, p.113
[56]Le Corbusier quoted in Ibid.
[57] An Illustration of a view from interior of an apartment in Plan for Rio de Janerio drawn by Le Corbusier in 1929. Copied from Ibid.

In order to understand the Corbusier's approach to landscape and architecture, "the five points of architecture"[58] which he collected his design thinking under, can be analyzed. Although three of them were directly, other two were indirectly related with landscape, his five points were criticized for fostering the division between architecture and landscape.

One of the points proposed by Corbusier for his new architecture is *the pilotis*. It relies on the emptying the ground by elevating the building on structural system composed of steel or concrete columns and freed from load-bearing walls with the contribution of technological advances. Although by elevating the building and emptying the ground, the reserved area was used for the vehicles instead of any attempt to integrate building with its site. Furthermore, the facades of the spaces on the ground floor, mostly designed as solid facades which cuts the relation completely.

> The house is in the air, far from the ground; the garden passes under the house; the garden is also on top of the house, on the roof.[59]

Among the five points of Corbusier, the most promising point for the integration of architecture and landscape is *the roof garden*. Although these vegetated flat roofs seem to have potentials for integration, it consisted a crucial double-edged legacy by promoting the roof terraces as natural exterior spaces for the occupants instead of utilizing the existing nature of the site. This design attempt demolished the relation between architecture and landscape especially in his large-scale buildings in which the roof terraces were designed as total public areas with imitated natural features, whereas grounds were left for the vehicles.

[58] The five points of architecture is the well-known phrase referring to five rules set by Corbusier in order to clarify his unique design approaches. They are *the pilotis, the roof garden, the ribbon window, free plan* and *free facade*.
[59]Op.cit. Jean-Louis Cohen. p.28

The ribbon window is the other feature that is directly related with the landscape among his five points. Actually, in the context of this discussion, the remaining two points, *free plan* and *free façade*, can be considered together with the ribbon window. As mentioned before, the relation of landscape and architecture in Corbusier's design approach was mostly visual. By using horizontal –ribbon- windows along the façade, he framed the view of landscape like a wall-hung painting and claimed the landscape became an integral part of the building.

> One single window 11 meters long unites and lights all the elements, making the majesty of the magnificent site enter into the house: the lake with its movement, the Alps with their miraculous light.[60]



Fig.9 Villa Savoye designed by Le Corbusier[61]

[60] Le Corbusier is quoted in Mary Ann Steane. The Architecture of Light: Recent Approaches to Designing with Natural Light, Routledge Press, London, 2011, p.13
[61] A photograph of Villa Savoye designed by Le Corbusier in 1929. Retrieved from: https://www.archdaily.com/84524/ad-classics-villa-savoye-le-corbusier



Fig.10 An interior view of Villa Le Lac designed by Le Corbusier[62]

As can be understood from his five points of architecture and the famous motto "the outside is always an inside"[63], he built his design thinking and practice mostly on landscape related decisions. Although he may be accepted as successful in some points, generally Corbusier is regarded as the individual responsible for the division of landscape and architecture in the modern movement. This situation of injustice may be originated from Henry Russell Hitchcock and Philip Johnsons and *the International Style.*[64]

In 1932, Henry Russell Hitchcock and Philip Johnsons curated an exhibition named *Modern Architecture: International Style* at The Museum of Modern Art and introduced Le Corbusier as the leading proponent of *the International Style* which is

[62] An Interior View of Villa Le Lac designed by Le Corbusier in 1924. Retrieved from: https://yos.blog.so-net.ne.jp/2007-07-20
[63] Le Corbusier is quoted in Barry Bergdoll, "From International to Territory: The Project of an Atlas", *Le Corbusier an Atlas of Modern Landscapes,* MOMA, New York, 2013, p.18
[64] Ibid.

also the book published for the exhibition as a catalog or manifesto of modernism in architecture.[65] Hence the book was coupled to Le Corbusier for overlapping design thinking and practice even though it had some contradictions between his architecture. Hence Corbusier was pointed as the scapegoat of the separative role of the International Style. These misgivings about over simplification of the modern movement as the international style were also accepted by Hitchcock and confessed by saying: "No one has done more than Le Corbusier ever since to extend and loosen the sanctions of the International Style."[66]

Besides revealing the practice of modern architecture, the exhibition also addressed some "formal tropes"[67] by defining modernism as a "style".[68] Sarah William Goldhagen states that the acceptance of modernism as a "style" downplays the complexity and "multifarious richness" of modernism and limits its potentials and meaning. When modernism was defined as a style, it was accepted as a "paradigm"[69] which was defined as "an accepted model or pattern"[70] by Thomas Kuhn. Hence the field of modernism is restricted with the proposed formal tropes by the International Style. However, this restriction of "style-based paradigm"[71] of modernism brought about the disputes and incompatibility of which one of the most disputable one is the relation between architecture and landscape.

The definition and restrictions about modernism led designers to a heavy symbolism. Thus, by using the formal tropes symbolically, an image of modern architecture was emerged which can be regarded as the style-based paradigm of modern architecture. Goldhagen states that they may be flawed because most of the works of the leading architects of the period were not in the scope of the accepted model or pattern by the

[65] Ibid.
[66] Henry-Russell Hitchcock is quoted in Ibid. p.20
[67] Sarah Williams Goldhagen. "Something to Talk About: Modernism, Discourse, Style", *JSAH,* vol.64, no.2, 2005, p.144
[68] Ibid.
[69] Paradigm defined by Thomas Kuhn. Thomas Kuhn is quoted in Ibid.
[70] Ibid.
[71] Ibid. p.145

International Style.[72] However this stylistic acceptance led designers to oversimplification and symbolism by applying the formal tropes of style-based paradigm regardless of the site and surrounding.

> The plan in my pocket, I went off to look for a site. The new elements of modern architecture made it possible to adapt to a site whatever the circumstances.[73]

The statement of Le Corbusier summarizes the disputes and discussions about the acceptance of modernism as a style on the field of landscape and architecture duality. The style offers using formal tropes as the only prerequisite to be modern by ignoring site matters which would eventually end up with the discussions about placelessness.

> The landscape makes demands on the building, through such elements as views (good or bad), topography, sun, rain, snow, wind, vegetation. The building may recognize these and adjust itself with care and sensitivity in the regional, natural, poetic, or romantic way. Or it may ignore them, in whole or in part, or force its own forms on them, as most Renaissance and international style work, setting itself up as a self-sufficient entity, the cube in the meadow or the architectural garden, and leaving the landscape to solve its own problems of adjustment to this uncompromising new form.

Eckbo states that landscape offers such natural features as views, sun, climate and topography to architecture to utilize in design process. He blames international style ignoring these features and approach them and landscape just as a meadow or an architectural garden where architectural object will be placed. It evaluates the rest is out of concern of architecture.[74]As Eckbo stated, the international style ignores the site-related matters, "context", while glorifying and promoting the style-based

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[72] Ibid.
[73] Le Corbusier is quoted in Bruno Reichlin. "Corseaux: 'My Father Lived One Year in This House. The Scenery Fascinated Him' "*Le Corbusier an Atlas of Modern Landscapes,* MOMA, New York, 2013, p.66
[74] Garrett Eckbo. "Architecture", *The Landscape We See,* McGraw-Hill, New York, 1969, p.91

paradigm. However, he addressed context as the most important feature for the integration of building and nature or architecture and landscape regardless of the style.

> For architecture, the argument for context, for redefining the architectural object as a constituent of a wider milieu, has meant rethinking the building's engagement with its material and spatial surroundings, whether built or unbuilt.[75]

Although modernism offers great potentials and opportunities for the integration of architecture and landscape essentially, because of the style-based paradigm and the International Style, it is accepted as the responsible of division of these cognate fields.

Even after it was accepted as a style, some modernist practitioners developed projects which were successful in integration of landscape and architecture. Thanks to new construction technologies and new materials, the potential of integration buildings with nature had increased dramatically. The walls which had to be structural, started to employed as free-standing walls to define spaces and movements. The technological restrictions of façade openings and glass surfaces dismissed which made possible visual and physical connection between interior and exterior possible. These developments allowed both interior and exterior spaces to become continuous and fluid. Venturi stated this advantage and development by saying: "perhaps the boldest contribution of orthodox Modern architecture… such cornerless architecture implied an ultimate continuity of space."[76]

[75] David Leatherbarrow. *Topographical Stories, Studies in Landscape and Architecture,* University of Pennsylvania Press, Pennsylvania, 2004, p.12
[76]Venturi is quoted in Op.cit. David John Billy. p.55



Fig.11 Barcelona Pavilion designed by Mies van der Rohe[77]

One of the most notable projects that benefited from these potentials and opportunities brought by modernism is Barcelona Pavilion - original name was the German Pavilion - designed by Mies van der Rohe. It was designed as a part of the 1929 International Exhibition in Barcelona to display of German architecture's modern movement.

Rohe designed the roof as a low flat roof that floating over both interior and exterior spaces in order to create the functional and spatial continuation of spaces. The free-standing walls also enabled that free floating spaces and continuation thanks to new structural system consist of thin steel and concrete columns. Furthermore, with the emergence of new materials, Rohe made use of the reflective effects of materials and

[77] An Exterior View of Barcelona Pavilion designed by Mies van der Rohe in 1929. Retrieved from: https://www.archdaily.com/109135/ad-classics-barcelona-pavilion-mies-van-der-rohe

water to reflect sky, surrounding landscape and light into the interior spaces which he considered as a marriage of nature and building.[78]

Although Rohe's design approach and implementation in Barcelona Pavilion is regarded successful for integration of landscape and architecture, his other projects mostly contributed to division, not integration. This situation may be attributed to his interest in high-rise architecture disregarding the context which is the main theme of the negative criticisms of modernism.

One of the most important professional in the field of integration of landscape and architecture was the American architect Frank Lloyd Wright whose nearly all projects accepted as successful attempts for integrated practices. Although his architectural practice was unsuitable for the style-based paradigm defined by the International style, he is regarded as one of the most influential modernist architects of his time.

Frank Lloyd Wright can be distinguished from his peers for his approach to landscape and architecture as integrative parts of built environment. Besides benefiting from the new materials, techniques and vocabulary emerged with the modern movement; he employed the vernacular, regional, climatic and other contextual features of the site into the architectural practice. He constructed his design thinking based on the context, which is marginalized by the International Style, and proposes that a buildings should be "of to site" not "on the site".[79] His integrative design thinking and practice can be understood by analyzing his one of the famous projects: the Fallingwater House.

The story of the commission of the project indeed clarifies the approach of Wright's to landscape and architecture. Clients expected him to design a house viewing the waterfall in the site, but he insisted on building the house on top of the waterfall itself. Although the owners had wanted to view the waterfall from their house, he made the

[78] Andrew Kroll. "AD Classics: Barcelona Pavilion / Mies van der Rohe" published on 08 Feb 2011, Archdaily. Accessed 28 Aug 2019. Retrieved from: https://www.archdaily.com/109135/ad-classics-barcelona-pavilion-mies-van-der-rohe

[79] Frank Lloyd Wright is quoted in Op.cit. David John Billy. P.55

waterfall an integral part of the house with the auditory features of it instead of visual.[80]



Fig.12 Fallingwater House designed by Frank Lloyd Wright[81]

He also employed large and long horizontal flat planes as roofs and terraces which are stretching out to landscape and covering the exterior spaces in order to create transitional spaces between interior and exterior spaces. Thus, the building, as low and longitudinal, had great potentials for integration with the site, quite the contrary of the elevated blocks on *pilotis* of modern style.

[80]Op.cit. David John Billy. p.55
[81]Fallingwater House designed by Frank Lloyd Wright in 1939. Retrieved from: https://www.archdaily.com/60022/ad-classics-fallingwater-frank-lloyd-wright

He also integrated the local materials gathered from the site to the interior and exterior spaces in order to create continuity between exterior and interior and also between landscape and architecture.

Norberg-Schulz summarizes the relation between architecture and landscape:

> In general, the problem is to settle in such a way that a 'friendly' relationship with the site is established. Such a friendship implies that man respects and takes care of the given place. Taking care, however, does not mean to leave things as they are; rather they ought to be revealed and cultivated. Thus, the settlement interprets the site and transforms it into a place where human life may take place.[82]

2.3. Contextualizing Tadao Ando in the Disciplinary Relation

Since it was accepted as a style-based paradigm in general, Modernism led practitioners to universalization, standardization and placelessness which eventually ended up with conglomerates of buildings isolated from their sites and contexts. However, some practitioners and theoreticians have struggled to overcome the drawbacks resulted from the style-based paradigm and to adapt the ground-breaking innovative technology and ideology of modernism. In other words, they sought an alternative approach in which universal features of modernism can be utilized in harmony with regional aspects such as; culture, context and place.

> There is the paradox: how to become modern and return to sources: how to revive an old, dormant civilization and take part in universal civilization.[83]

[82] Ibid. p.27
[83]Kenneth Frampton. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance", *The Anti-Aesthetic: Essays on Postmodern Culture*, edited by Hal Foster, Bay Press, Seattle, 1983, p.16

Alexander Tzonis and Liane Lefaivre pointed the term "critical regionalism" as a new approach to overcome the paradox raised by Paul Ricoeur.[84]They proposed to substitute the standardized and homogenous features with cultural and contextual features by using modernist vocabulary. This specific approach is very crucial to contextualize Tadao Ando in the issue since he is pointed as a strong critical regionalist by the Kenneth Frampton who is one of the most prominent figures of discussion about critical regionalism.

In his article "Towards a Critical Regionalism"[85], Frampton defines critical regionalism as a new approach highlighting the cultural and traditional architectonic features against the homogenizing effects of modernism. In other words, it is an approach resisting universal, culture-free and placeless features but holding on the modernist vocabulary. Frampton also claims that by being freed from standardization and homogenization, critical regionalism offers great potentials on integration of architecture and landscape by considering contextual features.[86]

Since Ando glorifies the same values with critical regionalism, he is accepted as a critical regionalist by Frampton. Although Tadao Ando is not mentioned in the most important article on critical regionalism, "Towards a Critical Regionalism" by Frampton and not defined as critical regionalist; he defined Tadao Ando as a critical regionalist in his another article named "Tadao Ando's Critical Modernism". He clarifies that the definition of critical regionalism and Ando's design approach and practice coincide in many points.[87]

[84]Alexander Tzonis, Liane Lefaivre. "The Grid and the Pathway", Architecture in Greece, Athens, 1981, p.77
[85] It is a seminal article originally named as "Towards a Critical Regionalism: Six Points for an Architecture of Resistance" written by Kenneth Frampton which is regarded as the most important writing on Critical Regionalism.
[86]Op.cit. Kenneth Frampton. pp.16-30
[87]Kenneth Frampton. "Tadao Ando's Critical Modernism", Tadao *Ando: Buildings, Projects, Writings*, Rizzoli International Publications, New York, 1984, p.6

As a similar approach of critical regionalism, Ando admits benefiting from modernist vocabulary and materials whereas he rejects the formal tropes of style-based paradigm of modernism which are placeless, monotonous and standardized.

He also argues standardization, universalization, and generalization for reducing human beings to masses and endangering culture which he defines as a background of tradition, climate, history and other natural factors. Since he approaches architecture as a culture-based design field, he insists to develop an architectural thinking based upon cultural features instead of modernism's generic standards.[88]

It is exactly this point where Ando is differentiated from his peers for his critical approach to both culture and modernism. He resists blindly considering context, since it may constitute a monotonous and unhealthy urban environment which would eventually worsen the relationship between architecture and landscape. Hence, he considers context as a cumulative of not only site and surrounding but also culture and tradition.

Although the definition of critical regionalism and Ando's approach overlaps, this may not be logical to label Ando as a critical regionalist. Because Ando claims that there are common spatial and spiritual features which are valid for all cultures and regions. He thinks that by employing these common features, architecture can be both universal and regional at the same time.[89]

> His buildings begin to carry a particular sense of universality. People from different cultures find it easy to relate to his work. A Buddhist temple or a Christian church would be experienced at the level, which suggests a common root of all Humans.[90]

[88]Tadao Ando. "Facing up to the Crisis in Architecture", *Tadao Ando Complete Works*, edited by Francesco Dal Co, Phaidon Press, London, 1995, p.450
[89]Mohammadreza Shirazi. "An Investigation on Tadao Ando's Phenomenological Reflections", published online. p.23 Retrieved from: http://www.armanshahrjournal.com/article_32694_4b9dfa61cffa567582d000dc8bbfd09e.pdf
[90]Zaha Hadid quoted in Ibid.

As Zaha Hadid also pointed, the design philosophy of Ando is differentiated from critical regionalism with the universal features of his recent projects. With the growing reputation, Ando designed several projects abroad with his own philosophy derived from the Japanese tradition and culture which contradicts with the essence of critical regionalism. Hence it may be wrong to define his approach to relation of architecture and landscape through critical regionalism.

Tadao Ando's buildings cannot be evaluated or described through architecture and landscape alone. One needs to grab the whole physical, cultural and environmental context in order to evaluate his approach to buildings which establish a great integration between architecture and landscape physically and spiritually.

In summary, Tadao Ando has never approached to relation of architecture and landscape as a systematic methodology. Moreover, any systematic methodology about this relation contradicts with his phenomenology of place. On the contrary of standardization and universalization caused by systematic methodologies, Ando believes that every place has a spirit which can be concretized with architecture. He claims only by this means, true integration of architecture and landscape can be established.

In order to understand his unusual approaches and ideology on integration of architecture and landscape, firstly Tadao Ando must be contextualized through the ideological roots of his design phenomenology as a self-educated architect.

Since Ando is a self-educated architect, he built his design thinking on the basis of his own experiences and philosophy. He has transferred his philosophy into architecture through architectural vocabulary of modernist architects such as Le Corbusier and Louis Kahn. This self-education process freed Ando from stereotypical approaches to Newtonian space of concept and let him to develop his own understanding of space

which is originated from *shintai*[91]. By following the concept of *shintai;* he resists the prevailing dualities of subject-object, mind-body, and man-nature.[92]

> Man is not a dualistic being in whom spirit and flesh are essentially district, but a living, corporal being active in the world.[93]

That is to say; Ando accepts man and nature as dialectical complementary entities of physical and spiritual environment. Since he relates the relation of architecture and landscape to relation of man and nature; Ando claims that architecture and landscape must be integrated not only visually, but also through whole senses, even spiritually.

> Architectural space is a phenomenon we take in not only visually but through all our senses, that is, through our whole bodies.[94]

[91]*Shintai* is a religious concept through which Ando developed his unique approach to nature and landscape. He explains this unique approach in his article "Shintai and Space". Tadao Ando. "Shintai and Space", *Architecture and Body*, Rizzoli, New York.
[92]Tadao Ando. "Shintai and Space", *Tadao Ando Complete Works,* edited by Francesco Dal Co, Phaidon Press, London, 1995, p.453
[93]Ibid.
[94]Tadao Ando quoted inOp.cit. MohammadrezaShirazi.

CHAPTER 3

TADAO ANDO'S ARCHITECTURE AS A DISTINCTIVE APPROACH

3.1. The Ideological Roots of Ando's Design Philosophy

In order to deeply understand Ando's design thinking and practice, the distinctive features of his social and physical environment should be examined. Even though he has produced projects abroad, the dynamics of Japan, where he was born, raised and founded his business and still continues, is at the center of Ando's professional life. While this may be true for all designers, Tadao Ando has had to cope with a multifaceted cultural pattern as a result of his own personal dynamics, as well as the confrontation of Japanese culture with Western culture, in other words with the new and the old. In his book *Tadao Ando,* Yann Nussaume clarifies the Japanese context and how it has affected Ando's design philosophy directly.[95]

This controversy in Japanese culture eventually spread to the built environment. As a result of this controversy, a very dense and eclectic urban fabric consisting of commercial buildings and residences was formed in the city centers. Besides that, public buildings were mostly in untouched and rural areas. This separation is so sharp that; even in the light of this information, it is possible to classify Ando's projects as belonging early or late period of his professional practice.[96]

Tadao Ando born in Osaka, on September 13, 1941. He points the time he spent in the historic and religious places in Nara and Osaka while he explaining his physical and spiritual phenomenology and ideology. These places carved into the nature both

[95]Yann Nussaume. *Tadao Ando*, Birkhauser, Basel, 2009, pp.13-30
[96]Ibid. pp.13-16

physically and spiritually with a powerful presence helped him to establish a unique perception of spiritual and physical environment. He interprets these historical sites as the mediating spaces of the past, the present and the future through the constant spiritual essence.[97]

While he was developing ideas on time, eternity, and nature in these historical areas, he was also supporting his social and cultural aspects with dynamic city life of Osaka, Japan's second largest city. He indicates that by spending his leisure time in the city of Osaka he could intuitively grasped the essence of space. He believes that this intuitive learning of space perception embedded into his soul and body which could not be possible by simple space education. At the same time, he states that growth in this geography, where many historical periods and cultural values live together in an integrated way with traditions, shaped his deep connection with nature.[98]

From a very early age, Ando had the opportunity to establish close relationships with talented artisans in his neighborhood, and to analyze their way of work and discipline. Thus, he learned the creation of an object and the relationship with the designer in this process at a very early age. This affected positively his newly emerging intellectual world in the field of design.[99]

Within this context full of skilled artisans, Ando had an opportunity to work with a carpenter in his neighborhood. Thus, he experienced all the subtlety of wood as a material, the techniques of wood workmanship and the object-creator relationship. This experience allowed him to create flawless formworks that would shape flawless concrete surfaces, the most important element in his architectural language. He also points this carpentry experience to explain his ability of establishing the perfect

[97]Micheal Auping. *Seven Interview with Tadao Ando,* Modern Art Museum of Fort Worth, Fort Worth, 2003, p.55
[98]Op.cit. Yann Nussaume. P.32
[99]Ibid.

balance between form and material or object and creator not only with wood, but in all materials.[100]

All of this enabled him to build his intellectual world from his own experience, rather than the common intellectual concepts taught by others. He developed his own architectural thinking by the result of direct experiences not by intellectual concepts.

As well as the people and activities in the neighborhood, the built environment of the neighborhood was influential in the formation of architectural thinking. Ando states that his experiences in these houses which are wooden two-story, long and narrow houses, and the perception of the space he has acquired from these houses have taken place in his collective memory and shaped his intellectual life. For example, because of having growth by suffering the climatic inconveniencies caused by the narrow and oblong form of the house, the obsession of human comfort and harmony with nature in architecture fostered his creative energy. Besides human and nature relation, he also references these houses for the creation of his perception of light and shadows. Since the narrow facades, large traditional eaves and *engawas* reduces the amount of light inside the traditional row houses, the perception of light becomes so powerful from the dark interior. He relates this perception of light to the duality between light and shadows each of which can only be perceivable through the other.[101]

At the age of fourteen, he experienced one of the most important moments of his architectural thinking. During the renovation of the house he lived in, he learned directly how the light could change the perception of a place when the roof was removed. He placed this experience in a very important place in his architecture, using linear zenithal light in many of his projects, and defined the space with the relation of light and darkness. This house shaped not only the perception of light but the entire

[100]Op.cit. Tadao Ando. "From Self-Enclosed Modern Architecture Towards Universality", p.9
[101]Op.cit. Micheal Auping. pp. 13-15

architectural perception, leading the first architectural projects, which are usually small-scale residences.[102]

Due to economic reasons, Ando could not get university education. He began to educate himself by collecting books for the purpose of becoming an architect. In this process, he chose Le Corbusier as his role model and examined all his works, philosophies and life. While studying Modernism from the works of Le Corbusier, who was self-educated without any architectural education just like Ando, he also examined traditional Japanese architecture with his trips in Japan as Corbusier did.[103]



Fig.13 Hiroshima Peace Center designed by Kenzo Tange[104]

[102]Op.cit. Yann Nussaume. p.38-39
[103]Ibid.
[104] An Exterior View of Hiroshima Peace Center designed by KenzoTange in 1955. Retrieved from: https://www.archdaily.com/160170/ad-classics-hiroshima-peace-center-and-memorial-park-kenzotange

On one of these trips, when he saw the Hiroshima Peace Center, designed by Kenzo Tange, featuring modern architecture and Japanese traditions, his admiration for the concrete began. When it arrived in 1965, he traveled to Europe and America for several years as an aspiring architect willing to investigate west who had absorbed Japanese culture. During these trips he saw examples of modern architecture in Europe, different cultures, different climates and different lifestyles.[105]

As a self-educated young architect equipped with his life-long experiences, he received his first job, the Tomishima House. Even in his first project, a small 100-square-foot dwelling, he used concrete walls and zenithal light, demonstrating his original design vocabulary and architectural philosophy which are shaped by his self-learning process and personal experiences.

3.2. Early Architectural Practices

In the early 1970s, when Ando founded his own architectural firm, Japan was battling a huge social and economic crisis. The unfavorable effects of industrialization and population growth in the middle of the 20th century, which had not been planned for the future, were clearly visible. Another reason for this bad situation in cities was the lack of a set of rules to be followed during this rapid urbanization. As a result of this "freedom" and the unbalanced distribution of the population, dense buildings, covering the entire parcels in such a way that no open space was left, were constructed in the city centers. Thus, cities began to offer socially and physically unhealthy physical spaces completely disconnected from nature.[106]

Ando's early buildings, which are mostly inwardly disconnected from the outer space, must be evaluated in this context. In addition, as mentioned earlier, in this context,

[105]Op.cit. Yann Nussaume. pp.45-47
[106]Ibid. pp.49-51

which was economically and physically unhealthy, while a number of well-known architects were selected to design the large-scale projects, new-generation architects such as Ando had to settle for small projects within the congested district.

Within this context, Tadao Ando completed his very first project which is Tomishima House. He designed and constructed an unusual building in a neighborhood constituted from row houses, which looks unfamiliar to both modern and traditional architecture although it has common features with both of them. The introverted house, blinded on all four sides with exposed concrete walls and a single vertical light well as the only opening, attracted the attention of magazines. Thus, Ando published his first article entitled "Urban Guerilla House".[107]



Fig.14 Tomishima House designed by Tadao Ando[108]

[107]Tadao Ando. "Ando by Ando", *Tadao Ando:Houses and Hosing 1,* Toto, Tokyo, 2007, p.70
[108]Tomishima House designed by Tadao Ando in 1973. Retrieved from: https://brainandmouth.com/top-10-most-famous-works-of-tadao-ando-architects/

Ando says that all of these early period projects, which he called the Guerrilla style, were designed for people who wanted to be isolated from obsessive and unhealthy urban fabric and social environment with the influence of political figures like Trotsky and Che Guevara. Since he designed projects with such a spirit of resistance and revolution and did not follow the rules of western modernism, they began to call Tadao Ando a postmodernist. However, he objected to this situation and stated that he did not support postmodernism or reject modernism. They were the unhealthy and undesirable urban and physical conditions of the cities what he was challenging and being guerilla against.[109]

As a result of this context and the first practices, the first idea of the ground-breaking design, when faced with a dense and unhealthy urban context, was to turn to itself and connect with the outer space only with the light from the vertical light wells.

A few years later, he published his second article, entitled "A Wedge in Circumstances", and stated that two general approaches dominate the architectural environment in the early years of his professional life. He defined the first as intellectual architecture and criticized it for not adopting Japanese culture and social structure. He criticized the latter for having a formalist and abstract functionality by trying to create extraordinary space. In his own professional practice, he has opposed both situations and said that he aims to create buildings that can be "spatial prototypes" that are designed according to the demands and needs of customers and the data of the area in order to establish a powerful spiritual connection between the buildings and users.[110]

Ando based his early architectural style, which was an enclosed introverted approach, on three general purposes. The first is to close the whole structure in order to strengthen the relations of inhabitants by bringing them together by creating special spaces for them. The second is to provide a healthier living space by saving people

[109]Op.cit. Tadao Ando. "Ando by Ando" p.74
[110]Tadao Ando. "A Wedge in Circumstances", *The Japan Architect*, 1977, p.73

from the bad situation of cities. The third is to define these walls as sharp thresholds and to re-interrogate one's relationship with society in every contact with the outside.[111]

In the Ando's first job, Tomishima House project, the only connection to the outer space is the roof skylight. Located above the circulation area, this skylight provides the light needed by all rooms. At this point, Tadao Ando differs from modern architecture which fills the interiors with light, but cannot rule it as he does. By using a controlled light through a single vertical opening, Ando can adjust the amount and the quality light as he wants to the rooms in his own way.



Fig.15 Azuma House designed by Tadao Ando[112]

[111]Tadao Ando. “The Wall as Territorial Delineation”, The Japan Architect, 1978, pp.9-15
[112] A Longitudinal Section of Azuma House. Retrieved from: https://en.wikiarquitectura.com/building/azuma-house-row-house/

Ando's early architecture can be summarized in a single project. One of the row houses, Azuma House was designed on a land measuring 3.6 meters to 12.6 meters. It was also designed as an introverted building by completely covering the narrow edge of the parcel, which is the only façade connected with the outer space. He defined an open courtyard in the center of the house and provided circulation through the courtyard. So, in order to go from one room to another, one has to pass through the courtyard. In doing so, his purpose was to create a special outdoor space that is isolated from the unhealthy environment of the city and completely connected with nature and what it brings, and to incorporate this outdoor space into the daily life of people as in Japanese culture.[113]

One of the most dominant features of this architectural language, the zenithal light is originated from Ando's childhood experiences and self-education period.

> As chance would have it, two houses beyond ours, a fifteen-year-old whose parents had died found himself alone. Through the kindness of a neighbor who had some land, the boy was allowed to build and live in a hut on unoccupied land of roughly twelve square meters, and it had been agreed that I, who had known him since early childhood, would build his house with him. I drew some plans, it was simple building, too small to merit the name of house, but in spite of it all, we arranged for a kind of skylight for the roof. Since then, each time that someone asks me why I became an architect, the memory of that experience crosses my mind.[114]

Ando's admiration to zenithal light is formed intuitively in childhood, increased in the Pantheon where for the first time in his own words the concept of space "architectural space" literally becomes clear in his mind.[115]

[113]Op.cit. Yann Nussaume. pp.56-57
[114]Ibid.
[115]Tadao Ando. "Place-Geometry-Nature," *Tadao Ando 1982-1989*, Kashima Institute Publishing, Tokyo, 1989, p.7

3.3. Enlarging the Architectural Scope

Although Tadao Ando's architectural vocabulary seems to have changed a lot over time, it can easily be recognized that he only adjusted his vocabulary to shifting sites and contexts without protecting the logic behind. With his increasing reputation and recognition, he started to receive large-scale projects instead of small-scale housing projects which also triggered this stylistic alteration. In 1978, as a result of a series of professional trips and solo exhibitions, Ando, who has been trying to develop and educate himself for so many years, started to interact with his close colleagues who have similar design approaches. Thus, in line with his own world view, he began to add diversity and richness to his architectural vocabulary.

In the description text of the Rose Garden project he built between 1975-77, he explained how the project contexts affect the architectural practice and language.

> First how should our building incorporate issues involve with the setting? And which of the characteristics of the district should it ignore and what inherit.[116]

During this period, even if the projects were exposed to the environment with the growth of project areas, he still used the walls as the most important elements of his projects. In his article "The Wall as Territorial Delineation," he states that walls are used to make the nature a part of the daily life of its users by creating sheltered and pure spaces.[117]

As a young architect who has strengthened his self-confidence and proved himself, he produced a lot of articles about his theory and practice of architecture. In these articles, he discussed the theoretical and spiritual reasons for using concrete as a basic building material. He claimed that although concrete is a cold material, with the light falling on

[116]Tadao Ando. "Conforming to the Environment", *The Japan Architect 254*, 1997, p.28
[117]Tadao Ando. "The Wall as Territorial Delineation", p.13

it, it becomes a warm and dynamic material. Besides, he defines the concrete walls as screens to reflect light's different positions throughout the day and seasons.[118]

> I believe in removing architecture from function after ensuring the observation of functional basics. In other words, I like to see how far architecture can be removed from function. The significance of architecture is found in the distance between it and function.[119]



Fig.16 Kidosaki House designed by Tadao Ando[120]

The vertical light wells in his early works evolved as the scale of his projects enlarged to courtyards which serve as intermediary spaces between interior and exterior spaces.

[118]Tadao Ando. " The Emotionally Made Architectural Spaces of Tadao Ando", *The Japan Architect 276*, 1980, p.41
[119]Op.cit. Tadao Ando. " The Emotionally Made Architectural Spaces of Tadao Ando", p.46
[120]An enclosed area as a courtyard in Kidosaki House. Retrieved from: https://es.wikiarquitectura.com/wp-content/uploads/2017/01/Kidosaki_4.jpg

These voids in the middle of their structures became the most important feature of the architectural language of the 1980s. In other words, these vertical light wells, which grew in size, became courtyards in the middle of the buildings. According to the size of the land in some of the projects, a block of living spaces and adjacent to the road between the walls surrounded by courtyards also took place. He considered these intermediary spaces as a reinterpretation of engawa's in traditional Japanese architecture.[121]

The most important common feature of all the projects from the beginning of his practice until the 1980s is providing the opportunity to homeowners to establish a relationship with the natural environment in a protected area by walls. Besides separating the buildings from the undesired urban and environmental factors in the surroundings, these walls screen their surroundings and make the horizon mountain landscapes a part of this protected open space.[122]

As the 1980s approached, Ando started to use semi-permeable walls made of glass blocks as well as concrete walls in some of his projects. Through these walls made of glass blocks, he manages to filter the light homogenously to interior while ensuring the privacy. By doing so, he also blurs the undesirable physical urban environment around the house and transforms them into an ever-changing display of shadows which can be referenced to *shoji screens*[123] of traditional Japanese architecture. In other words, he reinterprets a traditional architectural feature with new materials and harmonizes it with modernist vocabulary.

[121]Op.cit. Yann Nussaume p.64
[122]Ibid.
[123] "Shoji" is a translucent paper sliding panel that is used in traditional Japanese architecture.

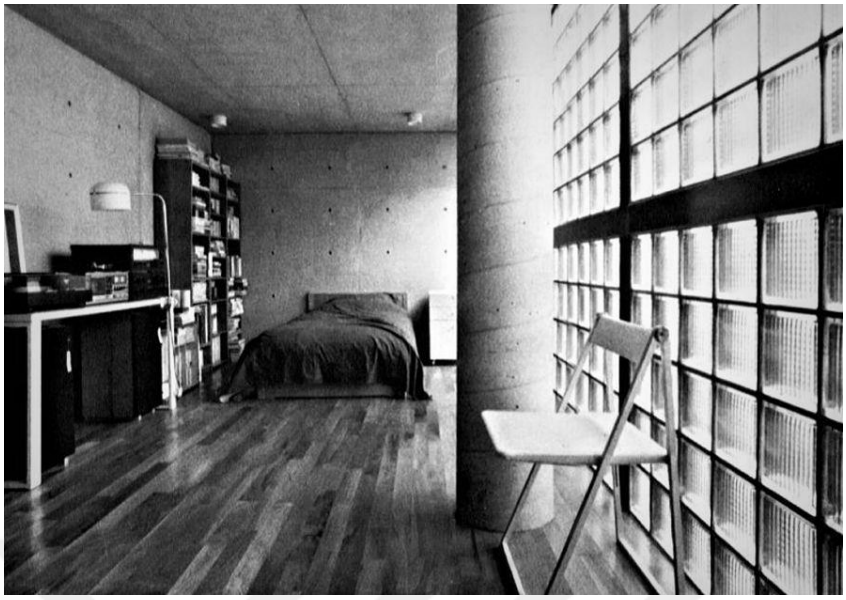


Fig.17 Glass Block House (Ishihara House) designed by Tadao Ando[124]



Fig.18 Glass Block Wall House (Horiuchi House) designed by Tadao Ando[125]

[124]An interior view of Glass Block House. Retrieved from: https://ofhouses.tumblr.com/post/154276545244/377-tadao-ando-glass-block-house-ishihara
[125]An exterior view of Glass Block Wall House. Retrieved from: https://ofhouses.tumblr.com/post/154410139227/378-tadao-ando-glass-block-wall-horiuchi

3.4. Establishing a New Uniting Style

In the early 1980s, the rapid growth of the Japanese economy directly affected Japanese architecture and the built environment. Japanese architects and theoreticians started to criticize the chaotic urban contexts of cities in order to provide better living conditions referring to economic developments. As a consequence of fast-growing economy and self-criticism of urban environment shifted the constructions sited from dense urban fabrics to rural areas.[126]

Growing reputation of Ando and the shifting Japanese context have affected Tadao Ando's practice dramatically. Shifting project sites from the dense urban fabric to rural areas gave the chance of developing the approach to nature in his design theory of Tadao Ando who was chasing an integrative approach between architecture and nature even his early projects located in dense urban fabric.

Ando describes this transformation process in his article "From Self-Enclosed Modern Architecture Towards Universality" in 1982. He defines the term self-enclosed modern architecture as the restoration of the relation between Japanese traditional houses and nature which had been lost through Modernism. In his article he insists that he accomplish this unifying restoration attempt by approaching the building and nature as a whole.[127]

Since the concept of wholeness has multi dimensions with regard to differing natural factors in the rural areas, Ando turned to Japanese tradition to have reference points for approaching nature. For example, he transforms shoji screens, which is a great artificial instrument for the integration of architecture and nature, to exposed concrete as the basic construction material which also satisfying the contemporary requirements. He tries to dematerialize the concrete surfaces with dimmed light in

[126]Op.cit. Yann Nussaume. P.73
[127]Op.cit. Tadao Ando. "From Self-Enclosed Modern Architecture Towards Universality", p.10

order to reflect nature on architecture in reference to shoji screens. In other words, he aims to occupants feel the presence of nature through an architectural element.



Fig.19 Reflections of nature on traditional Shoji Screens[128]

As he started to design projects in rural areas, Ando's approach to nature through architecture became clear with his projects and writings. As an outcome of this works, Ando relates the failure of integration of Modernism and other Western-rooted movement with nature although they imply to care about it to their attempt to dominate and exploit the nature. On the other side, the Japanese culture and tradition accepts the nature as an integral part of human life and built environment and establishes deep physical and spiritual connections with it. Tadao Ando approached to both sides critically and established his own understanding of integration. He tries to abstract nature through architecture an make the two sides of relation as physically and

[128]An interior view showing reflections of nature on traditional Shoji Screens. Retrieved from: http://www.e-tombo.net/report/jidayuubori4.htm

spiritually indispensable parts of a greater whole. In this regard, Ando attributes such powerful meanings and references to abstraction of that architecture becomes abstracted in nature. In other words, the presence of nature in his buildings can be perceived so easily even it is abstracted. It is the essence of spirituality of Ando's architecture and theory.[129]

> I do not mean nature in its untouched state but what we might call "man-made nature." I mean nature that has been given some kind of order, that has been changed from chaos and abstracted into a certain order, abstracted light, abstracted water, abstracted wind. When this kind of nature is introduced into architecture composed of raw materials and geometry, we find that on the contrary the architecture abstracted.[130]

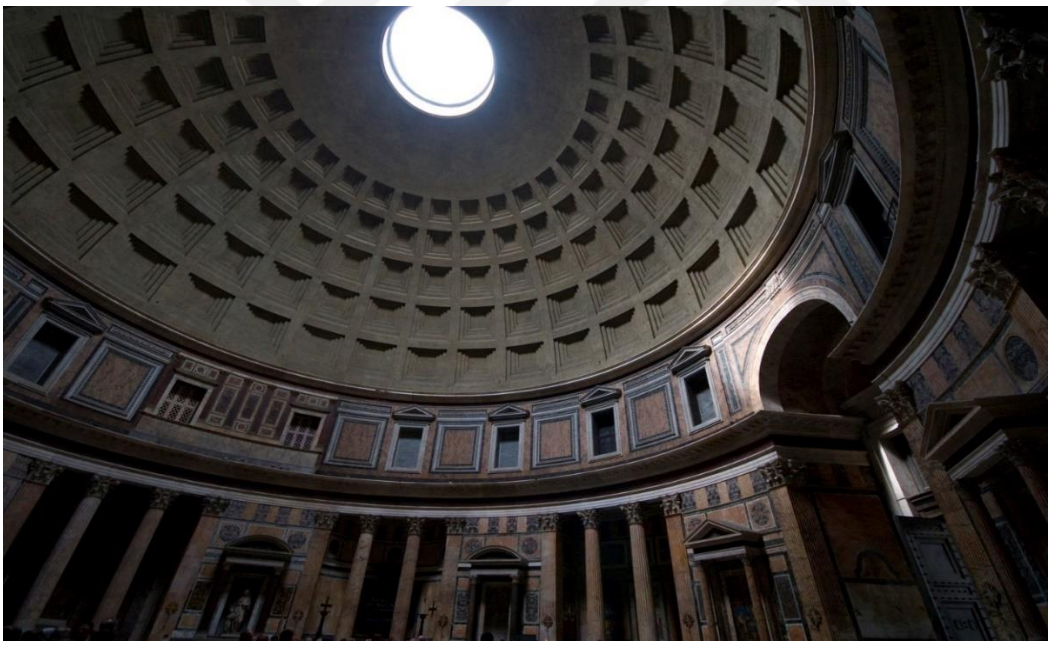


Fig.20 Roman Pantheon[131]

[129]Op.cit. Tadao Ando. "Place-Geometry-Nature," p.7
[130]Ibid.
[131]An interior view of Roman Pantheon. Retrieved from:
https://www.archdaily.com/802201/ad-classics-roman-pantheon-emperor-hadrian

The purpose of abstraction and reconstruction of nature through architecture is to increase and stress the domination of nature over architecture and people. In other words, through architecture, Ando aims to stress the presence and domination of natural phenomenon which cannot be perceived and noticed in natural environment. Ando points the Roman Pantheon as his source of inspiration in integrating architecture and nature through the abstraction and emphasis of natural phenomenon on architecture. The light projected through oculus, the circular opening at the top of the dome, on to carvings around the dome inspired Ando to establish his own understanding of architectural space in relation to nature. Hence, he employs zenithal light projecting on concrete walls to obtain the spiritually similar to Pantheon. Because he thinks that; whereas sunlight does not imply any spiritual meaning in open air, a filtered or pointed light might have spiritual meanings.[132]

As mentioned, Ando integrates architecture and nature through stressing the presence of a natural phenomenon through some manipulation. Another significant method Ando applied to stress the nature as a phenomenon through architecture is avoiding direct entrances to his buildings. Making use of the enlarging sites and scales of projects in rural areas, he designs initiatory routes which have to be passed in order to enter the building. Through these routes, he aims to make users to feel the domination of nature over themselves and buildings by exploiting them to purified and stressed phenomenon of nature. He cuts the relationship of users with the urban context and exposed them to constructed pure nature. In other words, he reconstructs the nature to make it dominant and perceivable. As Ando establishes of reconstruction of nature through architecture, he makes architecture and landscape inseparable parts of a greater whole.[133]

[132]Ibid
[133]Op.cit. Yann Nussaume. pp.94-95



Fig.21 Lee Ufan Museum designed by Tadao Ando[134]

The relation of Ando's architecture with nature and landscape is more evident in his late projects than earlier ones. Since the early projects of him were located in mostly dense urban fabrics, he established the relation with nature through enclosing domains and employing light with vertical light wells or courtyards in them. Then with the enlarging sites and scales of projects, he had the chance to establish physical relations with nature with respect to natural matters such as topography, water, wind, views, etc.

Ando aims to establish a tangible and abstracted whole considering the site related features and making the most of them. In parallel with the enlarging sites, the scales of project commissions of Ando have enlarged which enabled him to establish more concrete and perceivable relations with architecture and landscape. Whereas he dealt

[134]The initiatory route defined by concrete walls in Lee Ufan Museum designed by Tadao Ando. Retrieved from: http://www.japan-photo.de/e-mo-j01-24-lee-ufan-museum.htm

with the relation of pure geometric shapes and nature in his early years of practice, Ando had to establish a more complex relation with the pure geometric shapes not only with nature but also with other geometric forms together generating the whole. While he defines the interior functions with geometric blocks, Ando forms the exterior spaces and functions with the interrelation of these geometrical attempts. In other words, as he constructs the closed areas, Ando also constructs the open areas as artificial landscapes to support the spiritual integration of his buildings and nature with the physical integrative attempts.

Although the approach to nature of Ando seems to has changed dramatically over years, the essence of the approach is consistent. As evidence to this consistency, Ando has never abandoned the methods which he used in his earlier projects to integrate buildings with nature. Instead he adapted the methods to changing contexts and scales.

The consistency of Ando's approach to nature can be observed from the way he employs walls in his architectural vocabulary. In his early projects, Ando used walls to create self-enclosed domains in which he could establish a spiritual connection with nature through vertical light wells or courtyards. Then in larger scale commissions, he used walls as peripheral delineation to create intermediary spaces which he applied physical and spiritual references to connect with nature in between these walls and building blocks. He also employed these peripheral walls to screen the artificial domains of surrounding to purify the background views and to merge the earth with sky through elevating the ground towards the top edge of the wall which acts as the horizon. Another significant use of the walls in Ando's architectural practice is to define the initiatory routes through which he establishes the dominancy of nature over users and buildings. As mentioned above, he uses walls in varying methods. However, in all of them, there is a common essence which is establishing the integration of buildings and nature, that is to say architecture and landscape.

As exemplified through his walls, Ando uses his modernist architectural vocabulary skillfully to integrate architecture to landscape. In other words, he approaches

spiritually and spatially to landscape and architecture as the dialectical entities of a greater whole.

CHAPTER 4

TADAO ANDO'S DESIGN APPROACH: TOWARDS AN INTEGRATED FRAMEWORK BETWEEN ARCHITECTURE AND LANDSCAPE

This thesis analyzes the interplay between architecture and landscape through Tadao Ando's architecture as a new approach towards an integrated framework between these disciplines. Since Ando has a unique and exceptional approach originated from phenomenological roots, the corresponding background information about his approach is provided in order to contextualize his projects. Considering these ideological roots, Ando's projects will be further analyzed to concretize his specific approach.

4.1. Elements of Ando's Design Approach

In order to reveal the conceptual frameworks that Ando uses to integrate architecture and landscape either physically and spiritually, the architectural vocabulary and works of Ando can be dissected. In this regard, the works and approach of Ando will be categorized according to basic building materials and natural elements. With further explanations and exemplifications through subcategories, the concepts applied by Ando to integrate architecture and landscape either physical or spiritual will be revealed and proposed.

4.1.1. Materials

4.1.1.1. Concrete

> The concrete I employ does not have plastic rigidity or weight. Instead, it must be homogenous and light and must create surfaces. When they agree with my aesthetic image, walls become abstract, are negated, and approach the ultimate limit of space. Their actuality is lost, and only the space they enclose gives a sense of reality existing.[135]

In addition to technical reasons using exposed concrete as the basic building material in Ando's architectural design language, it also has ontological meanings. The most important of these meanings is that the concrete can be invisible and intangible in some way. He claims that using this material gives purity and serenity along with light, which seems essentially cold and monotonous. In fact, he thinks that as much as possible, walls, ceilings and floors, that is, all surfaces of the buildings should be made of concrete and should take place as a quiet background in human life.[136]

He considers the fact that the sun shining on concrete surfaces creates different shadows every hour and day of the year as a spiritual relationship between nature and the buildings. In other words, while meeting the functional needs of a dwelling, he aims to integrate the architecture and nature by making architecture abstract and transforming nature into a silent and invisible background.

[135]Op.cit. Tadao Ando. “From Self-Enclosed Architecture Towards Universality”, p.12 2
[136]Thomas Schielke. "When Sunlight Meets Tadao Ando’s Concrete" 18 Apr 2019. ArchDaily. Accessed 21 Aug 2019

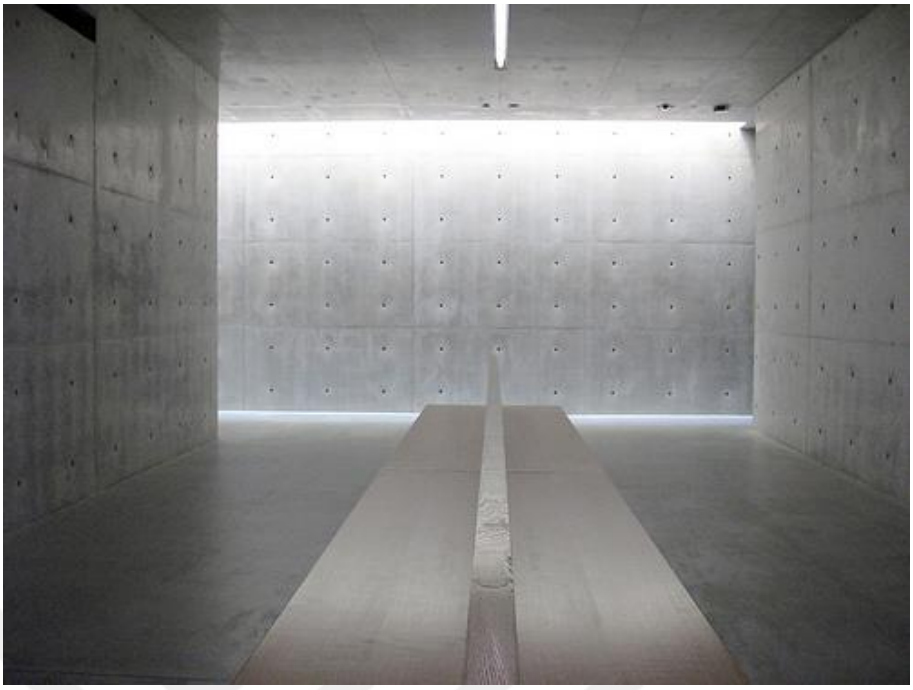


Fig.22 Chichu Art Museum designed by Tadao Ando[137]

Another reason of Ando's passion in using exposed concrete is its capability of being a universal material. By using exposed concrete, composed of cement, sand and stone, Ando thinks that he has the power of integrating nature and architecture in any context through subjecting pure geometrical architectural objects to light and shadow.[138]

Although Tadao Ando uses exposed concrete as a universal material in any context, the phenomenological reason of this choice embedded in the Japanese tradition. He relates the play of light on exposed concrete surfaces to *shoji* screens, or walls, which is a fundamental part of traditional Japanese architecture. Exposed concrete serves as the background for luminous effect of light reflecting nature in modern Japanese

[137] The interior view showing the abstracted concrete walls in Chichu Art Museum designed by Tadao Ando. Retrieved from: https://unpointculture.com/2016/02/16/larchitecture-comme-paysage-et-lieu-de-loeuvre-tadao-ando-au-chichu-art-museum-de-naoshima/

[138]Tadao Ando quoted in Paul Keskeys. "King of Concrete: Inside Tadao Ando's Self-Designed Architecture Studio", published online. Retrieved from: https://architizer.com/blog/practice/materials/in-his-element-tadao-ando/

architecture just as shoji screens did in traditional Japanese architecture. In other words, by using exposed concrete surfaces, he achieves to integrate architecture and nature in a phenomenological way.[139]

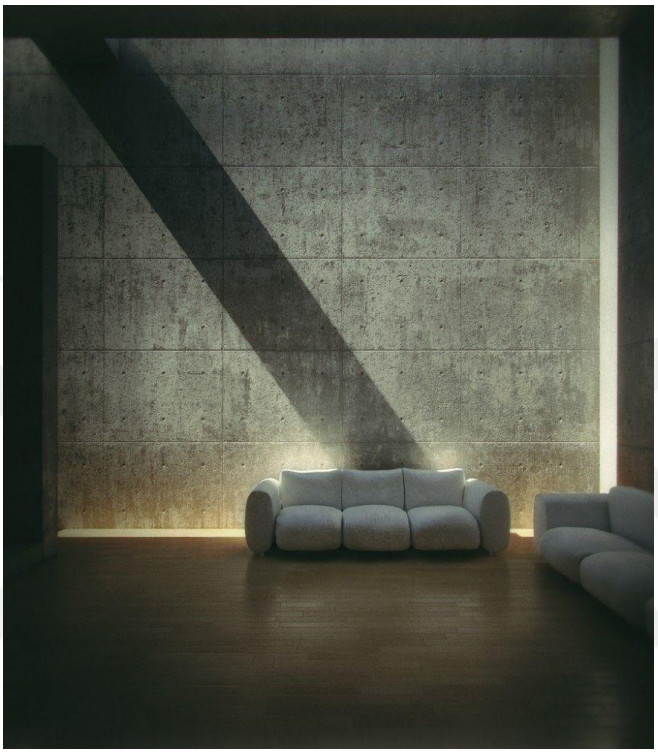


Fig.23 Koshino House designed by Tadao Ando[140]

4.1.1.2. Glass

Ando introduced glass into his early design language by acquiring walls from glass blocks, besides windows and small openings. The walls made of these glass blocks

[139]Op.cit. Yann Nussaume. p.65
[140]Reflections on exposed concrete in Koshino House. Retrieved from: https://www.archdaily.com/161522/ad-classics-koshino-house-tadao-ando/5107fc4eb3fc4b27200000c3-ad-classics-koshino-house-tadao-ando-photo

could allow the enclosure, privacy and light that Ando intended to achieve with the exposed reinforced concrete walls. In addition, he was able to obtain the *shoji* reference; which he tries to obtain by reflection of light on the exposed concrete walls, more easily on the glass block walls.

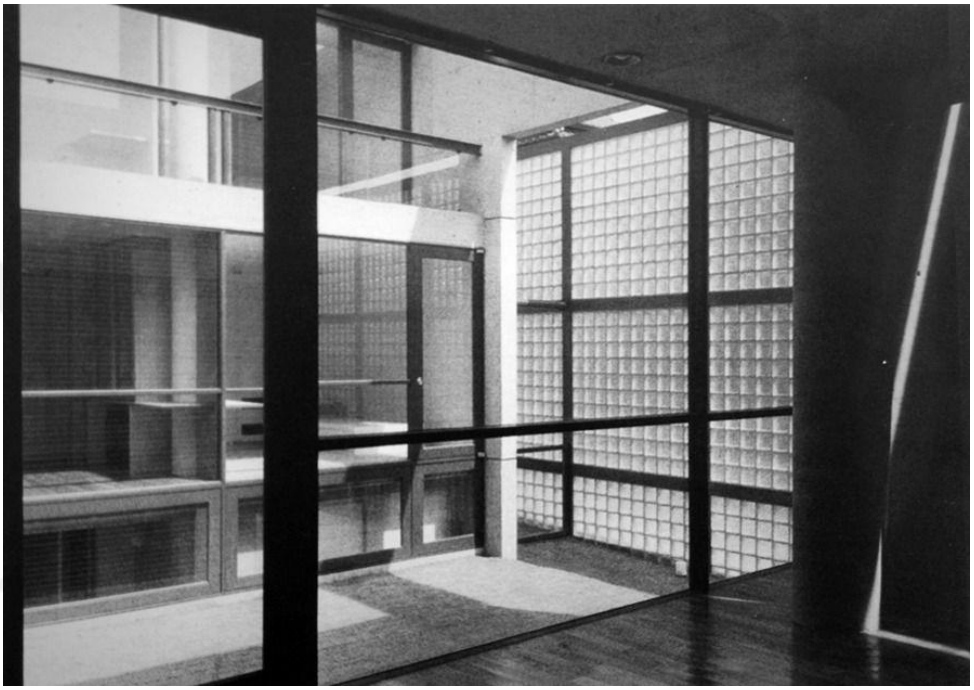


Fig.24 The Glass Block Wall House (Horiuchi House) designed by Tadao Ando[141]

As mentioned, Ando uses walls as enclosure to have purified and introverted spaces freed from the chaotic and unhealthy urban context of cities. In order to integrate nature to the buildings and daily life of the inhabitants, he employs courtyards enclosed with walls or rooms. By using glass blocks instead of reinforced concrete to enclose these exterior spaces, he not only obtains a private enclosed area, but also

[141]The Glass Block Wall House (Horiuchi House) designed by Tadao Ando. Retrieved from: https://ofhouses.tumblr.com/post/154410139227/378-tadao-ando-glass-block-wall-horiuchi

Ando blurs the surrounding built environment. Hence, he abstracts a beautiful bright outside world on the walls of his enclosed spaces.

Another form that Ando uses glass as the basic design element is the façade, which is generally made of large glass surfaces covering all the facades of the buildings. In these projects, while generally solving the main functions of the building in a concrete block, he constructs a second surface, made of glass, outside of this block and designs the space between them as a circulation area. These areas, which are referenced to the *engawa* phenomenon in traditional Japanese architecture, offer a feeling of circulation in nature thanks to the glass wall designed as a very permeable surface between indoor and outdoor.

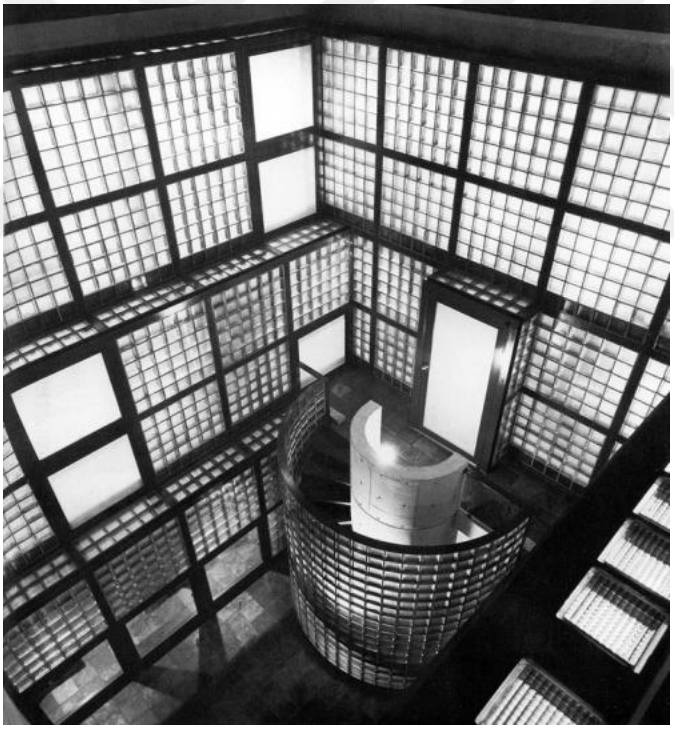


Fig.25 The Glass Block House (Ishihara House) designed by Tadao Ando[142]

[142]The Glass Block House (Ishihara House) designed by Tadao Ando. Retrieved from: https://ofhouses.tumblr.com/post/154276545244/377-tadao-ando-glass-block-house-ishihara

Another reason of his use of glass and concrete as double skins is the varying needs of light for the different functions of buildings. He covers the spaces which require limited amount of light with concrete, whereas exposing light demanding spaces to light between concrete and glass skins. By doing so, he not only ensures the functional and phenomenological requirements of buildings, but also, he makes visible the exposed concrete which is his signature material that his clients demand.



Fig.26 The Langen Foundation designed by Tadao Ando[143]

[143]The Langen Foundation designed by Tadao Ando. Retrieved from: https://www.archdaily.com/427695/happy-birthday-tadao-ando

4.1.2. Natural Elements

4.1.2.1. Light

Perhaps the most important natural factor of Ando's architectural phenomenology is light. This can be attributed to the fact that light is the only natural element in houses where Ando was born and raised. Similarly, in most of his early works, Ando used light as the key input of design because they were in similar contexts with the houses where he grew up. He considered the light as the only element that could integrate the building with nature in these contexts and approached the entire design accordingly. In early projects, light was integrated into his designs as vertical light wells placed in the middle of buildings providing connection with nature. As the scale of his projects grew, these vertical light wells transformed into courtyards. In some of his projects, Ando also integrated light into his buildings through walls made of glass blocks. Although Ando integrated light into his projects through different methods in varying contexts, the common approach in all buildings is that, light is the essence of life and the origin of being.

Ando considers light as the mediator between man and nature. He claims that the surrounding world is a light-based phenomenon which can be best apprehended through light. In other words, light converts abstract into tangible. Thus, he considers architecture as the background for this conversion. In other words, architecture serves light to become perceivable and to present its ever-changing character and capability. Hence, he employed exposed reinforced concrete surfaces for light mediating nature and man, landscape and architecture.[144]

[144]Tadao Ando. "Light", *Tadao Ando Complete Works*, edited by Francesco Dal Co, Phaidon Press, London, 1995, p.470

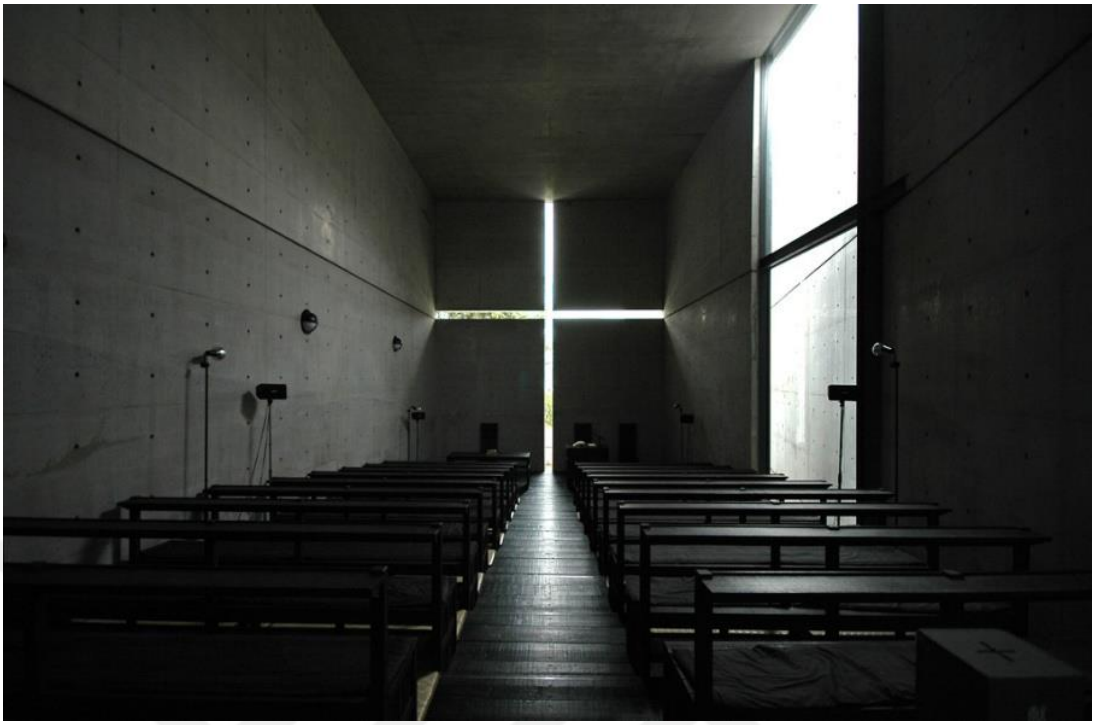


Fig.27 The Church of Light designed by Tadao Ando[145]

He approached light and darkness as the entities of an inseparable whole, since light can be perceived only because of the darkness. He states that darkness is needed for light to be perceived. The crucial point in this dualistic relationship is the amount of light and of darkness. He thinks that to sense the world both darkness and light are needed simultaneously.[146]

Ando uses this dualistic relationship of darkness and light in different ways to relate nature with architecture. The Church of Light is one of the most important buildings designed by Ando on which the impact of light can be perceived explicitly. He designed the project on dualities such as solid-void, light-dark and nature-existence. Purified from all the ornaments and symbolisms, he designed an unadorned religious

[145]The Church of Light designed by Tadao Ando. Retrieved from: https://www.archdaily.com/101260/ad-classics-church-of-the-light-tadao-ando
[146]Ibid. p471

space, emerged from these dualities, which provides spiritual and secular awareness to occupants.[147]



Fig.28 The Church of Light designed by Tadao Ando[148]

He designed a cross shaped opening on the altar wall of the ornament-free reinforced concrete box. This opening on the wall, let the light reflecting on the interior surfaces in different ways through the day and immaterialize the walls. The quality and the characteristics of concrete surfaces help light to define surreal and spiritual interior

[147]Andrew Kroll. "AD Classics: Church of the Light / Tadao Ando Architect & Associates" 06 Jan 2011. ArchDaily. Accessed 29 Aug 2019. <https://www.archdaily.com/101260/ad-classics-church-of-the-light-tadao-ando/> ISSN 0719-8884

[148] The Church of Light designed by Tadao Ando. Retrieved from: https://faithandform.com/feature/andos-cross/

space while the cross-shaped opening symbolizes infinity by extensive light perceived from interior.[149]

Koshino House is another important building which the approach of Ando's to light is very evident. Although placement of the blocks into the surrounding topography provides sunlight to all spaces, Ando deliberately designed the main openings as narrow and long slot cut into intersection of walls and roof plane. By doing so, he achieves to dematerialize the surfaces by reflecting and filtering the light through concrete surfaces. This attempt is more evident in the radial studio addition on northern part of the building in which he implemented the same method on a curved wall.

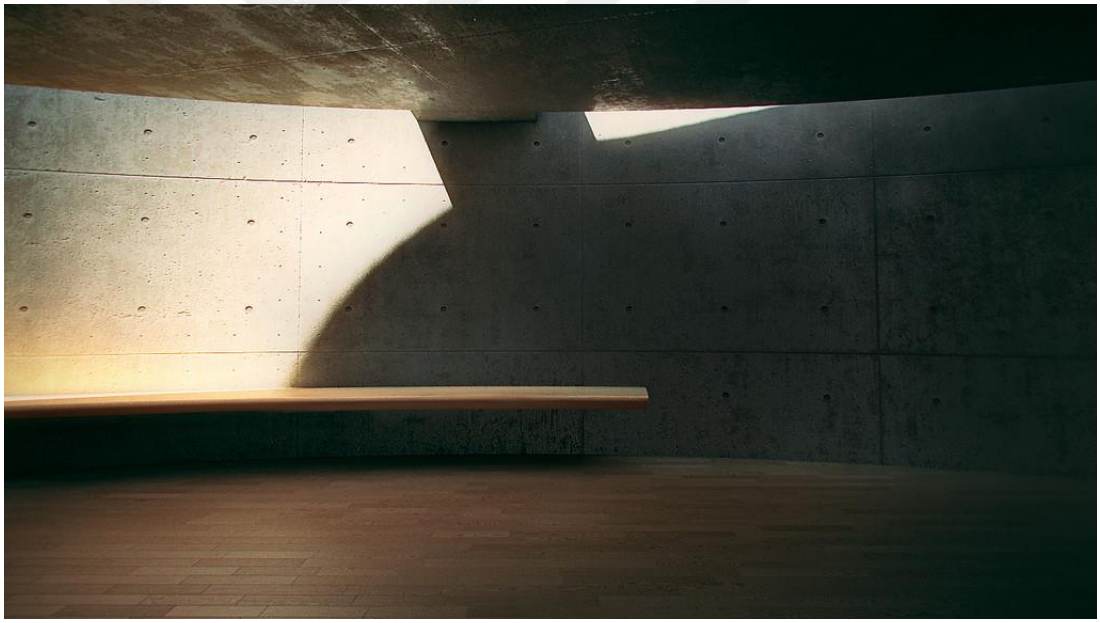


Fig.29 The Koshino House designed by Tadao Ando[150]

[149]Jale Nejdet Erzen. "Tadao Ando's Architecture in the Light of Japanese Aesthetics", *Journal of the Faculty of Architecture,* METU, Ankara, 2004, p.78

[150] The reflected light on a curved wall in Koshino House designed by Tadao Ando. Retrieved from: https://www.archdaily.com/161522/ad-classics-koshino-house-tadao-ando

Ando, not only aims to reflecting the light on to walls by narrow slots on the roof planes, but also, he diminishes the amount of light. He employed a row of narrow vertical slots on the walls facing the courtyard to arrange the amount of light to emphasize the characteristics of light.



Fig.30 The Koshino House designed by Tadao Ando[151]

[151] The vertical thin slots in Koshino House designed by Tadao Ando. Retrieved from: https://www.archdaily.com/161522/ad-classics-koshino-house-tadao-ando

4.1.2.2. Water

Tadao Ando was only able to use water as an architectural design element in late projects. It is because of the dense urban context in all of his early projects, the entire site had to be used for construction. Ando uses water to create natural landscape elements such as ponds and streams in some of its projects, but the most common and obvious use is very wide reflection pools. He thinks that the reflection of the buildings and the sky in the water reduces the visibility of the city in the background, which normally enters the eye level, creating the perception that the building is integrated with the sky and is alone in nature. Thus, it provides a spiritual connection between nature and building.

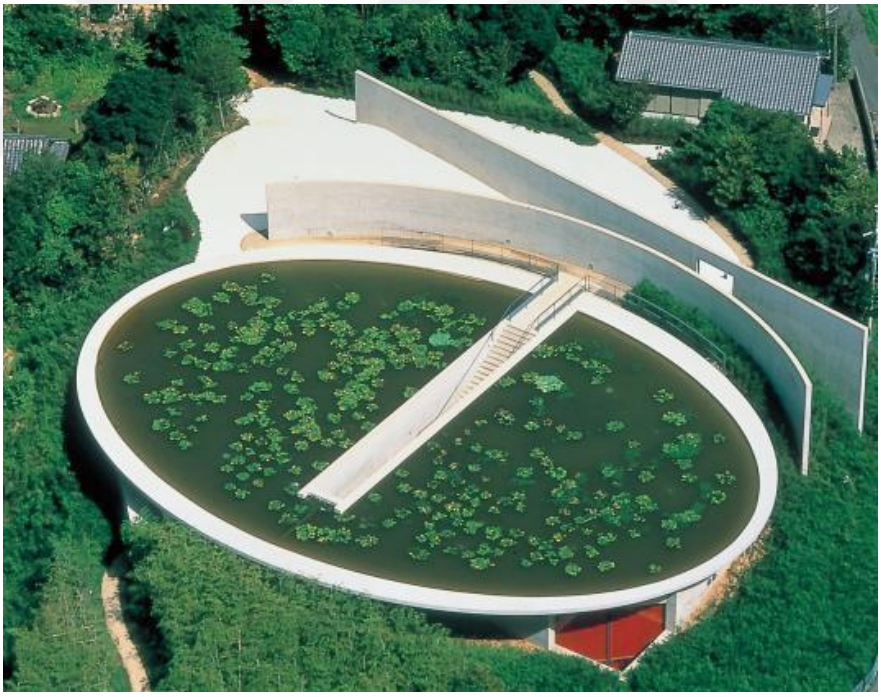


Fig.31 The Water Temple designed by Tadao Ando[152]

[152] The Water Temple designed by Tadao Ando. Retrieved from: https://abandoned-playgrounds.com/haloheliacwater-temple-by-tadao-ando/

One of the most well-known projects of Ando representing this design idea is the Water Temple. He designed a three staged approach to the temple. First, he deliberately cut the visitor's visual connection with surrounding by a concrete wall. Then he directs people to elliptical pond through a labyrinth-like path. The entrance of the temple is through a descending stair from the water and lotus-covered pond which reflects the sky and mountains. To sum up first he removes the visitors from daily, physical life and leads them to a spiritual world created by the water.[153]



Fig.32 The Water Temple designed by Tadao Ando[154]

Another reason of Ando using water to integrate architecture and landscape is its sound. Ando uses the sound of water to manipulate and alter the human perception of nature. For example, in a crowded and noisy context, he uses steep cascaded water

[153]Kenneth Frampton. "Tadao Ando", *Tadao Ando,* The Museum of Modern Art, New York, 1991, p.19

[154] The Water Temple designed by Tadao Ando. Retrieved from: https://abandoned-playgrounds.com/haloheliacwater-temple-by-tadao-ando/

feature to suppress the noise and integrate people's minds to nature through sound of water as the major natural element of the context. The other way around, he uses gently cascaded water in very silent contexts, to reveal the silence and tranquility by making hearable the almost mute sound of water. In both cases he uses water to establish spiritual connection of nature and man.[155]



Fig.33 The Church on the Water designed by Tadao Ando[156]

Similarly, Ando uses water to emphasize the topography of the site. He evokes the steep terrain with loud sound of waterfall and the gentle slope with a tranquil sound

[155]Op.cit. Yann Nussame. P
[156] The Church on the Water designed by Tadao Ando. Retrieved from: https://www.archdaily.com/97455/ad-classics-church-on-the-water-tadao-ando

of water even when the topography is not visible. Thus, one may be related to nature by thinking about topography unwittingly without seeing it.

The Church on the Water reflects the essence of the ideology of Ando about the integration of architecture and landscape. He employed both reflective and auditory features of water in the design process of the church. Composed of two overlapping cubes, the church is situated on a rural site which is gently steps down towards a river and surrounded by trees.



Fig.34 The Church on the Water designed by Tadao Ando[157]

[157] The Church on the Water designed by Tadao Ando. Retrieved from: https://www.archdaily.com/97455/ad-classics-church-on-the-water-tadao-ando

The main chapel area which is designed adjacent a cascaded pond towards the river, surrounded by reinforced concrete walls on three sides and one operable glass wall facing the pond as the altar wall. When the operable glass wall is opened, the steel cross in the pond, the surrounding trees, mountains and the reflection of all constitute a natural scene covering the whole altar wall. The reflective features of pond are accompanied by the sound of gentle cascades on the pond to make nature an inseparable part of the building.[158]

4.1.2.3. Topography

Since the sites of Ando's early projects are too small to have any topographic importance, topography is another natural element that has been included in Ando's architectural vocabulary in the following years of his architectural practice. It is the Rokko Housing project that can be accepted as a difficult encounter with the topography for the first time. The project he has designed on a 60-degree slope can be considered as a high-rise building being projected on this slope and fragmented. Each house is located in a way that does not cut the view of another person and leaves gaps between them. It aimed to make the natural topography of the land felt at every point of the project by functionalizing the spaces between them as open usage areas connected by stairs. In other words, it reconstructed the natural topography of the land with buildings embedded into forestry surrounding terrain.

Later in his career, he dealt with large areas to establish the relationship of buildings and topography by designing his projects completely or partially embedded in topography whenever possible. Thus, by lowering the eye level to below the ground, it allowed users to perceive only nature and the sky.

[158]Megan Sveiven. "AD Classics: Church on the Water / Tadao Ando Architect & Associates" 20 Dec 2010. ArchDaily. Accessed 29 Aug 2019. <https://www.archdaily.com/97455/ad-classics-church-on-the-water-tadao-ando/> ISSN 0719-8884

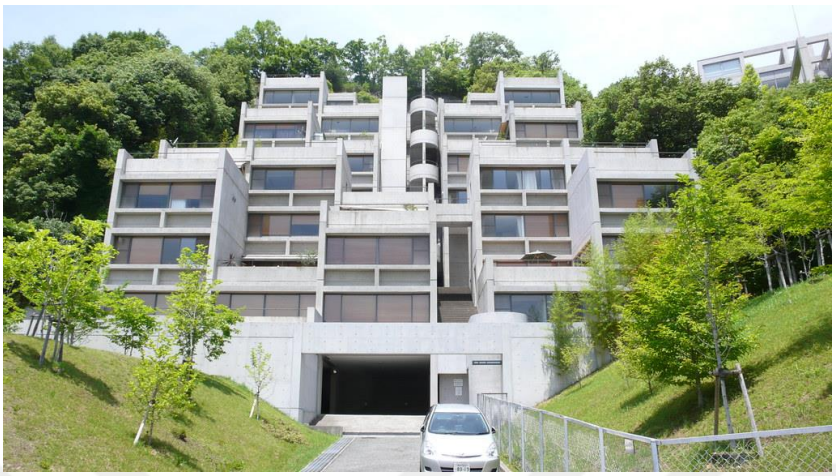


Fig.35 The Rokko Housing I designed by Tadao Ando[159]



Fig.36 Flower Garden of Awaji Yumebutai designed by Tadao Ando[160]

[159] The Rokko Housing I designed by Tadao Ando. Retrieved from: https://www.flickr.com/photos/isaiahj/2544258883

[160] Flower Garden of Awaji Yumebutai designed by Tadao Ando. Retrieved from: https://www.amusingplanet.com/2015/08/the-100-stepped-garden-of-awaji.html

A similar approach was applied to projects which have the middle or side courtyards. In some of these projects, he constructed an artificial topography rising towards the enclosing wall of courtyard which conceals the city behind and shows only the sky and distant mountains. Ando applied this idea of raising the ground to meet the building with sky into the Awaji Yumebutai Flower Garden project which is constructed as a memorial to people had died in a massive earthquake. He constructed an artificial landscape composed of flower beds representing people who had died and stairs which are perceived as rising to sky and to infinity.

4.1.2.4. Sky

Unlike most of the architects, Ando approaches integration of architecture and landscape as a phenomenological and spiritual relationship. In this respect, sky has been one of the most dominant natural factors of his phenomenological and professional understanding of the world through his personal and professional life. All of the approaches of his design vocabulary on the integration of architecture and landscape, which are classified as natural factors in this chapter are related with sky somehow.

For example, in his early projects, since the urban contexts of the sites were unhealthy and chaotic, the only factor he could use for integrating building to nature was the light which he obtained by opening his buildings to sky in the form of vertical light wells or courtyards. Then through following years of his professional practice, Ando started to use water mostly to reflect the sky. Similarly, he constructed artificial topographies to merge his buildings with the sky.



Fig.37 Hill of the Buddha designed by Tadao Ando[161]

Besides accompanying to other natural factors, Ando started to use sky in his late and large-scale projects as the dominant factor for integration his architecture with nature. In order to do that, he emphasizes the verticality in his projects by either a vertical construction or a void. This idea is most obvious at the Museum of Wood which is designed as a conical building with a central conical courtyard covered with water. When one is passing through the bridge at the courtyard, perceives only the sky from both above and below.

[161] Hill of the Buddha designed by Tadao Ando. Retrieved from: http://fxreflects.blogspot.com/2018/11/tadao-ando-and-franz-west-centre.html



Fig.38 Museum of Wood designed by Tadao Ando[162]



Fig.39 Benesse House Museum designed by Tadao Ando[163]

[162] Museum of Wood designed by Tadao Ando. Retrieved from: https://commons.wikimedia.org/wiki/File:Inside_of_The_Museum_for_wood_culture.JPG
[163] The Benesse House Museum designed by Tadao Ando. Retrieved from: http://archeyes.com/benesse-house-tadao-ando/

4.2. Proposing Conceptual Frameworks for the Integration of Architecture and Landscape

As an outcome of this thesis, a set of conceptual frameworks for the integration of architecture and landscape will be proposed. These conceptual frameworks which are derived from the design practice and phenomenology of Tadao Ando, can be applied to integrate architecture and landscape when applicable. Although they are originated from the regional and cultural attributions of Ando, they can be considered universally since he has harmonized them with universal modernist vocabulary and phenomenology.

4.2.1. Visual Manipulation

In order to integrate his buildings with landscape, Tadao Ando aims to unite the users with nature through *shintai* space concept. Since he accepts man and nature as dialectical complementary entities of physical and spiritual space, Ando manipulates users' visual sense through architecture in order to make nature perceivable either by abstracting or by blocking undesired built environment.

In this regard Ando manipulates the visual aspects of concrete, which is a universal material, as the basic building material in any context harmonizing with his own phenomenological and spiritual approach to integrate his buildings with landscape and nature. Assigning phenomenological meanings to light reflected exposed concrete surfaces; he aims to make the light as a natural phenomenon perceivable. In other words, he abstracts his buildings by using concrete and exposing them to light in order to reveal the presence and dominancy of nature. Because, human eye perceives the

movement of light and shadow on the homogenous concrete surface, instead of the surface itself. Hence his buildings become backgrounds for nature to be perceived.

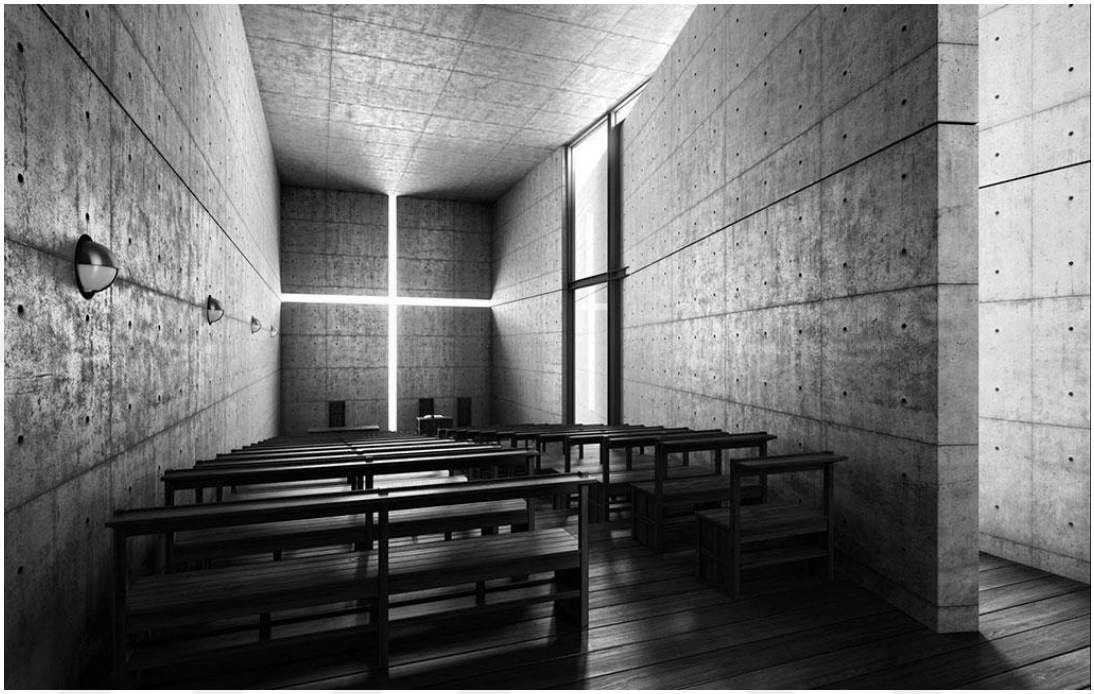


Fig.40 The Church of Light designed by Tadao Ando[164]

As mentioned, Ando creates enclosed introverted domains in chaotic urban contexts. In these attempts, he also uses glass blocks as enclosure walls to provide privacy and blur the undesired physical environment besides blind screening the built environment with solid walls. Hence, he ensures purified controlled natural spaces protected from the unhealthy urban conditions.

In his later commissions, as the scales of the projects grow, he designed walls in a different way, but with the same approach to nature. He used free standing walls to isolate people from surrounding context and connect minds with the building and

[164]The Church of Light designed by Tadao Ando. Retrieved from: https://www.archdaily.com/101260/ad-classics-church-of-the-light-tadao-ando

specific context. For example, in the projects such as Water Temple and Lee Ufan Museum, he screened the undesirable background built environment with high and long concrete walls creating a movement like labyrinth. By doing so, he creates a specific, purified and natural context for the buildings. People perceive only the building and nature as indispensable parts of a total. He not only applies these approaches to screen undesired built environment, but also control or stress the vistas and background views. In other words, he arranges the enclosure to design and control beyond his buildings.

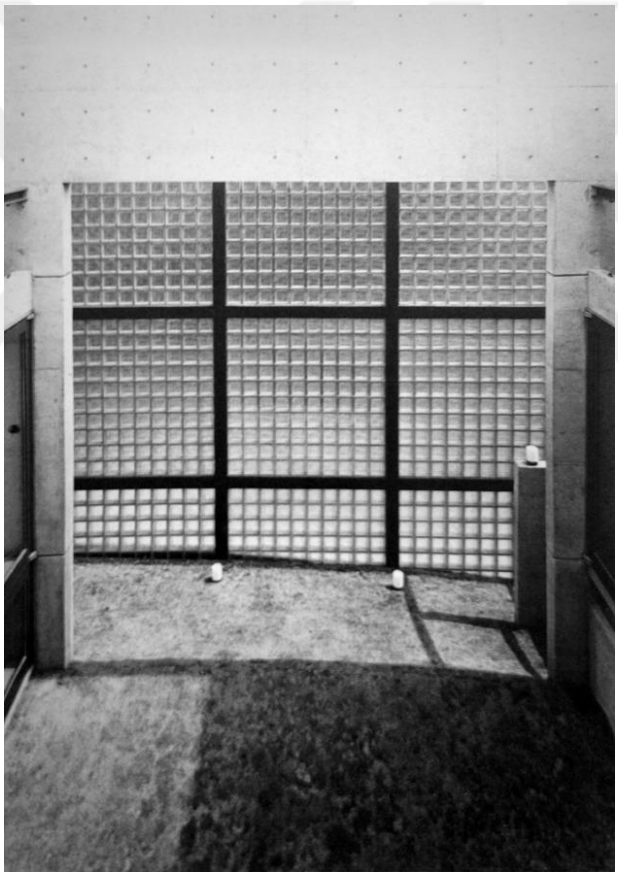


Fig.41 The Glass Block Wall House (Horiuchi House) designed by Tadao Ando[165]

[165]The Glass Block Wall House (Horiuchi House) designed by Tadao Ando. Retrieved from: https://ofhouses.tumblr.com/post/154410139227/378-tadao-ando-glass-block-wall-horiuchi



Fig.42 The Water Temple designed by Tadao Ando[166]



Fig.43 The Langen Foundation designed by Tadao Ando[167]

[166] The Water Temple designed by Tadao Ando. Retrieved from: https://tracygan.files.wordpress.com/2010/04/pro_8694.jpg
[167]The Langen Foundation designed by Tadao Ando. Retrieved from: https://www.archdaily.com/427695/happy-birthday-tadao-ando

For a similar purpose, Ando uses water as large reflective surfaces to diminish visibility of the background physical environment on the reflection from the eye level and to integrate the reflection of building with the reflection of sky. Hence, he purposes to integrate visually his buildings with landscape spiritually and physically.

To sum up, by employing walls, courtyards, reflective water surfaces and artificial topographies, he transforms the edges of the buildings into the horizon lines perceived by the occupants. In other words, with some architectural manipulations he screens the surrounding built environment and make the sky or background views visible. Hence, he diminishes the obstacles between nature and human perception in his buildings.

4.2.2. Stressing a Natural Phenomenon

Ando considers the integration of architecture and landscape not only visual but through all other senses. In this regard, besides visual and physical integration, he also establishes a spiritual integration by stressing the presence of a natural phenomenon. For this purpose, he employs architecture as a medium in which natural phenomenon such as light, water, wind and topography can be perceived. Thus, the occupants see or feel the dominancy of a natural phenomenon through the building. In other words, he establishes an intangible integration between architecture and landscape by making the natural phenomenon an inseparable part of the experience of users in his buildings.

Since Ando accepts light as the essence of life and the origin of being, he approaches it as the mediator between man and nature. For this reason, he tries to concretize the light and nature through architecture by establishing the balance between light and shadows. In order to achieve that, he designs small openings on concrete surfaces to point the light into the space. Hence, he obtains surfaces more illuminated than the other surfaces which make possible to perceive light. Thus, according to his own

phenomenology and perception of nature, he integrates architecture and landscape by concretizing the light as a natural phenomenon through architecture.

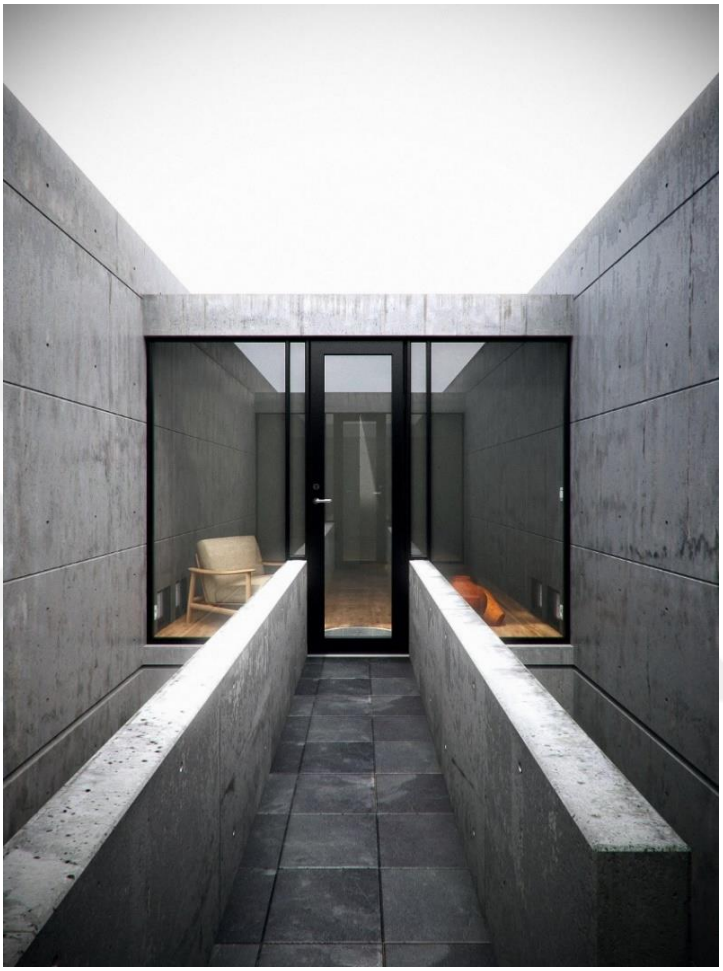


Fig.44 Azuma House designed by Tadao Ando[168]

In order to stress a natural phenomenon, he deliberately exposes users to pure nature by architecture. For example, in some of his projects, he designs courtyards as the main circulation areas for houses for making nature an integral and inevitable part of

[168] Azuma House designed by Tadao Ando. Retrieved from: http://canilive12.blogspot.com/2012/10/archdetails-tadao-ando.html

people's daily lives. He displayed this idea in the Azuma House located in a dense context of Osaka row houses. He designed the house as three parts, two of which blocks consisting rooms and in between a courtyard. Tadao Ando made the occupants deliberately pass the courtyard in order to circulate in the house no matter what the season is. He aimed to occupants directly perceive the constantly changing nature. He expresses that architecture becomes a milieu connecting man and nature by perception of ever-changing natural features such as sunlight, wind, rain.



Fig.45 An aerial axonometric drawing of Church on the Water designed by Tadao Ando[169]

[169] The Church of Light designed by Tadao Ando. Retrieved from: https://www.archdaily.com/101260/ad-classics-church-of-the-light-tadao-ando

Ando attributes a great importance to movement to perceive an object or the physical environment. He claims that the spatial characteristics of a place can only be observed by multiple directions of visions, not by a single direction of vision. This is the movement that makes multiplicity of varying viewpoints made possible.

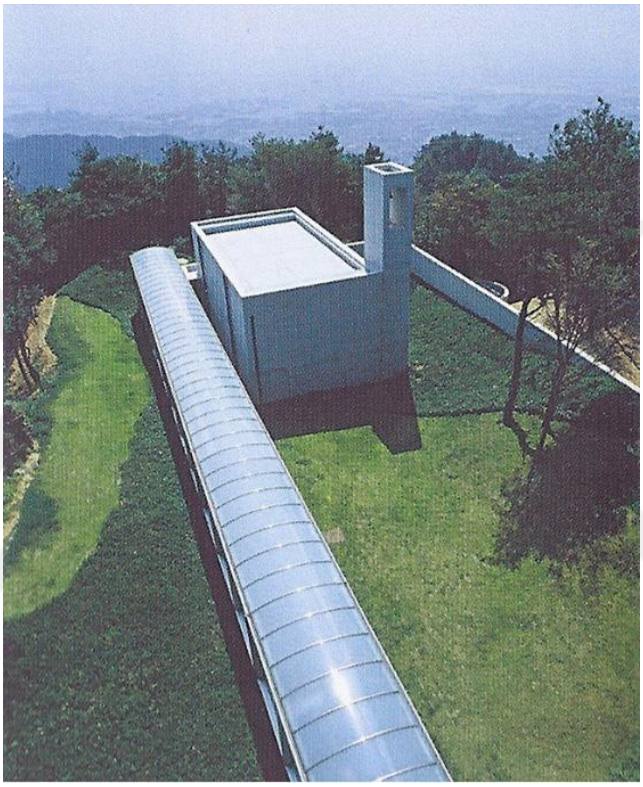


Fig.46 Chapel on Mount Rokko designed by Tadao Ando[170]

Ando, in his early projects, was attributing various meanings to the movement, similar to what Le Corbusier called the promenade in his architecture. At first, these circulatory routes passing through courtyards in the middle of the buildings became a means of establishing a relationship with nature by exposing occupants to exterior. As the scale of the projects grew, the role of these routes in Ando's architecture has

[170] Copied by the researcher from Yann Nussaume. *Tadao Ando,* Birkhauser, Basel, 2009, p.126

changed to become initiatory routes besides than internal circulation. Usually in religious buildings or buildings related to art, Ando provides indirect entrances to the buildings with these initiatory routes. By extending these routes as much as possible, it aimed to strengthen the experience of the building by isolating people from their daily lives by exposing them to various natural factors such as water, wind, light and reflection. In other words, it aims to connect their buildings philosophically and spiritually to nature by exposing people to pure nature and natural factors for a while.



Fig.47 The Church on the Water designed by Tadao Ando[171]

Beside physical manipulation through architecture; Ando uses the auditory features of water to manipulate the human perception to stress the presence of natural phenomenon. He employs water in noisy and chaotic contexts in forms of steep cascades to surpass the unnatural sound and make the sound of water as a natural phenomenon dominant. From the other way around, he also uses the sound of water

[171] The cascades of Church on the Water designed by Tadao Ando. Retrieved from: https://www.archdaily.com/97455/ad-classics-church-on-the-water-tadao-ando

to stress the silence of pure nature by using water in forms of gentle cascades. In a similar approach, he uses the sound of water by cascading to emphasize the characteristics of specific topography when it is not visible to connect minds to the nature. With a loud gurgle, users sense the steepness of the terrain while they sense gentle slope with a tranquil water sound. By doing so, he connects users' minds with nature while experiencing the building. In other words, he integrates architecture and landscape spiritually through experiences and senses.

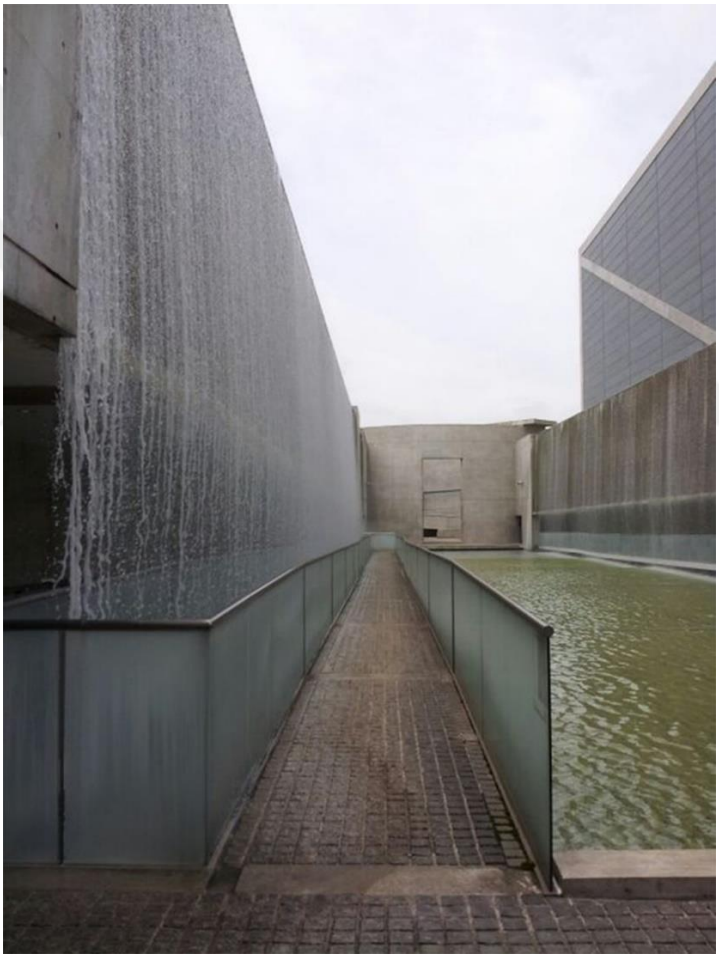


Fig.48 Sayamaike Historical Museum designed by Tadao Ando[172]

[172] Sayamaike Historical Museum designed by Tadao Ando. Retrieved from: https://arcspace.com/feature/sayamaike-historical-museum/

4.2.3. Manipulating the Topography

Topography is one of the essential natural elements for the integration of architecture and landscape physically. In a parallel manner, Ando utilizes topography for the integration of architecture and landscape in suitable contexts. However, he differentiates from other attempts by assigning phenomenological and spiritual attributions besides physical.



Fig.49 Hill of the Buddha designed by Tadao Ando[173]

Ando approaches topography as an integral part and as a main component of the design process. Thus, he regenerates the terrain and landscape through his buildings in sloping lands. In other words, he constructs artificial terrains with building blocks.

[173] Hill of the Buddha designed by Tadao Ando. Retrieved from: http://fxreflects.blogspot.com/2018/11/tadao-ando-and-franz-west-centre.html

By doing so; while he integrates architecture and landscape physically, he converts these new landscapes or buildings to inseparable units in function and in human perception to be perceived as a whole.



Fig.50 The Chichu Art Museum designed by Tadao Ando[174]

In order to integrate architecture and landscape spiritually and physically; Ando also utilizes topography to screen surrounding undesirable built environment to propose purified exterior spaces or views. Hence, when necessary he buries the buildings into the ground partially in order to lower the participants' eye level so as to make only the desired views or the sky visible. For the same purpose, he constructs artificial sloping

[174] The Chichu Art Museum designed by Tadao Ando. Retrieved from: https://www.wmot.org/post/how-art-transformed-remote-japanese-island#stream/0

topographies instead of burying the building into ground and defines the horizon line with architecture. In other words, he raises the ground towards the edge of the building to merge with sky or the background forests and mountains.



Fig.51 Kidosaki House designed by Tadao Ando[175]

4.2.4. Creating Introverted Domains

The discussions on integration of architecture and landscape are generally related with boundaries and walls. Most of the practitioners aim to design buildings which have physically and visually permeable boundaries as well as possible in order to establish the integration of building and nature. Furthermore, with the advances in technology of glass and climatization, modern architecture has nearly demolished the boundaries.

[175] Kidosaki House designed by Tadao Ando. Retrieved from: http://www.graphics.cornell.edu/online/arch/bigas/

However, as a strict modernist, Tadao Ando has a completely opposite approach about the boundaries and walls.



Fig.52 Tomishima House designed by Tadao Ando[176]

In the early years of his professional practice, Tadao Ando had commissioned with projects mostly located in dense urban chaotic urban fabric. In these contexts, Ando attributed physical and spatial functions and meanings to walls so as to create introverted domains consisting purified exterior spaces through which he establishes direct relation with nature and natural phenomenon to integrate man and nature or architecture and landscape. In his very first project, The Tomishima House, this idea of enclosed introverted approach was so dominant that, he started to known as the

[176]Tomishima House designed by Tadao Ando in 1973. Retrieved from: https://brainandmouth.com/top-10-most-famous-works-of-tadao-ando-architects/

Guerilla Architect due to his critical and anarchical approach. In this Guerilla Style he used walls to defeat walls of urban surrounding which he thinks demolish the connection between architecture and landscape.



Fig.53 Azuma House designed by Tadao Ando[177]

In order to establish introverted domains, Ando mostly generates courtyards defined by building blocks or free-standing walls. These courtyards, which evolved from the vertical light wells in the early period projects, located in the middle or periphery of the buildings as the projects grew in scale. The function of the courtyards is to separate the users from the built urban environment and leave them with a controlled, designed and isolated natural environment.

[177] A Longitudinal Section of Azuma House. Retrieved from: https://en.wikiarquitectura.com/building/azuma-house-row-house/



Fig.54 Azuma House designed by Tadao Ando[178]

One of the early projects of Ando, the Azuma House, reflects this introverted approach with its territorial articulation. He deliberately designed blind walls on all sides of the site for boxing the house against the inconvenient urban context. The only opening on the peripheral walls is the entrance door facing the street. Hence, by cutting the physical connection with the urban surrounding, he guaranteed to establish a purified natural space in the house.

[178] Azuma House designed by Tadao Ando. Retrieved from: http://courtyard-house.blogspot.com/2010/06/azuma-house-by-tadao-ando.html

4.2.5. Creating Intermediary Spaces

Ando has built his physical and spiritual understanding of space with reference to Japanese culture and tradition. In this respect; *engawa*[179] has a great impact in his architectural vocabulary. He reinterprets the *engawa* in his projects to integrate architecture and landscape by diminishing the boundaries between them physically and spiritually. In this regard, he approaches buildings as constitutions of both interior and exterior spaces which should be apprehended together.



Fig.55 The Langen Foundation designed by Tadao Ando[180]

[179] *Engawa* is an architectural element in traditional Japanese architecture. It is an intermediary semi-open space surrounding the house to mediate the interior and exterior spaces.
[180]The Langen Foundation designed by Tadao Ando. Retrieved from: https://www.archdaily.com/427695/happy-birthday-tadao-ando

Ando's architecture represents the modesty of traditional Japanese architecture. Although his modesty is more perceivable in his phenomenology, Ando shows his modesty in his practice by employing simple geometric shapes. He approaches to design problems unpretentiously by using simple geometries besides considering site related features such as topography, light, wind and material. Hence in nearly all of his projects, Ando tries to establish a connection with the specific site with cubes, prisms, linear and curvilinear built forms.



Fig.56 A sketch of site plan of Awaji Yumebutai Complex designed by Tadao Ando[181]

[181] Copied by the researcher from Yann Nussaume. *Tadao Ando,* Birkhauser, Basel, 2009, p.84

Ando's difference in using simple geometry is his capability of integrating these forms to nature. He first defines the closed spaces as simple geometrical shapes, then he deals with their composition in order to create a meaningful whole by considering topography, light and site related features. In this point what is crucial is that, he cares not only the solids, but also voids created by the composition of geometrical shapes. Through these voids he establishes the union between architecture and landscape. In other words, he designs exterior spaces as in the form of interior spaces. Furthermore, he approaches architecture and landscape equally and design both of them in one attempt. Hence, they become inseparable parts of each other both phenomenologically and physically.

From the early to mid-period of his architectural practice, he has established this connection by enclosing the whole site with walls and placing interior spaces as in the forms of simple geometrical shapes. Thus, he achieved to have private, pure and natural exterior spaces which serve as circulation areas.

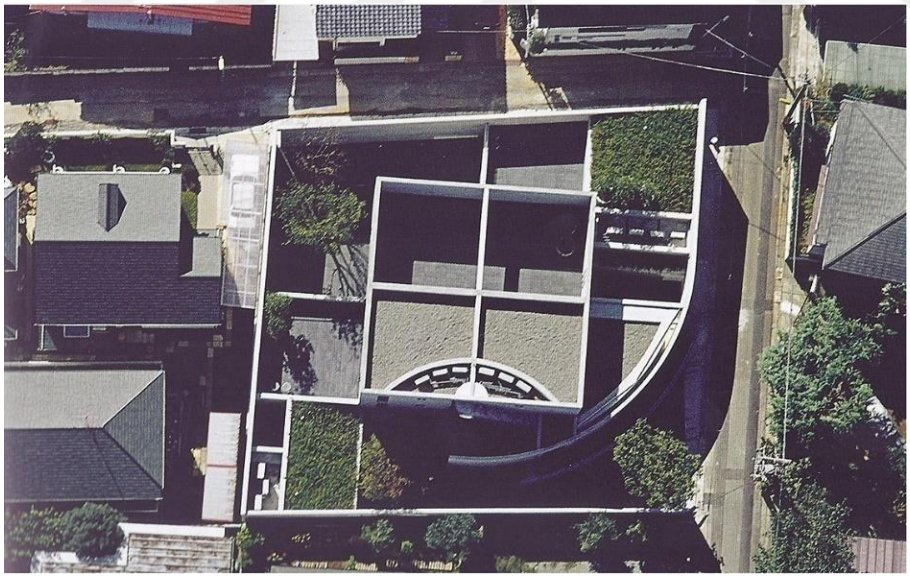


Fig.57 Kidosaki House designed by Tadao Ando[182]

[182] Copied by the researcher from Yann Nussaume. *Tadao Ando*, Birkhauser, Basel, 2009, p.43

Ando's ability of using geometry to define spaces is strongly evident in the Kidosaki House. He designed the house for three families, a couple and their both parents. What is important in this project is the arrangement of private and common spaces of three different families with one simple cube 12 meters per side and its respective open areas in between the cube and the peripheral walls.



Fig.58 The Langen Foundation designed by Tadao Ando[183]

In addition to assemble geometric blocks so as to create in between spaces, Ando also employs glass in his architectural vocabulary as large glass planes to create

[183]The Langen Foundation designed by Tadao Ando. Retrieved from: https://www.archdaily.com/427695/happy-birthday-tadao-ando

intermediary spaces in reference with *engawa* by wrapping concrete boxes. In these in-between areas he purposes to externalize the interior spaces and vice-versa by demolishing the visual spectacles.



Fig.59 The Langen Foundation designed by Tadao Ando[184]

[184]The Langen Foundation designed by Tadao Ando. Retrieved from: https://www.archdaily.com/427695/happy-birthday-tadao-ando

CHAPTER 5

CONCLUSION

This study aimed to propose new conceptual frameworks for the discussions about the integration of architecture and landscape which are mostly accepted as reciprocal entities for over a century. These proposed conceptual frameworks are derived from the phenomenology and practice of Japanese architect, Tadao Ando who differs from any other practitioners with respect to his abstract and spiritual approach to relation of architecture and landscape.

In order to propose alternative conceptual frameworks to discuss, first the longstanding disciplinary division of architecture and landscape discussed deeply. The division of these cognate disciplines traced back to wilderness concept which had shaped the design thinking and practice in early 20th century and ended up with the emergence of landscape architecture as a new discipline.

The emergence of this new discipline overlapped with the emergence of Modernism as a new movement which has affected whole ideology and practice of design related disciplines dramatically. Hence as a newly emergent discipline, which had not concretized its own ideology and practice yet, landscape architecture had difficulty to keep up with the breakthroughs and innovations. Hence it was overshadowed by other disciplines of the design field, especially by architecture. It eventually became a mute background for brand new designs of modern architecture. It was evaluated as in the service of architecture.

This disciplinary division resulted with not only landscape became the sister discipline of architecture, but also isolated buildings from their site, context and each other. Therefore, most of the critics agreed with the idea that an integrated practice of architecture and landscape must be developed in order to heal the urban environment.

Although some practitioners and theoreticians developed alternative design approaches and attempts to integrate architecture and landscape architecture, they were all short-lived.

Meanwhile at the other side of the relation, architecture was booming with the technological and ideological innovations. Although these innovations in ideology and technology gave the opportunity to develop an integrated practice of architecture and landscape, the outcome of this period fostered the division between these disciplines. As accepted as the leading discipline in the design field, architecture pointed as the chief responsible for this division. Although Le Corbusier, as the leading figure of modernism in architecture, blamed for enhancing the division in general, this study referred to style-based paradigm set by the International Style as the responsible. This style-based approach led the architecture standardization, homogenization and universalization by insisting on stylistic formal tropes of modern architecture regardless of the context.

Eluded from these formal tropes imposed by the style-based paradigm, some architects such as Frank Lloyd Wright, integrated architecture and landscape physically through reconciliation modernist approach and contexts. Although these attempts were very successful and important for the built environment, they overshadowed by the popularity of stylistic modernist architecture led by the International Style. Hence both in modernism and following periods, practitioners and theoreticians have continued to search for an inclusionary approach which would integrate architecture and landscape. Besides there have been worth-mentioning attempts through this pursuit, Tadao Ando is distinguished for his phenomenological and spiritual approach.

Tadao Ando is accepted as a strict modernist whose ideological values are rooted in Japanese tradition and history anomalously. It is his ideological values which distinguish Ando from other modernist practitioners. Since Japanese tradition cares nature ultimately, he approaches modern architecture critically and tries to design buildings in harmony with the nature. Due to his extensive tendency towards

traditional, regional and historical features of a site; Ando is mostly accepted as a critical regionalist. However, this study asserted that critical regionalism is not a proper term to define Ando's approach since he applies his Japanese based ideological values in every project regardless of the region, culture and tradition. He believes that there is a set of spiritual values universal for all regions and traditions. Thus, by applying these values, Ando claims that any design attempt can be both universal and regional at the same time.

In order to understand and investigate Tadao Ando's unique design approach on relation of architecture and landscape, this study contextualized him by analyzing his personal and professional life deeply. Firstly, the Japanese social and architectural context of the years Ando started to practice was revealed in order to relate his critical approach to social and spatial features of Japanese cities.

This contextual analysis is very critical and crucial since the conditions of Japanese society and cities affected Ando's ideology directly. The worker neighborhood which was consisted of narrow row houses full of many skilled artisans had a direct influence on his approach to both nature and construction as a self-educated architect. In other words, he developed his ideas on nature and architecture with the experiences in the neighborhood where he spent his childhood and trips around the Japanese cities and abroad.

The effect of his critical approach to Japanese cities can easily be observed by his early practices mostly located in dense urban fabric similar to his childhood neighborhood. Since he thinks the unhealthy context of Japanese cities, he developed and introverted enclosed domains as early projects. Through the buildings he designed with this introverted style, which he names as 'Guerilla Style', he became a well-known reformist architect. With the approval of architectural society on his style, he continued to design enclosed domains.

He enlarged his architectural scope by the end of 1970s due to his fast-growing reputation. He had larger scale commissions where he had to establish an approach to

handle the sites. Through over a decade he had many opportunities to produce projects in varying contexts and scales and writings about them and his architectural ideology. By each new confrontation with a new context and problem he enriched and supported his architectural vocabulary in order to establish a connection with nature. He inserted different materials and natural elements to his modernist architectural vocabulary in reference to Japanese tradition and culture.

With regard to these ideological roots and professional experiences Tadao Ando established a unique approach harmonizing the modernist architectural vocabulary and Japanese natural phenomenology. Through his reputation gained by this uniqueness, Ando has produced remarkable projects in different regions, functions, scales and contexts all of which are full of formal and abstract meanings related with the nature and spiritually. This unique approach of Ando to architecture and landscape is very critical for this study which seeks conceptual frameworks that question the false dichotomy between architecture and landscape.

In order to reveal the phenomenological and architectural design approaches of Ando, his projects were analyzed through materials and natural elements and phenomenological attributions on them. In the light of background information about his phenomenology and dissected projects, five conceptual frameworks that can be utilized to integrate architecture and landscape were proposed as the outcome of these analyses.

These proposed conceptual frameworks and design approaches namely; visual manipulation, stressing a natural phenomenon, manipulating the topography, creating introverted domains and creating intermediary spaces, for an integrated practice of architecture and landscape through analyzing Tadao Ando's design philosophy and practice.

All of these conceptual frameworks were proposed as alternative design approaches to integrate architecture and landscape. As exemplified with the illustration of Balmori as the introductory part; theorists and practitioners have been discussing and

questioning the relation between architecture and landscape physically. On the other hand, these five conceptual frameworks are differentiated by proposing abstract and spiritual approaches as well as physical.

As architecture and landscape have been segregated in theory and professional practice since late 19th century, the built environment has become conglomerates of isolated buildings from nature and each other which ended up with chaotic urban contexts. Although there are varying integrative design approaches that have been developed by discussing the relation between architecture and landscape, most of them question only the physical integration which is hard to establish in these contemporary chaotic urban contexts. Thus, these five conceptual frameworks harmonizing tangible and intangible approaches can be utilized as alternative design approaches in order to integrate architecture and landscape in any context. Although these conceptual frameworks are originated from Japanese tradition; they can be utilized universally since Tadao Ando, as a strict modernist, has harmonized them with the universal values of modernism through his unique phenomenology.

REFERENCES

- Ando, Tadao. “Ando by Ando”, *Tadao Ando:Houses and Hosing 1,* Toto, Tokyo, 2007
- Ando, Tadao. “A Wedge in Circumstances”, *The Japan Architect,* 1977
- Ando, Tadao. “Conforming to the Environment”, *The Japan Architect 254*, 1997
- Ando, Tadao. “Facing up to the Crisis in Architecture”, *Tadao Ando Complete Works,* edited by Francesco Dal Co, Phaidon Press, London, 1995
- Ando, Tadao. “From Self-Enclosed Modern Architecture Towards Universality”, *Tadao Ando Complete Works,* edited by Francesco Dal Co, Phaidon Press, London, 1995
- Ando, Tadao. “Light”, *Tadao Ando Complete Works,* edited by Francesco Dal Co, Phaidon Press, London, 1995
- Ando, Tadao. “Place-Geometry-Nature,” *Tadao Ando 1982-1989,* Kashima Institute Publishing, Tokyo, 1989
- Ando, Tadao. “Shintai and Space”, *Tadao Ando Complete Works,* edited by Francesco Dal Co, Phaidon Press, London, 1995
- Ando, Tadao. “The Wall as Territorial Delineation”, The Japan Architect, 1978
- Ando, Tadao. “The Emotionally Made Architectural Spaces of Tadao Ando”, *The Japan Architect 276,* 1980
- Auping, Micheal. *Seven Interview with Tadao Ando,* Modern Art Museum of Fort Worth, Fort Worth, 2003
- Balmori, Diana. “Across the Divide: Between Nature and Culture”, *Groundwork: Between Landscape and Architecture,* edited by Joel Sanders, Diana Balmori, The Monacelli Press, New York, 2011

- Balmori, D., Sanders, J. “Preface”, *Groundwork: Between Landscape and Architecture*, The Monacelli Press, New York, 2011
- Billy, David J. The Integral Building – Landscape Developing a Language of Integration, Master Thesis, The University of British Colombia, Vancouver, Canada, 2001
- Bergdoll, Barry. “From International to Territory: The Project of an Atlas”, *Le Corbusier an Atlas of Modern Landscapes*, MOMA, New York, 2013
- Cohen, Jean-Louis. “In the Cause of Landscape”, *Le Corbusier an Atlas of Modern Landscapes*, MOMA, New York, 2013
- Colomina, Beatriz. *Sexuality & Space*, Princeton Architectural Press, New York, 1992
- Eckbo, Garrett. “Architecture”, *The Landscape We See*, McGraw-Hill, New York, 1969
- Eckbo, Garrett. “Is Landscape Architecture?”, *Is Landscape: Essays on the Identity of Landscape*, ed. Gareth Doherty, Charles Waldheim, Routledge, New York, 2016
- Eckbo, Garrett. *Landscape for Living*, Dodge, New York, 1950
- Erzen, Jale N. “Tadao Ando’s Architecture in the Light of Japanese Aesthetics”, *Journal of the Faculty of Architecture*, METU, Ankara, 2004
- Frampton, Kenneth. “Tadao Ando’s Critical Modernism”, Tadao *Ando: Buildings, Projects, Writings*, Rizzoli International Publications, New York, 1984
- Frampton, Kenneth. “Tadao Ando”, *Tadao Ando*, The Museum of Modern Art, New York, 1991
- Frampton, Kenneth. “Towards a Critical Regionalism: Six Points for an Architecture of Resistance”, *The Anti-Aesthetic: Essays on Postmodern Culture*, edited by Hal Foster, Bay Press, Seattle, 1983
- Goldhagen, Sarah W. “Something to Talk About: Modernism, Discourse, Style”, *JSAH*, vol.64, no.2, 2005

- Hitchcock, Henry R. *Contemporary Landscape Architecture and Its Sources (exhibition catalog)*, San Francisco Museum of Art, San Francisco, 1937
- Leatherbarrow, David. *Topographical Stories, Studies in Landscape and Architecture*, University of Pennsylvania Press, Pennsylvania, 2004
- Meyer, Elizabeth. "Site Citations: The Grounds of Modern Landscape Architecture", *Site Matters*, edited by Carol J. Burns, Andrea Kahn, Routledge, New York, 2005
- Meyer, Elizabeth. "The Expanded Field of Architecture", *Ecological Design and Planning*, edited byGeorge Thompson, Frederick Steiner, John Wiley&SonsInc, New York, 1997
- Nussaume, Yann. *Tadao Ando*, Birkhauser, Basel, 2009
- Reichlin, Bruno. "Corseaux: 'My Father Lived One Year in This House. The Scenery Fascinated Him' "*Le Corbusier an Atlas of Modern Landscapes*, MOMA, New York, 2013
- Sanders, Joel. "Human/Nature: Wilderness and the Landscape/Architecture Divide", *Groundwork: Between Landscape and Architecture*, edited by Joel Sanders, Diana Balmori, The Monacelli Press, New York, 2011
- Shirazi, Mohammadreza. "An Investigation on Tadao Ando's Phenomenological Reflections", published online. Retrieved from: http://www.armanshahrjournal.com/article_32694_4b9dfa61cffa567582d000dc8bbfd09e.pdf (Accessed 8 September 2019)
- Spirn, Anne W. "Constructing Nature: The Legacy of Frederick Law Olmsted", Uncommon Ground, edited by William Cronon, W.W. Norton, New York, 1995
- Steane, Mary A. The Architecture of Light: Recent Approaches to Designing with Natural Light, Routledge Press, London, 2011
- Thoreau, Henry D. "Walking", *The Works of Thoreau*, edited by Henry S. Canby, Houghton Mifflin, Boston, 1937

- Treib, Marc. “Landscape Transitional, Modern, Modernistic, Modernist”, *Journal of Landscape Architecture,* vol.8, no.1, 2013, published online: https://doi.org/10.1080/18626033.2013.798917 (Accessed 12 September 2019)
- Treib, Marc. “Nature Recalled”, Recovering Landscape: Essays in Contemporary Landscape Architecture, edited by James Corner, Princeton Architecturaş Press, New York, 1999
- Tunnard, Christopher. *Gardens in the Modern Landscape*, Architectural Press, London, 1938
- Tzonis, A., Lefaivre, L. “The Grid and the Pathway”, Architecture in Greece, Athens, 1981
- Vitrivius. The Ten Books of Architecture, trans. M. H. Morgan, Dover Publications, New York, 1960