

Tradition in Nordic architecture

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Introduction

“Karelian architecture is now an entirely valid question, since its meaning is not confined only to values ethnographic or historical existence. There are values that have a direct connection, even the most useful for modern times”. Alvar Aalto, 1941

Paradoxically, in the globalized world, contemporary architecture is represented as an illustration of the contemporary rupture between the rigor of structural geometry and the turgid corpulence of imagination. Moreover in times of cultural globalization local specificities dissolve. Nevertheless, there are trends, cultural traits, and influences of critical or intellectual tradition that persist.

There are technical resources or habits, particular materials, climate or daylight conditions that give rise to regional identities. It is true that mentalities and cultural references now tend to unify, but these do survive in consciences as points of reference. These experiences speak of the search for a materiality, for an unpolished tactile quality, for an archaic touch that is increasingly out of the reach of architects.

The paper discusses the work of Alvar Aalto and Jørn Utzon in relation to Karelian wooden architecture, which represents an outstanding example, in terms of integrating local and universal architectural traditions with contemporary understanding and techniques, to create site-specific architecture. The work of these architects is characterized by an instinctive and profound feeling for the architecture of the ground: the desire to anchor the building to the physical reality and memory of a territory. The awareness of the site and tradition is also combined with the sophistication of detailing.

Therefore, the paper is centered in the organic quality of Aalto's architecture and Utzon's work, and is related to the sensory richness of the traditional wooden architecture in Karelia. The Scandinavian houses share a mix of constructional rigor with appreciation for tradition, as well as for the background landscape, the woods.

Kalevala and Karelia: Tradition and continuity in architecture

"The old Karelian architecture is a parallel phenomenon of the *Kalevala* and the poetic material collected in Karelia, an essential basis of our literary culture". Alvar Aalto, 1941

At the turn of the nineteenth Century, the *Kalevala* was adopted as the national epic poem. Collected from the orally transmitted runes of the Finnish bards, mostly in the remote eastern district of Karelia, far from Swedish influence as a source of authentic Finnish culture, Elias Lönnrot compiled and published in 1835 all the material as the poetic narrative of *Kalevala*. Finnish national epic compiled from national folklore offered a fully account of adventures, beliefs and rites of the ancient forest-dwelling Finns, where nature become a key aspect of the emerging Finnish identity.



Herman Gesellius, Armas Lindgren and Eliel Saarinen.
Hvitträsk, 1901-03.

The arts assumed a greater importance as a means of promoting cultural identity and emerged the National Romanticism as an attempt to build a national culture identity rooted in tradition. The emergent patriotism and national sentiment was directed by the passionate attention to domestic medieval architecture and to the epic world of *Kalevala* and Karelia. The pioneer work of National Romanticism was Hvitträsk, designed by Herman Gesellius, Armas Lindgren and Eliel Saarinen in 1901-03. Hvitträsk was build on a wooded site, rising steeply from the edge of a lake, according to the traditional

forms and detailing of Karelian vernacular architecture. Hvitträsk was their own studio-home and shown a way towards national expression through timber building with particular attention being paid to the traditions of the remote eastern province of Karelia. Hvitträsk was an original and sophisticated building, and shows the influence of the new domestic architecture based on a revived interest in vernacular building methods.

In pursuit of national ideals, veneration of nature and primitivism, National Romanticism flourished also in literature, music, with the nationalistic pieces composed by Jan Sibelius and paintings by Akseli Gallén-Kallela. "Like the compilers of oral poetry, but somewhat later, the architects and ethnologists in successive expeditions have studied Karelian architecture. Have been very significant expeditions of not only researchers but above all by artists who began their trips from the 1890s (Gallen-Kallela, Yrjö Blomsted, Sparre, Sucksdorf, Ullberg, etc.)... And that interest on the part of the creative forces produced, among other things, the influence of architecture in Karelia had exceptionally flourishing culture of the turn of the Century, now visible in the best buildings in Helsinki (Saarinen, Sonck)". Alvar Aalto, 1941

Finnish architecture found its own identity: its roots revealed by the *Kalevala* explain the character of the country through poetic images. National Romanticism was an explosion of creative work to manifest their own roots: the old Karelian wood architecture and the stone architecture was employed as a building material. Finnish motifs and the masterful handled detailing characterized the work of Gesellius, Lindgren and Saarinen and culminate in the work of Lars Sonck with distinctive national motifs.

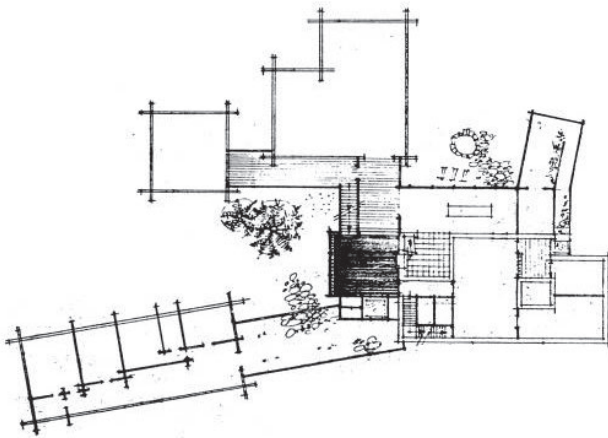
Professor Armas Lindgren, who was a partner in the firm Gesellius, Lindgren and Saarinen became Alvar Aalto's professor. The courses of the School were characterized by the *Beaux-Arts* influenced by the authenticity and genuine national architecture favoured by the National Romantic School. Aino Aalto, in contrast, studied with one of the architects associated with the classicism of the previous generation, Gustaf Nystrom, whose addition to the Engel's University Library in Helsinki is an outstanding example of the Finnish classicism.

Aalto eulogized the authenticity of Karelian architecture in the article published at the *Uusi Suomi* (2nd November, 1941). Karelia, a region of special importance in the Finnish culture, now in Russian territory was considered an architectural reserve. The nationalistic tone of the article is in part explained by its having been written during the Continuation War with Russia (1941-45).

"The Eastern Karelia, with its vast isolated, in which external influences have been exceptionally low, is an architectural reserve very rare in Europe. In saying this I mean that this region has had to live in large measure only their own resources, ie, has emerged directly from his own half and condition. Specific qualities, forms and working methods of the

natives, and those that arise in the natural surroundings, can be found here in a state of unusual purity. Karelian architecture is particularly valuable as a method of analysis to understand how we can bring in our regions, human life and its habitat built in the wilderness". Alvar Aalto, 1941

These studies on Karelian architecture offer a glimpse of various design strategies that were to develop in Aalto's work. He used these impressions to derive new meaning in a completely different context. Aalto filtered the forms, structures and detailing derived from Finnish vernacular buildings and constructive traditions. Applying these images to a new context in a new age, Aalto was able to manifest an architecture that expresses the methods and materials with he worked as well as the society for which he built.



Alvar Aalto. *Plan for the Villa Tivistbo, 1944.*

Furthermore, the roof angles isn't constant', permitting the roofs to 'adapt themselves to nature' to form a 'living, constantly changing, and unlimited architectural totality.' The additive plan for Villa Tivistbo, 1944 was his most explicit attempt to mirror the organic growth of Karelian vernacular building. His idea of 'the growing house' vernacular farmsteads were a paradigm for Aalto of architecture made close to nature. He also praised the buildings of Karelia as a 'pure forest settlement architecture' which demonstrated 'how human life and nature harmonize in the best way'.

Aalto began to explore the development of architectural space as an abstraction of the forest. The idea of the 'forest space' is central to his mature work and provides a key to understand Villa Mairea at Noormarkuu, 1938-41. Villa Mairea embodies a Nordic forest. In the manner of vernacular farmsteads, the programme is organized around a courtyard-garden

Karelian resonances: The forest culture and the forest room

Alvar Aalto began to be concerned about a 'rootless internationalism' and to search for an architecture 'which builds upon the popular psyche and on a purely geographic conditions.' Aalto compared the 'expanded Karelian house' to a 'biological cell formation' and argued that its ability to grow organically was based on the vernacular practice of adding.

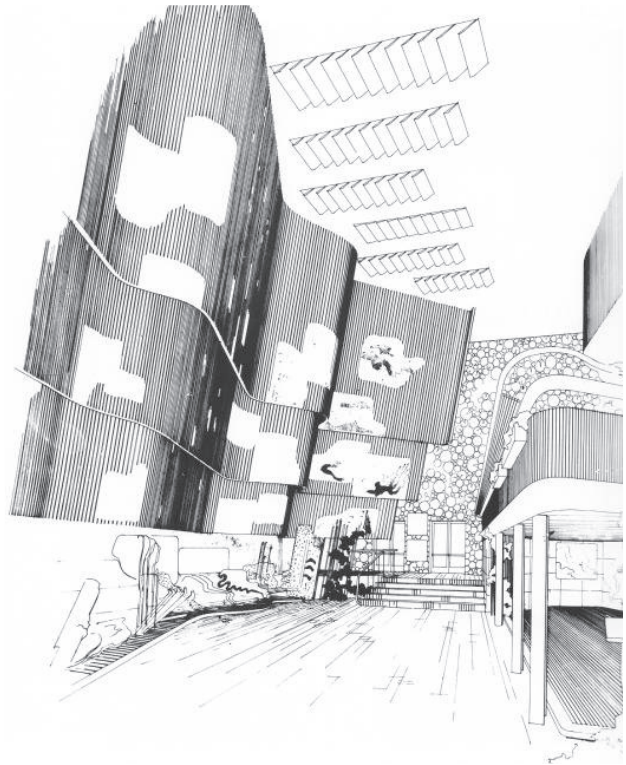
that opens on one side to the woods. References to nature and tradition coexist with elements of the modern language. The play with vernacular elements, through the abstractions of forest space and light characterizes a place for dwelling in the woods. Aalto evokes the experience of the forest in several ways: inside one experiences the 'forest space' instead of the 'flowing space' of Modern architecture and evocations of natural forms are presented combined with refined detailing and textures. The project was literally a forest space related to the spatial experience of wandering among tree trunks in the broken terrain of a Nordic forest binding architecture in the landscape in a sophisticated play on references to vernacular buildings and modern language. Such evocations of

natural forms and textures and the metaphorical landscape evocative of the surrounding forest were a constant in Aalto's work. References to nature and Aalto's experiment with wood introduced a distinctive 'forest geometry' in Aalto's work.

The Finnish Pavilion at the 1939 New York World's Fair represents a synthesis of typical forms and symbols existing in the Finnish landscape and modern industry with deep roots in the culture of the forest. The landscape was evoked by the floating undulating wooden walls and the wood, as a unifying material, creates an illusory atmosphere of the 'Forest modern culture'.

Poetics of site. Alvar Aalto and Jørn Utzon

Nordic light is experienced as an atmosphere filtered by clouds and foliage. Atmospheric lighting is perceived through the filter of clouds or trees producing a diffuse patchwork of light

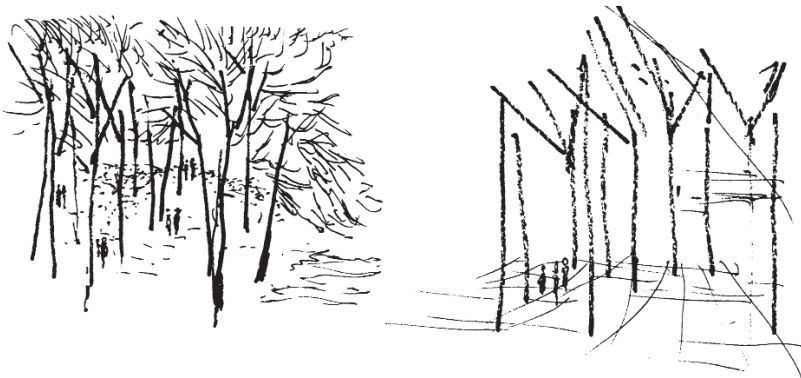


Alvar Aalto. *Finnish Pavilion at the 1939 New York World's Fair.*

and shade. Jørn Utzon architecture demonstrates a profound poetic understanding of world culture combined with his artistic vision and sensitivity to place. The Danish architect who was working briefly with Aalto in Helsinki combined the diversity of human cultures —as a source of inspiration and analogy— absorbed during his travels with the Nordic sensibility to nature he extracted from some of the Nordic masters. He also finds poetic metaphors in nature, as sources of creative inspiration and as a source for structural analogy. Already as a student Utzon, who had little interest in the Classical tradition, was through the study of vernacular buildings and forms in nature seeking other sources of architectural form in a process of assimilation and reinterpretation through abstraction. Utzon's approach is extremely sensitive and skilful in assimilating already existing formal structures into his personal synthesis. A particular interesting aspect of Jørn Utzon's work is the repeated appearance of certain images or metaphors, such as the beech forest and a clearance or the image of clouds that becomes a recurring motif. As in Alvar Aalto's work, these metaphorical images played an important role in Utzon's particular design method.

For Utzon as many of his contemporaries, the fascination with natural form encouraged an interest in vernacular architecture. His work condenses apprehended ancestral cultures of foreign countries and reveals a profound poetic understanding of world culture. His archetypal elements as the platforms and floating roofs all have evidently historical precedents.

Utzon's Crystal Palace proposal for London in 1946 and the Paustian showroom in Copenhagen built in 1987 allude to the image of beech forest and the experience of their light-filled openings. Paustian Showrooms suggest a forest-in: 'a Danish beech wood is like a hall of columns, which dissolves upwards in a network of branches and in the tree tops which make up the roof of this hall of trees. In the dimness of the forest, clearings have the effect of overhead light'.



Jørn Utzon. *Paustian Showrooms in Copenhagen suggest a forest-in, 1985.*

Aalto and Utzon employed natural metaphors at a variety of scales, from the roofs of the Rovaniemi theatre modeled on the surrounding hills, to the 'tree' columns of the Villa Mairea as a Metaphorical landscape evocative of the surrounding forest. The landscape was brilliantly evoked by the undulating geometry.

Alvar Aalto undulating line represents the presence of the nature and is invariably played against a firm base. The counterpoint between a free undulating line and a firm base became an archetypal Aalto space, initially presented at Viipuri lecture room emerging as a motif in his work. Aalto's sketch for Viipuri Public Library as a 'fantastic mountain' was developed for the library's layered organization into a series of plateaus. Aalto's nature-inspired architecture had a great influence on Utzon's work.



Alvar Aalto: *Sketch of a series of plateaus for Viipuri Public Library, 1929.*

The counterpoint between massive platforms and floating roofs characterize Jørn Utzon's work. Utzon materialized the lyrical essence of his architectural research in feats like the platform crowned by a lightweight roof. Also, the image of clouds is a strongly recurring motif in Utzon's work. Bagsvaerd church with its poetic cloud-like undulating ceiling is conceived as a space for the congregation beneath concrete ceiling vaults.

His Scandinavian sensibility continues the legacy of the earlier Nordic masters, Asplund, Korsmo and most particularly, Alvar Aalto. In 1944 Utzon attended a lecture by Alvar Aalto, where Aalto made the analogy that a group of houses were like the branch of a flowering cherry tree, where all the flowers are essentially the same, yet each is unique, looking this way or that, expanding or retreating, according to its relationship to its neighbours, and to the sun and wind. Utzon lyrically describes his winning proposal for a low-rise medium density housing schemes built north Copenhagen, the Kingo Houses and the housing complex at Fredensborg: "the dwellings open themselves as flowers towards the sun". The jury appreciates its attempt to find a residential assemblage adapted to the landscape as contrary to

the usual rigid forms of residential complexes. The configuration of the residential plan also evokes Alvar Aalto's fan-shaped layout opens toward the landscape.



Alvar Aalto. *Sketch of a branch of a flowering tree, 1951.*

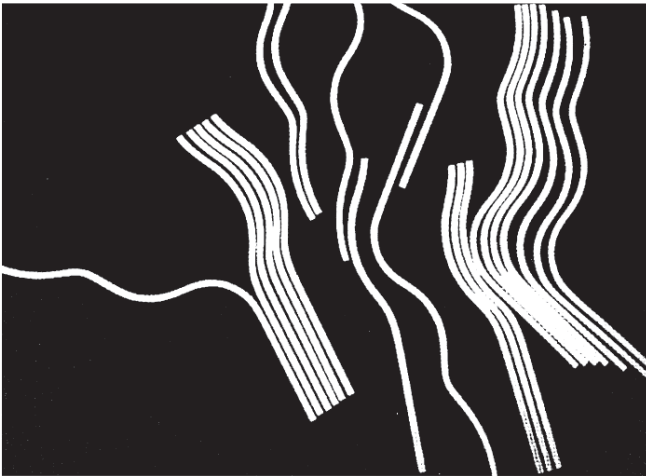
Aalto and Utzon's works represent an outstanding architecture with deep roots in the landscape and culture of the forest.

On Earth

The architectonic landscape reference is another device of Aalto's work. In many of his architectural compositions as Säynätsalo Town Hall (1949-52) combine building volumes and terraced earth to create an image of a landscape in miniature. Images of the Acropolis and of Italian hill towns were a recurrent motive. The sensitivity towards nature, deeply rooted in the culturally defined relationship with the landscape, achieves an intense

sense of place, to adapt buildings to the surrounding landscape. A desire to simulate the 'natural variation' Aalto admired in Karelian buildings helps explain the picturesque roof compositions characteristic of several later designs, such as the Säynätsalo Town Hall, and the careful adjustment of buildings to topography is characteristic of all his work. Karelian buildings are sited and retain their natural charm and picturesqueness in the landscape:

belonged to site conditions, the product of circumstances, local materials and individual ways of thinking.



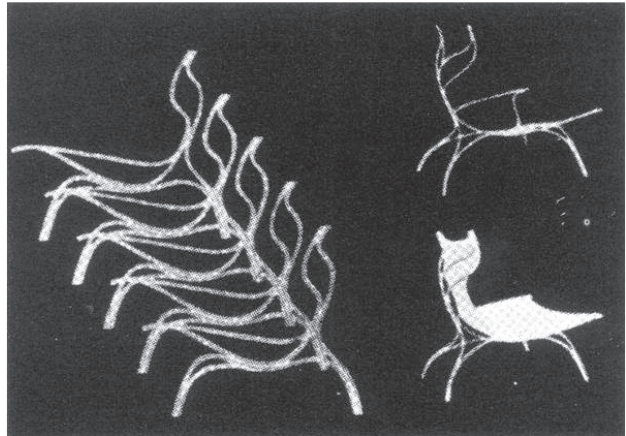
Alvar Aalto. *Wood experiments: The language of wood fibres, 1965.*

With the characteristic modern ambition of blending architecture and nature, Utzon's work emphasizes his appreciation of nature and his capacity to read the context with a respectful insertion in the environment as a result of the awareness of the territory. With the landscaping intelligence and a lyrical language that echoes the land-

scape Utzon search for architecture rooted in the earth, an architecture that is concerned with the particularities of the site.

Materiality

“We went back to the nature of material and tried to find a simple and honest way of using this material... Material was our only guide”. Eliel Saarinen



Alvar Aalto. *Plan for the Villa Tivistbo, 1944.*

Aalto's work seems clearly influenced by Saarinen's use

of materials and attention to details. Aalto developed the feel for the nature of the wood through 'the language of wood fibres'. He was clearly fascinated by its fibrous structure and worked with 'wood experiments' to explore the nature of materials. He developed continuous laminated-wood frames as a sensory experience and plywood furniture link to craft traditions and manufactured by Artek. Experiments with wood reliefs were introduced on a larger scale as an interior refined detailing to produce a sensory experience.

Against the abstract coldness of conventional modernity, Aalto built the patio house in the Muuratsalo summerhouse (1953), also known as an Experimental House, where he had produced a motley sampling of bricks and bonds that was a tribute to warm ceramic textures. The tactile sensibility of the 'language of wood' summarizes his attitude towards nature.

“The first basic fundamental feature of Karelian architecture is the use of a single material”. Alvar Aalto, 1941

Being truthful to materials, a principle which has underpinned much Modern Architecture, has been fully developed by Utzon. His formal creativity demonstrates a profound poetic understanding and emphasizes the authentic use of materials and finishes described as 'the veracity of matter'. His intuition as a builder and his sensibility to the quality of materials was emphasized with the vernacular topography of the Kingo houses and the tactile sensibility of their brick masonry. The appreciation of material integrity and the 'constructive logic' characterizes his work that condenses the authentic use of materials through tactile explorations and refining finishes. His total commitment to material honesty was exemplified by the entirely sandstone refuge built in Mallorca, Can Lis (1971-73).

Conclusion

The essential convictions of the generation of modern architects, that Sigfried Giedion denominates the third generation, are characterized by the progressive assimilation and reinterpretation of the Modern Movement and by the vindication of the cultural roots of the traditional constructive culture. Giedion, qualifies Utzon as the exponent of the third generation characterized by a “stronger relation with the past; not expressed in forms but in the sense of an internal relation and in a desire of continuity”. With a critical keenness of the observation Jørn Utzon and Alvar Aalto extracts new meanings from ancient motives of the ancient culture. Aalto and Utzon filtered the natural forms, structures and detailing derived from vernacular buildings and constructive tradition as sources of inspiration. Alvar Aalto’s architecture in favour of natural materials, vernacular details and curved lines becomes a lyrical collage of references to the Finnish Forest. The admiration by the elementary wisdom of the primitive architecture and their fascination with other building cultures has influenced their work. References to nature and Aalto’s experiments with laminated wood were inspired by organic forms and emphasize tactile experience, softness and warmth. Also his carefully detailed for touch and roundness of edge was applied to the lake-like perimeter of his emblematic vase. Utzon’s ability to abstract from nature was also clearly expressed in his 1946 chair in which captures the curvature and lightness of nature.

For Alvar Aalto and Jørn Utzon architecture was always a form of mediation between man and nature.

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