

Alvar Aalto and Jørn Utzon

An Architecture of Ancient Gathering Forms

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Abstract: Ancient gathering forms of hillside and valley underpin the architecture of Alvar Aalto and Jørn Utzon. These recurring forms, reconfigured as ‘room’ and ‘platform’, have endured in architecture because they respond to and support the human desire to be either centre-bound or horizon-bound, according to place and occasion.¹

Although forms that foster conviviality or those promoting solitary reflection can be found in the work of both architects, Aalto’s most poetic works tend to embrace ancient forms that gather us in towards a centre; and Utzon’s most memorable works are based on ancient forms that invite us to gaze outward towards the horizon. (Fig 1)

Alvar Aalto

In many of Aalto’s works, a single room is designed to carry the essential architectural idea for the whole collection of rooms that make up the building. (Fig 2) This pivotal room is sometimes adjacent to another room, its twin external room, made in its most ancient form and designed to underscore an aspect of the same architectural intention. In this case the pair of rooms – the combination of an outside room and an inside room – carry the architectural idea between them. (Fig 3)

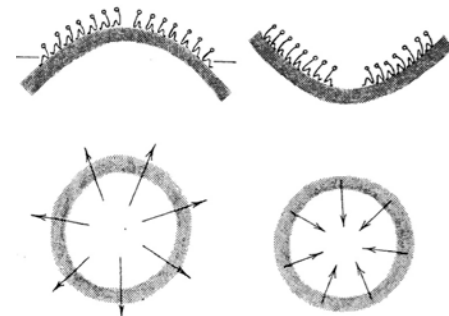
Almost as a foil to the single room that is given heightened meaning, the remaining rooms making up the bulk of the building are usually not elaborated and fulfil their formal role as a row or cluster contributing to the massing. In many of Aalto’s buildings, therefore, the supporting rooms are designed to be a quiet background to the intensity of one room, to allow this one room to become by contrast even more extraordinary.

Aalto’s room of ‘hidden images’ is usually the room in the building that is allocated for gathering, the most communal room, such as a courtyard, entry or lecture hall. In the design of the public ceremonial room, Aalto usually reinvigorates an ancient architectural form associated with the essence of people gathering. The public domain of the amphitheatre, the atrium and the piazza have a resonance within Western culture that stirs memories of the oldest and most basic forms associated with gathering. These forms are free from style and yet based in tradition.

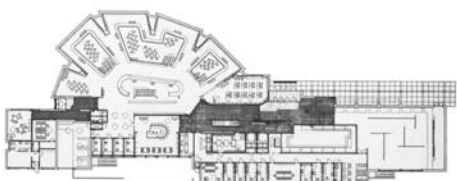
In each instance, the room that ‘animates’ the building makes a reference to the landscape, whether a surrounding landscape, an ancient landscape or an interior landscape. The room and the landscape are related to lend meaning to each other, and they are often made

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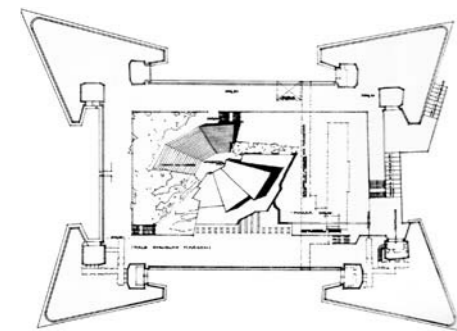
¹ H Hertzberger; A van Rooijen-Wortmann; F Strauven: *Aldo Van Eyck*, Stichting Wonen/Van Loghum Slaterus, Amsterdam, 1982



1 Aldo van Eyck: two ways of being together (or alone)



2 Alvar Aalto: Library, Rovaniemi, Finland (1963-68)



3 Alvar Aalto: Cultural Centre competition entry, Siena, Italy (1966)



4 Roman atrium house

² Malcom Quantrill: ‘Alvar Aalto and Post-Rationalism in Finnish Architecture’, *AAQ*, London, Vol 10, No 3, 1978, p13

³ Paul David Pearson: *Alvar Aalto and the International Style*, Whitney Library of Design, New York, 1978 p43

⁴ Alvar Aalto: ‘From Doorstep to Living Room’, *Aitta*, No 1, 1926; reprinted in *Alvar Aalto: Points of Contact*, ed Pirkko Tuukkanen-Beckers, Alvar Aalto Museum, Jyväskylä, 1994, p10

interdependent in the way that a hillside and an amphitheatre are inseparable. While the room and the landscape are closely related in Aalto’s buildings, paradoxically his work depends on ‘distinctions between interior enclosures and exterior spatial contexts’,² and not the blurring of distinctions, as evident in the Paris Exhibition and at the Villa Mairea.

Aalto’s poetic room is usually placed significantly in the overall project. It is often raised or lowered with respect to the common level. The room at its most evocative is usually clearly circumscribed in plan by a simple rectangle often approximating a square, or in the case of the amphitheatre contained by parts of a circle. The materials used to make the interior surfaces are usually decorative and not repeated in other rooms.

All these factors serve to set the poetic room apart from other rooms in the building; but the single most distinguishing quality that this extraordinary room possesses is the essential idea for the whole building.

Six rooms in the landscape are described here. They include the atrium, the book-lined room of the public libraries, the forest room of the exhibition buildings and the Villa Mairea, the theatre room, the *tun* (or piazza of the north) and the ruined room at Muuratsalo.

Atrium

The first of Aalto’s poetic rooms begins with the atrium. Following his visit to Italy in 1924, Aalto became increasingly fascinated by the classical atrium.³ The atrium, a recurring form in the history of housing, appears both in the Roman house with its depressed cistern (Fig 4) and in the Renaissance palace with a two-level interior courtyard open to the sky. (Fig 5) The courtyard house, or the house with a central area accessible to most other rooms, was also a traditional type in central Europe; and an early type of Scandinavian log house had a roof that could be opened to the sky over the fire.

In his 1926 article, ‘From Doorstep to Living Room’, Aalto states that the northern climate requires a clear separation between the warmer inside spaces and the outside. He wrote, ‘The Finnish home should have two faces. One of them is the direct aesthetic contact with the exterior, another, the face of winter is visible in the forms of the interior decoration corresponding to our innermost feelings.’⁴

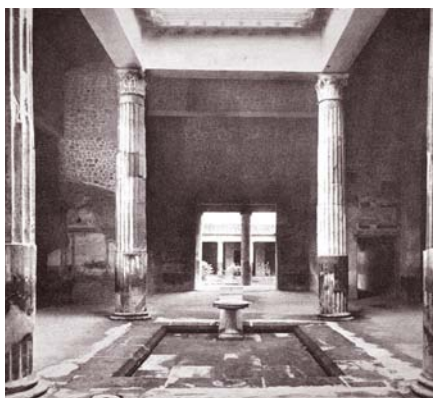
We get some further insight into Aalto’s interest in the poetics of a room when he describes the English hall (Fig 6) as ‘one of those large spacious



5 Luciano Laurana: Ducal Palace, Urbino, Italy (c1468)



6 Great Hall, Cotehele manor house, Cornwall (c1350)



7 House of the Silver Wedding, Pompeii

rooms with an open fireplace and a rustic floor'.⁵ He draws our attention to the fact that the size, the rustic floor and open fireplace give the room a special quality and 'a form which differs from that of the other rooms'; and further, that this difference gives the room 'a psychological function apparent to the sensitive eye'.⁶

Despite the value of a winter face for interior rooms, Aalto proposed that one room, possibly the hall, could be designed to offer the link with the exterior. To support this idea, Aalto also included in his article an illustration of a Pompeian courtyard house (Fig 7) together with his design for a small house planned around a central atrium.⁷

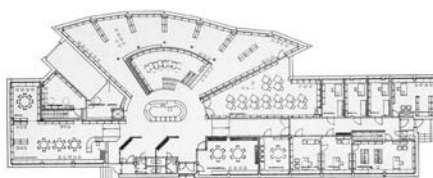
The Casa Vaino, which Aalto designed for his brother in 1925, has a small cubic atrium in the centre of the building. (Fig 8) Note that the only decorative floor in the house is reserved for the central hall. The atrium floor was to be paved with limestone and have a glazed ceiling to let in the light and the sky. The house was eventually built in Alajärvi in 1926 but unfortunately without the atrium that the brother thought too expensive and too original.

In 1928, three years after his Casa Vaino designs, Aalto submitted a competition entry for a family summer house known as the Merry-go-round house.⁸ The house has a circular plan with rooms surrounding a circular atrium.⁹ In this scheme, the courtyard was not entirely closed but open by one third to mid-morning sun. (Fig 9) The perspective sketch shows full-length curtains, presumably so that the atrium could be entirely closed on occasion. There is little information about this house but we can speculate that the central courtyard was perhaps the special room, a sky-lit, stone-floored circular room with a large curtained window overlooking the countryside.

Book-lined room

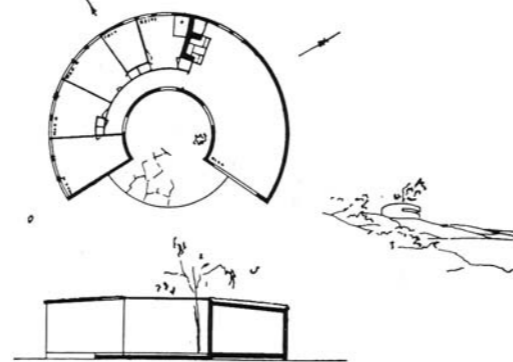
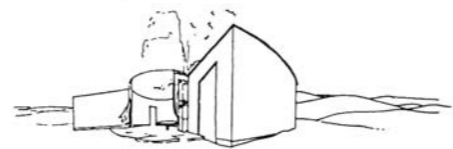
The sky-lit atrium also appears in Aalto's non-residential buildings but it is usually transformed by the idea for the building and the potential for functional advantage. Aalto designed library buildings throughout his professional life, from the 1923 Finnish Parliament House Library Competition to the 1974 Scandinavian Library in Wisconsin.

Many of Aalto's library designs, including the municipal library at Senäjoki, (Fig 10) have an open plan reading room connected to a rectangular wing of cellular administrative rooms. Within the interior landscape of the public lending library, the central sky-lit atrium is transformed to become a book-lined room, a scholar's den, the most basic form of library where books on shelves make the spatial enclosure. Elsewhere within the larger library landscape, book stacks, trolleys and the paraphernalia of the modern library are readily accommodated but here in the small book-lined room it is as though the meaning of the entire public library is collected, like an essence. (Fig 11)



10 Alvar Aalto: Municipal Library, Senäjoki, Finland (1963-65)

- 5 Alvar Aalto: *op cit*, p10
- 6 *Ibid*
- 7 *Ibid*, p13
- 8 Goran Schildt: *Alvar Aalto The Decisive Years*, Rizzoli, New York, 1984, pp25-26, p238
- 9 Aarno Ruusuvaori (ed): *Alvar Aalto 1898-1976*, The Museum of Finnish Architecture, Helsinki, 1978, p41

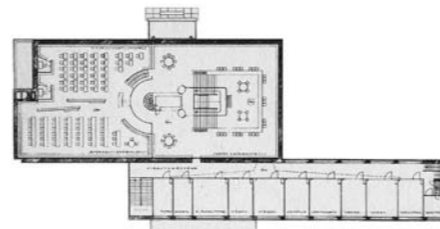
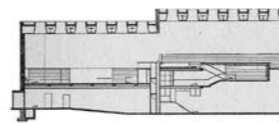


9 Alvar Aalto: Merry-go-round house (1928)

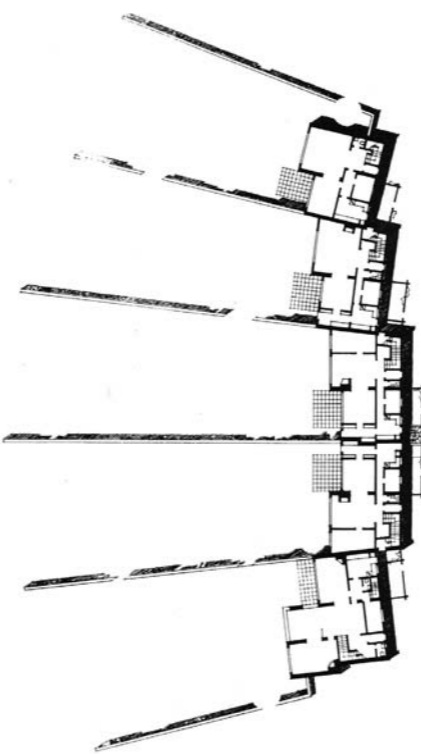


11 Alvar Aalto: Municipal Library, Senäjoki, Finland (1963-65)

- 10 William C Miller: 'Alvar Aalto: From Viipuri to Mount Angel', *AAQ*, London, Vol 10, No 3, 1978, p35
- 11 Alvar Aalto: *op cit*, pp9-10
- 12 Paul David Pearson: *op cit*, p154



12 Alvo Aalto: Municipal Library, Viipuri (now Vyborg), USSR (1927-35)



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The quality of the book-lined room is enhanced by its position within the interior landscape. The room occurs as a central 'sunken area or a recessed-well space'¹⁰ so that it is at once defined by its walls, further marked out by a configured ceiling or light from above and also simultaneously related to the larger library area. From within the sunken room, the reader is both part of the larger space and yet contained by the book-lined walls of the small room.

In the Viipuri Library (Fig 12) and in the libraries at the Pensions Institute, (Fig 13) the book-lined room is rectangular in plan. However, in many of the later libraries, the sunken room, as the miniature library, repeats the plan of the larger library, reinforcing its shape.

Where the book-lined room is small and simple enough to allow it to be imagined as a room from a house or monastery, the imageability of the place is at its strongest. In these instances, the poetic book-lined room is a familiar element that serves to make the larger institution more comprehensible.

Forest room

Aalto's 1926 article 'From Doorstep to Living Room' puts forward the proposition that to minimise the contrast between them, the exterior space adjacent to a Finnish house could be designed more as an interior room, and the interior could be designed more as an exterior space.¹¹

Certain aspects of this idea seem to have gained impetus during the 1930s, culminating in the design of the Finnish Pavilion in Paris. (Fig 14) The timber saplings that characterise Aalto's fully developed forest room could be said to begin as timber cladding and as trellis supports for climbing plants. These wooden elements are present in the 1930s designs for the reception room at the Finnish Embassy in Moscow and in Aalto's own house at Munkkiniemi. (Fig 15)

In his own house, the external wall of the bedroom wing was clad on three sides in birch, cut as tongue-and-groove planking with a groove along the tongue edge which shows up as a 5mm shadow line.¹² The end joints of the planks were marked by the same type of reveal, visually intensifying the texturing of the wall and recalling bamboo screens. Thin wooden saplings are also erected here and there along parts of the external masonry wall to support climbing plants. The rambling vine recurred in Aalto's work as a living element to connect a building to the landscape and mark the passage of time, particularly the seasonal changes so dramatic in the far north.

The linear sapling screen gives way to spatial enclosure in Aalto's 1936 plan for the Engineers' Garden Apartments at the Sunila Pulp Mill. (Fig 16) On the external wall adjacent to the entrance to each apartment, Aalto placed an outdoor room constructed of gridded poles as a frame for climbing plants. He intended that this vine-covered forest room would



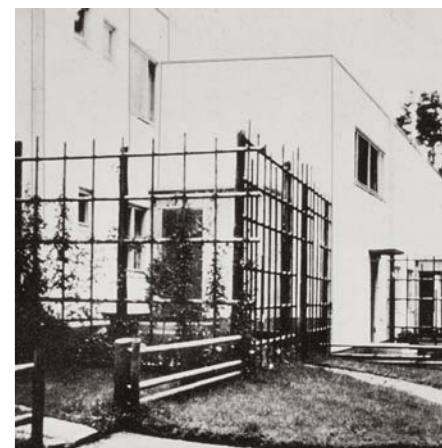
13 Alvar Aalto: Library, National Pensions Building, Helsinki, Finland (1949-52)



14 Alvar Aalto: Finnish Pavilion, World Fair, Paris, France (1937)



15 Alvar Aalto: architect's house, Munkkiniemi, Finland (1936)



16 Alvar Aalto: apartments, Pulp Mill, Sunila, Finland (1936-37)



simultaneously offer privacy to the various entrances and in time would create for each house a sheltered outdoor place open to the sky.

These ideas for a forest room recurred in Aalto's design for the Finnish Exhibition at the 1937 World Fair. Finland's exhibition was to include a range of artefacts but was designed primarily to celebrate its chief export material, timber and its wood products. Finland had been allocated an awkward site in the World Fair grounds with numerous trees that could not be felled. Turning this to advantage, Aalto designed a series of pavilions, linking them by covered open walkways. (Fig 17)

The pavilions are an essay in timber used in a variety of forms including columns of lashed saplings (Fig 18) recalling 'the traditional vocabulary of raftmakers, campers and scouts who improvise constructions from such forest materials as young trees and vines'.¹³ The entry courtyard columns were constructed of birch logs, each fitted with three timber fins inserted in the side of the trunk to offer the primitive pole the sophistication of a base, shaft and capital.¹⁴ In the exhibition building Aalto also included a small single-storey sky-lit room with a grid of 32 poles wired together at the top and planted with vines, recalling the young birch forest of Finland.¹⁵ In this forest room, the 'saplings' are moved away from their position on the edges of the room to fill the space of the enclosure. (Fig 19)

One year after Paris, in May 1938, Aalto prepared another exhibition design to display Finland's timber products, this time at the World Fair to be held in New York in 1939. (Fig 20) Finland was on this occasion unable to secure a vacant site for its pavilion, not even an awkward site. Instead, Finland's exhibition was to be mounted in a 16m high, narrow and long, fully-enclosed room at the end of a row of similar rooms set aside for the smaller nations. It was apparently some time before it was realised that the end location of the Finnish Pavilion gave the possibility of making a connection with the outside. Aalto's response to this opportunity was to secure a long horizontal window for the restaurant and screen the window wall here and there with saplings.

An exhibition design carries with it the possibility of creating a completely theatrical world of illusion. In response, Aalto's New York design extended the landscape metaphor explored in Paris through more dynamic and abstract elements such as the stacked, curvilinear, undulating plywood screen walls lined with timber battens. In New York, Aalto made an extreme form of forest room, a place where an abstracted landscape and its representational images were almost fully contained and yet animated to contrast with the rectilinear enclosure.

Possibly the most celebrated forest room is to be found in the Villa Mairea. (Fig 21) Its sources of inspiration can be traced to Aalto's own house, to the two World Fairs and to the ideas that ordered their trellises, saplings and battens. In terms of timing too it appears that Aalto's New York pavilion design provided the impetus for the final design of the

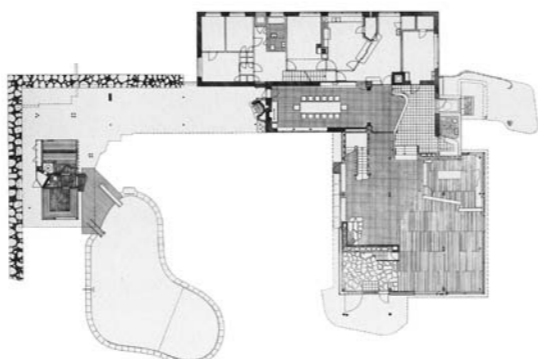
- 13 Paul David Pearson: *op cit*, p156
- 14 *Ibid*, p160
- 15 *Ibid*, p156



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21 Alvar Aalto: Villa Mairea, Noormarkku, Finland (1937-39)

- 16 Goran Schildt: *op cit*, p157
- 17 *Ibid*: p161
- 18 Alvar Aalto: *op cit*, p11

single poetic room at the Villa Mairea. The forest room in the Villa Mairea was very late in arriving in the design for the Gullichsens' new house. Schildt quotes Lisbeth Sachs, an assistant in Aalto's office at the time, recalling that Aalto was dissatisfied with the Mairea design as it stood after Christmas in 1938.¹⁶

The design in April 1938 shows the reception rooms as separate areas arranged over a split-level. The drawing room was five steps higher and separate from the hall. Moreover, the Gullichsens' collection of paintings was to be housed in a separate gallery to the north of the swimming pool.

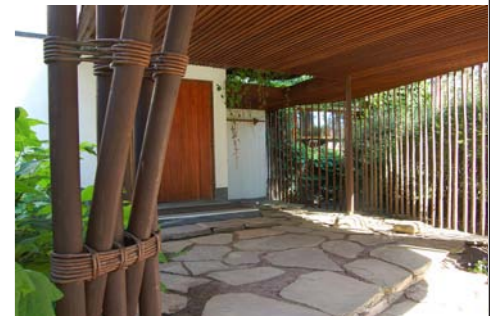
In May 1938 – in the same month that Aalto's office sent off three competition entries to New York – Aalto redesigned the Proto Mairea and 'inserted' the lyrical forest room into the house.¹⁷ The plan of the revised scheme shows the new room within the loose boundary of a 14 x 14m square. To introduce the visitor to the poetic room, Aalto redesigned the main entry as a porch made of saplings from the forest, using the porch as an external anteroom to elaborate on the relational idea. (Fig 22)

Despite its separate areas, the forest room is conceived of as a single space to house the paintings, books, furniture and the field-stone fireplace all together on one level. In this room the floor surfaces of beech parquetry, tiles and stone flagging make a varied changing terrain, and rattan-bound steel columns appear as individuals belonging to the order of the forest rather than the order of rational construction. While the plan is contained within a 14m square, the space of this room (unlike the New York Pavilion) joins up with the space of the surrounding garden and forest landscape beyond. (Fig 23)

Returning to Aalto's 1926 essay, his caption to the illustration of Le Corbusier's building reads, 'A brilliant example of the affinity of the home interior and garden. (Fig 24) Is it a hall, beautifully open to the exterior and taking its dominating character from the trees, or is it a garden built into the house, a garden room?'¹⁸ Here then is Aalto's forest room, the poetic room that resonates with the idea for the whole house and for the most memorable place at the Villa Mairea. Perhaps Aalto believed that a winter face would not be missed in the Gullichsens' summer house; but for whatever reason, this forest room at the Villa Mairea with its spatial ambiguity was never again repeated as the poetic room. Instead, Aalto in subsequent work set free the garden room, returning it to the interior landscapes of his lobbies and foyers where it can continue to extend the idea of 'the walk in the woods'.

Theatre room

This is a room that takes up the form of the classical amphitheatre and appears in Aalto's work from the 1920s. It is sometimes incorporated into theatre designs but is used frequently without any apparent function. The semicircular classical theatre rising up like a staircase resting on the



22 Alvar Aalto: entry porch, Villa Mairea, Noormarkku, Finland (1937-39)

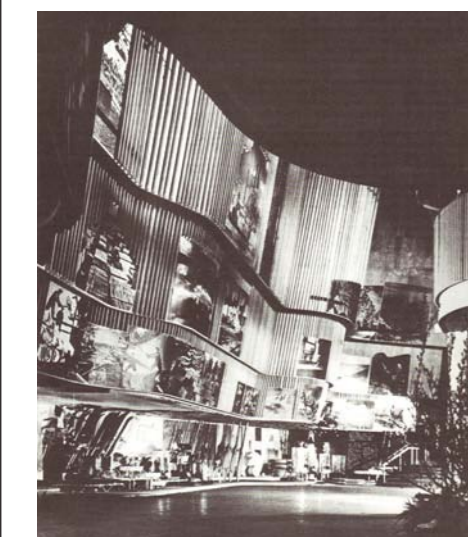


23 Alvar Aalto: entry stairs, Villa Mairea, Finland (1937-39)

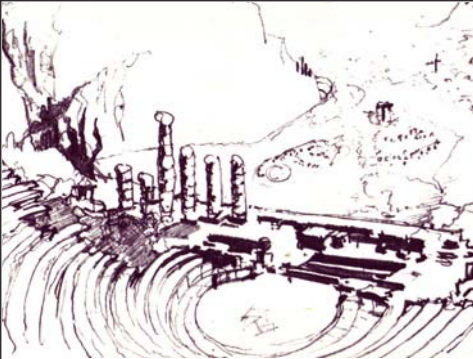


24 Le Corbusier: L'Esprit Nouveau Pavilion 'villa' apartment, Paris, France (1925)

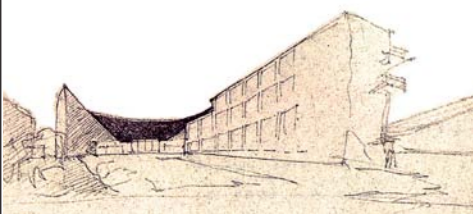
17 Alvar Aalto: Finnish Pavilion, World Fair, Paris, France (1937)



20 Alvar Aalto: Finnish Pavilion, World Fair, New York, USA (1939)



25 Alvar Aalto travel sketch: amphitheatre, Delphi, Greece (1953)



27 Alvar Aalto: Zagreb Hospital competition entry, Zagreb, Croatia (formerly Yugoslavia, 1931)



30-32 Alvar Aalto: Technical University, Otaniemi, Finland (1964)

sloping ground was seen by Aalto first on his 1924 trip to Italy and later at Delphi and Epidaurus. However it is not the full Greek amphitheatre that is of interest but rather the enduring form, the ruined amphitheatre that Aalto sketched on his travels. (Fig 25) The theatre – representing a place of voluntary gathering – is an architectural element defined by the landscape, and in turn one that redefines it. It is an architectural element big in size and in effect.

This may have been the underpinning idea for Aalto's 1927 competition for the Palace of Nations Building, Geneva. (Fig 26) This unexecuted design included a stepped theatre-like assembly hall with a view of the Alps, the whole plan resembling a hill of overgrown ruins.¹⁹ The 1931 unbuilt scheme for the Zagreb Hospital (Fig 27) incorporates three freestanding auditoria in the form of a circle segment.²⁰

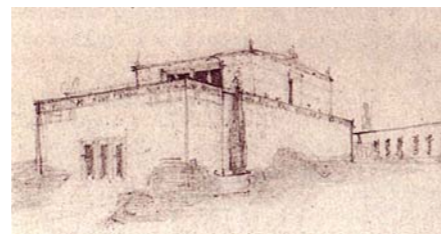
The garden of Aalto's studio at Munkkiniemi is formed by a shallow amphitheatre (Fig 28) defined on one side by a scalloped edge: enclosed perhaps by a fragment of a giant column. (Fig 29) At Jyväskylä University, outside the main building, blocks of granite are loosely arranged in the long grass to form an amphitheatre that is almost imperceptible in the landscape.

At the Technical University at Otaniemi, Aalto designed the main lecture theatre complex to be the central focus of the campus. (Fig 30) The major lecture room has a large seating capacity; it is steeply raked, highly serviced and fully equipped technically. (Fig 31) In this educational complex Aalto created the single poetic room as an outdoors 'half amphitheatre' placed back-to-back with its high-tech twin. (Fig 32) In contrast to the organised lectures on the interior, the room-in-the-landscape lies at the crossroads where students might gather informally and spontaneously. Through its adjacency with the high-tech lecture room on the interior, the ancient enduring form of the classical amphitheatre becomes a visual reminder both of its origins and continuing role in a modern university. The outdoor amphitheatre set on a small rise in the flattish landscape of the campus rakes abruptly up towards the sky, invoking a greater hillside, both making a landscape element and describing the land. Here the poetic room in the landscape signals the centre of the institution and at the same time tells of its collective, gathering function.

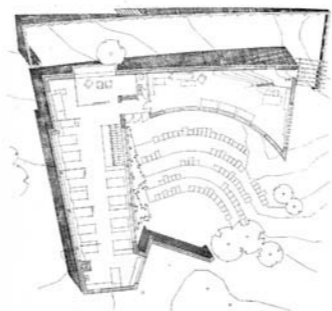
Tun, or the small northern piazza

The Senäjoki Council Chamber, while raised up on *pilotis*, also sits at the top of a hill. (Fig 33) Here within a flat townscape, Aalto has piled up a mound of earth, linking the Council Chamber and the public plaza by an artificial hill. (Fig 34) This recalls the siting of the civic buildings on hilltops but it also extends the idea of easy public access across the terrain and the possibility for spontaneous assembly. Through this hill element

19 Goran Schildt: *op cit*, pp283-284
20 *Ibid*, pp247-248



26 Alvar Aalto: Palace of Nations competition entry, Geneva, Switzerland (1927)



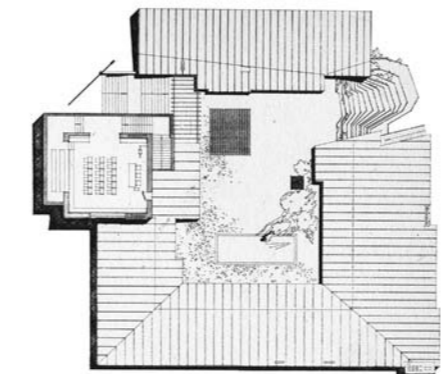
28, 29 Alvar Aalto: architect's studio, Munkkiniemi, Finland (1953-56)



33 Alvar Aalto: Council Chambers, Senäjoki, Finland (1965)



34 Alvar Aalto: artificial hill, Council Chambers, Senäjoki, Finland (1965)



35 Alvar Aalto: Council Chamber, Säynätsalo, Finland (1965)



39 Alvar Aalto: brickwork, architect's summer house, Muuratsalo (1953)

Aalto was also able to introduce a raking garden within the extensive hard-surfaced plaza.

Säynätsalo's Town Hall too has an artificial hilltop adjacent to its twin room that is the turfed court and the closed, raised room of the Council Chamber facing the sky. (Fig 35) These two rooms, one open and the other closed, together carry the idea of town gathering. At Säynätsalo, the raised hill combines with the atrium to evoke a powerful reminder of an ancient democratic place, the northern village green or Scandinavian *tun*. The Old Norse word *tun* is believed to be the origin of the word 'town'. The Norwegian *tun* was usually turfed and formed the centre of a farm complex around which individual timber houses and barns were grouped. The *tun* was the town, the place where all the inhabitants could assemble to discuss common issues and join in community events.

In this context, the turfed stairs, the pool of water and the domestic quality of the courtyard (a quality that has troubled some architectural critics) are entirely comprehensible. (Fig 36) Whereas the closed Council Chamber forms the civic landmark, the more accessible citizens' *tun* recalls Aalto's use of the basic enduring form to help make the essential meaning of the larger institution intelligible.

Ruined room

In Scandinavia, the summer hut is typically a gable-roofed timber structure with small windows. For most Scandinavians, the smaller and more primitive these retreats are, the more they fulfil the underlying desire to live more simply with nature.

In sharp contrast to the familiar wooden hut, Aalto built his 1950s summer house on the island of Muuratsalo as a structure that appears from the lakeside to be a large white box set among the dark trees. (Fig 37) On closer inspection, the form of the box appears to be incomplete or fractured, with sections of the wall cut away. (Fig 38)

An even closer view of the exterior shows the wall to be built of white-washed bricks, with some of them indented as though the wall is old or dilapidated. (Fig 39) The large opening in the brick wall facing the lake is covered over with a screen of vertical boards painted white, allowing the eye to perceive the wall as whole and also to register the mend. Only one single window in this wall appears to suggest habitation. The wall that faces the forest is similarly cut away but in a castellated form, and the small domestic windows appear to be separate from the wall and somewhat visually unintegrated.

There is a moment of surprise on entering through the break in the external white walls into a room fully open to the sky and where the walls and floor are clad almost entirely in red bricks. (Fig 40) The floor is uneven, the walls a patchwork of different sized bricks and tiles and in the centre is a pit for an open fire. Entering through a screened door in the



36 Alvar Aalto: turfed courtyard, Council Chambers, Säynätsalo, Finland (1965)



37 Alvar Aalto: architect's summer house, Muuratsalo, Finland (1953)



38 Alvar Aalto: cut-away wall, architect's summer house, Muuratsalo (1953)



40 Alvar Aalto: outdoor room, architect's summer house, Muuratsalo (1953)



41 Alvar Aalto: sitting room, architect's summer house, Muuratsalo, Finland (1953)

wall of the redbrick room, we find a series of small conventional rooms that make up the summer house interior. Here is a sitting-dining room with a loft space at one end, (Fig 41) a small kitchen and bathroom and three small bedrooms. (Fig 42)

Aalto referred to the Muuratsalo summer house as his Experimental House, and it is usually accepted that Aalto incorporated, in part, rejected bricks from the nearby Säynätsalo site and various brick and ceramic test panels.²¹ The continuing reference by writers to the term Experimental House is used mainly to account for the puzzling patchwork of bricks (Fig 43) and unbuilt outbuildings. While all these explanations about the summer house are probably equally valid, Aalto's interest in the potency of the particularised single room suggests the need for a closer look.

In brief, Aalto's poetic room is usually:

- 1 the carrier of the essential idea of the whole;
- 2 elaborated, in contrast to the conventional rooms;
- 3 created as the communal room;
- 4 related to the landscape through conceptual interdependence;
- 5 made with a simple plan configuration, for example, approximating a square and/or cube;
- 6 designed to recall eternal human actions through the use of an ancient/enduring form.

The presence of these characteristics, coupled with the way Aalto's summer house can be experienced, suggests that there are in fact two summer houses, one within the other. One is a fugitive house made up of a series of small conventional and internalised rooms that are functional and contribute to the massing of the overall form. Conceptually these smaller rooms have been 'built into' the depth of the walls of a much older and grander structure. The other summer house is a large, white, fractured form containing a single red room. (Fig 44) Here the hidden image is likely to be an ancient classical villa, a grand palace now fallen into disrepair, discovered as a ruin and lately inhabited and patched up.

Recall the pre-aged walls with the random indentations of the rough whitewashed walls; the castellated walls; the fractured form; the absence of the roof; the classical square floor plan of both the white building and the red room; the overgrown vine; the rough mending and unevenness of the floor; and finally, the concealment of the 'other' summer house.

In making the poetic room as 'a ruin that one might come across in a forest', Aalto creates a central pit for the campfire, the most primitive and enduring place of all human gathering. Here under the night sky the flames reflect on the uneven red walls, amplifying the fire's warm glow; and during Finland's cold summers the sun might heat up the brick walls and floor to radiate additional warmth. Here one might sit around a fire and look out through the fractured wall to the landscape of the

21 Goran Schildt: *The Complete Catalogue of Architecture, Design and Art*, Academy Editions, London, 1994, pp197-98



43 Alvar Aalto: brick detailing, architect's summer house, Muuratsalo, Finland (1953)



44 Alvar Aalto: a 'single red room', architect's summer house, Muuratsalo, Finland (1953)

22 Jørn Utzon: 'Platforms and Plateaus: Ideas of a Danish Architect', reprinted from *Zodiac*, Vol 10, 1962, pp112-40, in *Content*, University of New South Wales, No: 2-01, 2001, p36

23 *Ibid*



47 Jama Masjid mosque on its raised platform above the city, New Delhi, India (1656)

lake edge, a view that is essentially reserved for this room.

In a 1953 issue of *Arkkittehti*, Aalto wrote about his summer house: 'The whole complex of buildings is dominated by the fire that burns at the centre of the patio and, that, from the point of view of practicality and comfort, serves the same purpose as the campfire in a winter camp, where the glow from the fire and its reflections from the surrounding snowbanks create a pleasant, almost mystical feeling of warmth.' (Fig 45)

Muuratsalo is, perhaps, the most memorable of Aalto's 'rooms in the landscape'. It is one of Aalto's smallest masterpieces, both personal and intimate, and one that is now possible for us to visit.

Jørn Utzon

In many of Utzon's poetic works, the constructed plateau is designed to order 'a world set apart' and to intensify the experience of space stretching to the horizon under a vast sky. Utzon's raised platform is essentially a place set apart from the common level of the earth, the ground plane of everyday life. Following his 1949 visit to Mexico, Utzon describes climbing out of the dark and confining Yucatán jungle, onto a high plateau, (Fig 46) to discover with relief and wonder the jungle-top as an infinite plain under the sky with its 'vast openness'.²²

Of New Delhi he writes that 'the pell-mell of traffic, people, noise and nervous buildings' of the bazaar can be set at a distance and viewed from the raised platform of the mosque. (Fig 47) Utzon describes how from the raised platform it is still possible to have 'contact to the life and disorder of the town. [adding] On this square or platform, you have a strong feeling of remoteness and complete calmness.'²³

The raised platform, as a gathering place in the landscape or cityscape, is a place for standing alone or being solitary in a group, a place for surveying and contemplation, the place of the temple and the monastery, (Fig 48) a place where the world is ordered or from where the complexity of the world may be made more intelligible.

In addition to its place and space qualities, the plateau has a formal presence which, standing apart, confronts us and reverberates below the level of consciousness with the tensions of separation and dominance, authority and power. In a number of Utzon's projects, the abstracted plane becomes idealised new ground for a collection of buildings or rooms that suggest a miniature city, temple complex or monastery. And in the city, a raised platform anticipates the monumental.

The raised platform and constructed plateau in Utzon's architecture often appear as a Cartesian plane: a plane completely flat, with grid geometry, singular material texture and colour, and visual continuity stretching to infinite space. In this sense Utzon's platforms and plateaus stand in contrast to the natural ground and have about them the sense of another world or a sacred place. While the raised platform



45 Alvar Aalto: at his summer house, Muuratsalo, Finland



46 Mayan pyramid rising above the jungle plain, Yucatán, Mexico (c250-900)



48 Simonopetra Monastery, Mt Athos, Greece (founded: 1257, rebuilt: 1581, 1626, 1891)

can accommodate itself to any kind of topography and is independent of any particular terrain, in each of Utzon's projects the platform relies on qualities in the surrounding landscape to yield focus, direction and ambience to human gathering.

Because Utzon's raised platform is usually conceived of as a substitute site – rather than as a floor to a set of rooms – inhabiting the platform brings with it tensions associated with enclosure. Where platforms occur open to the landscape, a walled shelter with a separate interior space tends to compete with the spatial continuity and formal coherence of the plateau. To reduce this tension, Utzon substitutes solid walls with mullioned, glazed screens with fins, columns or posts that allow the eye to trace along the horizontal plane with minimal interruption. Eliminating the solid wall reduces the sense of interiority and shifts the role of enclosure to the sheltering roof form of the dome or to a space within a second layer of walls.

Frampton describes Utzon's architecture in terms of 'the earthwork versus the roofwork'.²⁴ From the earliest projects: 'We will encounter this formula in one Utzon scheme after another, where it invariably assumes the form of a shell roof or a folded slab structure suspended over a terraced earthwork'.²⁵

Utzon's sectional sketches illustrate domed roof forms such as clouds, leaves, feathers, sails and pagodas hovering over a raised or stepped platform, and are shown without enclosing walls, with space flowing freely between them towards the horizon. And while the domed volume gestures to a centred space beneath it, the vertically raised roof volume contributes as much to accentuate the horizontality of the platform. To further amplify the weightiness and the rectilinear form of the constructed plateau, the roof form is usually designed with contrasting curvilinear shapes to suggest the lightness of leaf, feather, cloud and sail. (Fig 49)

A description of three of Utzon's projects – the stepped platform with floating roof of the Sydney Opera House, (Fig 50) the 'other world' flat platform of Bagsvaerd Church (Fig 51) and the plateau by the sea at Porto Petro (Fig 52) – reveals the use of this ancient gathering form in the public, institutional and private domains.

Opera House platform

The stepped platform with hovering roof, particularly for civic architecture, is a recurring theme in Utzon's work, reaching its greatest expression in the Sydney Opera House. (Fig 53) In this project the stepped platform is conceived of as an artificial landform to replace the ground at Bennelong Point. (Fig 54) Here the new and abstracted ground rises to its highest point at the water's edge as a dominant rather than recessive gesture in the landscape. Built at the scale of a civil engineering work, the raised platform is made as a substitute site not only for the placing of the



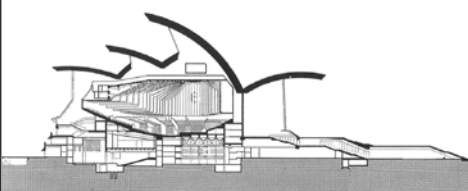
50 Jørn Utzon: Sydney Opera House, Australia (1957-73)



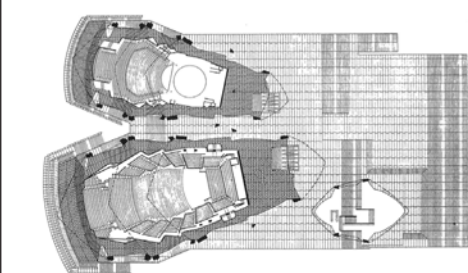
51 Jørn Utzon: Bagsvaerd Church, Copenhagen, Denmark (1974-76)



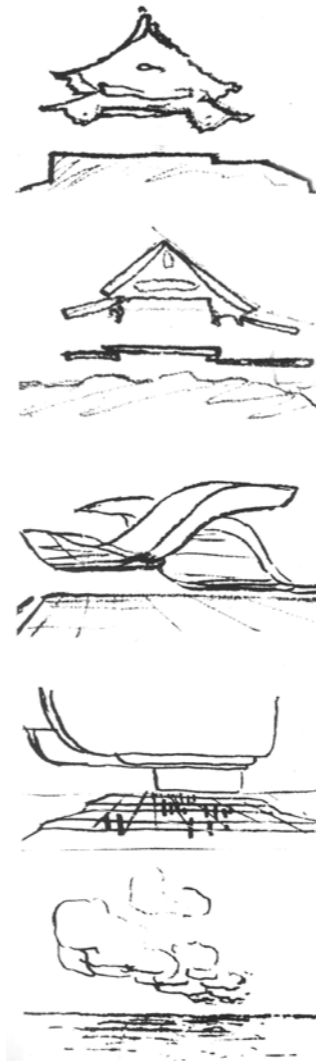
52 Jørn Utzon: architect's house, Porto Petro, Majorca, Spain (1972)



53 Jørn Utzon: Sydney Opera House (as built)



24 Kenneth Frampton: *Studies in Tectonic Culture*, MIT Press, Cambridge, Massachusetts, 1995, p260
25 *Ibid*, p248



49 Jørn Utzon: platforms with floating roofs sketch



54 Jørn Utzon: Sydney Opera House showing Bennelong Point re-formed

26 Jørn Utzon: *op cit*, p40
27 Richard Weston: *Utzon: Inspiration Vision Architecture*, Edition Bløndal, Denmark, 2002



56 Kronborg Castle, Helsingør, Denmark (1585)



57



59 Jørn Utzon: Sydney Opera House raised podium

performance halls and associated rituals but also for the larger theatre of the harbour landscape.

Unlike the Greek amphitheatre where the auditorium rises in tiers of seats cut out of solid rock and where the hillside and steps are interdependent through the correspondence of material, gradient and form, Utzon's stepped podium at Bennelong Point is intentionally articulated as a form independent of the ground in both geometry and material, and on entry is revealed not as part of the ground but as hollow. (Fig 55)

Utzon wrote about the 'architectural force' of the platform in an article for *Zodiac*, but went on to write in pragmatic terms that 'the platform gives a good answer to today's traffic problems': 'there are various traffic layers under the platform – for covered pedestrian intercommunication, for car traffic and for parking. The buildings stand on top of the platform supporting each other in an undisturbed composition. In the Sydney Opera House scheme, the idea has been to let the platform cut through like a knife and separate primary and secondary functions completely. On top of the platform the spectators receive the completed work of art, and beneath the platform every preparation for it takes place.'²⁶

This horizontal division of the served and servant spaces relegates the realm of the everyday, with its disorder and machinery, to the podium interior, reserving the idealised landscape above as the contemplative plane of order and beauty.

The site of Kronborg Castle, (Fig 56) another promontory commanding the water, was one of the reference points for Utzon's early siting studies for Sydney.²⁷ The fortifications with their raised, walled earthworks laid out on a radial plan, extend to the edges of the promontory. (Fig 57) Here too the earth's common plane is replaced with a substitute site and one that creates an idealised, artificial landscape for the authority of the castle.

In Sydney, however, the stepped podium of the Opera House has neither the centralising, gathering force of the Greek amphitheatre nor the defensive containment of the castle. Utzon's steps create a restless space that draws us up towards the sky. (Fig 58) The stepped platform limits the harbour view from the city approach, then invites the climb and surprises with the new horizon. Utzon's wonder at the Mayan plateau and his delight at discovering the open sky and continuous horizon line above the jungle have surely given great impetus for its re-creation. Once on the constructed plateau, we are hushed in the presence of this new position and a new view of the surrounding harbour expanding as we move towards its horizon edge to gaze out towards the wider horizon of the landscape. (Fig 59) This coincidence between the platform's horizon and the line where sky and earth appear to meet tends to create a ladder of relations between our place in the building and our place in the wider landscape.



55 Jørn Utzon: Sydney Opera House forecourt steps: hollow ground



58 Jørn Utzon: Sydney Opera House forecourt steps to raised podium



60 Jørn Utzon: Sydney Opera House shell forms resting on their points



61 Jørn Utzon: Sydney Opera House grounded podium

Making the idealised plane legible and amplifying the spatial experience requires that there are no upturned edges, no solid walls or balustrades, and minimal street furniture or billboards to contain the continuity of external space or to withhold the panorama. Instead, the platform is completely flat; it has sheer edges, a uniform surface and a planar continuity barely interrupted by the shell forms resting on their points. (Fig 60) Legibility and coherence are critical issues in the architecture of the raised platform.

In order that the horizon line can be expressed, the ground and the sky must be defined and coexist in their separation. At the Sydney Opera House, the definition also relies on strong formal contrast between the podium and the shell roofs. The shell roofs are curved, white and airborne; they contrast with the form of the rectilinear, darker and grounded podium. (Fig 61) For, as Utzon has warned us, 'A flat roof does not express the flatness of the platform'.²⁸

The legibility of the platform and the visual separation between the podium and the shell rely on a recessive wall element. Utzon's unrealised designs for the curtain wall at the Sydney Opera House reveal ideas for diminishing its presence through cladding for the mullions. (Fig 62) 'A vertical glass wall kills the effect of the freestanding shell', as reflections can make the glass look as solid as a load-bearing wall.²⁹

It was essential for Utzon that the platform be made completely flat – as the earth's surface can never be – bringing with it the technical problem of water runoff and drainage solved by draining the water through gaps in the pavement.

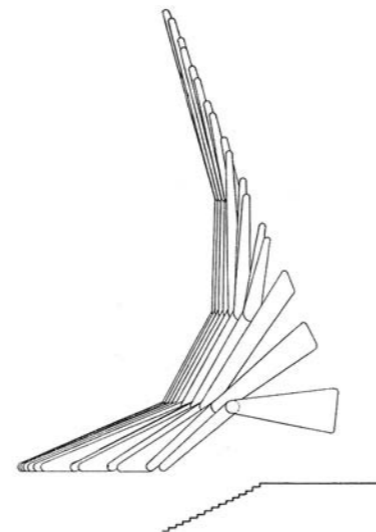
The raised platform at the Sydney Opera House offers a lookout place for contemplation and also invites 'a formal arrangement for organised life' where, as Utzon imagined, 'The audience is assembled ... and led like a festive procession into the respective halls, thanks to the pure staircase solution'.³⁰

While Utzon was perhaps referring to the form of the shells when comparing them with the sculptural wonder of the Gothic church, it may be their positioning on the raised platform, in the focal point of the harbour city, that transforms them into a temple to music.³¹ The ancient form of the raised plateau not only gathers people above the common plane of the earth to look to the horizon but also clearly establishes the monument in the city.

Celestial plane

Utzon's article, 'Platforms and Plateaus', describes Monte Alban in Mexico as a little mountain topped by a flat concourse. (Fig 63) Stepped structures around the periphery of the mountain plateau have created a contained, central area, a place where, Utzon writes, 'you see actually nothing but the sky and the passing clouds – a new planet'.³²

- 28 Jørn Utzon: *op cit*
- 29 Jørn Utzon: 'The Sydney Opera House', reprinted from *Zodiac*, Volume 14, 1965, in Richard Weston: *op cit*
- 30 Richard Weston: *op cit*
- 31 Kenneth Frampton: *op cit*
- 32 Jørn Utzon: 'Platforms and Plateaus: Ideas of a Danish Architect': *op cit*

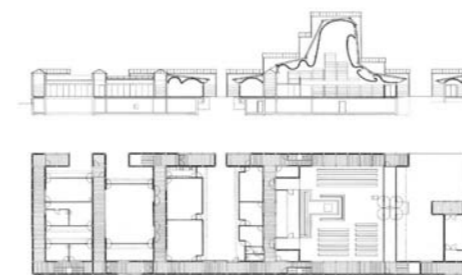


62 Jørn Utzon: Sydney Opera House proposed plywood glazing mullions



64 Jørn Utzon: Bagsvaerd Church, Copenhagen, Denmark (1974-76)

- 33 Richard Weston: *op cit*
- 34 Kenneth Frampton: *op cit*, p291



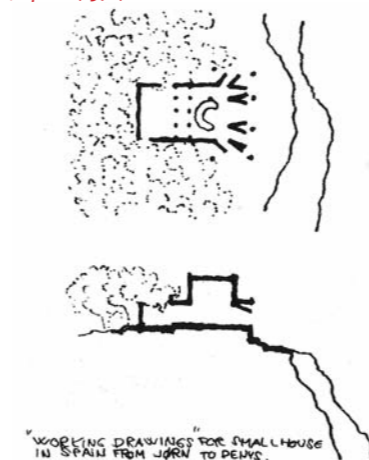
65 Jørn Utzon: Bagsvaerd Church, Copenhagen, Denmark (1974-76)



68 Jørn Utzon: Bagsvaerd Church 'cloud' ceiling



70 Jørn Utzon: architect's house, Porto Petro, Majorca, Spain (1972)



This sense of having arrived at a new planet, where you experience only sky and clouds, is an essential quality at the Bagsvaerd Church. (Fig 64) The suburban site of the church offered no possibility of relations with either the larger landscape or the distant horizon. At Bagsvaerd the surrounding disorder of the everyday world is excluded by an enclosure, creating a new, celestial world within. The tartan grid geometry of the substitute ground plane (Fig 65) orders an idealised site based on squares in plan and circles in section.³³

According to Frampton, 'Utzon has explicitly rendered the [floor] as an earthwork; first by building it out of precast concrete planks set on top of the reinforced concrete basement and secondly by assembling the dais and pulpit out of precast hollow concrete slabs (Fig 66) similar to the planking used on the floor'.³⁴

The almost blind elevations (Fig 67) of the Bagsvaerd Church create an enclosure that is breached only by the force of the sky, with its light and abstracted cloud forms. (Fig 68) Within this introspective other world, we find ourselves between the ground and the rising clouds, bathed in a heavenly light. The luminosity of the interior is provided by skylights but amplified through reflection off the materials, such as the timber joinery that is bleached and bleached again by the light, the pale precast concrete surface, the white painted altar screen and bright metal organ pipes.

In the north elevation it is just possible to recognise the profile of a raised podium surmounted by a pagoda form, (Fig 69) but – unlike the Sydney Opera House – at Bagsvaerd the full form of the celestial vaults is withheld for the world of the interior.

Plateau at Porto Petro

The ancient gathering form of the platform, with its invitation to gaze to the horizon, recurs in Utzon's house, Can Lis, in south-eastern Majorca. The clifftop site at Porto Petro is set high above the coastline and provides a natural plateau for living in seclusion on a narrow ledge with the vast open space of the sea and the sky. (Fig 70)

On the landward side, pine trees follow a long series of shaded sandstone walls that shield the site from the street. Moving from the street onto the site is made in a delightfully choreographed sequence. Visitors arrive through the trees and step onto the raised plinth of the covered porch outside the boundary wall. (Fig 71)

On opening the wooden entrance door, the screen ahead withholds the seaward view but offers up a crescent moon with tiles below representing the phases of the moon. Peeping through the moon slit and through the branches of the tree beyond is a patch of blue. By night the moon tracing across the sky must be one of the wonders of this site.

Turning left into an intimate courtyard, to face a stone portico, there



66 Jørn Utzon: Bagsvaerd Church dais and pulpit



67 Jørn Utzon: Bagsvaerd Church 'blind' elevations



69 Jørn Utzon: Bagsvaerd Church north elevation



71 Jørn Utzon: architect's house, Porto Petro, entry porch

are four pairs of wooden doors that withhold the view beyond. When the doors are open, the searching eyes align the body squarely to the magnet of the horizon line. The main gathering room is made for looking out. Bay windows are set like eye sockets under the brow of the building enclosure and scan the horizon between the columns while neatly avoiding them. (Fig 72) The surfaces of the bay window interior, the wall, ceiling and floor planes are all alike: sheer, no skirting or frame to interrupt, inviting the eyes to move without interruption to the horizon. The bedroom windows look straight ahead through deep bays to the horizon. (Fig 73) The sitting room pavilion is sited closer to the cliff edge, with bay windows also in the side walls for a greater panorama. (Fig 74)

Utzon's choreography of moving from land to water, from dark to light, from intimate space to infinite space, is enacted throughout the site and at various times of the day and seasons – an experience ever alive to shifts in the sky and seascape. (Fig 75)

The house is arranged as a kind of encampment, with loosely connected pavilions, each with its own paved plateau, tethered by the boundary wall and stretched out with the view. Stone 'rafts' on which the pavilions rest make a set of contained territories on the rocky ground, allowing the greater terrain of the clifftop to retain continuity through the site. Each stone plinth has a rectangular plan incorporating enclosed rooms and an open court within its paved territory. The spatial organisation, the square based columns and elements of the fixed furniture are integrated with the paving grid – a grid based on a square geometry and varied according to the construction and the scale of each pavilion. (Fig 76)

In this work, 'Utzon conceptualised the plan as being like an ideal rectangle descending onto the site, fragmenting and then adjusting to the horizon'. The house at Porto Petro is both a temple and a house, yielding grand and intimate spaces enlivened by Utzon's choreography in revealing the horizon.³⁵

Utzon's raised platforms, plinths and constructed plateaus are essentially formed as an abstract plane conceived of as a substitute site for moving along, standing on and for building. As a site, rather than a floor of an enclosed room, the new ground plane seeks spatial continuity with the horizon and infinity, and resists enclosure. The idealised plane is also conceived of in contrast to the earth's ground: recall the rectangle, the grid geometry, the single material colour and texture of the uncluttered surface and recall its absolute flatness. These qualities of Utzon's raised platforms recur in his architecture to heighten awareness and experience of location, space and light.

35 Richard Weston:
op cit



72 Jørn Utzon: architect's house, Porto Petro, 'eye socket' windows



76 Jørn Utzon: architect's house, Porto Petro, Majorca (1972)

Conclusion

Van Eyck's illustration of form and counter-form describes the valley and the hill as the two essential gathering forms that have found their way into building and into the architecture of Alvar Aalto and Jørn Utzon. The valley reconfigured becomes an enclosing, centralising room in the landscape that invites social grouping. This ancient gathering form offers a place for focus on human interaction and conviviality and tends towards spatial interiority. The hill, on the other hand, configured as a stepped platform in the landscape, invites a measure of isolation for gathering in solitude or ritual. This ancient gathering form offers a place with focus towards the horizon and the vast exterior space of the sky.

Although the work of both architects incorporates both the form and counter-form for gathering, Aalto's most memorable works tend to embrace ancient forms that gather us towards a centre and the world of the interior, and Utzon's most poetic works are based on ancient forms that invite us to gaze outward towards the horizon. (Fig 77) The origin of these leanings are likely to be obscure, but it is tempting to reflect on sketches the architects made during their studies of ancient architecture.

Aalto's architectural tours to southern Europe included Greece, Italy and Spain, and many of his perspective sketches are of ruined amphitheatres, courtyards and piazzas. Utzon's early travel tours took him to Europe and beyond, to Central America and the Orient, to cultures outside the West. In his article 'Platforms and Plateaus' Utzon describes the Mayan temple complex at Monte Alban, the Acropolis, the Delhi mosque and Chinese temples: sacred places set apart for gathering in contemplation and solitude, places with connection to the sky and the horizon.

Whatever the origin of these two types of gathering place – one enclosing, the other exposing – the endurance of their essential form derives from their response to the human desire to be convivial and centre-bound or contemplative and horizon-bound, according to place and occasion. The architectures of Aalto and Utzon reveal the poetic latent in these ancient gathering forms and contribute to their regeneration.



77 Jørn Utzon



73 Jørn Utzon: architect's house, Porto Petro, view to the horizon from bedroom



74 Jørn Utzon: architect's house, Porto Petro, bay windows



75 Jørn Utzon: architect's house, Porto Petro, the constantly changing light