

Primitive Hut or Platform: Utzon, the Platform, and Ideas of Architectural Beginnings

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Abstract

Historian William J. R. Curtis remarked in 2008 that Semper's idea of the 'primitive hut' might well be succeeded as a founding myth of architecture by Jørn Utzon's idea of the platform – the natural plateau, the built terrace, the levelled urban space.

The built platform, a landscape construct found across eras and civilizations, is discussed by Utzon in his 1965 'Platforms and Plateaus' article. The platform may be seen as a true 'idea', positioned between architecture and landscape, locating human existence between earth and sky. The platform may be a fundamental idea through which, as Curtis suggests, to consider myths of architectural beginnings. Utzon's built synthesis of landscape and architecture would seem to offer a 'platform', a basis, for thinking about architectural history and theory.

This paper reflects on Curtis' suggestion, and also considers Utzon's ideas as formative for a conception of architecture related to technical and poetic ideals and everyday experience. It considers aspects of Utzon's platform idea, set against the idea of the 'primitive hut', to consider this landscape element as formative for a contemporary 'architectural imagination'.

Platform and Primitive Hut

At the Second Utzon Symposium in Aalborg, Denmark in September 2008, historian William J. R. Curtis surmised that Jørn Utzon's thinking and architecture were of such significance that architecture's theoretical foundational idea of the 'primitive hut' might arguably be challenged by Utzon's concept of the platform – the natural platform, the artificial plateau, the built terrace – as a myth of architectural beginnings. Curtis formalized his thinking more recently, writing in memory of Utzon:

Perhaps the platform is the most basic architectural gesture, even more fundamental to the origins of architecture than the so-called 'primitive hut', because it defines a territory, marks human boundaries in the landscape and sets up a relation with the horizon.¹

The notion that the platform may be 'fundamental to the origins of architecture' prompts questions about defining human presence by making raised level areas for building and for human activity in the landscape. The platform is considered here along with notions of clouds, sky and horizons in architecture, and is briefly discussed relative to ideas of the primitive hut.

'Platforms and Plateaus: Ideas of a Danish Architect'

It is well documented that Utzon synthesized numerous architectural ideas, gleaned from his travels and his experience of the architecture of various cultures, in his Sydney Opera House (1957-73).² The platform idea especially can be seen as an element of 'architectural landscape', that is, as an idea common to both architecture and landscape disciplines, a landscape idea used to generate or inform an architectural conception. In the late 1940s Utzon visited the ancient temple sites of Mexico: at Monte Alban he saw how the mountaintop had been shaped and platforms constructed; in Yucatan he observed how temple structures had been built to rise above the rainforest canopy.³ Utzon was deeply moved by these, and other, more urban, built platforms: he wrote in 1961, 'When I look back, I can feel my heart beating when I have seen the big plateaus like those in Mexico, Peking, and India.'⁴ Sigfried Giedion saw the Mexican examples as precedents: 'In the broad horizontal platforms on different levels and the monumental stairways of Mayan architecture, Utzon discovered elements that had long lain slumbering in his own consciousness.'⁵ Utzon adopted these platform models in his designs, as conceptual underpinnings, to solve practical problems, and to create heightened aesthetic experience.

Utzon's Sydney design synthesizes numerous practical solutions, and locates people in a new, physically transcendent relationship with the natural world, as did the older platforms and stairs, where the experience is one of moving forward and rising through outdoor space, to arrive in a new, surprising, elevated place of prospect. Utzon's memories of people watching sailboat races in Denmark informed his strategy for the Opera House platforms. Utzon thought of people gathering in large or small groups: 'I

have seen how beautifully and naturally people move through the landscape.... They sit just like birds on the rocks. I have noticed how beautiful they are when in groups without being controlled.’⁶

Yet the platform also prompted more powerful feelings: Utzon wrote in his celebrated 1965 essay ‘Platforms and Plateaus’, of the Mexican temples, that ‘human regulation or adaptation of the site has resulted in something even stronger than nature and has given it spiritual content.’⁷ Architecture of the platform could offer transcendent, even cosmic, experience, as at Monte Alban: ‘the mountain top has been converted into a completely independent thing; floating in the air, separated from the earth, and from up there you see nothing but the sky and the passing clouds – a new planet.’⁸

Magic Mountains, Artificial and Natural

Platforms, naturally or artificially raised and levelled, differ from their contexts, whether flatlands or irregular topographies. Vincent Scully noticed the telluric power of the notched mountain as a backdrop to ancient sacred sites, observing cones and horns in sacred Mediterranean landscapes, from Knossos and Mycenae to Delphi and Athens.⁹ In these sacred landscapes, the ancient Greeks raised temples to shelter the image of the deity of the place. Enclosed courtyards, stadium and stoa, theatres, forecourts, and temple floors themselves were defined, flattened and paved for gathering, performance and ritual. The classical Greek buildings did not imitate natural forms: ‘[the] temples embody not the natural but the man-conceived divinity. They confront and balance the earth-shapes but are not of them.’¹⁰

Natural platforms have been endowed across cultures with divine or magic qualities: the flat-topped Mount Yengo, northwest of Sydney, was apparently sacred and only to be viewed by initiated Aboriginal men.¹¹ In George Hermann’s landscape-rich *Krazy Kat* cartoons, set in Arizona, the Magical Mesa is the source of extraordinary things (storks, babies, time).¹² Camille Paglia asserts that ‘Greek greatness is Apollonian. The gods live on a peak touching the sky ... Pheidias brings person and building together on the Acropolis or High City, Athens’ Magic Mountain.’¹³ The built platform is no less endowed than the natural plateau: Scully observes that the flat-roofed communal dwelling houses of the Pueblo of New Mexico are ‘passionate human contributions to natural divinity.... Man-made, their platform is yet a cavernous mountain, so that the mountain, too, is theirs.’¹⁴

Scully includes landscape in his definition of architecture: 'the first element of architecture is the natural world, and the second element is everything manmade. In that relationship between the manmade and the natural, the metaphysical wholeness of architecture is always seen.' Scully cites two examples of this relationship: 'The Greek temple, a closed and single shape riding its sacred landscape, shows us one kind of connection. The Italian town, existing in a complex ecological relationship with its terraced slope, shows another.'¹⁵ The Acropolis held great significance for Le Corbusier,¹⁶ while the Italian hill town was Alvar Aalto's ultimate example of a civilized landscape.¹⁷ The young Aalto recognized 'the reasons that made people settle on these hills in ancient times', and celebrated the aesthetic bonus he saw in the relationship of landscape, defence and survival: 'They are common knowledge and so natural that there is no need to repeat them here. But aesthetic value arose as a by-product.'¹⁸ Utzon has referred to his 'family of architects' extending back in time; he said that Asplund and Aalto in particular 'have something more than pure functionalism, they have sometimes what I would call spiritual superstructure. You call it poetry. This poetry makes each building represent exactly the life within the building.'¹⁹

Artificial platforms take advantage of, and even improve, their natural sites, transforming hillsides, mountaintops, jungle canopies, flat lowlands. Marc Treib has observed Aalto's geometric and mythic strategies of improving the site:

He drew inspiration from foreign sources as well as from his native landscape, and from their physical properties as well as their mythical dimensions. When the qualities of a site seemed to suggest a particular architectonic direction, Aalto usually emphasized the run of the land. When the qualities of a site were limited, Aalto constructed the landscape – outside the building, inside, or both.²⁰

Scully observes the constructed landscapes of ancient America: 'Where there are no mountains to shape the world ... the Mayan temples ride above the trees like clouds and, indeed, breathe out a chill rain breath from their cool corbel-vaulted interiors. Their bases are springs to lift them there.'²¹ Utzon exalted the Mexican stone platforms as architectural elements with aesthetic potential as great as that of the earth, 'positioned and formed with great sensitivity to the natural surroundings, and always with a deep idea behind. A great strength radiates from them. The feeling under your

feet is the same as the firmness you experience when standing on a large rock.²² Utzon employed the platform idea, associated with floating roofs and ceilings, as a practical solution with great poetic and sensory effect, in much of his architecture.²³

The Platform: A Landscape, Architectural, Urban, and Defensive Element

Landscape architect Catherine Dee notes that a 'high plateau enables a journey of anticipation and mystery towards the unseen top.'²⁴ Curtis has remarked that the platform 'defines a territory, marks human boundaries in the landscape'.²⁵ At the Sydney Opera House, the platform is an architectural, urban, and landscape element, transcendent and practical. Richard Weston notes that Utzon saw himself as 'a builder ... essentially a problem-solver',²⁶ the platforms and stairs solve crucial programmatic problems. Entry at Sydney is organized from one point for the two halls; vehicles and pedestrians are separated; seating is fitted into the amphitheatres of the platform; 'servant' spaces are housed within the hollow body of the platform, while the 'served' theatres soar above. Utzon had written, in his competition entry, that 'the approach of the audience is easy and as distinctly pronounced, as in Grecian theatres, by uncomplicated staircase constructions.'²⁷

As well as solving problems, the Sydney stairs and platforms create major urban, architectural and landscape experiences. Visitors arrive at ground level and ascend, inside or on the great outside stairs and platforms, to one main ticketing level. They follow up wide stairs (vomitoria) to gather at foyer level, and climb again outside the performance space, on cliff-edge stairs, to reach doors and seats. Visitors may climb further to a narrow artificial precipice, before ultimately dropping down to view harbour and horizon from the northern foyer plateau. This progression resembles the geographical perversity of the Sydney basin, where waters flow eastward from the Cumberland Plain, to meet the ocean and finally debouche between steep sandstone cliffs laced with the natural foyers of beaches.

The built platform emerged as a new military and urban type in Europe in the mid-seventeenth century, in the era of cannon warfare. Vauban, Louis XIV's engineer, surrounded and defended France with star-shaped *étoiles* – vast town-sized platforms that enabled raking cannon fire, with low, grid-plan fortresses at their centres – which were revolutionary for urbanism as well as warfare.²⁸ Scully notes, 'It means moving the earth; it is like making a garden.... The revolution the cannon began is complete. It has changed the human view of the city, and of the landscape, too.'²⁹ French classic

gardens such as Chantilly and Vaux-le Vicomte memorialize the French state and its famous victories, and the cosmic order of sky and earth.³⁰

One famous *étoile* in Denmark, Kronborg Castle – on the peninsula at Helsingør, where, observes Françoise Fromonot, ‘the forms stand out in a horizontal line, the sea and the clouds without a single vertical line’³¹ – provided Utzon with a partial model for his Sydney competition entry. Utzon had not visited Sydney, but researched the site using marine charts and aerial photographs;³² he visited Kronborg ‘to observe the movements of people, and to study the interplay of towers and turrets as a model.’³³

Platform, Horizon, Clouds and Sky

Utzon included platform, people, ocean, horizon, sky and clouds as essential elements in two famous sketches, one for the Sydney Opera House,³⁴ the other for the Bagsvaerd Church (1969-76).³⁵ Utzon had also watched a film about Sydney: Fromonot notes, ‘he observed the clouds that lingered over the bay which he later said had inspired had inspired the white roofs floating over the platform.’³⁶

Curtis names Utzon’s cloud drawings ‘ideogrammes’ of architecture.³⁷ He refers to Utzon’s cloud drawing as ‘the haunting doodle of the cloud unfolding above the compressed energy of the horizon ... a mythic image ... out of which many ideas for buildings may eventually flow.’³⁸ These clouds were built by Utzon, in the Bagsvaerd church ceilings. Utzon’s cloud vision is said to have come from gazing at the clouds over the sea in Hawaii;³⁹ such clouds can also be seen over Denmark, and would have been noticed by Utzon. Similar cumulus clouds are often seen above the horizon from the natural sandstone platforms of the Sydney Basin. Paradoxically – as in the heavy corbelled roofs of Chinese temples, in the massive roof of the Ronchamp chapel, and in the thatched roofs of the Ise shrine and Danish vernacular architecture – a very thick roof can also appear to float, like clouds. Utzon wrote, ‘A flat roof does not express the flatness of the platform.’⁴⁰

Cumulus clouds, formed by the ascent of warm thermals, are associated in Western art (Raphael, Titian, Tiepolo) with aspects of the divine.⁴¹ In Poussin’s *The Holy Family on the Steps*, the viewer’s eye follows the ‘stairway to heaven’ from the Holy Family’s platform to a higher horizon, surmounted by both dark and brightly lit cumulus clouds.⁴² Sky ceilings may be seen in Erik Gunnar Asplund’s Skandia cinema or his Stockholm Library; in the artificial suns of Aalto’s or Hans Scharoun’s libraries; in the interiors of

Borromini's churches; and earlier in the ceiling of the Saint-Chapelle, or in the coffering of the Pantheon with its actual sky iris. Sky ceilings may be said to constitute a long tradition, of myth and natural metaphor, realized through extraordinary craftsmanship, to which Utzon's cloud ceilings may be seen as a recent successor, conceptually and tectonically. Frampton points out that Utzon at Bagsvaerd 'makes the traditional allusion to the celestial vault and thereby to all the innumerable vaulted spaces of the Christian tradition.'⁴³

Horizons

Catherine Dee understands horizons in landscape terms as 'visual and symbolic edges where earth or sea meets sky.'⁴⁴ It is common observation that below the horizon is the realm of earthly matter: land, mountains, sea, vegetation, buildings, people; above the horizon are unearthly things: sky, clouds, sun, moon, planets, stars, rainbows, wind, birds. Jay Appleton regards the horizon as a 'line of demarcation' which 'separates that portion of the field of vision which can be perceived by the eye from that which can be reached only by the imagination.'⁴⁵ Leatherbarrow has drawn attention to Le Corbusier's understanding of the horizon, set out in his book *Precisions*: 'this line [of the horizon] is the limit between the ocean and sky; a vast horizontal plane extends toward me; I appreciate the voluptuousness of this masterly restfulness.'⁴⁶ Le Corbusier completes his poetic vision by counterposing vertical elements – the menhir by the ocean, *droiture* or upright posture, the spiritual axis of creativity – against the horizontal 'primeval waters' or 'the terrestrial plain of things knowable.'⁴⁷ In his book *The Fate of Place*, Edward S. Casey relates ancient Mesopotamian creation myths centred on the horizon, and refers to 'the world-creating character of the horizon, its unique capacity to bring earth and sky into active contiguity with one another while respecting their differences as distinct cosmic regions.'⁴⁸ The horizon would appear to carry significant experiential, poetic and mythic dimensions to support its aesthetic value.

Weston indicates how Utzon learned about aspects of siting from Le Corbusier: a drawing from 1947 with a 'captured landscape' is said to recall 'Le Corbusier's efforts to establish a dialogue between building and horizon.'⁴⁹ Utzon created new horizons to relocate people on artificial platforms; his drawings and sketches seem to organize themselves relative to the horizontal level, as the balance of a sailing boat might be gauged relative to water level;⁵⁰ the level of water may be one horizon that does not recede as one approaches. Utzon's drawings abound with horizontal lines, almost

obsessively emphasizing steps, terraces, contour levels, walls, beams, elevated and excavated floors, rooflines, lines of waves and surf, seats, tabletops, eaves, ceilings, ground lines, water lines, mountaintops. Thus Utzon imagined and built horizontal planes that seem to realize and satisfy Martienssen's ideals for 'the activities of organized life.'

A series of sketches for the Can Lis house, Majorca (1971) shows a series of frames within which different window shapes are tried.⁵¹ The purpose of the windows seems clear: to frame a view or views of the horizon; a sectional view of the lounge room shows people sitting and standing, viewing the various horizons of the floor edge, the cliff edge, and the distant sea.⁵² Fromonot calls the built windows 'viewing barrels' and 'landscape traps'; the house sits flat on its natural clifftop platform, looking through its windows at the horizon. Fromonot implies archaic purpose and mythic significance for the house in describing it as 'a refuge for a returning Odysseus.'⁵³

The 'Primitive Hut' and the Vaulted Atrium

A central story of architectural beginnings is the myth of the 'first hut' or 'primitive hut'. It has a lineage extending from Vitruvius to Perrault, Lafitau, Quatremère de Quincy, Laugier, Chambers, and Semper, and, more recently, to Vidler and Rykwert. In Semper's influential conception, the primitive hut had four components: at its centre was the sacred hearth, plus the roof, the enclosure and the mound, the last three being 'the protecting negations or defenders of the hearth's flame against the three hostile elements of nature.'⁵⁴ The primitive hut has more recently been examined by Joseph Rykwert, who, in *On Adam's House in Paradise*, observed the enduring nature of the hut as 'a memento of origins' for numerous cultures: 'It seems to have been displayed by practically all peoples at all times, and the meaning given to this elaborate figure does not appear to have shifted much from place to place, from time to time.'⁵⁵ The primitive hut is found in stories 'already forgotten by history, but deeply embedded in the folk memory'.⁵⁶ Weston relates Semper's version of the primitive hut to Utzon's conception and construction of the Bagsvaerd Church, as 'a marshalling of natural elements – clouds and tree-columns – to suggest a primordial architecture.'⁵⁷

A further reading of Semper can also suggest a curious lineage for the Bagsvaerd ceiling. In a footnote in *The Four Elements of Architecture* on interior and exterior space in the Greek temple, Semper makes the following claim:

There is actually no significant architectural form that did not arise from the original concept of the court.... The Gothic cathedral was a vaulted basilica, that is, a court with its central open space interiorized by placing a high roof over it.... Even the antique Pantheon and the Byzantine domes are nothing more than vaulted atria.⁵⁸

Semper appears to argue that great interior spaces – Chartres, the Pantheon, Hagia Sofia, theatres and opera houses – might well be seen as exterior spaces, as vaulted courtyards or outdoor rooms, interiorized with high roofs and ceilings.

In the vein of this extraordinary argument, Utzon's sketch of cloud forms captured, or descending between confining columns (in a mythic image of divine presence worthy of Ovid) may be read as a picture of an atrium, vaulted and interiorized by cloud ceilings. Another cloud ceiling, that of Aalto's Seinäjoki City Library (1960-65), a constructional tour de force of complex curves reflecting light into the fan-shaped reading room, would seem to offer a built precedent, and a conceptual and technical challenge for Utzon as builder of the Bagsvaerd ceiling. In both ceilings the casting marks of strip timber formwork attest to the deliberate and laborious craftsmanship of concrete construction, both acknowledging and defying gravity, setting the work apart from easier and less-wrought suspended timber or plaster 'solutions'.⁵⁹

Terraces and Levelled Land: Social and Cultural Values

David Leatherbarrow, in his 1999 essay 'Leveling the Land', holds that the technical activity of levelling land has considerable cultural value:

Whether mounded up on an open plain or cut into the slope of a hillside, every terrain that has been transformed into a terrace serves as the physical and conceptual foundation for the accommodation and enactment of a broad range of topographical purposes, from the most mundane to the most elevated. Without this basis most cultural practices are quite simply impossible.⁶⁰

Landscape historians Steenbergen and Reh locate the beginnings of the urban landscape in the activities of farming: 'Agricultural landscape is a result of cultivation processes carried out on the natural landscape. Likewise, the urban landscape is a result of civil engineering processes on both the natural and farming landscape.'⁶¹ The

making of a terrace to stabilize a slope or to redirect runoff, is the literally fundamental human activity of moving earth, piling rocks, compacting, and levelling, for agricultural or civic use. Terrace building requires planning, social organization of labour, and a vision of enduring agricultural and social benefits (arability, erosion control, drainage, etc.)

The use of stairs and terraces for the human activity of climbing or rising against gravity requires expenditure of energy. The sense of achievement in physically reaching a summit underlies central metaphors of attainment, victory, etc. in Western consciousness and language; the up-down dualities of heaven/hell, top dog/underdog, penthouse/pavement, etc., are correlate, socially and spatially, with strategic advantage. Edward S. Casey points out that the bivalence of up and down 'is redoubled: the up (and to a lesser degree) the down are projected onto the axis of the before and the behind.'⁶²

Yi-Fu Tuan has noticed how architects exploit human consciousness of space: 'vertical and horizontal, mass and volume are experiences known intimately to the body';⁶³ sacredness, future, and horizon are associated with concepts of upright and forward.⁶⁴ J. D. Dickson has indicated a number of essences of human spatial experience, including that of public space: 'The movement of space outward is expansion.... The space of release is public.... The space of public is generated by the sudden, outward, effusive dynamic of persons.'⁶⁵

Weston, in his essay 'From Place to Planet', outlines a landscape strategy generally implemented by Utzon, one that unifies the complementary states of protection and exposure: 'Utzon sought to ground his work in our elemental experience of nature. Walking around his built landscapes, we feel of a piece with hilltops and clouds, promontories and caves, *in* a particular place but *part* of a larger, shared world.'⁶⁶

Conclusion

At Aalborg in 2008, Rafael Moneo described Utzon's original competition plan drawing of the Opera House platform as 'one of the nicest drawings of the twentieth century'. Curtis recalls the physical presence and the significance of the Opera House, 'conceived on a territorial scale, truly a geological event in the harbour of Sydney.'⁶⁷ Utzon's eye-pleasing drawing, of the great platforms with their rising stairs, and the terraced seats seemingly carved from their artificial hill, indicates his synthesis of

space for human presence, and at the same time promises transcendent experiences of works of art, and of the harbour landscape. Utzon wrote, 'There is magic in the play between roof and platform.'⁶⁸ The almost geological drawing also embodies the effect of wind across the platforms, and the taut, rippled surfaces of the breaking wave: as Utzon said, 'The invisible wind works up the water forming the surface in varying winds – varying waves, but always of the same character.'⁶⁹

Endnotes

¹ William J. R. Curtis, 'The Substance of Architectural Ideas: Jørn Utzon', *Arkitektur DK*, 1/2009, 1-6.

² Peter Myers, 'The Sydney Opera House', *Journal of Architecture*, 3 (Winter 1998), 304-9. Sigfried Giedion, 'Jørn Utzon and the Third Generation', in *Space, Time and Architecture: The Growth of a New Tradition*, 5th edn (Cambridge, Mass.: Harvard University Press, 1967 [1941]); Philip Goad, 'An Appeal for Modernism: Sigfried Giedion and the Sydney Opera House', *Fabrications*, 8 (July 1997), 129-45; Françoise Fromonot, *Jørn Utzon: The Sydney Opera House* (Milan: Electa/ Ginkgo, 1998); Richard Weston, *Utzon: Inspiration Vision Architecture* (Hellerup, Denmark: Editions Blondal, 2002).

³ Michael Asgard Andersen, 'Embedded Emancipation: The Field of Utzon's Platforms', *Fabrications*, 15,1 (July 2005), 28-37.

⁴ Jørn Utzon, letter to Bruno Alfieri, editor of *Zodiac* magazine, 12 June 1961 (Utzon Collection, State Library of NSW), in John Murphy, *The Studio of Jørn Utzon: Creating the Sydney Opera House* (Sydney: Historic Houses Trust, 2004).

⁵ Giedion, 'Jørn Utzon and the Third Generation', 670.

⁶ Weston, *Utzon*, 407.

⁷ Jørn Utzon, 'Platforms and Plateaus: Ideas of a Danish Architect', *Zodiac*, 10 (1965), 116.

⁸ Utzon, 'Platforms and Plateaus', 116.

⁹ Vincent Scully, *The Earth, the Temple and the Gods: Greek Sacred Architecture*, rev. edn (New Haven: Yale University Press, 1979 [1962]), 13.

¹⁰ Vincent Scully, *Pueblo: Mountain, Village, Dance* (London: Thames and Hudson, 1975 [1972]), 7.

¹¹ W. J. Needham, *Burrurra, Where the Spirit Walked: The Aboriginal Relics of the Cessnock-Wollombi Region in the Hunter Valley of NSW* (Cessnock, NSW: W. J. Needham, 1981).

¹² George Herriman, *Krazy & Ignatz 1925-1926*, ed. Bill Blackbeard (Seattle: Fantagraphics Books, 2002), 100.

¹³ Camille Paglia, *Sexual Personae: Art and Decadence from Nefertiti to Emily Dickinson* (New Haven: Yale University Press, 1990), 72.

¹⁴ Scully, *Pueblo: Mountain, Village, Dance*, 45.

¹⁵ Vincent Scully, 'A Search for Principle between Two Wars' (RIBA Discourse 1969), in Neil Levine (ed.), *Modern Architecture and Other Essays* (Princeton and Oxford: Princeton Architectural Press, 2003), 142-43.

¹⁶ Kenneth Frampton, *Le Corbusier* (London: Thames and Hudson, 2001), 13-14.

¹⁷ Alvar Aalto, 'The Hilltop Town' (1924), and 'Journey to Italy' (1954); both in Göran Schildt (eds.), *Alvar Aalto in his Own Words*, trans. Timothy Bingham (Helsinki: Ottava, 1997).

¹⁸ Alvar Aalto, 'The Hilltop Town' (1924) in Schildt, *Alvar Aalto in his Own Words*, 49.

¹⁹ 'Royal Gold Medallist 1978: Jørn Utzon', *RIBA Journal* (October 1978), 427.

²⁰ Marc Treib, 'Aalto's Nature', in Peter Reed (ed.), *Alvar Aalto: Between Humanism and Materialism* (New York: The Museum of Modern Art, 1998), 47.

²¹ Scully, *Pueblo: Mountain, Village, Dance*, 45.

²² Utzon, 'Platforms and Plateaus', 114.

- ²³ Jaime J. Ferrer Forés, *Jørn Utzon: Works and Projects* (Barcelona: Editorial Gustavo Gil, 2008).
- ²⁴ Catherine Dee, *Form and Fabric in Landscape Architecture: A Visual Introduction* (London and New York: Spon, 2001), 59.
- ²⁵ Curtis, 'The Substance of Architectural Ideas', 3.
- ²⁶ Weston, *Utzon*, 177.
- ²⁷ Fromonot, *Jørn Utzon*, 48.
- ²⁸ Vincent Scully, *Architecture: The Natural and the Manmade* (New York: St Martin's Press, 1991), 288.
- ²⁹ Scully, *Architecture*, 282.
- ³⁰ Scully, *Architecture*, 266-73.
- ³¹ Fromonot, *Jørn Utzon*, 49.
- ³² Fromonot, *Jørn Utzon*, 49.
- ³³ Weston, *Utzon*, 121.
- ³⁴ Utzon, 'Platforms and Plateaus', 117.
- ³⁵ Weston, *Utzon*, 280.
- ³⁶ Fromonot, *Jørn Utzon*, 49.
- ³⁷ Curtis, 'The Substance of Architectural Ideas', 4.
- ³⁸ Curtis, 'The Substance of Architectural Ideas', 4.
- ³⁹ Weston, *Utzon*, 280-81.
- ⁴⁰ Utzon, 'Platforms and Plateaus', 117.
- ⁴¹ Gavin Pretor-Pinney, *The Cloudspotter's Guide* (London: Sceptre, 2006), 26-37.
- ⁴² Howard Hibbard: *Poussin: The Holy Family on the Steps* (London: Allen Lane, 1974), 84.
- ⁴³ Kenneth Frampton, 'Jørn Utzon: Transcultural Form and the Tectonic Metaphor', in *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, ed. John Cava (Cambridge, Mass.: MIT Press, 1995), 286.
- ⁴⁴ Dee, *Form and Fabric in Landscape Architecture*, 122.
- ⁴⁵ Jay Appleton, *The Symbolism of Habitat: An Interpretation of Landscape in the Arts* (Seattle: University of Washington Press, 1990), 28; noted in Jay Appleton, *The Experience of Landscape*, rev. edn (Chichester, UK: John Wiley & Sons, 1996 [1975]), 254.
- ⁴⁶ David Leatherbarrow, 'Leveling the Land', in James Corner (ed.), *Recovering Landscape: Essays in Contemporary Landscape Architecture* (New York: Princeton Architectural Press, 1999), 179. Reference is to Le Corbusier, *Precisions* (Cambridge, Mass.: MIT Press, 1991), 75.
- ⁴⁷ Leatherbarrow, 'Leveling the Land', 180-81. Reference is to Le Corbusier, *Poem to the Right Angle* (Paris: Fondation Le Corbusier, 1989), 65.
- ⁴⁸ Edward S. Casey, *The Fate of Place: A Philosophical History* (Berkeley: University of California Press, 1997), 27-28, 11.
- ⁴⁹ Weston, *Utzon*, 40, drawing caption.
- ⁵⁰ See Utzon's boat design in Martin Keiding, Per Henrik Skou, Marianne Amundsen (eds.), *A Tribute to Jørn Utzon* (Copenhagen: Arkitektens Forlag/ The Danish Architectural Press, 2008), 40-41. Utzon's familiarity with naval architecture stems from his father's work in the Aalborg shipyards as a naval architect. Weston, *Utzon*, 17.
- ⁵¹ *A Tribute to Jørn Utzon*, 72.
- ⁵² *A Tribute to Jørn Utzon*, 73.
- ⁵³ Fromonot, *Jørn Utzon*, 210.
- ⁵⁴ Gottfried Semper, *The Four Elements of Architecture and Other Writings*, trans. Harry Francis Mallgrave and Wolfgang Herrmann (Cambridge, UK: Cambridge University Press, 1989), 102.
- ⁵⁵ Joseph Rykwert, *On Adam's House in Paradise: The Idea of the Primitive Hut in Architectural History* (Cambridge, Mass.: The MIT Press, 1981 [1972]), 182-83.
- ⁵⁶ Rykwert, *On Adam's House in Paradise*, 182.
- ⁵⁷ Weston, *Utzon*, 280, 296.
- ⁵⁸ Semper, *The Four Elements of Architecture and Other Writings*, footnote, 124.
- ⁵⁹ Weston, *Utzon*, 296-98; also Frampton, 'Jørn Utzon', 285.
- ⁶⁰ Leatherbarrow, 'Leveling the Land', 171.
- ⁶¹ Clemens Steenbergen and Wouter Reh, *Architecture and Landscape: The Design Experiment of the Great European Gardens and Landscapes* (Munich: Prestel, 1996), 13.

⁶² Edward S. Casey, *Getting Back into Place: Toward a Renewed Understanding of the Place-world* (Bloomington: Indiana University Press, 1993), 77.

⁶³ Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 108.

⁶⁴ Tuan, *Space and Place*, 35.

⁶⁵ J. D. Dickson, 'The Mastery of Space, Part One: Space, Shape, Movement and their Social Implications', Study paper No.66, The University of Auckland, May 1982.

⁶⁶ Richard Weston, 'From Place to Planet: Jørn Utzon's Earthbound Platforms and Floating Roofs', in Sarah Menin (ed.), *Constructing Place: Mind and Matter* (London and New York: Routledge, 2003), 251-52.

⁶⁷ Curtis, 'The Substance of Architectural Ideas', 3.

⁶⁸ Utzon, 'Platforms and Plateaus', 116.

⁶⁹ Weston, *Utzon*, 169.