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# An eco poetic architect: The resonate presencing of material properties and environmental conditions in the case of Jørn Utzon

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**ABSTRACT:** This paper investigates how ecological awareness may be activated through experienced phenomena in the case of three selected works by Jørn Utzon. Concerned with the qualitative study of the potential of building cultures, the aim is to qualify and inspire future sustainable design strategies with special attention to material properties and environmental conditions. It is asked what characterises the specific mode that allow *oikos* to be unconcealed through *poiesis*. And in continuation, how may the analysed works inspire sustainable human dwelling, on a finite Earth with limited natural capital. It is argued that eco poetics in architecture understood as the resonate presencing of material properties and environmental conditions that invites participation may be a profound way to inspire sustainable dwelling in careful consideration of the natural capital of a finite Earth.

## 1 INTRODUCTION

The climate crisis calls for strong and sustained reductions of emissions of carbon dioxide and other greenhouse gases as argued ever more convincingly by the IPCC (2021). However, the global crises go much deeper and comprise rising inequality, predation of the Earth's natural resources, pollution and irreversible destruction of biodiversity. According to Earth Overshoot Day (2021), humanity's demand for ecological resources and services has exceeded what the Earth can regenerate – in 2021 this occurred already on 29 July. Unlimited growth as we know it is simply not possible on planet Earth that is physically not growing and natural capital is a limiting factor (Daly 2007). As the recent Dasgupta Review (2021) – among others – has underlined, we need to understand and accept the simple fact that the economy is embedded in the biosphere, not external to it. It may be argued that the ontological divide of culture to nature is a key driving force in this deep ecological crisis. As one possible response, this paper aims to investigate and get a better understanding of how ecological awareness may be activated through experienced phenomena in the case of three selected works by Jørn Utzon.

## 2 BACKGROUND AND RESEARCH QUESTION

In ancient Greece, the opposition of 'culture' to 'nature' was not as manifest as it is understood today. According to Foltz (1995, p.127), "[i]f nature is understood by means of self-emergence, there can be no hard dividing line – let alone opposition – drawn between nature and history, nature and art, nature and spirit, nature and freedom, nature and grace." In the Greek *oikos* (household), the Earth was considered both natural substance and constructed field (Leatherbarrow & Wesley 2018). Thus Aristotle ([335-322 BC] 1934, Met. 5.1014b), listing five different understandings of the term *phusis*, states that "[...] the primary and proper sense of 'nature' is the essence of those things which contain in themselves as such a source of motion." However, humans have considered themselves separate from and masters of nature (at least) since Descartes ([1633] 2006,

p.51) argued that “we could put [fire, water, air, stars, the heavens, and all the other bodies that are around us] to all the uses for which they are suited and thus make ourselves as it were the masters and possessors of nature.”

In opposition to the reductionism, objectivism and scientism of science, Edmund Husserl ([1901] 2001, p.168) has argued from a phenomenological perspective that “[...] we must go back to the ‘things themselves’.” Directing the focus on the world as it presents itself to consciousness in its intuitive givenness, Husserl calls for a return to the perceptual world, thus questioning the dogmatic division of the world into subject and object. In recent years, scholars from other fields have challenged the ontological divide between nature and culture, human and non-human. Criticising human exceptionalism, Donna Haraway (2008) has introduced the concept of *naturecultures* to describe entangled multispecies histories, thus dissolving the hard boundary between nature and culture. From the point of view of political science, Jane Bennett (2009, p.122) has argued that physical matter is in fact *doing things*, suggesting that “encounters with lively matter can chasten my fantasies of human mastery, highlight the common materiality of all that is, expose a wider distribution of agency, and reshape the self and its interests.”

In literature, the term *ecopoetics* may be understood as the poetic making of the dwellingplace (Bate 2001). The prefix ‘eco-’ derives from Greek *oikos*, the household, and the suffix ‘-poetics’ derives from Greek *poiesis*, the making. To Jonathan Bate, *ecopoetics* asks in what respect a poem may be a making of the dwellingplace. In parallel, arguing for a dialogue with Asian views, Claudia Westermann (2019, p.1) aims to outline an approach for an eco-poetic way of thinking the built environment and its design that is capable of “conceptualising the interconnectedness of minds, bodies, environments, the sciences, and cultures”.

In continuation of the above, this paper takes a phenomenological-hermeneutic approach to investigate and get a better understanding of *ecopoetics* in architecture as the poetic making of the dwellingplace in light of the accelerating ecological crisis. Concerned with the qualitative study of the potential of building cultures, the aim is to qualify and inspire future sustainable design strategies with special attention to material properties and environmental conditions. Three carefully chosen works by Jørn Utzon are investigated from an *ecopoetic* perspective. It is asked what characterises the specific mode that allow *oikos* to be unconcealed through *poiesis*. And in continuation, how may the analysed works inspire sustainable human dwelling, understood as the specific way in which *Da-sein* is in the world, on a finite Earth with limited natural capital.

### 3 RESEARCH METHOD AND SELECTION PROCESS

First, selected scholarly perspectives on Utzon are outlined in the theoretical framework. Then, three selected works by Jørn Utzon are described and analysed from an embodied first-person perspective rather than through a third-person e.g. biographic, stylistic or typological lens. The Fredensborg Houses (1959–1963), Can Lis (1970–1973) and Bagsværd Church (1973–1976) are selected because they represent three different programmes: community housing, a single-family house and an institution as well as three different building materials: brick, sandstone and concrete. Two projects are located in a suburban area, one in a rural setting.

The research method is a qualitative architectural case study involving a thorough, in-depth analysis of an existing building seen through a phenomenological-hermeneutic lens (Andersen 2018; Gallagher & Zahavi 2008; Groat & Wang 2013). Phenomenology is the study of the life-world, not as an abstraction or a presumption, but as it appears to the perceiver, experienced from an embodied first-person perspective. As Shaun Gallagher and Dan Zahavi describe the phenomenological attitude, “[...] we are no longer primarily interested in *what* things are – in their weight, size, chemical composition, etc. – but rather in *how* they appear, and thus as correlates of our experience.” (2008, p.25). The specific approach in this paper has special attentiveness to the felt body and the concepts of pure sensation and affective involvement as described by Hermann

Schmitz (2019). This approach resonates well with Utzon's own description of the intention of his work. To Utzon, it is all about the perceiver having a, for instance, "[...] solemn or powerful or radiant, [...] or intimate" (Utzon in Holm et al. 2004, pp.13–14, my translation) emotional experience.

The embodied, first-person experience has been recorded in notes, sketches and/or photographs and subsequently summarised in a short, descriptive account. The aim is not to give a complete and exhaustive description of all aspects of the investigated works but rather to say something meaningful that may help uncover characteristics of the experienced buildings with regard to the research question. The significance of the results is discussed in relation to the theoretical framework, and finally a conclusion is made.

#### 4 THEORETICAL FRAMEWORK

Scholars have emphasised different aspects of three major themes that have remained central in most research on Utzon: the relation to the environment, the use of (industrialised) technology and the human perspective. Placing Utzon at the front of so-called *Third Generation* architects, Sigfried Giedion ([1967] 2008) emphasises, e.g., the relation to the past, carefulness in handling the existing situation, a strong feeling for landscape and the architectural environment as significant. To Gideon (ibid., p.678), Utzon has the double gift of being "[...] able to have a direct contact with the cosmic elements of nature and the past and also complete control of contemporary methods of industrialized production [...]" as means of bringing prefabrication nearer to the organic.

Describing Can Lis through the concept of *genius loci*, Christian Norberg-Schulz (1996, p.3) underlines the 'primordial' quality of Utzon's work defined by "the place with its topography, vegetation, light and *ambience*" and "the persons, who shall meet, who shall trade, who shall live." In a somewhat embodied perspective, Norberg-Schulz argues that "Jørn Utzon's house on Mallorca interprets the place and shows what it means to live here today" (ibid.) pointing out the play of light and shadow as a primary quality and meaningful answer to the 'spirit of the place'. Investigating places in Utzon's architecture from a more nuanced perspective, Michael A. Andersen (2006, p.173) points out that "[...] the buildings are in a considerate relationship with the setting." To Andersen (ibid., p.185), places unfold in the interplay of physical structures and experiences and "[...] potentially allow for multiple places to emerge in each location."

To Kenneth Frampton (1995), the expressivity of structure and construction is a key element of Utzon's works. The building is a growing organism as a tectonic manifestation of natural forces, attenuating the boundary separating culture from nature. To Frampton (1995, p.247), "[a] prominent element in Utzon's architecture is his transcultural intention [...]" at the same time springing from and transcending local conditions. Emphasising the embodied quality of the Semperian opposition between the tectonic culture of the *light* to the stereotomic culture of the *heavy*, Frampton (1995, p.248) describes how Utzon "[...] contracts the flexion of such a floor [in traditional Japanese construction] to the inertia felt by the body as it stands on the pre-Columbian pyramid, where gravity braces the subject against an immobile mass beneath." With a similar interest in tectonic means but focusing on additive principles, Anne Beim (2004, p.163) emphasises Utzon's use of pure form and simple principles of construction where architectural problems are resolved individually and "nature is transformed into ideal elements." To Beim, tectonic vision is an unfolding of technological potential as a poetic and physical force.

In his monumental biography, Richard Weston (2002, p.407) perceives Utzon as a modest responder to a given situation, making "[...] deeply affecting places out of seemingly no more than a direct response to the elemental challenges of creating enclosure, excluding wind and rain, enjoying sun or view" founded in "intense contemplation of nature and love of building" (ibid.). Utzon himself often described being inspired by the principles of accretion and growth in nature. He points out that it is important to "[...] register the sensory impressions and sensations – practice eye and mind in perceiving space, form, light, shadow and color, and [...] try to find the simple laws that are found in nature." (Faber & Utzon 1947, p.130, my translation). In what could be understood as a

statement of architectural strategy, Utzon declares that “[...] this should be our starting point, to draw the unconscious reactions to consciousness. By exercising our ability to perceive [proportion, light, shadow, colour, etc.] and their impact on us, by being in contact with the surroundings, we discover the essence of architecture.” (Utzon in Prip-Buus, M., et al. 2004., p.11, my translation). To Utzon, a work of architecture may “[...] express a certain activity or a calm, or a protective force” (Utzon in Holm et al. 2004, p.13, my translation), just as the architect should not be interested in style, but find the possibilities for expression “[...] in the task and the technique” (ibid.).

In his seminal essay *Platforms and Plateaus*, Utzon ([1963] 2008 p.63) emphasises the embodied first-person experience stating that “[...] you can still experience this wonderful change in feeling from the closeness in the jungle to the vast openness on the platform top.” Similarly, in the case of the National Assembly, “[...] you see very clearly, what is carrying and what is being carried. You get the secure feeling of something built – not just designed.” (Utzon in Frampton 1995, p.295). Even if the sail metaphor has often been used to describe the Sydney Opera, Utzon himself emphasises the experienced *effect* when “[...] the roof, like sails, white in the strong sun, [was] slowly coming to life as the sun shone from the east and lifted overhead.” (Utzon in Frampton 1995, p.275). Similarly, in the case of Bagsværd Church, Utzon does not describe the image of a cloud itself, but rather the experienced *effect* of “[...] the natural space that gripped me [...]” (Utzon 2005, p.116, my translation).

Utzon’s emphasis on the experienced effect of natural space may be understood from a philosophical, phenomenological perspective. To Martin Heidegger, being in the world is an existential constitution of *Da-sein* related to dwelling as a way of staying with the world as something familiar. As such, “[b]eing as the infinitive of ‘I am’: that is, understood as an existential, means to dwell near..., to be familiar with...” (Heidegger 1996, p.55). Following Aristotle, Heidegger (2011, p.221) understands nature as self-emerging, pointing out that *physis* is “[...] the arising of something from out of itself [...]”. *Techne*, on the other hand, is the mode of bringing forth, which reveals a potential that hitherto lay concealed, “[...] not only for the activities and skills of the craftsman but also for the arts of the mind and the fine arts. *Techne* belongs to bringing-forth, to *poiesis*; it is something poetic.” (Heidegger 2011, p. 222). In this perspective, the skilled poet-architect performs *techne* through the specific way of bringing forth called *poiesis*. According to Heidegger, material as well as places have a certain direction, relative and relevant to our concern (Heidegger 1996; 2011). In continuation, it may be argued that architectural form is not simply imposed by the architect on inert material subsequently placed at an indifferent location; rather, the (poetic) work of architecture is the dynamic coming-to-presentation in careful consideration of materials and places, guided by a specific programme.

## 5 RESULTS AND ANALYSIS

### 5.1 *The Fredensborg houses*

Approaching the site at the top of a gentle hill along a narrow, winding road, one is met with a series of closed brick walls. Rhythmically accentuated by large brick chimneys, the hard, multifaceted space gives the impression of sliding slowly down the hill. Encouraged by the sloping surface, the body moves towards the bottom where a narrow passageway between the walls gives access to the open countryside. The vast, green park planted with large trees stretches out towards the surrounding woods. Entering through a narrow door articulated with a heavy concrete lintel in the closed brick wall, one senses the bright light pouring in from the open courtyard in front. From the protective courtyard space, a deep opening in the wall allows a visual connection to the surrounding landscape and vegetation to interweave interior and exterior spaces. The materials belong to the landscape: clay has been formed, burned and stacked to form the flickering, warm, brick volumes. Red-painted doors and windows crisply accentuate the thresholds between inside and outside. The Fredensborg houses give the perceiver a nourishing feeling of peaceful dwelling on the hillside beneath the sky.

## 5.2 *Can Lis*

Approaching the site on a small road through a light grove with scattered buildings, one passes a series of closed walls almost hidden behind the pine trees. Five volumes, two slightly turned in relation to the others, make a rhythmic configuration along the road. Seen from the coast, the massive volumes look like rocks on the edge of the cliff, as if they are being stacked or maybe falling apart. Going through the narrow entrance door, a hole in the shape of a moon frames a thin view of the ocean. Shifted plateaus make a series of horizontal planes resting calmly in the rocky landscape. Warm, honey-coloured sandstones hewn roughly from the rock with a circular saw are stacked in pillars and walls, connected with thin I-profile concrete lintels bearing vaulted terracotta shells repeated in an easy rhythm. From the embracing courtyard opening out on the ocean, the taste of salt is felt in the air that filters through the open structure. In the back, space opens up behind space, trees interweave interior and exterior landscapes. The delicate smell of pine blends with the thin song of birds in the grove behind. Entering through a narrow door, a tall cool space opens up. Prismatic window apertures big enough to accommodate a human body reach out towards the ocean. Crisp, glazed tiles on a heavy circular bench contrast the warm glowing feeling when the sun hits the wall. Can Lis has a contemplative mood of a protective cave overlooking the horizon.

## 5.3 *Bagsværd Church*

Approaching the site along a wide, restless suburban road with scattered, private, single-family homes on one side and public institutions on the other, one passes an industrial-looking building resting on a quiet green lawn. An open grove of birch trees filters the light that flickers when hitting the bright modular structure partially clad with crisp glazed tiles. The varied heights of the closed, prefabricated walls give a rhythmic rising, peaking and declining sensation. Going through an open courtyard, one slips under a low, heavy ceiling before entering the nave that dramatically unfolds in a rising movement. On the gently folded, in-situ-cast concrete ceiling, bearing marks of the rough formwork, the constantly shifting light coming from high above creates a gently floating, contemplative feeling. Along the sides of the large space, light washes down through the delicate concrete structure as if bringing the prefabricated building elements to life. On the floor, soft whitewashed benches invite the community to assemble in front of the slightly elevated altar. Bagsværd Church gives the perceiver a solemn uplifting feeling created by the effect of the everchanging tonality of light and shadow.

## 5.4 *Analysis*

The phenomenological description suggests that all three projects share a number of architectural characteristics: the careful interpretation of the topography; the articulated relation of inside to outside; the deliberate use of vegetation; the emphasis on material effects; the display of light and shadow; the use of (industrialised) technology; and the precise tectonic articulation and expression of structure. All projects express a dual tendency to create protection against the climate and to connect with the environment. Each project creates a distinct dwelling place: the Fredensborg houses do this by providing a relaxed space for everyday living; Can Lis encourages embodied interaction with the landscape; and Bagsværd Church invites contemplation and introversion. Importantly, material and technology are not in opposition, just as building and landscape are never in contrast; instead, all are deeply interdependent. Bricks and stones are stacked, concrete is poured into a formwork, reinforced lintels span openings, bearing the weight of the superjacent structure and prefabricated concrete panels are added in rhythmic series. Materials are used according to their properties and processed by the appropriate technology, in a contemporary form, however. As a result of the traditional craft of bricklaying, the scale of the structural elements of the Fredensborg houses relates to the size of the human hand. In Can Lis, the characteristic imprint of the circular saw on the large sandstone blocks recalls modern human technology. The oversized, prefabricated concrete elements in Bagsværd Church evoke a cool, anonymous, yet solemn feeling.

The close relation of building to landscape may be understood quite literally when fenced and natural landscapes are interwoven through the use of vegetation. Metaphorically, the building material represents the material of the (natural and cultural) environment, i.e. bricks, sandstone and prefabricated concrete elements. From a visual perspective, the exterior is drawn into the interior through precisely framed views, just as the view of exterior building volumes emphasises the topography. As embodied experience, material properties – such as gravity, weight, consistency, hardness, texture and thermal conductivity in synthesis with environmental conditions involving light, topography, vegetation, climate, weather and time – are all made present. Most importantly, the embodied first-person experience of natural space is powerfully coming to presentation. It is not so much the hills, the cliff or the cloud as physical objects or as symbols that are represented, but rather the nourishing feeling of dwelling beneath the sky, the contemplative mood of a protective cave or the effect of the everchanging tonality of light and shadow that are re-enacted when experienced. In other words, in the three projects described, Utzon makes a dwelling on this Earth as an attentive making present of material properties and environmental conditions.

## 6 DISCUSSION

On one hand, it may be argued that the relation of building to landscape demonstrates the architect as a master and conqueror of nature. As the superior human subject is subjugating a picturesque, inert landscape through vision, the cartesian dualism between nature and culture seems confirmed. As outlined above, the concept of *genius loci* may be one way of understanding Utzon's buildings as they relate to the surrounding landscape. Describing architecture as a 'visualisation' of the 'spirit of the place', Norberg-Schulz (1980, p.166) argues that "[structure and meaning] are abstractions from the flux of phenomena; not in the sense of scientific classification, but as a direct recognition of "constancies", that is, stable relationships which stand out from the more transitory happenings." However, this rather static interpretation of place may be understood as deterministic. Criticising the 'tyranny of the place', Mari Hvattum (2009) – among others – warns against the nationalist and essentialist undercurrents of place-thinking. Similarly, Bate (2001, p.212) points out in relation to a poem by Wordsworth, that if you "[c]onvert its tone from tender protectiveness to strident vaunting [...] you have a Romantic nationalism that will begin to lead you down the dark road to Germany in the 1930s." Surely, one has to be on guard when Norberg-Schulz (1996, p.3) argues that "[...] our identity is dependent on the identity of the place."

It may be argued, however, that Norberg-Schulz's interpretation of Heidegger is in fact a mis-interpretation. In Heidegger's (2011, p.248) description of the bridge that swings over the stream "[t]he banks emerge as banks only as the bridge crosses the stream." Here, the bridge is not a 'visualisation' of a static 'spirit of the place' but rather a dynamic, interdependent coming-to-presentation of a hitherto concealed potential. Similarly, when it comes to the building material, Heidegger (2011, p.106) argues that "[a] building, a Greek temple, portrays nothing," rather "[t]he rock comes to bear and rest and so first becomes rock; metal comes to glitter and shimmer, colors to glow, tones to sing, the word to say." (ibid., p.109). This bringing forth of a concealed potential may resonate more with Frampton's emphasis on the tectonic 'manifestation of natural forces' and the concept of 'critical regionalism' that "[...] depends upon maintaining a high level of critical self-consciousness. It may find its governing inspiration in such things as the range and quality of the local light, or in a tectonic derived from a peculiar structural mode, or in the topography of a given site." (Frampton 1983, p.21).

In the three projects analysed, however, the relation of building to landscape is more than just an 'illustration' or 'inspiration'. As Utzon himself points out, "[t]he partner is in a broad sense the place." (Holm et al. 2004, p.6, my translation). Correspondingly, Bate (2001, p.212) continues his analysis of the Wordsworth poem arguing that if you "[s]tay true to the pull of the spot as opposed to the nation [...] you have a longing for belonging that is the essence of *ecopoiesis*." In this perspective, the architect is not a conqueror of landscapes, rather a 'responder' to the given situation as Weston (2002, p.407) has also pointed out. Similarly, in the relation of material to technique, the

architect does not impose form on matter, but rather allows the materials to “[...] show what they can do.” (Utzon in Holm et al. 2004, p.13). This *resonate presencing* in careful collaboration with the specific situation is thus fundamentally different from the mastering mode of production, “[...] the rule of enframing, which demands that nature be orderable as standing-reserve” as Heidegger (2011, p.229) has described.

Significantly, Utzon’s buildings does not ‘look’ ecopoetic. The three works analysed are not defined by an architectural style, nor are they simply an image of the ‘wild’. As pointed out in the analysis of the three projects, it is the embodied experience of (universal) material properties in synthesis with (local) environmental conditions that are made present in each individual work of architecture. As a dynamic coming-to-presentation of a potential hitherto hidden, the experience of the work of architecture is in fact an invitation to participation. All the senses, as well as the felt body are engaged when experiencing the “wonderful variation in feeling” (Utzon 2008, p.63) made present through building construction on a specific location. As an answer to today’s ecological crisis, however, the work of Utzon may only be used as inspiration to a certain extent. Sandstone is a limited resource that should be used with care, just as the production of bricks and concrete is a major contributor to GHG emissions and should therefore be significantly reduced (UN 2020). Nevertheless, the attentive presencing of material properties and environmental conditions may be a profound way of engaging humans through embodied first-person experience that is “[...] not about getting back to nature, but about how nature comes back to us” (Bate 2001, p.202).

## 7 CONCLUSION

It has been shown that the analysed works by Jørn Utzon are not just inspired by the environment, nor simply an illustration of nature. Rather, the making of architecture may be understood as a *resonate presencing of material properties and environmental conditions that invites participation* of the perceiver in a dynamic process of coming-to-presentation by means of material effects, tectonic articulation and structural expression. Meaning is generated, not in the object itself, neither in the subject, but rather in the dynamic embodied first-person experience. In this perspective, the architect’s relation to nature is not so much a question of conquest and mastery, but rather one of careful collaboration. As opposed to the mastering mode of production or the picturesque illustration that maintains distance, the resonate presencing and embodied experience connects.

Experienced phenomena may thus bring attention to the oikos in several different ways, including the literal, the metaphoric and the visual. Most importantly, the embodied experience of material properties – such as gravity, weight, consistency, hardness, texture and thermal conductivity in synthesis with (natural and cultural) environmental conditions involving light, topography, vegetation, climate, weather and time – are all made present, just as the effect of natural space is re-enacted when experienced. The ontological divide between nature and culture may thus become attenuated as the perceiver understands that they are not separate from, but rather an integral part of nature. In this perspective, the engaging presencing may activate an ecological awareness per se, and enable the making of the dwellingplace as a way of staying with things for a longer while. Ecopoetics in architecture understood as the resonate presencing (*poiesis*) of experienced material properties and environmental conditions (*oikos*) that invites participation may thus be a profound way to inspire sustainable dwelling in careful consideration to the natural capital of the finite Earth.

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