

# THE UTZON PARADIGM

Roger Tyrrell Co-Director of the Jørn Utzon Research Network (JURN) and Adrian Carter Co-Director of the Jørn Utzon Research Network (JURN), Director of the Utzon Research Center, Aalborg University.

## RE-CONSIDERING UTZON

*“Comparable in subtle ways to the protean achievements of Le Corbusier, Utzon’s architecture emerges today as paradigmatic at many levels not least of which is the manner in which, from the beginning of his career, he would challenge the assumed superiority of Eurocentric culture.”*

(Frampton. K. 2003 p 6)

This Paper strives to address three objectives. The first is to discuss the Utzon’s oeuvre from a paradigmatic perspective, the second to layer that paradigm within two distinct but interconnected frameworks. The third objective is to explore the fusion of this dichotomous paradigm through the concept of ‘poetic conjunction’.

Jørn Utzon (1918-2008) is now internationally recognised as one of the most original, innovative and socially concerned of modern architects, perhaps the last great exponent of the humanistic Nordic tradition within modern architecture. He is the architect of what is still widely considered the most noble and humane housing built in Denmark, a simple, yet poetic modern church at Bagsværd and the most iconic and popular building of the 20th Century, his great unfinished masterpiece, the Sydney Opera House. (Fig 1)

The Opera House has become the symbol of not just Sydney, but also Australia; that owes it origins to the maritime environment of Aalborg, where Jørn Utzon spent his youth, and the inspiration of his father Aage Utzon, an esteemed yacht designer. As the citation of the Jury for the 2003 Pritzker Architecture Prize to Jørn Utzon states:

*“He rightly joins the handful of Modernists who have shaped the past century with buildings of timeless and enduring quality”*

(Anonymous, 2003)

Jørn Utzon was born in Copenhagen and moved with his family to Aalborg when just a few months old. His father, Aage Utzon, who trained as a Naval Architect in Newcastle in the north of England, was the Chief Engineer at the Aalborg shipyard. This formative context together with his father’s international reputation as a yacht designer provided an early tectonic influence upon Utzon. The Utzon family, loved the nature that surrounded them, and Aage Utzon revealed the structure of natural phenomena to his son, developing a sensitivity that would provide design inspiration throughout his life. At the age of nineteen, Utzon attended Royal Danish Academy of Fine Arts in Copenhagen to study architecture, actively seeking out Professors Kay Fisker and Steen Eiler Rasmussen as his tutors. The former, reinforcing the concept of tectonic integrity, the latter, providing a formative phenomenological influence.

After graduation in 1942, Utzon went to work in neutral Sweden and following the end of the Second World War travelled extensively within the rest of Scandinavia, Europe, Morocco, the United States, and Mexico. His travels provided significant inspiration that would be later manifested in a range of projects that exhibited sophisticated trans-cultural influences. He set up a practice office in Copenhagen 1950, completing a range of largely domestic, small-scale projects, including most influentially his own house and the Kingo housing development near Helsingør. His most significant commission, the Sydney Opera House was won through an open international competition in 1957.

The eventual politicised debacle of the Sydney Opera House is well known. Utzon withdrew from the Project in 1966. However, whilst working on the Sydney Opera House, but prior to moving to Australia in 1963 he designed such seminal works as the Melli Bank, Iran (1959-60) and the Fredensborg Houses (1959-63). Whilst living in Sydney, he produced the first design proposal for the remarkable underground Silkeborg Museum of Art (1963 – un-realised), a first-prize winning proposal for the Zürich Theatre competition (1964), a proposal for the Madrid Opera House Competition (1962– un-realised), and a proposal for his own house at Bayview, north of Sydney (1964-65 unrealised). After leaving Australia in 1966, Utzon lived variously in Denmark, Hawaii and subsequently, for much of the rest of his life on Mallorca. During this later stage of his life and without an established office, Utzon continued to produce a range of distinguished projects, including the Bagsværd Church (1968-76), the Kuwait National Assembly (1972—82) and his own houses Can Lis (1971-72) and Can Feliz 1991-95) that employed the technique of ‘additive architecture’, drawing both from his knowledge of natural forms, and the tectonic resolution he had developed through the realisation of the Sydney Opera House. In 1999 Utzon accepted an invitation to provide design proposals and guidelines for the renewal and refurbishment of the Sydney Opera House, which he continued to be involved in until his death in 2008. He was also responsible, together with his architect son Kim Utzon for the design of the Utzon Center in his hometown of Aalborg, which was opened to the public to celebrate his ninetieth birthday earlier in the same year.

It is however, his Bagsværd Church the two family villas on Mallorca, particularly Can Lis that together with the Sydney Opera House, represent some of the most poetic essays in phenomenological and tectonic engagement with place.

His last commission was to design and oversee the production of a white grand piano for Bagsvaerd Church. A fitting finale for an architect who transcended scales, transgressed cultural boundaries and transformed modern architecture yet throughout, remained a private and modest man.

*“My spaces are born not of intellectual operations, but of the emotions rooted in the desires of many different people...my spaces transcend theory and appeal to the deepest spiritual levels. In other words, my spaces relate to the fundamental aspects of humanity.”*

(Tom Heneghan cites Ando, 1996. p 17)

In the same way that Ando eschewed an overly theoretical approach to architecture, we find parallels in Utzon’s approach. Utzon’s method was not predicated upon or populated by a-priori theoretical positions. He was inhabited not by intellectual ruminations and postulations, but by interrogations of the core nature of human existence. This is problematic for those who provide critique on the nature of architecture as much contemporary criticism seeks to identify the act of architecture within a singular theoretical position, and by implication, conveniently explain the intent of the author. These relationships form the platform for much contemporary judgement and critique. If Utzon provides a paucity of theoretical frameworks, how can the critic, critique?

Utzon provides a paradigm. A model, not predicated upon a particular theoretic stance, but rather predicated upon influences, reflections and intuitive acts. It is that paradigm that this Paper examines. The idea of paradigmatic study in architecture is not new.

## OF PARADIGM

*“Paradigm, par’a dim, n. an example, exemplar.”*

(McDonald. A. 1982 p. 959)

The dictionary definition is helpful in that it provides the platform for paradigmatic study in architecture: an exemplar. This platform was adopted by Bernard Hoesli<sup>1</sup> in January 1957 in a teaching programme that sought to:

1. *“Familiarise the student with what can be considered the classics of modern architecture.*
2. *To enlarge the student’s repertoire of space concepts and to acquaint him with the possibilities of handling space.*
3. *To practice the reading of plans and sections.*
4. *To further his understanding of structure by simplifying the models to a presentation of load-bearing and non-loadbearing elements.*
5. *To demonstrate the relationship between structural concept and space concept.”*

(Caragonne. A, 1995, p 268)

It is clear that Hoesli sought analysis of an extant ‘classic work of modernism’ to inform student’s architectural vocabulary. However this analysis was to be later conjoined with synthesis of a design proposition ‘in the manner of.....’. The vehicle was developed over time principally in the United States.

Alan Balfour introduced the idea of analysis of the ideas and strategies of architects to the Portsmouth School of Architecture in 1967. Supported by the then Head of School, Professor Geoffrey Broadbent, Barry Russell and Peter Jenkins developed and variously reinterpreted Balfour’s premise and in 1975 Ruslan Khalid, (a former student at the AA under Peter Cook), brought the ‘Design in the Style of’ to Portsmouth School of Architecture. The heritage of this project lay with Phillipe Boudon from the Nantes School of Architecture who in 1970 had developed ‘Le Project a la Maniere de’ (Project in the Manner of) which provided students with a plural opportunity of analysis and synthesis ‘a la maniere de’.

Barry Russell reports that Thomas Llorens was responsible in 1975 for its most precisely defined incarnation.

*“It was clearly redefined and sharpened by Tomas Llorens (the Spanish philosopher and critic), when he taught with us, into the Paradigm Project, and with this title it has survived many transformations under different hands.....”*

(Russell. B. in Pearce. M. and Toy. M. 1995, p 34.)

The project has, since adoption at Portsmouth, run consistently to this day; the content and nuance of interpretation being dependent upon particular authors, a diverse range including Thomas Llorens, Chris Abel, Nigel Mills, Dick Bunt, David Parham and Barry Russell.

---

<sup>1</sup> A member of the so called ‘Texas Rangers’ Group that included Colin Rowe, John Hejduk and Robert Slutzky; A group of academics at the University of Architecture in Austin, Texas, USA, between 1951 and 1957. They challenged the accepted orthodoxies of pedagogic methodology and sought to develop a pedagogic model supported by theoretical intellectual constructs.

Given Utzon's reticence to articulate a singular theoretical position, it is appropriate to use the methodology of paradigm to examine and explain his work. The idea of paradigm, as indeed Utzon's work, transcends, but may also encapsulate theory, in analysing influences, methods and synthesis. In response to this paradigmatic analysis, this Paper seeks to make clear descriptions of the elements of the Utzonian paradigm.

Initial analysis suggests that Utzon's oeuvre may be described as two distinct, but interconnected frameworks of consideration; *Archē* and *Technē*; both terms drawn from Ancient Greek and which of course provide the etymological root of the word *Architect*.

## OF ARCHE

*Archē*, is concerned with that which sits in front of the idea of, in this case, the idea of architecture. The term acknowledges that there is something at the very core of human existence that informs the *idea* of architecture and specifically Utzon's architecture. *Archē* encapsulates core phenomena such as 'being', 'dwelling' and 'room'. Such intuitive engagement is encapsulated within the Nordic psyche and clearly underpins Utzon's canon of work. The realm described by the term *Archē* has been the subject of consistent interrogation within Nordic Architecture, striving to reveal core conditions of human existence apropos the idea of architectural endeavour. (FIG 2)

Alvar Aalto, Sverre Fehn and Juhani Pallasmaa represent exemplars of those who sought or seek the core, the essence of architecture routing back towards primal sources of what it is 'to be', 'to dwell' and of course by implication, to make place.

This however is not a realm of 'crudeness' or primitive response (in the way in which that word is used pejoratively within contemporary language), but rather perhaps comparable with the finest culinary '*jus*', a concoction where everything which is unnecessary has been evaporated; a distillation of the essence. Study of Utzon's canon, including his albeit limited writings, reveals an innate sense of *Archē* both in the genesis and subsequent development of the idea that is revealed within the artefact itself.

However, to be able to investigate further, Utzon's intuitive engagement with *Archē* requires further classification in order to concretise what would otherwise remain as an abstract concept. The Authors have sought to define components of Utzon's realm of *Archē* and offer the following elements for discussion: Nature, Landscape and Place, The Primitive, Transcultural Influence, Ethics Humanity and Community. It is our contention that these conceptual fields sit ahead of Utzon's ideas that subsequently evolved as architectural propositions.

It is clear that Utzon was influenced early in life by nature; both the forms of nature as he appreciated in the photographs of Karl Blossfeldt and D'Arcy Thompson's seminal publication *On Growth and Form*, but also by the more subtle understanding of the relationships between nature's elements such as geology, topography and climate and the inter-connectedness of these natural phenomena. Such awareness extended to understanding and awareness of the relationship between landscape and place perhaps exemplified by the manner in which the fishermen's cottages and farmsteads of Northern Jutland hunker down in the landscape lying within soft dips of the undulating territory in such a way that the floor plane becomes invisible. This understanding also gave rise to the antithesis of this condition: the Platform. When Utzon mounted the Mayan temple ruins of Chichen Itza and Monte Albán in Mexico he understood the significance of rising above the

landscape indeed, creating landscape that simultaneously provides distinction, authority and a clearer connection to the deities.

*“The Platform as an architectural element is a fascinating feature. I first fell in love with Mexico on a study trip in 1949 where I found many variations, both in size and idea of the platform, and where many of the platforms are alone without anything but the surrounding nature.”*

(Utzon in Ferrer Forés, 2006, P143)

We also contend, that central to Utzon’s realm of *Arche* was a deep appreciation of ‘the primitive’. Again we use the word in a non-pejorative sense that refers to a primal condition rather than a condition exhibiting a paucity of sophistication. Consistently Utzon’s canon demonstrates a desire to remove, to strip away in the pursuit of something that represents a built solution responding to the core conditions of human existence.

*“The simple, primitive life in the country, trips to the mountains with skis or guns, sailing trips, a few weeks together with the Arabs in the mountains and deserts, a trip to North America and Mexico, the life of the Indians – all this has formed the basis for the way of life my wife and I have wanted to lead, and thus for the design of the house.”*

(Utzon in Ferrer Forés 2006, p 78)

Implicit within such consideration is a sense of humility, ethics and community. It was clearly not just the form of the Moroccan hill villages of the Southern Atlas Mountains that Utzon drew inspiration from, but also less tangible understandings emerged, such as identity within a clustered morphology, the value that communing and the antithesis, retreat and privacy, held for the response to human experience through built form. At his core, it is also clear that Utzon’s approach to life and his work was underpinned by a clear sense of ethics that he maintained despite considerable pressures to the contrary. In his forced self-removal from the Sydney Opera House project, he performed an act of considerable courage. Mogens Prip-Buus’s book ‘Letters from Sydney’, charts events as they unfolded during that period with real textual clarity. What remains with the reader is a sense of political intrigue, economy of truth and huge injustice. Lesser men might have compromised, given the potential consequences of leaving a project of such significant profile. Utzon remained clear as to his decision.

## OF TECHNE

The concept of *Technē* focuses upon the ‘bringing forth’ or revealing of the idea, which in turn was, at its origin of course, informed by *Archē*. Such a discourse at a fundamental level involves making the idea ‘material’. In the context of Utzon, it also encompasses his engagement with the structure and form of nature, a material we will call ‘light’ in both the tangible and metaphysical senses as well as his design processes such as prototyping. (FIG 3)

In his Paper ‘*Techne, Technites, Tekton, Tectonic: Thoughts on Heidegger’s Thinking on Thinking in Architecture*’ (unpublished), Dr. Richard Bunt, develops clear relationships between the Etymological distinctions of the words that surround contemporary academic discourse on tectonic architecture, and Heidegger’s thoughts upon acts of revealing.

*“For Heidegger, the technites was the one who possessed the understanding necessary to grasp with his mind considerations that were fundamental and in a sense concealed, in respect of that which was yet to be made. The skill of the technites was to be able to understand and bring together as yet hidden, invisible and*

*intangible properties in order to be able to draw out and bring forth these aspects and reveal them in the object which resulted from the operation of making.”*

(Bunt R. Unpublished, p 3)

The relationship between the source of the words and Heidegger’s thought provides a clear theoretical platform to discuss Utzon’s attitude to revealing, bringing forth and making.

The Authors have developed a framework for the discussion of *Techné* within Utzon’s paradigm that might be encapsulated within these terms; Nature and Form, Making, Form and Structure, Material and Light, Geometry, Additive Architecture and Prototyping. Again, these classifications are not intended as finite, but rather to provoke or initiate discussion.

What is self-evident from Utzon’s canon and written commentary was the influence that nature’s form had upon his work both at the level of *Arché* as previously discussed within this paper, but also within the realm of revealing, bringing-forth and of course making. We can appreciate Utzon’s connection with nature at the level of *Arché* in this remark:

*“The human regulation or adaption of the site has resulted in something even stronger than nature and has given it a spiritual content.”*

(Utzon 2006 in Ferrer Forés, p 146)

And the relationship with *Techné* in the following statement:

*“The sparrow hawk and nature can teach us that when a form or construction is unable to solve all problems or functions – it is supplemented with a new modified system that harmonises with the first.”*

(Ole Schultz in Prip-Buus, M. 2009, p05)

It is this oscillation between the two paradigmatic elements that will later in this Paper be argued as the foundation of the ‘poetic synthesis’ of Utzon’s paradigm.

Making, Form and Structure inhabit Utzon’s work and every level of consideration. From the intuitive reinterpretation of naturally occurring forms and structure through to the pragmatic realisation and delivery of design, Utzon was clearly driven by the *process* of architecture. This engagement was to develop incrementally towards concepts such as additive architecture, industrialised construction process themselves developed through the vehicle of prototyping.

*“If an Architect is to work independently with his tools, he must experiment, practice like a musician with his scales, practice with masses, rhythms created by clustering masses, combinations of colours, light and shadows etc.”*

(Utzon 2006 in Ferrer Forés, p 23)

The articulate tectonic resolution that Utzon sought was further informed by consistent engagement with materiality. Indeed, material and its illuminator, light sits at the very core of Utzon’s oeuvre. For Utzon, as for Louis Kahn, light itself was a material.

*“If we understand the nature of material, we have its potential close at hand and far more tangibly than if we base ourselves on mathematical formula and art forms.”*

(Utzon 2006 in Ferrer Forés, p 24)

Utzon's engagement with material did not simply reside at a metaphysical or transcendental level. He was clearly consumed to 'know' material in terms of material structure, density, durability, innate properties and of course, potential in application.

*".....we have to be able to understand the structure of wood, the weight and hardness of stone, the character of glass; we must become one with our materials and be able to fashion and use them in accordance with their constitution."*

(Utzon 1948 in Weston 2002, p 11)

Much of this knowing or material wisdom was of course informed by Utzon's formative experiences in the shipyards of Aalborg, or in the discovery of the phenomena of natural forms. However, such experiences were re-interpreted consistently.

In geometry, Utzon found tectonic solutions. However, Utzon's engagement with geometry was not abstract, but entirely rational and pragmatic. For Utzon, geometry represented a route to the resolution of complex form rather than a theoretical construct in itself. Nowhere is this approach more evident than in the design of the load-bearing roof structure and tile lids of the Sydney Opera House. Clearly for Utzon it was the application of complex geometry that provided the key to the forms developed, founded upon an appreciation of the value of testing, both through drawing and prototyping. Fused with the concept of geometry, prototyping and industrial production was a realm that he inhabited described as Additive Architecture. Mogen Prip-Buus recalls the moment when Utzon described the term 'Additive Architecture'.

*"I happened to say something that Jørn asked me to repeat. He then got up and with his 6B pencil wrote the words ADDITIVE ARCHITECTURE on the wall, and said we had broken through the sound barrier."*

(Prip-Buus, M. 2009, p 08)

This additive principle provided huge freedom to experiment with a limited range of components, and from such experimentations were born projects such as the Jeddah Stadium (1967), the Farum Town Centre (1966), the Espansiva construction system (1969) and the Kuwait National Assembly (1972-82).

Implicit within the additive principle is the development of processes of repetitive mass production and implicit within such industrialised processes is the concept of prototyping that facilitates the incremental design resolution of components in three dimensions. Prototyping resolves design issues *prior* to production and enables aesthetic judgements to be made founded upon a three-dimensional evaluation.

This shift from a fragmented to a cohesive building delivery process was both revolutionary and problematic. It is clear certainly with the Sydney Opera House Project that the conservative nature of the construction industry and the client body were unable or unwilling to accept the clear logic of such a paradigm shift. As Alexander Kouzmin wrote:

*"Utzon's radical revision of traditional roles and responsibilities, and his linking of design and construction functions as an organic and indivisible process entailing the closest collaboration between architect, consultants and contractors, proved to be irreconcilable with the administrative strategies of functional and divided responsibility."*

(Kouzmin, A. in Prip-Buus 2009, p 08)

## OF THE POETIC SYNTHESIS:

Contemporary science, informs us simultaneously, of the wisdom and danger of reductionist ambitions. In the foregoing text Utzon's paradigm has been deconstructed; initially into two conjoined yet distinct elements *Arche* and *Technε*, each element being further reduced to its component parts. However, if we isolate the quark from human spirit or indeed the reverse, we are in danger of losing sight of the whole entity that we know as human existence.

Already we have suggested that the defined elements themselves are inter-related and argued that Utzon consistently oscillated between scales of consideration. This Paper will now argue that these elements were bound together by what we term 'The Poetic Synthesis'.

Underpinning Utzon's work is a poetic, metaphysical dimension that simultaneously transcends the dichotomy of this paradigmatic investigation yet paradoxically fuses the elements together. To look up in Bagsvaerd Kirke as the soft light moves fluidly across the sculpted ceiling is to commune with the deities. To walk down the internal stairways of the Opera House is to be alongside the mountain streams of Utzon's Nordic world. To sit in in Utzon's living room in Can Lis looking out through the apparently frameless, deep sandstone window bays to the sea and sky beyond is to return to the cave and a core sense of human existence.

Such poetic qualities consistently resonate in the Nordic world. In Art, Music, Literature, Poetry and Film, we find a melancholic and reflective attachment to the metaphysical realm and it should be no surprise that Utzon too inhabited this realm. (FIG 4)

It is the conjoining of *Arche* and *Technε* through this poetic synthesis that makes Utzon's contribution to architecture unique and, as Frampton suggests, makes his work worthy of examination across all of its dimensions.

Contemporary architecture, so often dominated by surface and image, will perhaps once again be encouraged to return to substance. The simple hypothesis is that substance is not an external force but rather, as Utzon showed, a force that resides deep within each of us.



## The Utzon Paradigm – References

Anonymous Jury Citation, (2003), *The Pritzker Architecture Prize Jury Citation*, Retrieved October 2012 from <http://www.pritzkerprize.com/2003/jury>

Bunt. R. (2004), *'Techne, Technites, Tekton, Tectonic: Thoughts on Heidegger's Thinking on Thinking in Architecture'* (unpublished).

Caragonne. A. (1995), *The Texas Rangers – Notes from an Architectural Underground*. Massachusetts, USA. MIT Press.

Frampton. K. (2003), On Jørn Utzon. In Ed. Mullins. M. and Carter. A. *Nature Vision and Place*, Proceedings of The First International Utzon Symposium, Aalborg, Denmark.

Heneghan, T. (1996), cites Tadao Ando in *The Colours of Light*. (2<sup>nd</sup> Edition) London, UK. Phaidon Press.

Prip-Buus. M. (2009), *'Additive Architecture.'* Denmark. Edition Bløndal.

McDonald. A. (Ed.), (1982), *Chambers Twentieth Century Dictionary*. Edinburg. Scotland, UK. W. R. Chambers.

Russell. B. (1995), in *Educating Architects*. Pearce. M. and Toy. M. (Eds), London, UK. Academy Editions.

Utzon. J. (2006), 'The Essence of Architecture' in Ferrer Forés, J. *Jørn Utzon – Works and Projects*, Barcelona, Spain. Editorial Gustavo Gili SL.

Utzon. J. (2002), 'The Innermost Being of Architecture' in Weston. R. *'Utzon'* Denmark. Edition Bløndal.

### Image Credits:

Fig 1: The Sydney Opera House, Sydney, Australia. Jørn Utzon. – Roger Tyrrell

Fig 2: The Hut from which to view Reindeer, Norway. Snøhetta Architects. – Roger Tyrrell

Fig 3: Norwegian Landscape. – Roger Tyrrell

Fig 4: Bagsvaerd Church, Denmark. Jørn Utzon. – Roger Tyrrell

