Jorn Utzon's Graphic Quotation
Le Corbusier and the Sydney Opera House, 1957-1966

Glenn Harper
Independent Researcher

Abstract
When Jorn Utzon (1918-2008) was photographed alongside a model of the Sydney Opera House, the background - a specially commissioned tapestry by Le Corbusier - became an indelible part in the graphic promotion of Utzon's project. The tapestry, Les Des Sont Jetes ('The Dice Are Cast'), obtained directly from Le Corbusier (1887-1965) and installed in Utzon's 1951 Hellebaek house, gave much pleasure to Utzon and his family. This paper argues that when Utzon was to present his projected designs for the Sydney Opera House in three folios, the Red Book (1958), the Yellow Book (1962) and the unofficial Blue Book (1962) he would quote Le Corbusier, especially in his approach to pictorial imagery. When the project was presented in the prestigious international journal Zodiac, including Zodiac 5 (1959), Zodiac 10 (1962) and Zodiac 14 (1965), Utzon would also considered Le Corbusier's approach to print media including the integration of 'emblematic' imagery and 'crafted' photography; and during the construction of the Sydney Opera House, Utzon would also credit Le Corbusier in his graphic approach to 'beton brut' surfaces. While this paper does not seek to untangle the story on whether a commissioned tapestry from Le Corbusier and installed in Utzon's own home in 1960 was destined for the public foyers of the Sydney Opera House, it does consider the altogether more important issue of adopting specific pictorial techniques in the representation and promotion of an architectural project. In the consideration of Le Corbusier's extensive published imagery, as verified in his ownership of a Le Corbusier tapestry, Utzon was able to enrich the architectural representation of his Sydney Opera House.
Introduction

When working on the Sydney Opera House in the period 1957-1966 Jorn Utzon (1918-2008) referenced the graphic imagery of Le Corbusier (1887-1965). Utzon was to publish his projected designs for the Sydney Opera House in three oblong folios, and also in the prestigious Italian journal, Zodiac. In each of these various pictorial strategies adopted by Le Corbusier, such as the use of the mural, tightly framed images, emblematic sketches and collage-like colour blocks, were referenced. When Utzon was photographed alongside a model of the Sydney Opera House in the early 1960s, the background - a specially commissioned tapestry by Le Corbusier - became an indelible part in the promotion of Utzon’s project. (Figure 1)

Having just commissioned the tapestry, Les Des Sont Jetes (‘The Dice Are Cast’), directly from Le Corbusier, it was installed in Utzon’s 1951 Hellebaek house and gave much pleasure and inspiration to his family.¹ This paper argues, when presenting his Sydney Opera House project in the period 1957-1966, Utzon would be inspired by and directly quotes the graphic work of Le Corbusier. In the consideration of Le Corbusier’s extensive published imagery, Utzon was able to translate this imagery to give greater architectural legitimacy in the representation of his Sydney Opera House.


Of the formal representation of Utzon’s published projected designs for his Sydney Opera House including the Red Book (1958), the Yellow Book (1962) and the unofficial Blue Book (1962), all were printed in limited edition; and in each of these Utzon incorporated pictorial devices credited to Le Corbusier. When the project was presented in the journal Zodiac 5 (1959), Zodiac 10 (1962) and Zodiac 14 (1965), Utzon again considered Le Corbusier’s approach to the integration of ‘emblematic’ imagery when representing the project. While this paper does not seek to untangle the story on whether a commissioned tapestry from Le Corbusier and installed in Utzon’s own home in 1960 was destined for the public foyers of the Sydney Opera House, it does importantly consider the role of graphic imagery in the promotion of architectural ideas.² Through the integration of various graphic strategies developed by Le Corbusier, and even in the ownership of a Le Corbusier tapestry, Utzon would enable his Sydney Opera House to be perceived as a carefully crafted project. Conceived in response to a 1956 international competition, he would continue to augment the graphic representation of this great project up until his forced departure from Sydney in April 1966.
The Murals within Utzon’s Hellebaek House and Studio

Utzon first met Le Corbusier in 1948 in Paris at a time when Corbusier was painting a mural in his studio - *Fenne et coquillage* (‘Woman and Seashell’) - and was conceiving the tapestry as ‘mural of the nomad’. With Le Corbusier formalising the tapestry concept in his treatise *Modulor 2* (1955) and again in *Oeuvre complete Volume 6* (1957), this indeed resonated with Utzon whom by the time of commissioning Le Corbusier for his tapestry had not only won the international competition for The Sydney Opera House, but had journeyed to North and Central America, North Africa, Japan and China. In this post-war encounter with Le Corbusier, Utzon acknowledged his own artistic endeavour for a broader field of architectural practice: one that continued the tradition of modern architecture and the expression of social and human needs through new meanings. In what Le Corbusier called the ‘the second era of the machine civilisation’ Utzon sought to also synthesised the major arts, as applied to the plastic arts of the academic tradition, in the design of his Sydney Opera House. Consequently in the presentation of this great project Utzon would look towards his mentor Le Corbusier for reference.

Figure 2. Utzon Studio, Hellebaek, c.1962. A copy of Leger’s painting ‘Composition with Three Sisters’ (1952) would acknowledge Le Corbusier’s own studio (with mural). (source of image: Mitchell Library, State Library of New South Wales Manuscript Collection, PXA 590 v.12 Item 68)

When Jorn Utzon was photographed beside a model of the Sydney Opera House, the background - Le Corbusier’s tapestry *Les Des Sont Jetes* (‘The Dice Are Cast’) - became an induring part of his project. Also featured in the background of photographs recording other official events the tapestry consisting of overlapping shapes, such as a yellow sailing boat, was dominated by two single line figuratives quoted from a previous mural. Aware of the mural as a pictorial device, as featured in the compendium *New World of Space* (1948) or even as a basis of Le Corbusier’s European exhibition (reaching Denmark in 1958), Utzon’s photograph correlated his meticulous model with ‘his’ Le Corbusier tapestry. More than likely referencing Julius Caesar and his crossing of the Rubicon, the title of the tapestry was adjusted to become ‘The die is cast’, would certainly have given gravity in meaning to Utzon as ‘Le Corbusier’s champion’. As a striking image that juxtaposed the representational with the abstract, the tapestry provided not only graphic differentiation but allowed Utzon to adopted Le Corbusier’s pictorial strategy for a mural, according to Ruegge, as having “propaganda and artistic intervention”. In addition to this and during a visit by Henry Ingham Ashworth (1907-1991) to Utzon’s Hellebaek studio in 1960, a copy of Leger’s *Composition with Three Sisters* (1952) featured prominently as mural-like behind large study models of the Sydney Opera House. In acknowledgment of Le Corbusier’s architectural studio, where the mural provided artistic
counterpoint to the architectural investigation, Utzon allowed the Leger image to become a visual analogy to his own line of architectural enquiry that is, as a reference to the compositional relationship between three differently sized roof forms upon a podium.10 (Figure 2)

When Utzon and his family moved to Sydney in 1963, ‘his’ Le Corbusier tapestry remained in Denmark. After settling in Sydney, Utzon would continue to be in contact with Le Corbusier and be inspired by the fecundity of his publications. Returning from a European trip mid-1965 and after meeting Le Corbusier, presumably at his cabanon, Utzon had with him two presentation portfolios: the Venice Hospital project (1964) and the Heidi Weber Exhibition Pavilion (1963).11 Of these, the presentation portfolio for the Venice Hospital was studied closely during the development of Utzon’s competition entry for the Berkeley Art Museum Competition (1965).12 Upon receiving news of Le Corbusier’s unexpected death, Utzon, within his Sydney studio, was observed as being emotionally shaken.13 Later that year, Utzon made his copy of the Heidi Webber presentation folio available as a memento mori in the December 1965 issue of Architecture in Australia.14

With Le Corbusier lying in state at the Louvre, yet another version (more than likely the first version) of the same tapestry, except in treatment of the sailing boat, was hung behind the coffin.15 Having died at Roquebrune-Cap Martin, it seems that in this tapestry the beauty of the place could indeed be remembered. Consequently for both Le Corbusier and Utzon, the graphic imagery of their tapestries would each became an important symbol and, as previously speculated by Le Corbusier in Modular 2 (1958) on the role of the tapestry, would “satisfy a legitimate poetic desire”.16

Utzon’s ‘Issued’ Portfolios

Jorn Utzon won the international competition for the Sydney Opera House in 1957 with twelve zinc plate lithographic prints, and for the required perspective view - a sketch showing the podium and staircase between the two halls looking north - he adopted Le Corbusier’s approach to graphic framing. The drawing, forming part of Submission no. 218 and not meeting the terms of the competition brief, adopted a cropped viewpoint in single line work.17 Portraying the podium and shell roofs as a civic space this drawing was populated with figures, some of which had outstretched arms recalling the stance of Le Corbusier’s Modulor man. In the spatial saturation of this competition sketch, and the only ‘perspective’ view ever formally issued by Utzon on the project, this would be enhanced with blocks of white gouache and gold leaf to the shell roofs to render the surrounding landscape uncoloured and ‘infinite’. Aware of Le Corbusier’s proportional system Modulor, Utzon in his own quest for an ordering system had by this time adopted the Chinese manual Ying zao fa shi as his own ‘private Modulor’.18 While the use of gold leaf perhaps referenced Ancient China,19 Utzon’s graphic technique in this perspective view certainly referenced Le Corbusier’s approach to the framing of perspective sketches and for which, according to Jean-Louis Cohen, presented a narrative in the “conflation of interior and exterior space”.20

Utzon ‘issued’ three presentation portfolios for his Sydney Opera House during 1958-1963, assigning a colour theme to each pictorial cover. While the first - the Red Book - was visually varied and thereby broader in its appeal, the second and third - the Yellow and Blue Books - were less so, being more architectonic.21 Of note, Giedion in his Zodiac 14 essay (1965) and later in Space Time and Architecture (1967), made reference to these first two books as “giving… insight into the origins and development of his creative approach.”22 The Red and Yellow books were printed in Copenhagen, the Blue Book and a smaller version of the Yellow Book, were printed in Sydney. While the Red and Yellow books were each accepted by the client authority - the NSW State Government - the Blue Book, which considered adjustments to the forecourt and nearby roadways, was rejected outright. Utzon’s printing of the smaller Yellow Book in 1963 on the other hand was intended for general distribution.23
The Red Book (1958), which predates the installation of Utzon’s Le Corbusier tapestry in his Hellebaek house, has an illustrated cover with a cut-out silhouette of the building viewed from the east on a background of vermillion, being a pictorial device much used by Le Corbusier. The rear cover, while extending the colour pallet of the front, displayed an abstraction of two leaf-like shapes in solid blocks of colour. Opening onto a charcoal sketch of the building this 56-leaved document confirmed the development of the project in ‘practical terms’ and comprised plans, sections, elevations, and photographs. Distributed throughout the document were eight distinctly coloured plates of which Plates 2, 4 and 24 - lyrical sketches of the project strategically placed within the portfolio - had coloured backgrounds matching Salubra Colours 32013, 32034 and 4320D respectfully. This indicates that Utzon had ready access to Le Corbusier’s *Polychromie architecturale* and selected colours directly from these charts for the more significant plates. (Figure 3)

![Figure 3. The Red Book (1958) showing Plate 24 having background colour matching Le Corbusier’s Salubra Colour 4320D. This is verified with the 1997 fandek of the Salubra Colours. (source of image: Glenn Harper)](image)

Elsewhere in this portfolio, studies of the shell roof and folded slab beams were presented as photographs of abstracted study models while the mechanical and acoustic strategies were integrated with boldly coloured plates. With such a diverse range of images, Utzon sought to inspire the reader with quite a pragmatic set of investigations. Just like Le Corbusier, who would integrate examples of his artwork within, for example, *New World of Space* and even the *Oeuvre complete*, Utzon saw this as an opportunity to adopt a similar range of artistic devices to give a poetic dimension to his project.

In the Yellow Book (1962) issued four years after the Red Book, Utzon addresses the engineering challenge of the roof (and glazing) by proposing clarity in his building’s geometry. The front cover, again incorporating the image of the building but in this case the elevation of the Major Hall taken from the west, was described geometrically without the podium. Perhaps inspired by the colour of the sailing boat in his Le Corbusier tapestry (or even the colour gold to the underside of the roof in the competition perspective), yellow became integrated with the architectural proposition: being placed on the front cover as four roughly triangular shapes; on Plate 13 as lines to indicate the roof overlaid on the ceiling of the minor hall; and the rear cover. Here a series of study sketches for the side shell tile-lids adopts a lyric graphic style unlike anything else in the portfolio and a block of yellow gives visual weight to Utzon’s drawing in a similar way to images in Le Corbusier’s publications. (Figure 4)
Having a slightly longer horizontal format to that of the Red Book, this 42-leaf paginated folio comprised 32 architectural drawings with no photographs or text. The drawings in this portfolio, some of which presented simultaneously across a double page spread, confirmed how a unified geometry of prefabrication could ‘resolve’ the roof and other elements. Utzon adopted lower case Compacta font for titles, as recently made available by Letraset, instead of the capitalised Helvetica style font used for the title on the Red Book. In his last portfolio of this period, the Blue Book (1962), Utzon presented his project within an urban context demonstrating how pedestrians and vehicles could access the site. Similar in size to that of the Yellow Book and having only 12 leaves, comprised single line plans and diagrammatic sections. An evocative front cover, integrated with shadows and a solid block of colour rendering the harbour blue, adopted Le Corbusier’s graphic technique for rendering site plans. Being a companion to the Yellow Book this portfolio included a similar drafting style with lowercase ‘Compacta’ font for the title.

The architectural drawings in the Yellow and Blue Books now typified Utzon’s approach to the portfolio drawing for his project: consisting of a single weight of drafted line, no crossed lines with lettering either as Olivetti type or as lettering using a modified Nestler stencil enabling them to lie flat on the drawing surface. The refinement of Utzon’s presentation drafting technique now communicated his essential architectonic idea and resembles the published architectural drawings of Le Corbusier, as observed by Samuel as being “conceived as a lesson in architecture and as propaganda for his architectural vision”.26

**Utzon Published in Zodiac and ‘On-Site’ Construction Images**

The Sydney Opera House was published in the prestigious international Italian journal Zodiac three times during the period 1959 -1965 and in each of these Utzon provided carefully crafted imagery with no less sensitivity than his presentation portfolios. With the project having received some coverage in other European journals, for example the front cover to issue 73 of L’Architecture d’aujourd’hui, it was perhaps the opportunity for an extended coverage which impressed Utzon. Knowing that Le Corbusier had received already extended coverage in Zodiac 2 (1958) and Zodiac 7 (1960), and believing that the Sydney Opera House project was ‘without precedent’, Utzon would in the Zodiac publications be able to present himself, as an artist, writer and architect, just like Le Corbusier! 27

In Zodiac 5 (1959) and Zodiac 10 (1962) Utzon included a number of freehand sketches to convey his artistic sensibility. While the sketches in Zodiac 5 were taken directly from the Red Book, a series of
emblematic sketches in the essay *Platforms and Plateaus: Ideas of A Danish Architect* were presented in Zodiac 10.²⁸ Seven analytical sketches representing comparative differences in the use of platforms across multiple cultures - in line work reminiscent of Le Corbusier’s sketch *the Four Compositions* (1929) - indirectly support Utzon’s architectural proposition for his Sydney Opera House. More importantly Utzon did not carry a sketchbook unlike Le Corbusier and so these unassuming sketches were drawn specifically for the essay.²⁹ Later in this issue another sketch - a reinterpretation of Le Corbusier’s *Open Hand* motif - was presented to explain Utzon’s concept for a modern-day airport.³⁰

In Zodiac 14 (1965) Utzon expands his concept for the Sydney Opera House as being unified by a geometric theme of assembled prefabricated elements. The adoption of mass production sought to allow repetitive but indefinitely varied architectural elements to be translated into repeating components.³¹ Using photographic images of birds, waves and geometric models Utzon sought to increase our conceptual accessibility and to selectively demonstrate how his prefabricated glazed walls, podium corridor walls and ceilings and the acoustic ceilings to the main halls could be assembled. The rigour of a single geometry, for example, was shown to govern the cross section with acoustic derived profiles for the main halls emerging from overlapping circles; elsewhere in Zodiac 14 these were printed onto special paper and presented as ‘artistic’ studies in their own right.³²

![Figure 5. Photographic Portrait of Jorn Utzon (as featured in Zodiac 10) by Arne Magnussen, 1962. (source of image: Courtesy of Arne Magnussen Archive)](image)

Like the carefully crafted and tightly framed photographic portraits of Le Corbusier with ‘hands poised’ - forming the frontispiece to the later volumes of *Oeuvre complete* - Utzon would consider within the Zodiac publications how to represent himself as the architect of the Sydney Opera House.³³ In Zodiac 10, and accompanying the essay ‘Platforms and Plateaus’, the Danish photographer Arne Magnussen casts Utzon as a casual modern-day architect from behind with one hand poised while driving. In this image Utzon connects us with Le Corbusier and his portraits with an open hand: “this hand that works and thinks, this hand, [as] symbol of the creator.” ³⁴ (Figure 5)

Later in Zodiac 14, as the first image of an extended coverage on Utzon and his Sydney Opera House and opposite an essay on the architect by Sigfried Giedion, the Sydney based émigré photographer Jozef Vissel has Utzon presented constructing two arcs in the air with his hands rendered using stop frame motion. In the reference of this image and elsewhere in this publication, Utzon himself demonstrates how repeated components can be translated into indefinitely varied architectural
elements. It seems that in this later portrait Utzon now represents himself, not as ‘a travelling architect’, but as continuing Le Corbusier’s deep ‘commitment to modernisation’.35

While under construction the Sydney based photographer Max Dupain captured the building’s textured ‘off the form’ concrete surfaces thus verifying Utzon’s adoption of Le Corbusier’s graphic approach to concrete. (Figure 6)

![Figure 6. The ‘beton brut’ finishes of The Sydney Opera House, uncommissioned construction photographs, 1958-1964. (source of images: Mitchell Library, State Library of New South Wales and Courtesy Max Dupain and Associates)](image)

For Le Corbusier and his beton brut (raw concrete), achieved through an exploration into the graphic qualities of exposed concrete dedicated to the play of contrasting textures, was readily cited in the Sydney Opera House. Remaining visible in areas of the project left uncovered by either precast concrete and/or folded plywood panels, these concrete surfaces, revealed as boarded markings, enhanced the horizontal stratum of the building’s podium. By contrast, smooth finished concrete was incorporated into the springing point of each roof vault as a highly modelled pattern cast in alignment with the radial of each precast rib. In this treatment Utzon recognised the graphic potential of his concrete finishes and the “constructive possibilities of the shaping of [Le Corbusier’s] beton brut surfaces”.36 Indeed Utzon had time to contemplate how best to cite Le Corbusier’s beton brut, dispatching Mogens Prip-Buss from his Hellebeack Studio to study (while still under construction) the concrete surfaces of Monastery of Sainte-Marie de La Tourette (1956-1960) soon after being notified of winning the Sydney Opera House competition.37

Conclusion
This paper argues that Utzon had ready access to the published imagery of Le Corbusier and would reference this imagery to enrich the publications on the Sydney Opera House. Besides Utzon’s interest in the work of Le Corbusier had by this time become almost an obsession.38 For Le Corbusier, his published imagery was of paramount importance each being carefully positioned “to shape and shift perceptions of reality”.39 In referencing these pictorial devices, as acknowledged in the ownership of a Le Corbusier tapestry, Jorn Utzon would enable his project to be perceived as a carefully crafted project, yet within Utzon’s own artistic cosmos. In keeping his imagination fired in the portrayal of such a large and complex project, which sought to celebrate the ‘human spirit’ as a ‘temple’ for the performing arts, Utzon would indeed find satisfaction in citing his mentor. While some architects took Le Corbusier’s architectural claims and imagery at face value, Utzon however carefully contemplated the visual effects of Le Corbusier’s ‘graphic skill’ and applied these to suit (beautifully).
Endnotes

5 Peter Myers, interview in person, Orbost Victoria, 2017. The Australian architect Peter Myers worked in Jorn Utzon’s Sydney studio from November 1964 up until March 1966.
6 Photograph taken by Arne Maganussen (1960) records the ‘Opening of Tenders for the Sydney Opera House Stage Machinery Contact’ with the tapestry shown prominently behind.
7 Refer to the guest bedroom mural (1938) within the Grey/Bodavici house, E-1027.
8 Le Corbusier, *New world of space* (New York/Boston, USA: Reynal & Hitchcock, 1948). Utzon more than likely acquired a copy of this book during his 1949 trip to USA.
11 Jorn Utzon returned to Sydney after progressing his winning competition project, The Zurich Theater.
12 Peter Myers, interview in person, Orbost Victoria, 2017.
13 Peter Myers, interview in person, Orbost Victoria, 2017.
23 Peter Myers, interview in person, Orbost Victoria, 2017.
30 *Zodiac* 10 (1962): 139.
31 Peter Myers, "Joern Utzon," 305.
33 *Le Corbusier, Oeuvre complete Volume 6* (Zurich, Switzerland: Girlier, 1957), 7.
35 Sigfried Giedion, “Jorn Utzon and the third generation,” 47.
37 Peter Myers, interview in person, Orbost Victoria, 2017. Mogens Prip-Buss also visited Gaudi’s Sagrada Familia, Barcelona, on his return.
38 Peter Myers, e-mail message to author, May 5, 2017. “Utzon by the time of his project, the Sydney Opera House, was well informed by the architectural work and life of Le Corbusier. Entranced and obsessed, Le Corbusier had become Utzon’s most favourite modern architect by the time I knew him, when working in the Sydney office.”