RESEARCH ARTICLE

My Country and My People and Sydney Opera House: The missing link

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Abstract
It is known that Jørn Utzon (1918–2008), the principal architect for the Sydney Opera House project (1957–66), had a lifetime obsession for Chinese art and architecture. However, previous studies did not explore the relationship between Utzon and his venerated Chinese writer Lin Yutang (1895–1976). How Utzon represented the ideas and ideals he received from Lin Yutang’s conceptualization of Chinese art and architecture in My Country and My People (1935) has not been systematically documented. To this end, this article examines the role of Lin Yutang’s work in Utzon’s architectural career generally and the architect’s Sydney Opera House design in particular. It argues that My Country and My People nurtured young Utzon’s own architectural philosophy, as reflected in his early manifestoes and design projects. Eventually, Lin Yutang’s Chinese aesthetics encapsulated in calligraphy, painting and architecture helped Utzon to initiate, articulate and further communicate the design principles of his Sydney Opera House, as well as several other important architectural works before and after. Although Utzon never fully realized his Opera House due to forced resignation in 1966, the inspiration from Lin Yutang vividly remains in Utzon’s yet to be finished masterpiece.

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1. Introduction
Lin Yutang (1895–1976) was one of the most influential Chinese writers of the 20th century. His book, My Country and My People (1935), was the favorite of Jørn Utzon (1918–2008), the architect in principal for the Sydney Opera House project (1957–66) (Drew, 1999; Weston, 2002).1 As Lin Yutang

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confirmed by Utzon's family, Lin Yutang's book opened the door for young Utzon to perceive Chinese culture in general and Chinese calligraphy, painting and architecture in particular. Arguably, the ideas and ideals Utzon received from Lin Yutang's book nurtured his architectural philosophy and his distinctive approach to design, as Utzon's architect son Jan Utzon explained: "Lin Yutang's words taught my father how to be a man, a father and an artist." In fact, due to his admiration of Lin Utzon, Utzon not only named his daughter "Lin" but also introduced Lin Utzang's *My Country and My People* to his children, wife and father.3

Despite there was a strong linkage between *My Country and My People*, Utzon and his family, the role of Lin Utzang's work in the professional career of Utzon has not been systematically documented. Previous scholarship did not provide a robust discussion on the role of *My Country and My People* in Utzon's life and work, although Utzon continuously cited Chinese art and architecture as the aesthetic inspiration and confirmation of his creations (Drew, 1999; Weston, 2002). Indeed, most recent writings delivering delayed tributes to Utzon only portrayed the architect as a tragic hero. These writings lamented his untimely and involuntary resignation from the Sydney position in 1966, his death in 2008, and his unfruitful late career, with a shroud of mystery over his lifelong cultivation received from the enigmatic Orient (Asgaard Andersen, 2013; Ferrer Forés, 2006; Fromonot, 1998).

By investigating The Utzon Archives and interviewing Utzon's family members, colleagues and previous staff, this article, as the first of this kind, reconstructs the interrelationship between Lin Utzang and Utzon, with a view to clarifying the impacts of *My Country and My People* in Utzon's professional career. This article includes a series of ideological analogies between Lin Utzang's writing, Utzon's manifestoes and architectural creations, in order to examine the precise role of Lin Utzang's interpretation of Chinese art and architecture in Utzon's architectural philosophy generally and design concepts in particular. These constructed analogies further provide an insight into the life and work of young Utzon so as to understand the design intentions and aesthetic principles of his architectural creations, especially those seen in the unfinished Sydney Opera House and several important projects proposed before and after.

Utzang's perception and representation of Chinese art and architecture, especially those manifested in his Sydney Opera House design, should serve as an important cross-disciplinary case study focusing on the role of cross-cultural literature in the mastery of architectural design in the 20th century. This case study closely reveals the process of knowledge making, transfer and transformation in the field of Chinese art and architecture within a specific sociocultural context. This should illuminate the important cultural and intellectual exchanges, debates and conflicts, as well as give an insight into the difficulties and complexity Utzon's Sydney Opera House was involved in. Although Utzon never fully realized his Opera House due to forced resignation in 1966, the inheritance of Lin Utzang's writing remains vividly in Utzon's unfinished masterpiece. This allows us to gain access to the architect's aesthetic vision and design principles for future restoration of the yet to be finished Opera House.

2. Lin Utzang and his representation of China

Growing up with his family in southeastern China, as a son of a Christian minister working for the American Presbyterians, Lin Utzang was educated at the eminent English school St. John's University in Shanghai and later studied at Tsinghua University from 1916 to 1919. His foreign education began in the United States of America, with a scholarship from Tsinghua University. At Harvard University, he studied under Bliss Perry (1860–1954) and Irving Babbitt (1865–1933) in the Comparative Literature Department.

Although the academic training and experiences of young Lin Utzang have not been researched in great detail, the family of Lin Utzang suggested that he was totally disillusioned with the classicist approach Harvard offered (Lin, 1989). This was due to his personal belief in romanticism and expressionism, heightened by his previous involvement in the May Fourth Movement (1919) in China, participating in the collective struggle for a new and more liberal perspective in both Chinese culture and literature (Lin, 1989). Lin Utzang believed modern writing should directly reflect personal experience and real life, and accordingly, he advocated for realism and humanitarianism in literature (Lin, 1989). This made him later becoming one of the leaders of sociopolitical movements for pursuing the forms of written Chinese based on the varieties of Chinese spoken throughout China, in contrast to the then dominating formalistic Classical Chinese (Lin, 1989). This would culminate the style of his major writings in English as a popular literature easily accessible by a worldwide readership irrespective of background knowledge of China and Chinese culture (Lin, 1989).

In 1921, Lin Utzang received his master's degree in comparative literature from Harvard. Due to financial constraint, he went to France soon after to work for the Young Men's Christian Association as an English teacher for Chinese workers (Lin, 1989). During his stay at Le Creusot in France, he experienced the devastation brought about by the War (Lin, 1989). These experiences significantly transformed his perception of the so-called achievements of industrialization and modern civilization (Lin, 1989). This would shape his criticism towards the 'modern' society especially seen in The Unites States of America and Europe in his mature work (Lin, 1989).

Lin Utzang later studied at the University of Leipzig, where he earned a Ph.D in linguistics in 1923. Afterward, he taught English literature at Peking University and started to deliver his critique on politics and sociocultural phenomena in China (Lin, 1989). Lin Utzang's work entangled him in the political repressions of warlords in China, which eventually

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2The authors interviewed Utzang's children, including Jan, Lin and Kim, separately in 2008, 2009 and 2010.
3Jan Utzon interview, Sydney, Australia, 2008.
4Lin Utzon interview, Hellebæk, Denmark, 2009.
5See note 1.

The content of Lin Yutang's *My Country and My People* can be traced back to his columns “Little Critic” published in *The China Critic* from 1930 to 1935 in which Lin Yutang was one of its editors. These essays were re-published in *The Little Critics: Essays, Satires and Sketches on China* with two volumes: 1930-1932 and 1933-1935 (Lin, 1933-1935). With expanded ideas, Lin Yutang transformed and organized these essays into several thematic chapters in *My Country and My People*. These chapters not only introduced Chinese culture to Lin Yutang's Western readers but also elaborated his in-depth critique of both Chinese and the Western societies. For instance, whilst he had high regard for Chinese philosophy, literature, art and architecture, especially for China’s capacity to express such a long-standing and profound history and humanity, Lin Yutang condemned China for her feudal heathenism. Similarly, while he admired the Western society for its political democracy and scientific advancement, he showed his contempt for its cultural decadence rooted in its prevailing utilitarianism and capitalism.

Notwithstanding his criticism directed towards worldwide infiltration of Western modern art and architecture and their expression of inhumane cubist features, Lin Yutang maintained a romantic attachment to and veneration towards “The Artistic Life” of feudal China in *My Country and My People* (Lin, 1936, 294-296). Within this theme, he exemplified Chinese “artist”, “calligraphy”, “painting” and “architecture” for holding these subjects up as an ideal to be aspired to and emulated by both Chinese and non-Chinese (Lin, 1936, 217-294). To Lin Yutang, Chinese artists were individualists of high morale who showed a strong passion for Nature and distaste for the urban culture (Lin, 1936, 272). Their creations represented the sublimity of natural phenomena effusing such transcendental qualities that would save people from the prison of unbearable city life (Lin, 1936, 272). To Lin Yutang, the aesthetics of Chinese art exemplified by calligraphy, painting and architecture, as a loose complex of animism, dualism, pantheism, lyricism, symbolism, mysticism, primitivism and amateurism, should serve not only as the antagonism to the inhumane cubist and utilitarian modern forms but also as the zeitgeist for regenerating modern art and architecture to meet both of psychological needs and spiritual wellness of human beings (Lin, 1936, 95-116).

### 3. Utzon’s reading of Lin Yutang’s writings

Before Utzon’s reading of Lin Yutang's *My Country and My People*, the architect had already learned much about China. In the studio of his uncle, Aksel Einar Utzon-Frank (1888-1955), the Sculpture Professor of the Royal Danish Academy, Utzon had the opportunity to closely study Utzon Frank's collection of Chinese antiquities (Chiu, Goad and Myers, 2017). These experiences stimulated young Utzon’s early interest in China. With the introduction of Utzon-Frank, Utzon met art historian Osvald Sirén and read his famous early work on Chinese painting—*Rhythm and Form* and *Andra framenter om kinesisk och europeisk målarkonst* (*Rhythm and Form and Comments on Chinese and European paintings*, later published as *Essentials In Art* in English in 1920) (Chiu et al., 2015). Later, Utzon found much parallel between Sirén and Lin Yutang’s writings on Chinese art, in which Lin Yutang personally knew Sirén and could have been inspired by Sirén’s theosophical conceptualization of Chinese calligraphy, painting and architecture to represent the same subjects as the manifestation of Nature’s beauty in a religious tone in *My Country and My People*.

In 1937, Utzon entered the Royal Academy where he studied 1941 *Den Blaa Drage* (*The Blue Dragon*) (Marcus, 1941), written by the Librarian of Royal Academy, Aage Marcus (1888-1985) (Chiu et al., 2017). *Den Blaa Drage* was Marcus’s introduction to the romanticism and mysticism of Chinese art, literature, religion and philosophy. Marcus synthesized much previous international scholarship on China, especially concerning Taoism, Zen Buddhism and Confucianism, and *Den Blaa Drage* can be read as the extension of the chapters “The Artistic Life” in *My Country and My People* and “Rhythm and Form” in Sirén’s *Essentials in Art* (*Sirén*, 1920), in which Marcus was the direct influence for both authors.

In 1942, Utzon graduated from the Royal Academy. This was the year when the troops of Nazi Germany entered Denmark, forcing Denmark to relinquish its authority without defense. Utzon and his colleagues fled to Sweden and worked in Stockholm, a center of Chinese archeology. While living in the neighboring suburb of Drottningholm, Utzon visited the largest Chinese pavilion in Sweden - the Kina Slot, and read the Danish version of *My Country and My*
People, as well as many books on Chinese art and architecture. He also visited the Museum of Far Eastern Antiquities, which was dedicated to early Chinese decorative art. In addition, he studied Chinese paintings at the Department of Painting in the National Museum of Fine Arts, where Sirens was the Keeper (curator), and Chinese antiquities at the Museum of Ethnography (Chiu et al., 2015). There were two reasons that caused Utzon to appreciate Chinese culture during the War. One was Utzon’s sympathy for and empathy of China’s fight against Nazi Germany’s ally - Japanese Imperialism. The other was Lin Yutang’s criticism of the cultural decadence of Western society, which echoed Utzon’s experiences of the destructions and occupations in Europe during the War.

After the War, Utzon returned to Copenhagen. From 1945 to 1948, Utzon worked together with his colleague Tobias Faber (1915-2010) and established their own architecture office in Copenhagen to participate in several competitions. Since their stay at Stockholm, both young architects had shared their interest in China and many books on Chinese art and architecture, including Lin Yutang’s My Country and My People. In 1946, Utzon’s wife, Lis Utzon, gave birth to a daughter, and in appreciation of Lin Yutang, the couple named their daughter as “Lin.” Along with Lin Yutang’s later monographs - The Importance of Living (1938) and Imperial Peking, Seven Centuries of China (1962), My Country and My People became not only Utzon’s favorite texts but also much read by Utzon’s family.

4. Utzon’s early manifestoes and projects

The impacts of Lin Yutang’s representation of Chinese art and architecture written in My Country and My People on Utzon can be seen in his first architectural manifesto - “Tendenser i Nutidens Arkitektur [Tendencies in present-day Architecture]” (Faber and Utzon, 1947, 63-69), co-authored with Faber and published in Arkitekten in 1947. In this article, they rejected the inhuman formalistic approach to functionalism, as well as the outdated historicist style of architecture (Faber and Utzon, 1947, 63-65). Faber and Utzon were directly provoked by Lin Yutang’s critique of the same subjects (Lin, 1936, 294-303). Meanwhile, in this manifesto, Faber and Utzon launched their anti-theory approach to architectural design with their personal understanding of “people’s fundamental feeling for architecture; a feeling which through the ages has always been the foundation of a true architecture” (Faber and Utzon, 1947, 64). To them, “[…] The notion of architectural feeling is employed here in a dual sense; that is, the feeling that allows us both to experience architecture and to make it” (Faber and Utzon, 1947, 64). Faber and Utzon’s individualist, liberal and empirical thoughts on architectural creation directly aligned with Lin Yutang’s portrayal of Chinese artists who were following their own intuition and senses of natural surroundings for liberalizing their art creation from any doctrine and principle:

[…] the artist must absorb impressions from the myriad forms of nature, its insects and trees and clouds and waterfalls. In order to paint them, he must love them, and his spirit must commune with them. He must know and be familiar with their ways, and he must know how the same tree changes its shade and colour between morning and night or between a clear day and a misty morning, and he must see with his own eyes how the mountain clouds “entwine the rocks and encircle the trees” (Lin, 1936, 272-273).

After the main text of their manifesto, Faber and Utzon selected 27 images to show their inspiration received from organic forms, Nordic landscape, vernacular buildings around the world and Chinese architecture for making their work “organic” and “expressive” (Fig. 1) (Faber and Utzon, 1947, 68-69). These 27 images presented Chinese building culture as being encapsulated in a symbiosis between natural phenomena and primitive built forms. This seemed to follow Lin Yutang’s conceptualization of Chinese architecture, which was derived not only from a “primitive” culture but also “harmony with Nature” and “inspiration from Nature” (Lin, 1936, 294-296). Meanwhile, Lin Yutang’s admiration for the beauty of the projecting eaves of pagoda, colours on the glazed tiles, walls of Imperial Beijing and vernacular buildings in feudal China (Lin, 1936, 294-296), was one of the reasons for Faber and Utzon selecting the images on the same subjects from their reading, with a view to presenting their perceived Chinese building culture.

In 1948, as Utzon’s first individual architectural manifesto - “The innermost being of architecture: the flow of becoming” - was published for an exhibition of the Gronningen Artists Association (Weston, 2002, 10-11). Like previous “Tendenser” and Lin Yutang’s writing, a notion of seeing Nature as the architect’s inspiration for design was clearly revealed, in which “nature’s seed” was referred to as the “innermost being of architecture” (Weston, 2002, 10). Utzon’s description of finding “architecture’s innermost being” by “being in contact with our surroundings” and “rehearsing our ability to grasp these differences and their effect on us” was echoing Lin Yutang’s conceptualization of Chinese artists who were always sensitive to and being intimate with their natural surroundings (Weston, 2002, 10), as the architect explained:

We put everything in relation to ourselves. Our surroundings influence us through their relative size, light, shade,
colours etc. Our condition depends entirely on whether the space in which we find ourselves is large or small [...].

In the same publication, Utzon emphasized the important role of artists’ ethics and morality in the artistry of their work. This was paralleling with Lin Yutang’s statement: by taking “travel” and “contemplation”, Nature can chasten artists’ heart, broaden their spirit, and finally, elevate their artistry (Weston, 2002, 272). Lin Yutang’s words seemed to have further encouraged Utzon to write on an ideal architect demanding “a good healthy common-sense understanding of life” and “a desire for wellbeing” “on the basis of our movements and not of statistical norms and rules created on the principle of what is most usual” (Weston, 2002, 10–11). To Utzon, “[...] this is the way forward to an architecture that is both varied and human” (Weston, 2002, 10–11).

In 1952, Utzon declared his design intention in the written statement for his own house (Fig. 2). Arguably, this article can be read as the architect’s reflection of Lin Yutang’s emphasis on Chinese artists’ passion for Nature and their distance from urban culture, as Utzon wrote:

[...] The simple, primitive life in the country, trips into the mountains with skis or guns, sailing trips, a few weeks together with Arabs in the mountains and the desert, a visit to North America and Mexico, the lifestyle 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 [...] (Weston, 2002, 61).

Utzon’s words also closely aligned with Lin Yutang’s emphasis on the importance of “travel” for experiencing...
Fig. 3 Utzon’s 1953 Langelinie Pavilion competition proposal showing a “pagoda-like” multi-floor restaurant built on top of an urban-scale podium. From The Utzon Archives, Aalborg University Library, Denmark.
Nature and primitive cultures in artistic creation, as Lin Yutang quoted "How can one be the father of painting without reading ten thousand books and traveling ten thousand li?" (Weston, 2002, 272).19 Certainly, Utzon was motivated, and, despite his very limited financial ability, his intention of living a sober and isolated life was revealed by his choosing of a remote woodland at Hellebæk - a location without any neighbor - for constructing his own house.20 This was rhetorically resonating with Lin Yutang's description of the "spiritual baptism" (Lin, 1936, 272) seen in the hermit-like life of the great Chinese painter Huang Tzûchiu 黃子久 (Huang Zijiu or Huang Kungwang, 1269-1354) in the wild mountains:

[...]

In the same statement of his Hellebæk project, Utzon directly referred to the dualist architectonic composition of Chinese architecture as his aesthetic inspiration and confirmation by means of creating black painted timber frame and load-bearing yellow brick walls for the major construction of his own house, as the architect explained:

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19This was originally written by the famous Chinese scholar and painter Tung Ch'ich'ang 董其昌 (Dong Qichang, 1555-1636).

20Lin Utzon interview, Hellebæk, Denmark, 2009.
In traditional Chinese architecture, the constructions are all visible; the elements have been divided up into male, bearing, and female, borne, and this system is also carried through in the treatment of colour (Weston, 2002, 61).

Utzon’s words were a translation of Lin Yutang’s conceptualization of Chinese architecture as a dualistic synthesis especially seen in its articulated roof form:

Perhaps more important than the principle of a straight axis is the use of curves, wavy lines, or irregular rhythmic lines to contrast with the straight lines. This is most clearly seen in the Chinese roofs. Every Chinese temple or palace building or mansion is based, in its essence, upon the combination or contrast of the straight vertical lines of the pillars and the curved lines of the roof. The roof itself contains a contrast between the straight line at the ridge and the sagging line below (Lin, 1936, 297).

To Lin Yutang, both the projecting roof eave and pillar – the two contrasting elements – presented the structural expressionism of Chinese architecture by vividly showing their wooden frame (Lin, 1936, 297). Lin Yutang’s words seemed to not only have helped Utzon perceived Chinese architecture with a clear architectonic concept but also continuously stimulated his design ideas. For example, Utzon’s 1953 Langelinie competition proposal was a combination of two distinctive forms: the “pagoda-like” multi-floor structure with curved projecting floors and the urban-scale podium with angular staircases (Fig. 3) (Weston, 2002, 61). Later, in his statement for the Middlbore House, completed in 1953, Utzon saw his prefabricated concrete structure as a composition between “carrying” and “carried” elements (Fig. 4) (Weston, 2002, 59). In the 1962 “Platforms and Plateaus” manifesto, Utzon presented his “Chinese houses and temples” sketch (Utzon, 1962, 166) that showed a monumental roof/earthwork juxtaposition. He also wrote his perception of Chinese architecture to recognize its significant role in his creation of the Sydney Opera House (Fig. 5):

Chinese houses and temples owe much of their feeling of firmness and security to the fact that they stand on a platform with the same outline as that of the roof or sometimes even of larger size, depending upon the importance of the building. There is magic in the play between roof and platform [….] (Utzon, 1962, 166).

Seen in Utzon’s “Chinese houses and temples” sketch, there was a symmetric ‘floating’ roof in contrast with an asymmetric solid podium in which the columns were totally removed. Utzon’s sketch closely reflected Lin Yutang’s idea not only about the dualism seen in Chinese architecture but also about its “columns” which were far less important than its roof and podium from an aesthetic point of view (Lin, 1936, 297).

In the same publication, Utzon accompanied three analogical sketches with his “Chinese houses and temples” (Fig. 5) (Utzon, 1962, 116-117). One was the sketch for “clouds and oceanic horizon”, one was the two interconnected and twisted forms, and the other was the undulating roof mega structure floating above the grand platforms and staircases (Utzon, 1962, 116-117). These three sketches and their analogies with Chinese architecture indicated more shared thoughts between Lin Yutang and Utzon. Lin Yutang saw Chinese roof as a presentation of the rhythmic form of Chinese calligraphy which was a metaphorical expression of “clouds” (Lin, 1936, 297). This explains the analogy between Chinese roof and “clouds” found in Utzon’s sketches. Utzon’s two interconnected and twisted forms can be seen as his formalization of perceived dualism in Lin Yutang’s writing on Chinese architecture, as well as the inspired aesthetic principle of his architectural creation.
Moreover, Lin Yutang’s conceptualization of Chinese artists as the persons representing the beauty of beloved Nature through their creations can illuminate the analogy between Utzon’s perception of “clouds and oceanic horizon” and its analogical roof/earthwork juxtaposition. In this case, Utzon’s Sydney Opera House design was essentially developed from his dualistic concepts of architectonic forms: the

**Fig. 8** The illustration and caption showing “The origin of the famous roof-line traced to calligraphy” in Lin Yutang’s 1935 My Country and My People. From Lin (1936). My Country and My People.

**Fig. 9** The photograph of the early model of the Sydney Opera House taken by Utzon in early 1958. From The Utzon Archives, Aalborg University Library, Denmark.

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**Fig. 10** Detailed Sections from Utzon’s preliminary design for the Sydney Opera House showing the animated shape and masculine structure of its roof form, published in the Red Book. From The Utzon Archives, Aalborg University Library, Denmark.
heavy angular urban scale podium, symbolizing the natural highland, was in contrast with three groups of light curved roof forms, representing the clouds, as Utzon explained:

As shown here in the schemes for the Sydney Opera House [...] you can see roofs, curved forms, hanging higher or lower over the plateau. The contrast of forms and the constantly changing heights between these two elements result in spaces of great architectural force made possible by the modern structural approach [...] (Utzon, 1962, 116).

5. Utzon’s design for the Sydney Opera House

The impacts of Lin Yutang’s ideas on Utzon’s Sydney Opera House design can be reconﬁrmed by examining the architect’s publication of 1958 Sydney National Opera House [Red Book] (Utzon, 1958), which presented its ﬁrst revised scheme after the 1957 competition proposal. The front cover of the Red Book was a conceptual elevation of the Opera House; and the back cover presented its aesthetic ideal (Fig. 6). On both covers, the white shape, symbolizing the Opera House roof form, was in contrast to the black ﬁgure, indicating the Opera House podium. On the back cover, Utzon developed two semi-ﬁgural forms of torn papers juxtaposed with lengthy drawn lines of carbon pencil. Together, the conﬁguration of the back cover presented a counterpart of cut shapes and typed words on the front cover. Utzon’s dualistic representation of his design echoed the perceived aestheticism in Lin Yutang’s writing and emphasized the contrast between his Opera House roof and podium. Meanwhile, the shape of Utzon’s torn papers and drawn lines evoked the intrinsic and textural forms of gestural strokes of Chinese calligraphy – the essential aesthetic principle for creating Chinese architecture, as Lin Yutang explained:

Unbelievable as it seems, the inﬂuence of calligraphy comes in even in Chinese architecture. This inﬂuence is seen in the bold use of skeleton structures, like pillars and roofs, in the hatred of straight, dead lines, notably in the evolution of the sagging roof, and in the general sense of form and proportion and grace and severity of temples and palaces (Lin, 1936, 296).

The above analogy seemed not to have appeared accidentally. Lin Yutang’s portrayal of the “animistic principle or rhythmic vitality” (Lin, 1936, 297) seen in the expressive strokes of Chinese calligraphy as the essential aestheticism of Chinese architecture can explain why Utzon published his initial sketch of the Sydney Opera House drawn by his expressive pencil strokes, in order to demonstrate his aesthetic inspiration and conﬁrmation in the Red Book (Fig. 7). In fact, Utzon’s early study of the roof form of his Opera House did present the architect pursuit of the animated shape and masculine structure, recalling the Chinese calligraphy and its inspired animistic principle he perceived from Lin Yutang (Fig. 8):

…. It [Chinese architecture] has succeeded because it took its inspiration from the sprig of plum blossoms – translated first into the moving, living lines of calligraphy and secondarily into the lines and forms of architecture [...] (Lin, 1936, 296).

Lin Yutang further stated that the aesthetics of Chinese curved roof was aligned with the arched form of “balustraded round bridge” (Lin, 1936, 299). This was one of the references of Utzon’s arched shell roofs for his Opera House (Fig. 9). In the Red Book, Utzon’s drawings presented that the arched roof forms constructed by in-situ concrete were embodied with the expressive curved stroke-like edge and

Fig. 11 Arne Magnussen’s photograph on Utzon presenting the study model of plywood box beam scheme of the Minor Hall acoustic ceilings and walls with the enlarge photograph of Chinese calligraphy. From The Utzon Archives, Aalborg University Library, Denmark.

Fig. 12 Utzon’s analogy between the flying skua gull and his proposal for the floating glass wall mullions. From Utzon, J., 1965. The Sydney Opera House, en/in Zodiac 14.
in contrast to the angular forms of pre-casted concrete units for the podium (Fig. 10). The articulation of Utzon’s roof/earthwork juxtaposition, where the pillars were totally omitted, was nearly a perfect exemplification of the dualistic aestheticism of Chinese architecture Utzon received from Lin Yutang. Lin Yutang’s emphasis on the importance of using colours in Chinese architecture, especially seen as the glazed roof tiles and painted carpentry, further explained why Utzon intended to paint the glass mullion with imperial red and to clad his Opera House shell roof with white glazed tiles (Lin, 1936, 303).

Following the inspired expressionist approach to design, Utzon emphasized the importance of roof in his design and treated it as the “fifth façade” of his Opera House (Utzon, 1965, 49). Utzon’s own words reflected Lin Yutang’s criticism of the utilitarianism of modern architecture which made houses without the expressivity of roof form, as the architect declared:

The Sydney Opera House is of major importance. It is a house which is completely exposed. The Sydney Opera House is a house which one will see from above, will sail around, - because it sits on a point sticking out into a harbor, a very beautiful harbor, a fiord with a lot of inlets. This point is on the middle of the city and the city rises on both sides of the fiord so the Opera House is a

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Fig. 13 “Model of construction over concourse” by Ove Arup and Partners published in Utzon’s Sydney National Opera House (Red Book). From The Utzon Archives, Aalborg University Library, Denmark.
focal point. This means that one could not design a building for such an exposed position without paying attention to the roof. One could not have a flat roof filled with ventilation pipes - in fact; one must have a fifth facade which is just as important as the other facades. Furthermore, people will sail around it, there are ferries sailing past and large ships coming, - this big harbor is just outside and the large bridge nearby, so people will see it as a round thing. They will not see it as a house in a street, either along the street or across (Utzon, 1965, 49).

To Utzon, the proposed sculptural roof forms and the urban-scale podium formulated his idea of “counterpoint” for the Sydney Opera House design:

[...] Counterpoint between the plateau and the roof is strong: the heavy mass of the plateau and the light sculptural roof [...]. The difference in character of the two components forming the building, the massive and imposing base, and the light and graceful shells on top of it [...] (Utzon, 1965, 70).

Utzon’s own words reconfirmed that Lin Yutang’s dualistic conception of Chinese architecture contributed to his idea of “counterpoint” (Utzon, 1965, 70) and helped him to develop an important design strategy to reconcile the relationship between the Opera House and its site context. To Utzon, the proposed white roof forms of the Opera House, as “clouds” representing natural phenomena, were “in contrast to the square buildings surrounding it” and their “dark, red or brown brick structures”; and the dark urban-scale podium of the Opera House, as a symbol of ancient human culture, was vividly representing its peninsular site - the Bennelong Point:
[... its podium's] uniformity with the cladding will help to give the rock-like character desired for the base, as a contrast and anchor to the soaring roofs [...]. (Utzon, 1965, 70–71).

This “counterpoint” idea seen in the external forms of his Opera House further became the principle for Utzon dividing its internal spaces into “primary” and “secondary” zones: the former included three sets of roof forms covering the two Main Halls and restaurant; and the later comprised the serving areas within the envelope of podium, as Utzon described:

In the Sydney Opera House scheme, the idea has been to let the platform cut through like a knife and separate primary and secondary functions completely. On top of the platform the spectators receive the completed work of art and beneath the platform every preparation for it takes place (Utzon, 1962, 117).

The inspired dualistic principle seemed to be not only for Utzon to implement the external forms and internal spaces of his Opera House but also for him to define the relationship between its indoor and outdoor forms. To this point, Utzon stated that the outdoor reinforced concrete structure should be in contrast to the plywood interior design to enrich the expressivity of the Opera House, as he explained:

The walls will show the concrete as it was constructed, contrasting with the moulded plywood panels which form the components of the furniture and fixings (Utzon, 2002, 71).

While completing the geometric principle of plywood box-beam scheme for the acoustic ceilings and walls of his Opera House's two Main Halls, Utzon published a series of diagrams to present the “movement”, “waves” and “winds” as his artistic inspiration and confirmation in 1965 (Utzon, 1965). Utzon’s vitalist symbiosis between Nature’s forces and man-made forms was paralleling with

Lin Yutang’s conceptualization of Chinese calligraphy and roof forms, expressing the perceived dynamism from the natural phenomena:

Everywhere we try to catch and incorporate the natural rhythm of nature and imitate its irregularity. The spirit
for Utzon to initiate the expressive forms during his design.

architecture seemed to not only have served as the ideas
dynamism found in Utzon's glass-mullion design can be
referred to as the expressivity of Chinese architecture
this important design outcome (Fig. 11). Similar analogy can
be detected in Utzon's design approach to the glass-mullion
working model, with a view to showing his artistic vision of
In other words, we see everywhere in Chinese architecture an effort to seek relief from straight lines through some form of irregularity suggestive of animal and plant forms. This leads to a consideration of the use of symbolism [...] (Lin, 1936, 299).

In fact, Lin Yutang's description of Chinese art and architecture seemed to not only have served as the ideas for Utzon to initiate the expressive forms during his design process of the Sydney Opera House, but had also nurtured the architect's passion for pursuing the expression and perfection of structural formation of initiated forms. Chinese architecture, in Lin Yutang's writing, was a dualistic synthesis exemplifying the architectonic expressivity of its wooden frame:

The problem of revealing or concealing skeleton structures is exactly similar to the problem of “touch” in painting. Just as in Chinese painting the outlining strokes, instead of serving merely to indicate the contour of shapes of things, acquire a bold freedom of their own, so in Chinese architecture the pillars in walls, or rafters and beams in roofs, instead of being hidden in shame, are frankly glorified and become important elements in giving structural form to the buildings. In Chinese buildings the whole structural framework is, as it was, purposefully revealed in full to us. We simply like to see these structural lines, as indicating the basic pattern of the building, as we like to see the rhythmic sketches of outline in painting which stand for the substance of objects for us. For that reason, the wooden framework is usually revealed in house-walls, and the rafters and beams are left visible both inside and outside the house (Lin, 1936, 296-297).

In 1958, with the help of his partnering engineer Ove Arup (1895-1988), Utzon proposed the folded-plate concrete beams to replace the supporting columns and to emphasize the roof form and its extended span for the concourse area of the Opera House podium (Fig. 13) (Utzon, 1958). The curved shapes of roof beams represented the structural requirement and further become the drains for the rain-water flowing on the platform surfaces. Meanwhile, the dynamic forms of concrete beams reinforced the orientation of people's processional movement from the concourse area to the two Main Halls.

In 1962, after four years of studying the geometry system of his Opera House roof form, Utzon abandoned the previously proposed hyperbolic shapes in his 1957 competition scheme (Mikami, 2001). Utzon applied the spherical formula for conducting his final proposal of the Opera House roof form (Mikami, 2001). Utzon also rejected formulating shell membrane supported by the internal pillars, as well as the much cheaper solution - the double shells with steel framework in-between (Mikami, 2001). This resulted in today's monumental shell-vault structure of his Opera House roof which constructed by more than 2000 pieces of pre-cast concrete blocks and reinforced by internal steel frame and cable. These concrete blocks shaped the rib of each fan-like shell-vault structure, and a series of representative shell-vault structures formed the synthetic formation of the whole roof forms of Utzon's Opera House (Fig. 14).

In 1965, after seven years of searching for the geometric principle with applied materials and structural system for the acoustic ceilings and walls of the two Main Halls inside the Opera House, Utzon proposed his plywood box-beam scheme.

as the final solution that addressed all visual, acoustic and circulation requirements (Fig. 15). This scheme presented Utzon’s synthesis of colour, decoration, structure and facility for his Opera House, and it could have resulted in a free-standing megastructure with 15- to 45-m span above the auditorium (Fig. 16). This could have created the interplay between two roof structures, namely the shell-vault roof and acoustic ceilings, and there should have been no place for ordinary post-and-beam structure system inside Utzon’s Opera House. Unfortunately, with the project being seriously delayed and over budget, the client and some of partnering engineers had no faith in Utzon’s scheme and forced Utzon to abandon his ambitious plan. This resulted in Utzon leaving his position as the architect in chief of the Sydney Opera House. Utzon never had a chance to come back to Sydney to finish his work, and none of his remaining proposal has been realized.

6. Afterwards

After his unfortunate departure from Sydney, Utzon only realized few important projects in the rest of his architectural career. Although Utzon had consistently received inspiration and ideas from varied sources during his late practice, it seemed that the words of Lin Yutang had nurtured Utzon’s architectural philosophy deeply and had continuously played an active role in his architectural creation. This is because that Utzon’s initiation, articulation and communication of his design concepts repeatedly recall the symbiosis between architectural aestheticism and Nature’s expression, as encapsulated in Lin Yutang’s humanistic conceptualization of Chinese building culture. For example, the Bagsværd Church, a Lutheran church built at Denmark during 1974-6, was Utzon’s representation of studied Chinese Buddhist monasteries by articulating the Church’s dualistic architectonic formations - in-situ curved concrete

Fig. 18 Above: Utzon’s initial sketches for showing his concept of Bagsværd Church design. Below: Utzon’s initial sketch showing the section of his Bagsværd Church (1968-1976). From The Utzon Archives, Aalborg University Library, Denmark.
China (Chiu, 2015). The city-like and walled building complex at Kuwait was composed by numerous courts along with concrete units for walls and shell structure for roof forms and prefabricated angular concrete units for walls and floors (Fig. 17) (Chiu et al., 2018). To Utzon, the Bagsværd Church represented his experience of windy beach at Hawaii in which its shell roofs, represented by his expressive calligraphic work, were the “clouds” (Fig. 18):

The inspiration for the form and the architecture came from a wonderful visit, not once, but several times, to a vast sandy beach on one of the Hawaiian Islands Oahu, on the windward side, where the trade wind ceaselessly comes from California many thousands of meters above the sea, like a completely steady breeze, and from early morning it increases in strength until 11 o’clock so that you can lean against it - otherwise you simply don’t know the peace that wind gives - and sometimes it brings some clouds with it, and then the light and the sun fall through the clouds down on to the sand.

It's wonderful. It's a natural space that gives a profound spiritual peace, and spiritual peace is just what this is. It's the happiness in living, it's the joy and the gratitude (Utzon and Bløndal, 2005, 116).

The National Assembly of Kuwait, built during 1982–1988, was his interpretation of the Forbidden City of Imperial Beijing, especially studied during his 1958 study trip to China (Chiu, 2015). The city-like and walled building complex at Kuwait was composed by numerous courts along with a central axis embodied by a corridor and ended by a grand portico supporting a projecting curved roof (Fig. 19). Together, they drew visitors towards the seashore and made the whole complex as the path-like temple for Nature. Paustian Furniture Showroom, built at Copenhagen in 1985–1987, was Utzon's interpretation of Chinese carpentry documented in his 1925 edition Yingzao-fashi [營造法式, Chinese Building Standard, first published in 1103 CE], acquired during his 1958 trip to China (Chiu et al., 2019). The proportion and composition of Utzon's prefabricated concrete elements for Paustian was comparable to the columns, beams, brackets, purlins and rafters seen in the section of Chinese mansions (Fig. 20). To Utzon, both of his Paustian project and studied Chinese timber frame were representing the metaphor of a forest, and their building construction can be referred as the growth of trees (Weston, 2002).

In the late 1990s, for the first time, Utzon was requested to publish a portfolio of his architectural career. One of the most important outcomes was the Logbook Series.22 Within this five-volume set, edited by Utzon himself, he quoted several sentences from his mentor Osvald Sirén's Kina Konst, Under Tre Ärtusenden (Chinese Art, Through Three Millennia, 1949) on the cover page of the Logbook Vol. II: Bagsværd Church (2005) (Utzon and Bløndal, 2005). This paragraph was translated by Sirén into Swedish and was originally written by the eminent Chinese painter Wang Shimin (1592–1680) in a tribute to Huang Tzüchiu 黃子久 (Huang Zijiu or Huang Kungwang, 1269–1354):

The one I most admire is Huang Kungwang, for his measurements are filled with a spirit of power and simplicity; something that can never be achieved merely through work and skill, something that is very difficult to analyse. Even since my estimation and I have usually had a couple of them hanging in my home so as to be able to copy them at any time, but nevertheless I have so far only understood a fraction of his art (Utzon and Bløndal, 2005; Sirén, 1949, 617).

By quoting Sirén’s words, Utzon intended to show his understanding of learned Chinese culture via Huang Kungwang - an iconic figure of Chinese culture both in Sirén and Lin Yutang’s writing. This quotation also closely revealed Utzon’s appreciation both of Sirén and Lin Yutang’s work and further indicated the architect’s lifetime obsession for Chinese art and architecture. Utzon might have seen both of the unfortunate political career and the honorable art creation of Huang Kungwang as the reflection of his professional career in general and the unfortunate resignation from his position at Sydney in particular. Chinese aestheticism seemed to have not only played an artistic and philosophical role in Utzon’s architectural creation but also have had a significant impact on the psyche of the architect.

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Since his first architectural manifesto published in 1947, Utzon had consistently given a clear account of his intimacy with Nature and seeing it as his aesthetic inspiration and confirmation in a religious tone. Although it is difficult to reveal all the sources which finally formed Utzon’s passion for Nature, Utzon and Lin Yutang’s comparable recognition of the aesthetic applicability of Nature to architectural creation should not be merely a matter of chance. Indeed, in many publications, Utzon’s thoughts reflected similar ideas of Lin Yutang’s conceptualization of Chinese art and architecture. Utzon’s words also presented his personal beliefs paralleling with Lin Yutang’s philosophical ideals of Chinese aestheticism. Indeed, Utzon perceived his profession as an architect who was identical to Lin Yutang’s “artist” with an elevated morality and cultivated artistry through his worldwide travels for experiencing Nature and primitive cultures.

The ideological analogies between Utzon and Lin Yutang’s writings served as a foundation for further exploration of the impacts of Lin Yutang’s conceptualization of Chinese art and architecture on Utzon’s design for the Sydney Opera House. During its design process, Utzon clearly demonstrated the received “calligraphic” ideas which helped him initiate the Opera House roof forms. Indeed, Utzon’s design proposals for his Opera House were his experiments of Lin Yutang’s expressive, romantic and humanistic concepts in literature for constructing an architectural masterpiece. These concepts had stimulated Utzon to create an iconic roof/earthwork juxtaposition as his exemplification of perceived dualistic forms of Chinese architecture. Lin Yutang’s words also encouraged Utzon to pursue the expression and perfection of structural formation of his initiated forms, especially seen in his design proposal of the shell-vault structure for roof forms and the plywood box-beam scheme for acoustic ceilings and walls. Unfortunately, this partially resulted in Utzon’s forced resignation from his

7. Conclusion

Since his first architectural manifesto published in 1947, Utzon had consistently given a clear account of his intimacy with Nature and seeing it as his aesthetic inspiration and confirmation in a religious tone. Although it is difficult to reveal all the sources which finally formed Utzon’s passion for Nature, Utzon and Lin Yutang’s comparable recognition of the aesthetic applicability of Nature to architectural creation should not be merely a matter of chance. Indeed, in many publications, Utzon’s thoughts reflected similar ideas of Lin Yutang’s conceptualization of Chinese art and architecture. Utzon’s words also presented his personal beliefs paralleling with Lin Yutang’s philosophical ideals of Chinese aestheticism. Indeed, Utzon perceived his profession as an architect who was identical to Lin Yutang’s “artist” with an elevated morality and cultivated artistry through his worldwide travels for experiencing Nature and primitive cultures.
position as the architect in principal for the Opera House project. Although none of Utzon's remaining proposals have been realized, Utzon's perceived ideas and ideals from Lin Yutang's conceptualization of Chinese art and architecture should serve an aesthetic principle for restoring this yet to-be-finished masterpiece.

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