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Aesthetics of Chinese Tall Buildings



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Abstract

While Western aesthetics dominate the world at this time, the rise of the East has led China to re-examine its Eurocentric view towards aesthetics. China has been long been a fertile laboratory for foreign architects to create exciting and wild structures, but this explosion has led to an urban landscape littered with tall buildings that have little, if anything to do with the indigenous cultural heritage. This dilemma came to the forefront in Taiwan when it envisioned creating a world-class supertall building that would serve as a “coming-out” to the world stage. Instead of employing a foreign architect, they chose a native Chinese architect. Drawing from Chinese aesthetics and sensibilities, the resulting TAIPEI 101 showed that a building could resonate with the indigenous population and culture in a deeply spiritual way, while simultaneously instilling a sense of “place” that roots the building into its context.

Keywords: Chinese Aesthetics, Place

The concept of aesthetics is central to the creation of art, culture and architecture. While Western aesthetics dominate the world at this time, the rise of the East has led China to reexamine this Eurocentric view. China has been long been a fertile laboratory for foreign architects to create exciting and wild structures, but this explosion has led to an urban landscape littered with tall buildings that have little, if anything to do with the indigenous cultural heritage. This phenomenon has contributed to a prevalent sense of “placelessness” and an artistic schism that plagues Chinese cities and architecture today, and has come under increased scrutiny at both a local and national level.

This dilemma came to the forefront in Taiwan when it envisioned creating a world-class supertall building that would serve as a “coming-out” to the world stage. Instead of employing a foreign architect, they choose to hire a native Chinese architect. Drawing from Chinese aesthetics and sensibilities, the resulting TAIPEI 101 showed that a building could resonate with the indigenous population and culture in a deeply spiritual way, while simultaneously instilling a sense of “place” that roots the building into its context, in a way that no foreign architect could hope to achieve.

This presentation gives a brief overview of some of the traditional Chinese aesthetic notions that inspired the design of TAIPEI 101. By better understanding and applying these concepts, architects can gain insight into designing structures that derive from the local cultural landscape, and which are better suited to an increasingly multicultural and multicentric global market.

Traditional Aesthetic Sensibilities

“Any great people, must have their own aesthetic”

—Mou Tsung San, Chinese philosopher

“Any great people, must have a great architecture”

—Shen Mou, Chinese philosopher

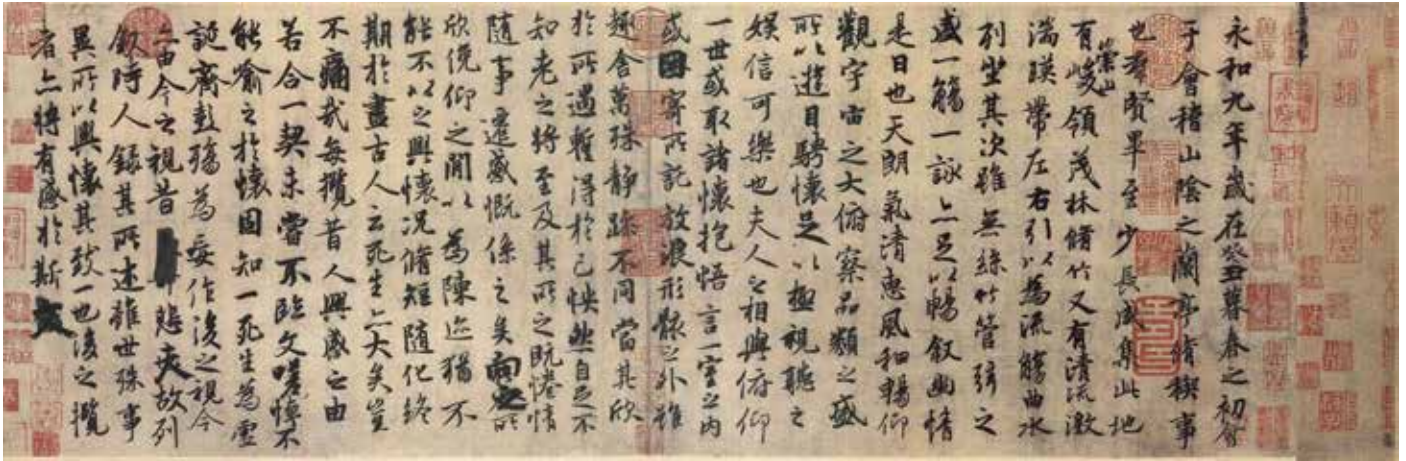


Figure 1. Each glyph is written in a rough square shape of similar size, creating a dense language structure that transmits more information in the same amount of space relative to Western writing.

The predominant cultural systems in the world today can be divided into West and East. The Eastern cultural sphere has always been dominated by China, but its core beliefs and concepts are not generally well understood by those in the West. While the study of aesthetics as a philosophical discipline is by and large a Western construct, it has not been as well codified or analyzed in traditional Chinese thought as it has in the West. This is not to say that Chinese culture does not value aesthetics. The traditional aesthetic sensibilities of ancient China are most clearly seen in poetry, calligraphy and painting—the three major artistic disciplines of the Chinese literati and intellectuals. This then trickles down to other disciplines such as architecture, bronzes, ceramics, music, etc.

Some of the differences between these two cultures begins in their respective written language systems. Renowned Taiwanese philosopher and academic, Shi Zuocheng has written extensively on the subject of how the opposing language systems used by these two civilizations created and influenced their world view and how this in turn had a significant influence on the cultural design values that have come to shape Chinese tall buildings, *TAIPEI 101* in particular.

Western languages systems are primarily phonetic in construction, words are composed from a string of individual abstract symbols, an alphabet, each of which represents a sound. Combined, these form words of various lengths and syllables. This written system has obvious advantages, particularly pertaining to ease of pronunciation (one can usually sound out an unknown word). The English language for example uses an alphabet of only 26 characters, each with their corresponding sounds, one can get a general handle on how to pronounce any written word within that language. This highly logical and abstract language structure relies on one's ability to derive meaning from phonetic word. The individual characters of the alphabet or words have no meaning in themselves besides representing a sound. This requires a high degree of abstraction and thus there is a severe detachment of words from their meaning.

According to Shi, this language system is borne out of an emphasis on logic and reason prized by western civilizations. Beginning with Socrates, Descartes and Kant, western civilization has always stressed that only logic and reason were the way to understand and comprehend the universe. This paradigm gave birth to mathematics and geometry, which relies on purely logical thinking. This is no more clearly seen than in that classic Einstein formula: $E=mc^2$. This simple yet powerful string of abstracted symbols has come to represent the mysteries of creation and how western civilization describe reality.

This deeply ingrained ability to rationalize with a high degree of abstraction comes from western society's reliance on science and logic to understand the physical world.

In sharp contrast to this, the written language used in China originates from pictograms and is based on discrete, individual glyphs. Each glyph is a monosyllabic, self-contained character with distinct meaning. Because each glyph is written in a rough square shape of similar size, this creates a much denser language structure and transmits much more information in the same amount of space relative to western writing (see Figure 1).

Many root characters of this language evolved from pictograms of abstracted natural phenomenon or events: rivers, tree, house, people, etc. This creates a language, according to Shi, that has evolved directly from its source material without the detachment associated with western languages. In effect, Shi proposes that Chinese civilization is closer to nature because of this direct, tangible link of character to its meaning.

In fact, in China the word for the heavens, "*tian* 天," evolved from an abstracted human figure with outstretched arms and was widely used in ancient times to denote the Chinese concept of Nature/God. Unlike the Greco-Roman pantheon or Christian beliefs, God in China does not take on human form and is generally understood to be equivalent to nature. It was



Figure 2. A comparison of an Egyptian obelisk (left) and a Chinese stele (right), erected to celebrate some great event, clearly exemplifies two differing aesthetic attitudes. © Guy Saffold (cc by-sa) (left), © Morio (cc by-sa) (right)

not until the introduction of Buddhism in the first century CE that China had any formal religion and previously only considered seeking to obtain harmony with nature or *tian* as its chief goal.

Differing Attitudes

Unlike the west, in China heaven was never seen as a vengeful or spiteful exterior force and any imbalance was quickly remedied. A comparison of two objects, an Egyptian obelisk and a Chinese stele, erected to celebrate some great event clearly exemplifies the differences between these two differing attitudes (see Figure 2). Both are carved out of highly durable stone which requires great effort to move and carve, thereby showing how important they were to the cultures that created them. But their forms could not be more different.

The Egyptian Obelisk has a purity of form that derives its power from pure geometry, the ultimate statement of a western attitude of understanding the world through the lens of science. Its sharp peak and gently sloping sides create a shape that resonates stability but at the same time creates a spear like form that appears to pierce the sky. This exemplifies a heroic architecture of dominance and individual expression, the form of the object being its main proponent. The overwhelming dominance of form or shape becomes the prototype for many western tall buildings such as the Burj Khalifa, the Shard, etc.

Contrast this to the Chinese Stele on the right. Unlike the obelisk and its will to dominate, the Stele conveys harmony and embracement. Twin dragons spiral and rest comfortably at the top of the stele and become almost akin to a key that locks the stele into heaven/earth. This demonstrates clearly the radical differences between the two civilizations; Chinese culture emphasizes harmony among all things with the grand concept of the “unity of heavens and humanity 天人合一.” Humanity must live in harmony with nature and seek balance, this is the direct antithesis of the domineering heroic aspirations of the western culture.

While western aesthetics place great emphasis on shapes, forms and images that are beautiful, Chinese art has never been as interested in making objects that look inherently “beautiful.” The Shanshui paintings, so prized by Chinese intellectuals and emperors, were not beautiful in the conventional sense, but drew their impact on the emotion and feelings that they stirred within their viewer. This they termed vital resonance 神韻 or 氣韻 of a painting—something imbued by its creator and may best be described as an art work’s “soul.” The transmittance of this abstract concept to the viewer was held as the highest ideal of Chinese art.

The *Travelers among Mountains and Streams* by Fan Kuan (see Figure 3) ranks amongst the finest examples of Chinese Shanshui painting and illustrates some of the highest ideals of Chinese aesthetics. Those that are applicable to tall buildings



Figure 3. The *Travelers among Mountains and Streams* by Fan Kuan ranks amongst the finest examples of Chinese Shanshui painting. © National Palace Museum



Figure 4. Chinese pagoda—each element in a plays a role within the whole but at the same time remains a separate identity. © Aaron Zhu (cc by-sa)

will be briefly discussed. First it depicts an idealized harmonious landscape that is uniquely Chinese. The landscapes of many places in China, particularly Guilin and Huangshan, are highly unique with no real counterparts in the West. The mountains rise in a gravity-defying shape with almost completely vertical sides as if they were drip-fed from the earth. The tops of these mountains are usually gently curved and rounded, unlike the jagged peaks of Western mountain ranges; this gentleness of form heavily influenced Chinese artists and helped to shape this ideal of harmonizing with nature and was most likely the inspiration for the Chinese stele discussed earlier.

This sublime landscape inspired artists and intellectuals for generations and strengthened the awe and reverence for nature. Shanshui painting, particularly during the Song Dynasty, became the dominant painting style. Many of these purely black and white examples of this period survive today and show a mature and confident period of Chinese civilization. During this pinnacle of Chinese civilization, the idea of harmony with nature, to be revered and admired but not dominated was clearly established.

Second is the use of multiple, distinct focal points. Unlike traditional Western painting that contain a singular, central focal point; Shanshui paintings create numerous focal points

and points of interest each with an independent perspective vanishing point. The almost invisible caravan of travelers in the foreground, the small clump of buildings that sit hidden away on a little ridge and finally the towering central mountains all have an internal visual logic that is not necessarily tied together into a coherent whole. Together they form a path for the eye of the viewer, to follow from the bottom of the painting, progressing up the painting and only then is the true grandeur of the Mountain in the center of the painting fully appreciated.

Each focal point is a self-enclosed experience, this is similar to Chinese language where each glyph contains meaning that is both separate but meanwhile being connected to the whole. Unlike Western painting which normally contains a singular set of vanishing points, in Chinese painting each instance contains all the information for the whole, yet at the same time is an independent entity.

This unique property of Shanshui painting very much draws from the language of China and here we can see a clear link between how language is structured and that experience influencing painting.

Third, using the ideal of “stepping up 步步高升” to express time and space. Fengshui, the traditional method of thinking about the natural environment arose very much out of the Chinese reverence for nature and seeking to understand and harmonize with it. Instead of trying to fight and dominate nature, their response was to seek to understand the natural energies of a given place and thus interventions that were made would seek to harness and flow with the natural “qi 氣” of its place.

Because *qi* normally seeks to rise and blossom, the concept of *stepping up* was a key concept in Fengshui. In it, the landscape or architecture should rise up from a lower starting point in clear, distinct steps, reaching ever higher. This concept also has to do with the ideal that one’s success is a slow build up, reaching progressively higher until finding the summit.

TAIPEI 101

This contributes to many multi-story Chinese structures being built out of a stacking of distinct elements. Each element plays a role within the whole but at the same time remains a separate identity, again similar to how Chinese language is structured with self-enclosed glyphs. This may help to explain why pagodas became the predominant way of building tall structures in China (see Figure 4). These cultural aesthetic ideas find their ultimate expression in TAIPEI 101. The tower itself needs no introduction, designed by the Taiwan based architecture firm C. Y. Lee & Partners and having once held the title of world’s tallest building from 2004 to 2010 and well as many other worlds firsts.

C.Y. Lee has long championed using Chinese culture and traditional design concepts while utilizing modern technology



Figure 5. TAIPEI 101—the main body of the tower consists of a stacking of discretely individual, self-contained blocks. © Jon Fobrant

and techniques. The design of this eccentric tower has also been very much a topic of discussion within architectural fields since it first opened.

The main body of the tower consists of a stacking of discretely individual, self-contained blocks (see Figure 5) which was discussed earlier, a striking design concept that is not usually utilized by Western architects. As we discussed earlier, the Chinese language is a glyph based system of pictograms with each character a self-contained idea or concept that acts like a self-enclosed micro-verse. This stacking technique was used to great effect by C. Y. Lee that dubbed these elements a “*dou* 斗.” The character of *dou* 斗 has multiple definitions in Chinese, varying from a unit of measure to a bowl-shaped vessel that holds water; any of these can be applied to the whole structure and be valid. Each *dou* is a unit eight floors tall, an auspicious number in Chinese culture; the main structure above the mid-level belt consists of eight *dou* stacked one on top of each other similar to pagoda construction. Some have considered this design method irrational, piecemeal or clumsy and many Western designers have a hard time understanding its internal logic.



Figure 6. In traditional Fengshui ideology, a bowl shape is meant to capture and hold the Qi, the vital energy of the universe. © C. Y. Lee & Partners Architects Planners

Once viewed through Chinese aesthetic sensibilities, the design intent and thinking behind this can be better understood. Unlike most supertall buildings throughout the world, the international design team that designed TAIPEI 101 was led by the home grown C. Y. Lee. He bucked trends and opted to base the design on Chinese aesthetic concepts rather than Western ones. Rather than a celebration of technology and logic that is usually characteristic of a Western tower design, the use of Chinese aesthetic concepts firmly plants TAIPEI 101 in the cultural landscape of its location.

This is not to say that modern technology does not play a role in TAIPEI 101, but here it is given a different inflection. Drawing from the design philosophy of “western technology, eastern spirit” and “oriental avant-garde,” these forces were molded following a different methodology. The traditional hard sharp lines of a tall tower were softened into gently bulging ones, reflecting a gentler approach to tectonics. Traditional Chinese iconographic forms, such as the *ruyi*, were given a modern facelift and forged using modern technology and materials. These were in turn sprinkled liberally throughout the complex and help to strengthen the anchor that integrates the building into the local cultural context of Taipei.

Fengshui Ideology

The Fengshui concept of “stepping up 步步高升” here is employed to give the building a rhythm and scale that diminishes its height through a repeated order. This stepping of multiple independent viewpoints harkens back to the ideas utilized by Chinese painters such as Fan Kuan in Shanshui painting where each node has an independent visual structure. This idea of multiple viewpoints is strengthened by the design at the base of each *dou* being an open platform which can be accessed for building maintenance or to place the New Year’s fireworks.

This fengshui concept was also utilized in the Jinmao Tower by Skidmore, Owings & Merrill LLP in Shanghai, whose shape mimics a Chinese pagoda with its stacked sloped elements. Although on Jinmao these step backs are considerably more shallow and more numerous in number, and the design does not take into account the mystical numerology used in TAIPEI 101. This respect for Chinese aesthetics is unique in the tripartite complex of Lujiazui and sets it apart from its neighbors that adhere to traditional Western design methodologies.

As discussed earlier, Chinese attitudes towards nature and the heavens vary sharply from those in the West. Chinese architecture values harmony with an accepting, welcoming attitude towards nature. This contrasts sharply to the antagonist, domineering attitude of the needle-like building structures favored by Western architects. This ideal of harmony finds its way into all aspects of Chinese civilization and design. This attitude can be most clearly reflected in the individual *Dou* that create the unique silhouette of TAIPEI 101; they flare gently upward and outwards as opposed to the intuitive design of structurally-stable downward sloping pyramidal shapes.

The bowl like shape created by this sloping harkens back to one of the definitions of *dou* mentioned earlier and becomes akin to a vessel to “receive the sky 接天” (see Figure 6). In traditional Fengshui ideology, a bowl or such similar shapes were meant to capture and hold the *qi* or vital energy of the universe. The space enclosed within this bowl like structure would then become charged by the *qi* and allow the residents inside to become healthy and prosperous. A more angular building shape, such as the Shanghai World Financial Center, on the other hand rejects the *qi* and lets it slide off like water shedding off the prow of some great ship. The shape of these structures also seems to Chinese eyes to be “knife-like”—a distinctly un-harmonious idea. From a Chinese perspective, this is poor design and in direct conflict with nature.

Design in Harmony with Nature

The preference for softer, more natural forms can be seen in the gentle lines and rounded edges of the China Zun in Beijing by Kohn Pedersen Fox Associates. It takes its inspiration from the shapes of ancient Chinese bronze vessels that clearly

reflect the ideals of Chinese aesthetics. This idea of design being in harmony with nature and its natural rhythm is gaining popularity in the West with the recent acknowledgment of a global climate crisis. Architects now attempt to design with an increasing sensitivity to local environmental conditions to reduce energy waste at a micro and macro scale. This will harness the natural forces and local climatic conditions to create more energy efficient city grids and allow for the creation more landscaped areas to reduce the heat island effect.

The design profession in the West is slowly adopting a more harmonious attitude that Chinese civilization has always held sacred. While some tall towers in China reflect Chinese aesthetics, TAIPEI 101 can be seen as the ultimate cultural expression embodied in architecture. While one of the key tenets of the Bauhaus was cutting off all ties with the past to create a wholly new architecture aesthetic, C. Y. Lee in Taiwan chose to inherit and evolve the time-tested aesthetics of traditional Chinese society. Embracing the wisdom of thousands of years of cultural history and societal attitudes towards nature, the design ideology emanates from a uniquely Chinese viewpoint while making no apologies.

In a world where architecture is becoming dominated by expressing the latest building technology or creating increasingly fantastic and plastic forms that exists in a cultural vacuum, TAIPEI 101 celebrates the cultural, aesthetic and local heritage of the land on which it resides. It presents an alternative design philosophy and should serve as a starting point to a deeper exploration of the Chinese aesthetic. The creation of TAIPEI 101 should be viewed as the beginning of the creation of a uniquely oriental design sensibility, but in a greater sense, for an architecture that respects cultural and local environmental forces, celebrating them rather than rejecting them.