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GAME OF ASSOCIATIONS: THE SHAPE OF A TALL BUILDING

GRA W SKOJARZENIA: KSZTAŁT WIEŻOWCA

Abstract

Tall buildings, which refer to spiral, pyramid or obelisk shapes, or the shape of a gate or triumphal arch, may resemble old buildings of symbolic importance. Tall buildings that relate to these shapes and forms and are associated with them are still being designed. The relatively easy recognition of these building shapes is used to create distinctive large-scale landmarks.

Keywords: shape of a tall building, spiral shape, pyramid shape, obelisk, gate, triumphal arch

Streszczenie

Wieżowce, które nawiązują do kształtu spiralnego, piramidalnego, formy obelisku oraz do kształtu bramy lub łuku triumfalnego, mogą przypominać dawne budowle o znaczeniu symbolicznym. Wciąż projektowane są wieżowce, które nawiązują do wspomnianych kształtów i form i które są z nimi kojarzone. Stosunkowo łatwa rozpoznawalność, jaka cechuje omawiane kształty budowli, wykorzystywana jest do tworzenia charakterystycznych znaków o wielkiej skali.

Słowa kluczowe: kształt wieżowca, kształt spiralny, kształt piramidalny, obelisk, brama, łuk triumfalny

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1. Introduction

Shapes of skyscrapers are sometimes compared to various forms that are man-made or occur in nature. Such buildings are often named after the forms and objects they are commonly associated with. *Tour Montparnasse* is referred to by Parisians as “the cleaver” [11, p. 106]; *30 St Mary Axe (Swiss Re)* in London is commonly called the gherkin; and *The Leadenhall Building*, built in recent years also in the City of London – the cheese-grater [25, p. 19]. There are many examples of various types of names that refer to tall buildings due to their shape (although, as in the case of the tall building in Paris, it is probably not only the shape but also the spatial impact that is referred to).

In scientific terms, the shape of tall buildings can be seen in terms of symbolism. The issue of symbolism of buildings is expressed in shapes referring to well-known archetypes of forms. There are types of shapes of tall buildings that are associated with characteristic structures and forms with fixed meaning and symbolism. *Torre Velasca*, built in the late 50s in Milan, is a well-known tall building that resembles a mediaeval tower [9, p. 234].

The symbolism of tall buildings is sometimes analysed along with the imageability of such structures. S. Krishnan and M.M. AII (2004) consider in this context such aspects as the power of the pyramid shape (*Pyramid Power – From Madurai To San Francisco*) and analogies to nature (*Analogies in Nature*) [20].

A tall building, thanks to its symbolic shape, can be a very distinctive landmark in its environment and thus an easily recognisable building. The authors of analyses of tall buildings, on the basis of studies by Lynch (1960), Appleyard (1969, 1976) and Evans, Smith and Pezdek (1982), list the shape of a building as one of the factors that can affect its functioning as a landmark [2, 10].

2. Shapes of tall buildings

Sometimes the shapes of tall buildings suggest a link with a distinctive historic building, which is reflected in some classifications of the shapes of such buildings.

According to C. Jencks (1980), there are three types of shapes of tall buildings: *skyprickers* – tall buildings developed from obelisks, spires and pyramids (e.g. *Chrysler Building*, New York); *skyscrapers* – with longitudinal, rectangular masses and plans (e.g. *John Hancock Tower*, Boston); and *skycities* – combinations of buildings or masses forming tall structures (e.g. WTC, New York). Each of these three types of structures is represented by a number of variants. The author compares some of the shapes to different objects and forms that occur in nature. Such tall buildings are represented by sharp-edged skyscrapers – “skyknife and skyberg” [19].

According to L.S. Beedle, M.M. Ali and p. J. Armstrong (2007), one more trend of the present era is the style of twisted, tilted, deconstructivist and other poetic, kinetic or cinematic forms. All these represent a new style of tall buildings – “outside the box” [10, p. 87]. Such buildings are distinguished by their unusual geometry and are characteristic due to their relatively small number.

In recent years, classifications of the shapes of tall buildings which take into account current trends have been introduced. The classification by A. Sev and F. Tuğrul (2014) proposes

a breakdown of forms of tall buildings with shapes other than orthogonal, into four basic groups: pyramidal, leaning, twisted, and free forms. Sev and Tuğrul list *The Shard*, built recently in London, as one of the tall buildings with a pyramidal shape [26].

3. Spiral shape

The spiral shape of a tall building can be seen as a reference to the image of the *Tower of Babel*. In the words of p. Gajewski (2001): “The image of a spiral tower, tapering upwards with several tens of metres in diameter at the base in the shape of a circle (ellipse), is a late invention, but still managed to make an outstanding career. It became forever the image of the Tower of Babel.” The author compares this image to a *ziggurat* [14, p 136].

According to Beedle, Ali and Armstrong (2007) *Bishops Gate Tower* is a spiral building [10, p. 87]. J. Gyurkovich and E. Węclawowicz-Gyurkovich (2008) agree: “The transparent tower will have a nearly cylindrical shape and will gradually taper and spiral upwards” [15, p. 16]. Another association which this building may bring to mind is a rolled textile, which forms a spiral top with its bevelled edge.

According to E. Höweler (2003), *Parkhaven Tower* in Rotterdam has a spiral form [16, p. 120]. The reference to the spiral shape is most clearly visible at the top.

One Vanderbilt Place in New York designed by Kohn Pedersen Fox Associates is also a spiral. The building is to comprise of “four interlocking, tapering volumes that spiral up to the sky” [21].

4. Pyramid shape

The pyramid shape is one of the most recognisable architectural forms. Designs of tall buildings which refer to such a shape have been created for a long time. It is sufficient to recall H. Sauvage’s design for the “Place de la Victoire” competition, organised in Paris in 1930. In a group of tall buildings called Pyramids in College Park, Indianapolis, and dating from the early 70s, the effect of association with pyramidal form, achieved thanks to its shape, is enhanced by the duplication of the building mass.

S. Krishnan and M.M. Ali (2004) in their considerations regarding the pyramidal shape of a tall building (*Pyramid Power – From Madurai To San Francisco*), observe a relationship between a gopuram and skyscraper. According to Krishnan and Ali, the *John Hancock Center* in Chicago and *Transamerica* in San Francisco (Ill. 1) have “the pyramidal flavour” [20]. Many authors define *Transamerica* simply as a building that has the shape of a pyramid. D. Appleyard and L. Fishman (1977), analysing its shape, recall the circumstances and unfavourable atmosphere that accompanied the reception of this building. It has been called “The Egyptian Embassy” [7, p. 91–92].

When it was built, it received mixed reviews. In the 80s, Jencks put this building in a group of objects that, as far as architecture is concerned, present “unintentional humour” [18, p. 78]. However, the building became the symbol of the city primarily due to its shape. Many studies positively assess the importance of this building in the landscape of San Francisco [8, 27].



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- III. 1. San Francisco. *Transamerica*, photo by Roland Halbe. Courtesy of Roland Halbe Fotografie
III. 2. Paris. *Triangle*, © Herzog & de Meuron. Courtesy of Herzog & de Meuron
III. 3. Frankfurt am Main. *Messeturm*, photo by author
III. 4. Madrid. *Puerta de Europa*, photo © Robert Royal 1998. Courtesy of R. Royal

A tall building designed in Paris, the *Triangle* (also called the *Tour Pyramide*) has proportions quite clearly similar to the ancient pyramids (when looking at its wider sides) (III. 2). According to J.-F. Pousse (2009), this building offers a “new approach to the long history of monumental buildings” [24, p. 174]. If it is built, it would be a characteristic triangular mark in the silhouette of Paris.

5. Obelisk

The obelisk can be associated with many tall buildings through similar proportions – the ratio of its base to its height. The *Meseturm* in Frankfurt am Main is a building constructed on a square plan, with a symmetrically tapered mass and a pyramid-shaped top (Ill. 3). If we accept the typology proposed by Jencks, this tall building is a *skypricker* that resembles an obelisk. In the words of J. Dupré (2008): “In its basic form, the Meseturm is a modified obelisk” [12, p. 107].

There are also tall buildings, the shape of which differs from the traditional form of obelisk, yet they are associated with such a building. A. Jasiński (2014) believes that the black *New York Trump World Tower* resembles an obelisk [17, p. 42]. Interestingly, this building has a rectangular shape, but the slender proportions combined with a significant height and a smooth and uniform coating result in the fact that this building can be associated with this type of form. The “solid” mass of the tall building is one of the objects that stand out against the background of the diversity of Manhattan silhouette. According to Höweler (2003), its “simple form, slender proportions, and minimal facade treatment make it an enigmatic sculptural monolith” [16, p. 96].

6. Gate and triumphal arch

Twin towers or two buildings equally high or with slightly different heights positioned close to each other create a landmark that can be associated with a gate or a gigantic portal. Buildings that refer to the shape of triumphal arches and portals also form spatial gates with symbolic significance.

Twin tall buildings with in-between space are sometimes referred to as buildings that act as a gateway to the city [23, 4]. The no longer extant WTC in New York was a spectacular example of the above. M.M. Ali (2005), in his considerations on the symbolism and imageability of skyscrapers, defines the interaction of the two WTC towers as a gateway to New York City [1, p. 2].

Puerta de Europa in Madrid is also referred to as a gateway or a portal (Ill. 4). The comparison is justified not only by configuration and shape of the buildings but also the by their location – the buildings flank an important artery of the city – Paseo de la Castellana.

Buildings with shapes that resemble the form of a triumphal arch are a very characteristic type of tall buildings. *La Grande Arche de La Défense* can serve as an example.

J. Gyurkovich and E. Węclawowicz-Gyurkovich (2008) analysed modern gates and towers, including the aforementioned buildings in Madrid. According to the authors, modern tall buildings represent “images, constantly present in our subconscious, of archetypes of the forms that have already existed in the past, such as gateways to cities and city towers” [15, p. 20].

Tall buildings that through their configuration, shape and location become similar to historic gates or triumphal arches are a specific type of tall buildings. Kheir Al-Kodmany (2011) classifies *Puerta de Europa* in Madrid in the same category as the *Gate of the Orient* in Suzhou (China) – “two towers that joint at the top to form an arch (or a gate)”, as landmarks in the form of towers that create gateways [3, p. 258].

7. Summary

Tall buildings, which refer to spiral, pyramid or obelisk shapes, or the shape of a gate or triumphal arch, may form characteristic landmarks that resemble old buildings of symbolic importance. The examples provided show that tall buildings which refer to these shapes and forms and are associated with them are still being designed. The relatively easy recognition of these building shapes is used to create distinctive large-scale landmarks, which are reminiscent of famous buildings. The power of symbolism, which lies in archetypes formed long time ago, is such that we even associate those tall buildings or their configurations that, in their shapes, are quite far from the originals with such forms.

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