Burj Khalifa: An Icon

Zeyna Sanjania
Supervising Tutor: Dr. John Ebohon

STATEMENT OF ORIGINALITY
I confirm by submitting this work for assessment that I am its sole author, and that all quotations, summaries or extracts from published sources have been correctly referenced. I confirm that this work, in whole or in part, has not been previously submitted for any other award at this or any other institution.
Acknowledgements

I would like to take this opportunity to thank everyone who has helped me in any way with the making of this architectural discourse.

I am extremely grateful to Dr. Ebohon for his time, guidance and direction throughout this year to enrich the following discourse. He has been greatly supportive and aided the development of this study by offering his valuable expertise.

Special thanks to my parents Riaz Sanjania and Mehtab Nurramodo for their moral support.

Finally, I would like to express my gratitude to my family and friends for their diligent efforts to proof read the content of this study, which include Mehboob Sanjania, Khushboo Sanjania, Shihab Mehboob, Shazmin Popat and Zahin Emtiyaz.
Abstract

Architecture surrounds us and is woven into our daily lives to accommodate our needs. They come in many shapes and forms, and provide different functions, which are used or looked upon on a daily basis. However, there are certain structures that hold our attention for a longer period of time. These buildings cause us to react in a way that other buildings do not. These buildings are considered to be “Iconic”.

The focus of this study is to answer the question ‘What makes a building, such as Burj Khalifa, iconic?’ The aim is to allow the reader to understand what makes a building iconic, and to show whether Burj Khalifa can be regarded as an iconic building. The objectives include understanding the factors that render a building iconic, analyse a chosen building with a justified research methodology and eventually determine whether the chosen building can be considered to be an iconic building.

The study uses a phenomenological approach which comes through qualitative research methodology, due to the subjective nature of the research topic, which is Iconic Buildings. A phenomenological approach allows one to explore the building in accordance with the unique cultural and environmental conditions, and most importantly exploring the building subjectively. This methodology has been applied to the chosen case study, which is Burj Khalifa, situated in Dubai, U.A.E.

The study collaborates findings from literature that has been written about iconic architecture to determine its features and attributes, with research carried out on the case study building: Burj Khalifa. The outcome of this is to determine whether Burj Khalifa can be considered as an iconic building. The general conclusion provides the answer that the findings in this study show that in some cases Burj Khalifa cannot be classified as an icon. However, the majority of the characteristics which Burj Khalifa possesses do render the building iconic.

All of the findings in this study have made it easily recognisable what an icon is likely to be, and in what terms Burj Khalifa can be classified as being part of iconic architecture or not. The features and attributes recognised in this study can be applied to various other buildings to determine whether they can also be classified as being part of iconic architecture.
Contents

Chapter One
Introduction
Page 7

Chapter Two
Literature Review - Iconic Architecture
Page 8

Chapter Three
Burj Khalifa
Page 23

Chapter Four
Research Methodology
Page 31

Chapter Five
Analysis
Page 38

Chapter Six
General Conclusion
Page 44

Bibliography
Page 46
Burj Khalifa: An Icon

Chapter 1: Introduction

This study sets out to determine 'What makes a building, such as Burj Khalifa, iconic?'. The aim is to understand what makes a building iconic, and to show whether Burj Khalifa can be regarded as an iconic building.

The second chapter, which is the Literature Review, will meet the first objective of understanding what makes a building iconic by comparing the literature written on iconic architecture, to help define the topic.

The second objective will be to analyse a chosen building, and use it as the context for this study. This objective will be achieved in the third chapter, which will introduce Burj Khalifa and discuss in great length what attributes and features it already comprises of.

The third objective is to use a justified research method in relation to the chosen building, to gain a better understanding. The fourth chapter: Research Methodology, will achieve this objective with a thorough analysis of a personal experience of visiting the 124th floor Observational Desk in Burj Khalifa.

The last objective is to determine whether Burj Khalifa can be considered as an iconic building. This will be done in the fifth chapter: Analysis, which will compare the literature from the second chapter and findings from the third and fourth chapter that will discuss Burj Khalifa.

Finally, in chapter six, there will be a general conclusion which will collate all the findings from this study, from which it will be easily recognisable what an icon is likely to be and whether Burj Khalifa is a part of iconic architecture or not.
Chapter 2: Literature Review- Iconic Architecture

This study sets out to determine why certain buildings, especially Burj Khalifa, are considered iconic, and not others. However, before attempting to answer the question, this chapter will firstly define the attributes of an iconic building. This will be done by critically reviewing existing literature on iconic buildings.

Architecture surrounds the human race and is woven into our daily lives to accommodate our needs (Thiel-Siling, 1998). This can be in various forms including a house, school, office block, factory, hospital, museum or airport. We walk past these structures and reside in them on a daily basis. However, there are certain structures that seize our attention. They cause us to react in a way that other buildings do not, and become a topic of conversation. These structures are labelled as “Icons” (Thiel-Siling, 1998).

Oxford Dictionary defines an icon as a “representative symbol or as worthy of veneration.” Icons, in modern culture, are also used for well-known or recognised personalities, within a certain field. An icon or in Greek: eikon literally means a “likeness, image or similitude” (Jencks, 2005). However, in the context of Architecture, this is not a sufficient explanation.

Charles Jencks (2005) explains that there are many attributes that give birth to an iconic building. The first and perhaps most important of these is that a successful icon is “enigmatic and expressive, it must suggest much more than its name, and leave the final interpretation ... to the critics, the public, and the detectives of mystery” (Jencks, 2005). These buildings must be designed to be completed “by the viewer...elicit multiple interpretation along coherent but uncharted lines” (Jencks, 2005). This means that not only does the iconic building have to be creative on its own, but also subtly generate thoughts in the viewer’s mind.

Jencks (2005) cited the Swiss Re Headquarters, as shown in Figure 1, designed by Norman Foster in London, United Kingdom, as a good example of Iconic Architecture because everyone that sees this building derives from it euphemisms such as “The Gherkin" or “Bullet" (Jencks, 2005). Such nicknames given by the public and critics are not necessarily negative; instead the names give the building a visual connotation or a “reduction to a striking image” (Jencks, 2005), as shown in Figure 1. Therefore, this would be considered an iconic building, according to Jencks’ first definition.
To expand on this definition, Jencks’ states that iconic buildings are almost always “designed to get into the “Outrage” column” (Jencks, 2005). He names these structures the “Democratic Icon”, which set out to “upset the context, overturn convention, challenge the hierarchy, get away with the crime” (Jencks, 2005). These buildings spark a difference in opinion and a strong reaction. An excellent example of such a building is the Selfridges store on the edge of Bullring, located in Birmingham, United Kingdom. The store has become an iconic architecture, not only for Selfridges, but the entire city of Birmingham. However, it has
been at the receiving end of much criticism. The editor of Architectural Review, Peter Davey summarised the exterior of Bullring as “scaleless, uninviting and completely out of sympathy with its surroundings...Some 16,000 aluminium disks...not unakin to sticking in drawing pins” (Davey, 2003), as Figure 2 illustrates. This is just one of the uproar of criticism that the building received. However, there was also much appreciation, and this democratic effect on the public is what makes the Selfridge store an icon, according to Jencks' definition.

![Figure 2 - Left: “Selfridges, Birmingham Front View” Right: “Bull Ring Side-View” Source: Jencks, 2005](image)

Do architects set out to design iconic buildings? According to Frank Gehry, a renowned architect, the difference between a good and bad iconic building “ultimately comes down to the talent of the person who creates it” (Jencks, 2005), which of course is the architect. Jencks’ declares that there is a “new iconic building, with its will to artistic power, challenges the very notion of appropriateness and commonalty” (Jencks, 2005). These buildings keep within the boundaries of building regulations, yet craft a proposal that is unlike any other. Therefore, the expression of “rampant individualism” is what creates an iconic building. As a result, it is apparent from these definitions that it is the architect that decides whether a building will be iconic or not. Or is it really that simple?

Charles Jencks also declares that an iconic building largely depends on its publicity. He states that “each nation sees an iconic building through its own press” and that “economics drive the icon in architecture” (Jencks, 2005). In the 21st century, media is a largely integral part of our lives, and it indirectly influences many of our decisions. How we perceive an upcoming structure is also manipulated by how it is advertised in magazines, articles and
newspapers. Even if the public are influenced by other sources, it is still the public that passes the judgment and decides whether a building is iconic or not.

Certain buildings are regarded as typical and only cross the line over to iconic after its destruction. These again are “Media Icons”. Jencks analyses Daniel Libeskind’s words regarding the “Stone and Spirit” entry to build over the World Trade Center’s footprint in New York, after it was destroyed in a terror attack on September 11th 2001. He states that “While he terms the World Trade Center an icon, few in the architectural community thought the original towers were worth much until they were destroyed” (Jencks, 2005). Therefore, this combines the media representation of a building and public emotions, elevating the status of a normal building, to one of an icon, after its demolition. Sudjic argues that the “towers were interpreted as a signal of power and authority by those who wanted to challenge America’s hold on the world” (Sudjic, 2006). Consequently, according to the attributes above, it is not only the architect, but also the public that have a big hand in deciding whether a building is iconic or not.

Another attribute of an iconic building is its spiralling out of control cost. For the architect and client to realise their dreams of a landmark building, it generally involves a great deal of finance. The press conference of an upcoming build, where details of final costs are revealed, tends to heighten the status and expectations of the building. The Scottish Parliament, as shown in Figure 3, designed by Enric Miralles had the “official final cost of £431 million” (Jencks, 2005). Did this “ridiculous budget” attribute to the building being recognised as iconic?
Going back to the definition of the icon, there has been a more recent compressed classification. This refers to the icon as a sign, such as the recycle bin or folder icons on a computer screen. In the field of Architecture, the iconic building can be shrunk to “the size of a TV screen...a letter head or stamp” (Jencks, 2005.) Therefore, the building then becomes a brand image, the brand being a city or even a nation in this case.
Judging the iconic building is perhaps the most difficult task. However, we must remember that these buildings are not bound by the “normal criteria of valuation” (Jencks, 2005). In fact, an iconic building “is created to make a splash, to make money” (Jencks, 2005). Icons, on most occasions, are intentionally built to compete on an International level. Robert Booth sums up the competition: “Cities are competing against each other for icons and are using international architects to drum up the “something different” (Booth, 2003). The Tate Modern in London, United Kingdom also set out to do just that; to “catch up with the rest of the art world”. However, this building is described as “Understated Icon” by Jencks due to failing to achieve the “something different” ingredient which according to Booth crucially goes hand in hand to building an icon. Deyan Sudjic also agrees with Jencks’ view and states that “Architecture plays a powerful part in the manufacture of national iconography. It creates the landmarks that define national identity” (Sudjic, 2006). Sudjic also goes on to liken icons to logos by stating that the iconic buildings “can become the logos for a country, composed very often for that exact purpose” (Sudjic, 2006). Thiel-Siling extends this notion even further by stating that some iconic buildings “become veritable places of pilgrimage for architectural enthusiasts, or have acquired a symbolic status as emblems of the cities or the nations in which they stand” (Thiel-Siling, 1998).

The side effect of designing iconic buildings- Competition, is discussed in great length by Ada Louise Huxtable. Huxtable states that “everyone is playing the game of “Can You Top This?” very seriously, and for very high stakes” which has brought consequence of “a re-emergence of the design competition” (Huxtable, 1993). Peter Eisenman sees this in a negative manner, and states that architects are now building “in competition, rather than build for humanity” (“Urgency” Conference, 2007). Iconic buildings are also associated with the thirst for world records and recognition. Huxtable explores this by stating that the “title of the world’s tallest building has a fleeting but special cachet; it is a favoured setting for publicity stunts and self-celebrations, media events and cinema mythology” (Huxtable, 1993).

Another feature of the iconic building is that it plays on the emotion of Jealousy. Jencks’ explains that “‘Eat your heart out’, is a metaphor never far away from the icon, playing its magic of jealous rage to fester away in the heart, amplifying the building to even bigger proportions” (Jencks, 2005). This statement solidifies the competitive streak of these iconic buildings which strive to attract attention and shout out, in an almost arrogant manner, “Can you beat this?”
A perfect example of a building that has combined all of Jencks’ definitions for an iconic building is the Sydney Opera House, Sydney. Designed by Jørn Utzon, this building serves as a logo for Australia, appearing on postage stamps, as well as stimulating visual images of white boat sails, as shown in Figure 4. It is renowned internationally, a building like no other and also has a colossal costing of $102 million. All these attributes ensure that the Sydney Opera House is an “Iconic Icon” (Jencks, 2005).

Figure 4 - Above and Below: “Sydney Opera House” Middle Left: Structural Shells, Middle Right: A Sydney Student’s Interpretation, 1973
Source: Jencks, 2005
However, there is a new emerging trend: the Anti-Icon Icon. The non-landmark landmark building “is very visibly not there” (Jencks, 2005). This oxymoron signifies a shift in attitude to the iconic building, by designing a structure that is exceptional but at the same time fits into its context and surrounding. It eliminates the quality of brashness, and is described as “landscrapers” by Aaron Betsky, an architectural thinker. The idea of landscrapers “offers an alternative history to the glorification of increasingly taller and more abstract edifices....landscrapers poses the unformed, unseen and almost unbuilt as a valuable condition” (Betsky, 2002).

An architect who is very much in favour of this notion is Rem Koolhaas. During a conversation between Rem Koolhaas and Peter Eisenman at the Canadian Centre for Architecture in 2007, Koolhaas made it clear that he believes iconic architecture must be kept at bay and the functionality of a building must be given priority. Koolhaas explains that the buildings before were “dignified, civic and public”, whereas now they seem to have an “obligation to be extravagant” (“Urgency” Conference, 2007). Koolhaas goes on to say that due to this behaviour, “what we produce draws much more attention, but is taken less seriously” as we divulge ourselves into creating “an army of eccentric entities” (Koolhaas, 2011). This is illustrated through the collage image of the “Starchitecture Skyline”, as shown in Figure 5. This image is an accumulation of iconic buildings that have sprung up in the last ten years, most of them being skyscrapers. Koolhaas declares that the “death of an icon...will be ridicule and overdose” (“Urgency” Conference, 2007).

For Rem Koolhaas, an iconic building is in the majority of a particular building type: the high-rise, and states that the “typical conditions of a skyscraper...are shiny, intricate and expressive” (“Urgency” Conference, 2007). He argues that they are no longer interesting. His intention is quite simply to “kill the skyscraper”, as shown in Figure 6 (Koolhaas, 2004). Bert De Muynck explains that Koolhaas “renounces the skyscraper as a formal and ideological
promoter and generator of urban culture”. He quotes Koolhaas to say that “the skyscraper has become less interesting in inverse proportion to its success. It has not been refined, but corrupted....The intensification of density it initially delivered has been replaced by carefully spaced isolation” (De Muynck, 2004).
Therefore, this has led to the birth of the “Generic Building”, and for Koolhaas, he hopes to “reverse this evolution” by building the Anti-Icon Icon (“Urgency” Conference, 2007). Peter Eisenman also shares this view, saying that iconic buildings, describing them as “visual glitter”, are “over-cluttering the urban environment” (“Urgency” Conference, 2007). However, Jencks’ deciphers Eisenman’s “City of Culture” project as an “important confirmation that the successful icon building mixes different codes, that is languages and meanings from different walks of life- not just architectural or technical references” (Jencks, 2005).

The oxymoron of the Anti-Icon Icon is confirmed when we hear that architects such as Rem Koolhaas and Peter Eisenman are against the wide-spreading trend of building iconic buildings which have a “need to be in the news all the time”, yet their designs are in fact revered as icons by not only the architecture community, but also the general public (“Urgency” Conference, 2007).

The “High-Rise Icon” style is also discussed in great detail by Ada Louise Huxtable, who names the style “flashcard architecture” (Huxtable, 1993). Huxtable states that there are some “who believe that the skyscraper....has become too large, too frivolous, too destructive of people or places” (Huxtable, 1993). Huxtable also shares Koolhaas’ view in that “the skyscraper is being so patently and flagrantly abused, and is so abusive of everything around it” (Huxtable, 1993).

Kim Dovey also articulates in great length about the High-Rise Icon. He believes that the “quest for height, left unchecked, has no limit” and that the “symbolic capital is not so much created as it is moved around from one temporary landmark to another” (Dovey, 2008). Therefore, he suggests that iconic architecture is an impermanent identity given to a building, in that its titles and attention is soon transferred to the next iconic newcomer. Dovey justifies his views by saying that all this “was clearly linked to the broader quest for identity, power and legitimacy in which architecture has long had its roots” and perhaps those are his three criterions for an iconic building: Identity, Power and Legitimacy (Dovey, 2008). Thus, Dovey’s iconic building is only temporary, the title of which is moved from one building to another.

The iconic building seems to have been born out from the underlying theme of Power which ties in with Huxtable’s icon that is bound by competition, in that those who set out the competition to build iconic architecture had a thirst for power of some sort. This view is shared by Anthony D. King (2004) who referred to the idea of the High-Rise Icon, showing how “the skyscraper moved from being an icon solely of American Identity and corporate power in its various cities to becoming a signifier of modernity in other parts of the world” (King, 2004). Sudjic shares this view of an iconic building’s relationship with power and
states that “every kind of political culture uses architecture for...rational, pragmatic purpose, even when it is used as a symbolic point” (Sudjic, 2006).

This idea of iconography and power is explored even further by Huxtable who states that iconic architecture is either in the nature of being “Olympian or Orwellian, depending on how you look at it” (Huxtable, 1993). The Oxford dictionary defines Olympian, in the given context, to be a superior or majestic trait of something that “resembles or is appropriate to a God, especially in superiority and aloofness”. The word Orwellian refers to the works of George Orwell, author of satirical novels that depict a futuristic totalitarian state. Within the given context, it refers to an iconic building that dettracts the public gaze from the political complexities and in its place pushing forward a mirage of glossy claddings and intricate forms.

Huxtable explains the Olympian High-Rise Icon to be “the building of the century, it is also the single work of architecture that can be studied as the embodiment and expression of much that makes the century what it is” (Huxtable, 1993). She continues by describing them as “recognisable, charismatic monuments and the enduring image of twentieth-century cities” (Huxtable, 1993). However, Huxtable also poses the side of the Orwellian High-Rise Icon which is “less romantic” and its effects “are greed and chaos” which are “monstrously large” (Huxtable, 1993). She extends this by categorizing these buildings, especially the High-Rise Icon as one that “romanticizes power and the urban condition and celebrates leverage and cash flow” (Huxtable, 1993). Huxtable summarises the Orwellian High-Rise Icon by stating that the “tall building probes our collective psyche as it probes the sky” (Huxtable, 1993).

Another aspect of the Icon-Power relationship is the Monarchy. Martin Pawley, an architecture critic wrote the following: “Before the great wars of the twentieth century all cities were the creation of Princes and Republics as seats of power and wealth” (Pawley, 2007). One member of the monarch, of the modern age, that has been very vocal in the realm of Architecture is the Prince of Wales. Prince Charles has “expressed forceful views on a large number of subjects, but nowhere has his impact been more keenly felt than in the world of architecture” (Pawley, 2007). He is seen to be “not only the most widely quoted architectural critic of his generation, but the most powerful opponent of modern architecture in Britain” (Pawley, 2007). Due to Prince Charles having a “celebrity status as heir to the throne” as well as writing material about architecture, it has led to his comments on modern architecture to be taken very seriously (Pawley, 2007). Many would retort by saying that these are only views of one person. However, Prince Charles believes to be voicing “widespread opinion…and judging by unofficial opinion polls and the response to his two major speeches,
he is right” (Jencks, 1988). Pawley writes of how “completed buildings criticised by the Prince and his followers have had their flat roofs replaced by pitched roofs, been repainted and hidden by earthworks and tree planting, and been scheduled for early demolition and replacement” (Pawley, 2007).

According to Jencks (2005), iconic buildings have only begun emerging since the last ten years, for which he holds responsible the “social forces, the demand for instant fame and economic growth”. Therefore, if we go by the time classification of the previous ten years given by Jencks (2005) and compare it to Prince Charles’ view against modern architecture, it is appropriate to derive that Prince Charles believes iconic buildings to be of the ancient age, rather than from the modern age. This idea is proved tangible due to the following: Prince Charles speaks about St. Paul’s in ‘A Vision of Britain’, and heralds it as “glorious”. He believes that “what was rebuilt after the war has succeeded in wrecking London’s skyline and spoiling the view of St. Paul’s in a jostling scrum of skyscrapers all competing for attention”. What Prince Charles is trying to describe is clearly shown in Figure 7. Alee Clifton Taylor, an architectural historian, perhaps shares a similar view as that of Prince Charles and even Aaron Betsky, in that architecture must be appropriate to its surroundings. Taylor states the following: “Modern architecture in its place…seems to me vital that architects should be free to design in the idiom of their time”. However, he also adds that “in cities full of traditional architecture the situation is very different. Here, it seems to me, good manners, if nothing else, absolutely require the modern architect to ‘fit in’” (Jencks, 1988).

Figure 7 “Two Views of the London Skyline” Source: Jencks, 1988
Going back to the idea of whether an iconic building is created by the architect or the public, it is apparent that Prince Charles wishes to leave this decision to the people. Jencks describes that “just as a king might have circumvented the nobility and ruling class in the past, to express the interest of the majority, and to make his bound with the populace, he is trying to outmanoeuvre the professional- ‘planners, architects and developer’-…and give back power to ordinary citizens” (Jencks, 1988).

Now that we understand the complexities of defining iconic architecture, one wonders what the future must hold. Some believe it has reached the end of the line, and will soon go out of fashion. However, others believe there is yet more to be seen. Huxtable pronounces the iconic building has “reached the end of the line...so patently and flagrantly abused, and is so abusive of everything around it” (Huxtable, 1993). Rem Koolhaas shares a similar view, describing iconic architecture as an “army of eccentric entities” (Koolhaas, 2011), and would rather put an end to it. Koolhaas states that “What we produce draws much more attention, but is taken less seriously” (Koolhaas, 2011). On the other hand, Jencks believes that iconic architecture will “begin to prosper, perhaps even increase in volume” (Jencks, 2005).

Given the discussion above, it is possible to argue that buildings that one cannot forget can be classified to be iconic. Such architecture lets you take a part of itself away with you, in the essence of a memory. This “Unforgettable Icon” can be in conjunction with the publicity that it receives, its grand scale, its grand cost or other such attributes that have already been mentioned above. This icon is personal, and related to one’s own perceptions of life. An example of this is the white marble mausoleum Taj Mahal, located in Agra, India, which is often talked about in various ways by those who have visited the mausoleum (Department of Tourism, Anonymous). Though it is revered to be iconic in the eyes of the majority of Indians, it is also heralded as the symbol of Love due to the nature of its origin. The famous photograph of Princess Diana, in front of Taj Mahal, as seen in Figure 8, was circulated throughout the world. Her face, deep in contemplation, showed that the architecture and setting had an effect on her. The pose has been mimicked by so many visitors, and that particular landscape in itself has become an icon. Perhaps Princess Diana would hold Taj Mahal to be iconic, through her own personal perception and reflection. This could possibly be linked to the symbology of Love and her own tragic love story with the Prince of Wales. This type of icon could perhaps be summarised with the following famous phrase: “Beauty is in the eye of the beholder”, meaning that the perception of beauty is subjective, to the viewer. The “Unforgettable Icon” could also be extended to a particular genre of buildings. For example, art enthusiasts would praise The Guggenheim Bilbao Museum to be iconic for Art Galleries, whereas historians would praise the Great Pyramids of Giza to be iconic for...
Ancient Architecture. Therefore, the final decision of what iconic architecture is perhaps lies in our personal perception of our life, past and present.

All the above definitions offer an extensive range of features and attributes for iconic architecture, also bringing to attention numerous other issues that iconic buildings have generated. The definition began with an icon being a representative or likeness to something else. It has been described to be a reduction of an image. Some believe, for example the likes of Charles Jencks and Norman Foster, that an iconic building should be outrageous, and built simply to cause a reaction (Jencks, 2005). It is “something different”. It is a rampant expression of the architect that creates it. On most occasions, one of the qualities for an iconic building is its out of control costing. On the other hand, an iconic building is told to be a creation of its publicity, giving birth to the “Media Icon”. The attention given to an iconic building elevates its status to become a place of pilgrimage. Another view is that the creation of iconic architecture is conceived by competition and bid to building the best, which goes hand in hand with the emotion of jealousy. These bring forward the underlying issues of...
Identity, Power and Monarchy. However, others argue, for example Rem Koolhaas and Peter Eisenman, that those icons are simply “visual glitter”. They believe that there is more sense in building the Anti-Icon Icon, which will be a building that is exceptional yet puts function before aesthetics and merges with its surrounding context. Huxtable (1993) looks at the effects of iconic architecture in that it can be Olympian or Orwellian, and almost all of them predict the uncertain future of iconic architecture.

This demonstrates to us that there is not a clear cut definition of iconic architecture, but we can most definitely begin to explore this architecture in the spirit of each of the features and attributes that have been discussed in this study.
Chapter 3: Burj Khalifa

A building with “no peer” and an “incomparable feat of engineering” (Emaar, 2009) is how Burj Khalifa is described on its website. Situated in the urban hub of Dubai, U.A.E, and standing tall and proud at 828 metres, Burj Khalifa, as shown in Figure 9, is currently the world’s tallest building. The skyscraper has been designed to be “the Arab world’s tribute to the art and science of modern engineering and design” (Emaar, 2009). Burj Khalifa was inaugurated on 4th January 2010, at a cost of $1.5 billion. It serves as a mixed-use building, including 30,000 apartments and 9 hotels. It currently holds 17 World Records, most of which are linked to the height of the building.

Figure 9 “Burj Khalifa” Source: Sanjania, 2010
The design architect for this super skyscraper is Adrian Smith of Skidmore, Owings and Merrill (SOM). The inspiration for this building comes from the regional desert ‘Hymenocallis’ flower, as shown in Figure 10. Just like the petals stretch outwards from the stem, the wings of Burj Khalifa pull out from the central core, giving an abstract “Y” form to the building. The designs also imitate the patterning principles found in Islamic Architecture.

Figure 10 “Hymenocallis”, also known as Spider Lily. Source: USDA, 1989

Burj Khalifa has a “triple-lobed footprint...The modular, Y-shaped structure, with setbacks along each of its three wings provides an inherently stable configuration for the structure”, shown in Figure 11 (Emaar, 2009). The mixed-use tower features luxury residence, with fitness facilities, swimming pools, recreational rooms, a library for residents, a gourmet market and restaurants. Floor 124 is used as the public observatory deck, drawing in a global audience. To ease the flow of inhabitants, Burj Khalifa has been designed with three Sky Lobbies, offering their own “unparalleled experience”. There are also 57 elevators and 8 escalators. The form of Burj Khalifa reflects Islamic Architecture through the use of onion domes when the building is viewed from the sky, or the base. Even the interiors have been
decorated with artwork that is a “tribute to the spirit of global harmony…symbolic of Burj Khalifa being an international collaboration” (Emaar, 2009).

One of the most challenging issues that face Burj Khalifa is the effects of wind, especially due to its height. To counter this matter, “over 40 wind tunnel tests” (Emaar, 2009) were carried out, before a satisfied and safe design could be raised from the ground. The tests initiated from collecting data regarding Dubai’s wind climate and ran through to testing wind conditions on site even as late as the construction stage, with the use of tower cranes. Ahmad K. Abdelrazaq, the senior project structural engineer of Burj Khalifa recalls how he climbed to the top of Burj Khalifa where “we installed accelerometers to measure the building acceleration, and sonimometers to measure wind speed and direction and atmospheric conditions. This has allowed us to check the actual building movements continuously every tenth of a second” (Hope, 2012). All this useful information is “likely to influence the design and engineering of the next generation of super-tall towers” (Hope, 2012).
The final “spiralling ‘Y’ shaped plan…helps to reduce the wind forces on the tower”, as shown in Figure 12 (Emaar, 2009). This allows the building to “confuse the wind”, and therefore “wind vortices never get organised over the height of the building because at each new tier the wind encounters a different building shape” (Emaar, 2009). Having said this, the top of the tower still “sways 1.5 metres” (Saberi, 2008), though this movement is not of any concern or danger. All these considerations are put in place to prioritise safety of the tower and its inhabitants at all times.

Another challenging issue is the climate of Dubai, especially the extreme heat during summers. This had to be taken into account when choosing the right cladding for the building to prevent overheating. Therefore, the exterior cladding “is comprised of reflective glazing with aluminium and textured stainless steel spandrel panels and stainless steel vertical tubular fins” (Emaar, 2009). There are an estimated “26,000 glass panels, each
individually hand-cut” (Emaar, 2009) on the outside of Burj Khalifa. This is clearly illustrated in Figure 13, photographed below.

Figure 13 “Exterior Cladding” Source: Merrick
Burj Khalifa sits on a 3.7 metre thick concrete mat of high density and low permeability. A central core runs through the height of the building and provides the “torsional resistance” (Emaar, 2009), also from which corridor walls spread outwards into each of the three wings. This central core has been developed as a “new structural system called the ‘buttressed core’, which consist of a hexagonal core reinforced by three buttresses that form the ‘Y’ shape.” (Belleza, 2010) With the use of perimeter columns and outrigger walls that work in unison, the building is able to be a form that “is extremely stiff laterally and torsionally” (Emaar, 2009).

An interesting fact of the tower is that Burj Khalifa was in fact known as Burj Dubai before and during construction. It is only on the night of its inauguration that the new name was unveiled, along with the building. The reason for the name change was decided to honour the president of the United Arab Emirates and ruler of Abu Dhabi: Sheikh Khalifa bin Zayed al- Nahyan. This show of gratitude relates to the time when Abu Dhabi had to bailout Dubai by giving $10 billion to prevent financial collapse of the tower as well as Dubai's economy. It is argued that the “name-change suggests the bailout may have come with condition and that Dubai’s blander, richer neighbour may now exert some influence over its anything-and-everything-for-sale mentality” (Bedell, 2010).

Normally with any skyscraper, the floor plates are often repetitive, and almost a copy-paste ground floor plan that are stacked on top of each other. However, the dynamic setting back of each of the three wings of Burj Khalifa, in correlation with its height, allows there to be chance to experiment with different floor plates of varied widths. There have been numerous comments regarding why the building needs to be as tall as it is, when there is more than adequate space in Dubai to house such a great number of people. Riley suggests that “obviously, the point of Burj Khalifa was not to maximise their spatial and economical options, it was to create an icon. It is not primarily meant to be functional- it’s a hubristic, superficial monument” (Riley, 2010). However, it is reported that the “tower’s extraordinary height, Smith insists, was not his-or his client’s-aim., but an outgrowth of his desire to prevent the tower from appearing stubby...“I just wanted the proportions to be right”, said Smith” (Kamin, 2010). Though many have thought Burj Khalifa to be domineering, due to its height, Goldberger says that the “tower is a shimmering silver needle, its delicacy as startling as its height. You would think anything this huge would dominate the sky, but the Burj Khalifa punctuates it instead” (Goldberger, 2010).

There have also been numerous headlines about the mistreating of the construction workers, either in terms of their pay, accommodation or welfare. It has been recorded that “construction workers...have rioted on several occasion, including in March 2006, when
2,500 protested at the site...A Human Rights Watch survey found a cover-up of deaths from heat, overwork and suicide in the emirate” (Bedell, 2010).

It is apparent that a building of such enormous scale must also use the same, if not more, amount of material and resources, to simply keep the building operating every day of the year. In an age that is obsessed with sustainability tactics and reaching targets to reduce energy consumption, Burj Khalifa also has its own efficient plans put into place to contribute to this matter. It has been suggested that the “Burj Khalifa’s air-conditioning system is said to be the equivalent of melting 12,500 tonnes of ice a day, in a city that has the world’s highest per capita carbon footprint...The Tiger Wood golf course alone requires 4 million gallons of water a day” (Bedell, 2010). However, it is also apparent that the tower uses the humid climate of Dubai to its advantage, along with cooling requirements of the building to create plenty of condensation, which is stored in the basement car park. This condensed water “is collected and drained in a separate piping system...provides about 15 million gallons of supplement water per year” (Emaar, 2009). This water then partly irrigates the lush gardens around Burj Khalifa, putting the water to good use and feeding it back into the building, rather than letting it be wasted. Bart Holsters, in charge of Facilities Management within Burj Khalifa states the following: “Working in an iconic building is a challenge in that everything has to be operational 100% and on budget...the challenge lies in the integration” (Divecha, 2012). This goes to show that handling a building at such a large scale comes with the plenty of pressure, from global critics, who are simply waiting for the building to trip up.

Figure 14 “Context Plan” Source: WAF
Overall, this chapter has given us a greater understanding of the building that this study is focusing on. The Burj Khalifa has attracted a great amount of attention from all over the globe, for its feats and controversies alike. This chapter uncovers all the technological innovations that Burj Khalifa boasts, including its unique form and the responsibilities to maintain this building. It also discusses in greater detail the controversies of working ethics of the construction workers and sustainability doubts that revolve around this tower. There are many attributes of Burj Khalifa for Dubai to be very much proud of, but it is apparent there are flaws that have been brushed under the carpet that they are not willing to address.
Chapter 4: Research Methodology

The research question for this study is ‘What makes a building, such as Burj Khalifa, iconic?’ This chapter sets out to answer the above question by using a phenomenological approach which comes through qualitative research methodology. A qualitative research method has been chosen, as opposed to a quantitative method, due to the subjective nature of the research topic, which is Iconic Buildings. The topic cannot be measured by carrying out mathematical calculations as the decision for whether something is iconic or not largely depends on perception, an incalculable concept. One of the main attributes of the phenomenological method of approach is that it allows one to explore the building subjectively, (Norberg-Schulz, 1980) in accordance with the unique cultural and environmental conditions of the place it exists in. This is because a building cannot be assessed solely on its locality; instead one must keep in mind that it consists of a combination of material, shape, texture and colour which inform or shape the character or atmosphere of the environment.

For the qualitative research method, a detailed analysis of a personal experience to Burj Khalifa will be carried out. This will involve a thorough account, starting from expectations and first impressions of the tower, through to the impact of the journey through the building, and what impressions were cast when a recollection of the overall tour was made.

The rest of the chapter is on the following pages:
Burj Khalifa Visit- Personal Experience:

The Observatory Deck, named *At The Top*, was the most accessible part of Burj Khalifa which was open to the general public and at an affordable price. The development of the building could be monitored through media ever since the news of the construction of this feat was declared. The largely publicised building created high expectations and had also created a fair amount of criticism from western countries. However, the building proposals at first look were inspirational and built to make a very loud statement.

*Figure 15 “Entrance to Burj Khalifa Observatory Desk” Source: Sanjania, 2010*

On 24th December 2010, the car drove up over Souq al-Bahr Bridge from where the tall silhouette of Burj Khalifa could be seen and with it came a flutter of excitement. At the foot of Burj Khalifa, the tower could only be viewed in its entirety by craning one’s neck backwards to the maximum limit it could reach, and even as it began to ache, it was hard to disrupt one’s gaze off the shimmering glass panels, against the backdrop of blue sky.

The public entrance to the Observatory Deck was through Dubai Mall, also currently the world’s largest shopping mall. Having shown the tickets at the entrance to a woman in a black *Abaya* (Islamic over-garment), we made our way into the building, and along the way the public are educated with the facts and figures of Burj Khalifa. One said “200+ storeys: The most number of floors ever in a building”, and another said “95 km: Distance from which a person can see the top of the spire”, as shown in *Figure 16*. These are accompanied with numerous graphics showing blue prints of the Burj Khalifa floor plans, as well as an animation of the construction of the building, using a time lapse. The photographs that are of most interest were the ones of workers that were involved in constructing this tower. There had been so many controversies surrounding the welfare of workers during the assembly of this building, however the recognition that was given in the posters that are on display was
commendable. It was Burj Khalifa’s approach at offering gratitude to the men and women without whom the tower would have remained a dream.

Figure 16 “Burj Khalifa facts printed on wall” Source: Sanjania, 2010

After being given the necessary background knowledge, there was yet another set of checkpoints to pass, where a frantic search for tickets in pockets took place. This is followed by a five minute wait for the elevator, and emphasis must be made that this was no normal elevator. Its scale reflected that of the building, and is able to fit ten people in a comfortable manner. With the elevator came its own prim and proper liftman, who operated the lift and declared that the lift would be reaching its destination in sixty seconds. “SIXTY SECONDS?!" was the response, to which the liftman simply reiterated with a smirk, “Yes, sixty seconds”. He had obviously come across such a response before during his time at work in this tower. The elevator itself was yet another feature of the At The Top experience. As soon as the elevator doors closed, it became alive with colourful lights and tinkling music, which increased in intensity and volume as the elevator reached higher and higher. There was a screen on the top right corner of the elevator which had numbers rising at a frightful rate.
This, accompanied with a single ear pop was the only indication that the lift had elevated to an incredible height.

*Figure 17 “View from the Observation Deck of Sheikh Zayed Road” Source: Sanjania, 2010*
The elevator doors opened, and there was a momentary blindness until our eyes accustomed to the bright light. Once bearings were finally found, all that could be seen was blue sky. As one edged closer to the glass wall and looked down, 442 metres to be exact, the inhabitants of Dubai could be seen going about their usual business but at a miniscule scale, as seen in Figure 17. “This is what Gulliver, the traveller, must feel like”, was the thought that came to mind, still in awe. Stepping out on the Viewing Deck was almost a spiritual experience. The cool breeze at this height lifts the public off their feet, and there is so much to see. Other monuments of Dubai city can also be seen from this height, such as Burj Dubai and the Atlantis: The Palm Hotel and Resort. There are also interactive camera-like gadgets, as seen in Figure 18, that allow the public to view a certain space as it was forty years ago, or shifting between day-night views. It was strange to see that when this gadget was pointed down to the longest road in U.A.E: Sheikh Zayed Road, it showed a busy bustling area of Dubai, but when viewed in the historic period of what was actually only an estimated forty years ago, it was predominantly sand and dessert with only four blocks of short, stout buildings. Almost two hours were spent on the deck, which has indoor and outdoor spaces. There is also a souvenir shop with mini models of Burj Khalifa, as well as caps, t-shirts and mugs printed with Burj Khalifa logos. The only suggestion that could perhaps benefit the At The Top experience team would be to add a few seats for people to relax and enjoy the view comfortably.
The bonus of this experience was that there is no time constraint of how long you were able to stay on the viewing deck, and therefore I was able to witness the sun set into the horizon. However, on reflection of the previous suggestion of adding seats, it is perhaps purposely not part of the Observation Deck design so that the public would leave of their own accord after having to stand on their feet for too long. As the descent was made, there are further drawings of structure and mechanical aspects of Burj Khalifa to aid a better understanding of the tower to all of its public. However, this was not all.

The show was not over just yet. At the foot of Burj Khalifa, is The Dubai Fountain, the world’s largest dancing fountain, which comes to life every evening at 6 pm, and gives the gathering crowd a spectacle every half hour for a few minutes. The spectacular, as seen in Figure 19, show is accompanied by booming music, fire, laser lights and pressurised water that looks as if it reaches heights similar to that of the sky-high tower. My breath was held as the show ended with a “Whoosh” and “Boom”, yet the reverberations of the music could still be heard within oneself. That was the end of an unforgettable experience, and left me wanting to go through the entire journey all over again.

Figure 19 “The Dubai Fountain” Source: Sanjania, 2010
The entire experience had lived up to the expectations, if not surpassed them. This was especially due to the dancing fountain at the foot of Burj Khalifa, which can be described as the icing on the cake of the entire journey through Burj Khalifa.

After studying the building in greater detail and gaining more knowledge about its own architecture, as well as architecture in general, a recollection of the journey is still very much positive. The fact that every aspect of the journey could be easily recounted, even after two years, demonstrates that the visit to the Observation Deck of Burj Khalifa was an unforgettable experience.
Chapter 5: Analysis

This chapter aims to analyse the research material of a personal experience of Burj Khalifa, as well as the building in its entirety, and compare this with the definitions of iconic architecture that have been discussed in the second chapter of this study. This will further aid the process of answering the question ‘What makes a building, such as Burj Khalifa, iconic?’ In the process of making comparisons, I hope to find that Burj Khalifa is in fact an iconic building and also the reasons for this classification, based upon the ideas of the authors that this study examines.

The first definition was supplied by Thiel-Sibling (1998) by stating that iconic buildings are those that “cause us to react in a way that other buildings do not, and becomes a topic of conversation”. This is backed up by Jencks’ definition of iconic buildings that are “designed to get into the ‘Outrage’ column” (Jencks, 2005). According to Jencks, these buildings would be classified under “Democratic Icons”, and creates challenges in opinion or upset the context that they are in.

Burj Khalifa has created many headlines due to numerous issues. One of the main controversies has been its height which was not revealed until the inauguration, due to having undergone many height increases. There was plenty of speculation, right from the construction period of Burj Khalifa. This included the mistreatment of construction workers and their welfare which caused them to “have rioted on several occasion, including in March 2006, when 2,500 protested at the site” (Bedell, 2010). These headlines were definitely getting Burj Khalifa into the “Outrage” column even before it was completed, and perhaps this was the recipe for an iconic building. On the night of the inauguration itself, the building that was formerly known as Burj Dubai was given the new name: Burj Khalifa. Khalifa is coincidently also the name of Sheikh Khalifa bin Zayed al-Nahyan, who is the ruler of Abu Dhabi. Abu Dhabi is also the city that helped Dubai with a bank bail out with $10 billion to prevent financial collapse, and who is speculated to be able to “now exert some influence over its anything-and-everything-for-sale mentality” (Bedell, 2010). At this point, Burj Khalifa had already become a “Democratic Icon” according to Jencks’ (2005) definition.

Another definition, provided by Jencks (2005), is the literal meaning of an icon being a “likeness, image or similitude.” This is expanded by stating that an iconic building generates a visual connotation or a “reduction to a striking image”. A further expansion of this definition is the iconic building being a brand image. This is reinforced by Sudjic (2006) who states that iconic buildings are “landmarks that define national identity”, and thus become a brand for a city or even a nation.
Burj Khalifa has been likened to a “shimmering silver needle” by Goldberger (2010), said to look “a little more than a tall spindle” by Carrington (2012), and even compared to an “ungainly giraffe” (eclectic24, 2010), as illustrated in Figure 20. This fits in with Jencks’ definition of iconic architecture providing a visual connotation. However, Burj Khalifa’s imagery also extends itself to Sudjic’s (2006) given attribute of iconic architecture of being a nation’s identity. This is apparent from Burj Khalifa being targeted by Dubai’s marketing agencies to promote Dubai and any other products associated with Dubai. This marketing technique is perhaps most prominent in the sector of tourism. Just as the London Eye is the centre for midnight fireworks on the New Year, Burj Khalifa is Dubai’s firework display epicentre. Burj Khalifa is also pictured on the fronts of many campaigning advertisements concerned with products of Dubai. This shows a strong link between the building and the city it resides in, and can therefore, be classified as an iconic building according to Sudjic’s (2006) definition.

When interviewed by Jencks (2005), Frank Gehry states that an iconic building is created with “rampant individualism”, where building regulations are adhered to, yet the building is crafted with talent and artistic power which make the building stand out. However, Adrian Smith, the architect of Burj Khalifa insists that there was no conscious decision to create a
Burj Khalifa: An Icon

Zeyna Sanjania, BA Architecture Year 3

tower of extraordinary height. He simply “wanted the proportions to be right” (Kamin, 2010). Therefore, Burj Khalifa cannot be classified as an iconic architecture according to Gehry’s definition due to not being created with “rampant individualism” or a conscious decision for it to stand out.

On the other hand, Jencks (2005) also proposes that the iconic building status is given by the public, not the architect. However, the publicity that a building receives is largely influenced by the media, and such buildings are therefore defined “Media Icon”. These buildings are elevated in status through advertisements, articles, newspapers and other such media. This is apparent from the previously assured statements of Burj Khalifa being at the centre of the media campaign promoting Dubai, especially for tourism. A further evidence of this is when Burj Khalifa starred in Mission Impossible: Ghost Protocol, where Tom Cruise, the lead actor, can be seen performing stunts such as jumping out of the windows of Burj Khalifa from incredible heights. There are also numerous other scenes shot within the building itself. This has instantly made Burj Khalifa a “Media Icon”, based on Jencks’ (2005) definition.

Jencks also observes that for a building to be iconic, it must also have a “ridiculous budget” (Jencks, 2005). This is perhaps a side effect of Huxtable’s definition for iconic architecture that are strongly linked to competition and for the thirst for world records and recognition (Huxtable, 1993). It also reinforces Jencks’ (2005) definition of an iconic building playing on the emotion of jealousy, due to their competitive streak and arrogance.

Burj Khalifa was erected at a cost of $1.5 billion, which is in no means a small budget for a mixed-use building. Therefore, it can be classified as iconic due to Jencks’ characterisation of needing a “ridiculous budget” (Jencks, 2005). Burj Khalifa also currently holds 17 world records, which fulfils Huxtable’s (1993) description of iconic architecture, and in return supports Jencks’ definition of iconic architecture which creates jealousy and competitiveness. This is even more apparent when upcoming proposals of even taller buildings are heard, such as Kingdom Tower, also known as Burj al Mamlakah, being constructed in Jeddah, Kingdom of Saudi Arabia. The Kingdom Tower is set to be at least 1,000 metres high, approximately 200 metres higher than Burj Khalifa.

An emerging definition of Iconic Architecture is an oxymoron that is championed by Aaron Betsky (2002) and Rem Koolhaas (2007). They believe in the “Anti-Icon Icon” which gives credit to the dignified and functional building that fit into its landscape, almost making it unseen. This is a favourable attribute over what is currently described as the “Starchitecture Skyline” (Koolhaas, 2007). Burj Khalifa does not at all fit in with this definition due to its towering height above all neighbouring buildings. Burj Khalifa boasts on its website and in
the Observation Deck with the following statement: “95 km: Distance from which a person can see the top of the spire”, and this shows that the building does not appear invisible or as a “landscraper” as described by Betsky (2002).

An attribute of iconic architecture being the “High-Rise Icon” is greatly discussed by Huxtable (1993) as being “abusive of everything around it”. This view is shared by Kim Dovey, who suggests that the “quest for height, left unchecked, has no limit” and therefore, the “symbolic capital is not so much created as it is moved around from one temporary landmark to another” (Dovey, 2008). Therefore, Dovey suggests that the iconic building is only a temporary state of being, passed on from one building to the next. This is certainly true in the case of Burj Khalifa because it towers over all the buildings in close vicinity. In fact, it is approximately 300 metres than its predecessor in height: CN Tower in Toronto, as illustrated in Figure 21. This would classify Burj Khalifa as being the “High-Rise Icon” according to the terms of Huxtable (1993).

As for Dovey’s (2008) suggestion that an iconic building is a temporary state of being, Burj Khalifa is yet to be beaten with regards to its height of 830 metres, and therefore has not given up its status as an iconic building just yet. However, as previously discussed there are already numerous plans of buildings that wish to overcome this height such as the Kingdom Tower in Jeddah. Therefore, the “High-Rise Icon” status of Burj Khalifa is under jeopardy.

Dovey also elaborates that according to him, there are three criterions for an iconic building: Identity, Power and Legitimacy (Dovey, 2008). The correlation between power and
iconography is also explored by Huxtable who states that an iconic architecture is either “Olympian or Orwellian, depending on how you look at it”. An Olympian High-Rise Icon can be described as the “building of the century”, whereas the Orwellian High-Rise Icon is “less romantic”, greedy and chaotic (Huxtable, 1993).

Burj Khalifa can be classified as an Olympian High-Rise Icon due to being classified as an “incomparable feat of engineering” (Emaar 2009). The building excels in terms of science and modern engineering, and thus puts it above any other building that is currently standing. The success of building a mixed-use building with a height of 830 metres is also one that has not been attempted before, and this perhaps makes it the “building of the century” according to Huxtable’s (1993) definition of an Olympian High-Rise Icon.

However, Burj Khalifa can also be categorised as an Orwellian High-Rise Icon by critics who believe the success of the building is a deliberate effort to divert the western world’s perception of Dubai’s “debt-ridden” state (HighestBuilding, 2012). To achieve this, it is understood that Burj Khalifa is dictating the limelight to be on itself, and thus being greedy and fitting into Huxtable’s (1993) perception of an Orwellian High-Rise Icon.

Lastly, there is the “Unforgettable icon” which creates a division between buildings that you simply pass by and architecture that lets you take a part of itself away with you, as an everlasting memory, the latter of which is Iconic. This can be judged by the personal experience that is described in great length in the fourth chapter of this study: Research Methodology-Burj Khalifa Visit. Simply the fact that the entire trip to the observation deck could be recounted even two years on is in itself evidence that Burj Khalifa is a memorable building and thus an “Unforgettable Icon”. The evening spent in Burj Khalifa and the activities carried out within, along with the experience of the Dancing Fountain afterwards, will remain as an eternal memory.

Having gone through the list of definitions provided by the literature studied in the second chapter of this study, and combining this with the research carried out on Burj Khalifa, it has brought me closer to answering the question ‘What makes a building, such as Burj Khalifa, iconic?’ Burj Khalifa can be classified as iconic under the following headings: Democratic Icon, National Brand Icon, Competitive Icon, Media Icon, Expensive Icon, Olympian High-Rise Icon and Orwellian High-Rise Icon.

However, Burj Khalifa cannot be classified as being an icon born of “rampant individualism” (Jencks, 2005) and neither can it be named an Anti-Icon Icon (Koolhaas, 2007). Another consideration is that although it may currently hold the status of being a “High-Rise Icon”, this will be temporary and very soon passed on to the next high-rise building (Dovey, 2008).
Finally, the title of being an Unforgettable Icon largely depends on an individual and their perception.

This shows that there is no clear cut definition of an iconic building, and though some may deem Burj Khalifa to be iconic, others may not. Due to the phenomenological approach of analysing a personal experience to Burj Khalifa, it has been classified it as an Unforgettable Icon in this study. Yet, it may not be unforgettable at all to the next person.

This chapter has analysed the research material about Burj Khalifa, collected in chapter three and four, and compared this with the definitions of iconic architecture that is discussed in the Literature Review. This has helped respond to the research question, though not provided a clear cut answer for 'What makes a building, such as Burj Khalifa, iconic?'. 
Chapter 6: General Conclusion

This study set out to determine ‘What makes a building, such as Burj Khalifa, iconic?’. The aim was to understand what makes a building iconic, and to show whether Burj Khalifa can be regarded as an iconic building. The research in the second chapter, which is the Literature Review, revealed numerous attributes, of what makes an iconic building, fulfilling the first objective of this study to understand the factors that render a building iconic.

The third chapter introduced the context for this study, which was Burj Khalifa. The chapter discussed the buildings attributes and features. This chapter met the second objective, which was to analyse a chosen building.

The fourth chapter: Research Methodology was a thorough analysis of a personal experience of visiting the 124th floor Observational Desk in Burj Khalifa. This chapter met the third objective which was to use a justified research methodology in relation to the chosen building, to gain a better understanding.

The fifth chapter: Analysis, was used to critically analyse the iconic characteristics, in relation to Burj Khalifa, and therefore met the final objective of this study by determining whether Burj Khalifa can be considered as an iconic building.

The general conclusion therefore is if buildings posses the following characteristics, it is very much likely to be iconic. The building must firstly be a Democratic Icon, and become a topic of conversation that may express outrage. The building must also be a likeness of another object, and perhaps create a visual connotation when it is seen. The architecture in question may also be the product of intentional architect individualism which sets the building apart from others. On the other hand, the building may also be regarded as such due to the publicity it gets, which may be influenced and dictated by the media. One of the other ingredients for an iconic building is that it must have an extraordinary cost to build. If the building in question is used as a brand image for a city or nation, or perhaps creates competition and emotions of jealousy, it can also be classified as an icon. Icons however do not always need to stand out from the crowd, and can also be the “Anti-Icon Icon” which fit into its landscape so well, and at the same time carry out the designated function. The building may also be Olympian Icon or Orwellian Icon depending on how it is perceived. Lastly, if a building is unforgettable and lets you take a part of it with you, it can also be categorised as iconic architecture.

From the above possible definitions of iconic architecture, Burj Khalifa can be categorised as being an icon under most of the categories, apart from the Anti-Icon Icon status and the
Suggestion that Burj Khalifa was born out of an architect’s intention to be iconic. The status of being a High-Rise Icon can also be stripped, according to Gehry, if and when another building beats the height record. It is more difficult to determine whether Burj Khalifa is an Unforgettable Icon as this largely depends on the individual who goes to visit the building.

The above collation of information of all the findings in this study has made it easily recognisable what an icon is likely to be, and in what terms Burj Khalifa can be classified as being part of iconic architecture or not.

Further Works:

This study has been limited due to having limited time and resources in order to carry out wider research. If the time and resources were available, this study could benefit from contrasting many other buildings around the globe. To broaden the scope of this study, it would be wise to travel to each of the iconic buildings around the world and analyse every single one in the way that Burj Khalifa has been analysed. Even the analysis of the building can be improved by not just visiting the building once, but being present throughout the entire timeline of the building. This would start from the conceptual design process, through the construction process, all the way to studying the building after it has been completed for a sufficient amount of time for a fair judgement to be made.

This would better inform the research question and a better justified conclusion could be formulated to find out what constitutes an iconic building.
Bibliography

Books:


Journals and Magazines:

- De Muynck, B., 2004. *The end of the skyscraper as we know it: from CCG TO CCTV*, Archis #05.

Videos:

- BBC 1: Supersized Earth, 21st November 2012

Websites:


• Department of Tourism, Author and Date unknown. *Impressions about Taj: Taj Mahal.* [online] Available at: <http://tajmahal.gov.in/impression_about_taj.html> [Accessed February 26 2013].


**Illustrations:**


- Figure 6: Kill the Skyscraper. Source: Koolhaas, R., 2004. *Content*. Köln: Taschen.


- Figure 9: Burj Khalifa. Source: Sanjania, Z., 2010. Personal Photography.
• Figure 10: Hymenocallis. Source: Mohlenbrock, R. H., 1989. Midwest wetland flora: Field office illustrated guide to plant species. USDA-NRCS PLANTS Database / USDA SCS. Midwest National Technical Center, Lincoln.

• Figure 11: Floor Plan. Source: Minutillo, J., 2010. Architectural Technology: The Burj Khalifa’s Designers Tackle Extreme Height and Climate to Create an Icon. Architectural Record.

• Figure 12: Vortex Shedding Behaviour. Source: Minutillo, J., 2010. Architectural Technology: The Burj Khalifa’s Designers Tackle Extreme Height and Climate to Create an Icon. Architectural Record.

• Figure 13: Exterior Cladding. Source: Merrick,N., Date unknown. SOM- Burj Khalifa (formerly Burj Dubai): Image Gallery [online] Available at: <https://www.som.com/project/burj-khalifa-formerly-burj-dubai> [Accessed February 26 2013].


• Figure 15: Entrance to Burj Khalifa Observatory Desk. Source: Sanjania, Z., 2010. Personal Photography.

• Figure 16: Burj Khalifa facts printed on wall. Source: Sanjania, Z., 2010. Personal Photography.

• Figure 17: View from teh Observation Deck of Sheikh Zayed Road. Source: Sanjania, Z., 2010. Personal Photography.

• Figure 18: Interactive Gadget on Viewing Deck. Source: Sanjania, Z., 2010. Personal Photography.

• Figure 19: The Dubai Fountain. Source: Sanjania, Z., 2010. Personal Photography.

• Figure 20: Burj Khalifa and Landscape. Source: Merrick,N., Date unknown. SOM- Burj Khalifa (formerly Burj Dubai): Image Gallery [online] Available at:
Figure 21: Diagram comparing the height of Burj Khalifa to other buildings and structures. Source: Rama, January 4 2010. BurjDubaiHeight.svg Image [online] Available at: <http://upload.wikimedia.org/wikipedia/commons/8/88/BurjDubaiHeight.svg> [Accessed March 1 2013].