

‘Architecture and Globalisation’ The Ground Zero Projects

In this essay, I will be discussing how Daniel Libeskind and Santiago Calatrava have responded to the new architectural possibilities offered by the Ground Zero site, New York City, following the terrorist attacks in 2001.

Daniel Libeskind’s design of ‘The Freedom Tower’ was declared as the winner in early 2003 of a competition where world renowned architects including Zaha Hadid, Norman Foster, Richard Meier and Daniel Libeskind were given a brief to design ‘the impossible’ for the memorial of Ground Zero.

Ground Zero was the term given to the exact location where the September 2001 terrorist attacks on the World Trade Center site, New York City had occurred. These caused massive destructions and explosions. The World Trade Center was a complex of seven buildings, mostly designed by the American / Japanese architect Minoru Yamasaki.

World Trade Centre



Twin Towers (1972-2001)

The Twin Towers “changed the New York skyline with two towers of great purity of form”.¹

¹Quoted by John Winter in the International Dictionary of Architects and Architecture.

²Jurgen Tietz (1999). The Story of Architecture of the 20th Century. Konemann

The Twin Towers form came after the trend for Art Deco in New York City which was a popular movement from the 1920s to 1940s. This style is functional, simple and ultra modern. It was eclectic, being influenced by many sources, it was about streamlined technology and being very geometric, this style can be seen in the Rockefeller Center, Chrysler Building, Empire State Building and other major icons of the New York City skyline.²

The World Trade Center site sits over sixteen acres in the Lower Manhattan area. Lower Manhattan is the most southern part of the island, usually referred as downtown. It is an important site due to its Financial District, the Wall Street. This area is the third largest business district in the US. Manhattan being the engine of the city, it comprises almost two thirds’ of the city’s jobs, population swelling to around 2.87 million during daytime.



New York Skyline

Over the last 60 years the skyline of New York has risen dramatically, there has been a competition to build the tallest building throughout the 20th Century. At first in 1930 there was only one skyscraper in New York, the Chrysler Building but now there are hundreds of skyscrapers all competing for attention. Now even more skyscrapers are being built, based on the grid system street plan the city seems claustrophobic and packed.

The World Trade Center complex came to consist of seven buildings. When completed in 1972, the towers became the

³New York Times Newspaper 1990

tallest on Earth, unseating the Empire State Building after its reign of 40 years. The towers sheer size was the subject of figure where Minoru Yamasaki was asked by New York Times “Why two 110 storey buildings, why not one 220 storey?” He replied “I did not want to lose the human scale”.³

Yamasaki thought of people being isolated in the high skyline of New York so building an even taller building, people would feel alienated and dwarfed. Those that would work there might feel very insecure due to its scale. In terms of engineering, building a 220 storey building would have been nearly impossible at this time as well as the fact that it would have been an easier target to aim at for terrorists. Even though people would be dwarfed at the scale of a 110 storey building, but seeing its size is normal, nothing to be considered amazing, but trying to break the limits of Architecture would be staggering.

New York has a issue with its capacity to hold the amount of people living there, so therefore building tall is a way of releasing this pressure. This enables more outdoor floor space when it builds tall.

We have even come to know that building tall is also not always sustainable as not enough south facing direct sunlight is given with overshadowing buildings, therefore architects and engineers have come up with a solution of added a slight tilt to the towers allowing part of the building to get some visible sunlight.

This idea of modern way of living, remaking the city brought together people in developing these cities to be called modern. Growth of the Industrial Revolution making it possible to build tall, how the city used to look has changed building tall is common, now we recognise the towers and knowing the landmarks of the city through these skyscrapers.

Understanding Globalisation

Architecture and urban design play an important role in the 'Modern City', a new way of living through development of tradition and culture. The beliefs of human scale, honesty and humanist ideals have been seen as something of the past, where the machine scale and economy being the centre point of a random meaningful existence.

We love to visit places like Paris, Venice, Agra, Rome, St Petersburg and many more, our imaginations wandering through picturesque towns and villages, what we see about these are traditional architecture with a local history, native culture and community bonding.

But such rises of a 'global' city eventually could everything look some what similar? Full of block buildings?

Some architects still safeguard traditions, motifs and identities, such as protecting the mother tongues and dialects which impart identity. But the new technologies and advances have changed

the functional needs. Throughout history there has always been a battle of modernism, from the Ancient Romans, since the turn of the 20th Century many European and American architects have gone against of the past ideology and wanting to move forwards, possibly too fast.

A global city has been said to be designed for the over crowdedness, 'culture of congestion'. As in major cities there are many more people living, working and travelling, the idea of designing tall becomes normality. A need of more living space, work space and play space in a small overcrowded city allows the architects with a new way of building. We face a daily problem of 'consumer expectations' versus 'the design'. We want the best of everything, so its not different in ways of living and working, so as consumers we ask for the best, as architects we also want the best and be the best, so it's the same, but which then becomes a problem is that two parties have different opinions of what is the best. The consumer usually wants something functional, cheap and pleasing to the eye.

The architects think about the beauty and expect everything to work in place. Which then a 'program' is set, this program has been a key theme of architectural design since the turn of the 20th century. A program would consist of needs, of client, users and people around. Architects find the program more interesting, this enables them to design in new ways and build the impossible, so therefore breaking boundaries. Clients ask the designers to build within a small piece of land and want large work spaces, therefore architects have to build tall, an idea of blocks are formed. So nowadays the urban design of city blocks as spaces create an urban island which forms towers, a usual sight in a global city.

During modernisation we have a solution for everything by using the modern technologies, such as in a deserted environment like the Arab world we have an idea of designing glass and steel structures, an 'alien invasion' of not thinking of environmental issues but being blinded by 'global cities', appropriateness not being implemented, a sense of realism being forgotten. The

economical and finance of the Arab has been taken out of understanding, so architects try breaking boundaries in a cultural city, wanting to become a global city.

This idea of modern way of living, remaking the city brought together people in developing these cities to be called modern. Growth of the Industrial Revolution making it possible to build tall, how the city used to look has changed building tall is common where you feel alienated as you are very small to the surroundings, you having to keep looking up, where you want to get around you must look up, its not about knowing street names, recognise the towers and knowing the landmarks of the city. In a modern city you feel secluded, whilst walking along people are in a hurry to get to there places, so you feel you can't talk to anyone. You don't know anyone, we struggle to come together in society but yet working together in making it a better place. The developing cities are due to the multi cultural society and respecting one another's culture, but yet giving names to each others tradition makes us far apart.

Architecture is a world wide profession, with different cultures, backgrounds and traditions, we all want an input of our thinking within the design so as most think a tower block is a simple rectangular form, it's far from that thought. Every design is different with a different meaning. No architecture is the same, a progression of designing must be understood from the architect, and we fall into a path of not knowing the architect and whom he may be.

Architecture of the past will always be retained, such places as Paris and St Petersburg will always stand tall, even when the cities are getting regenerated and rebuilt the traditional and cultural landmarks will not be removed, as they make us realise and understand how architecture has come over time. This understanding of modernism and globalisation will always be a topic of issue due to the advances of technology and thinking, but our understanding of architecture and travel will remain as normal as seeing skyscrapers.

Manhattan is a central figure for the rise of Western civilisation as we see it today, the explosion of new technologies and the human population since 1850 the 'Culture of Congestion' has started. Cities like Manhattan have raised to the occasion and formed new urban patterns such as the 'grid'. Manhattan's grid is a collection of blocks, some what recognised as four blocks, Coney Island, The Skyscraper, Rockefeller Center and the Europeans. A fifth block can also be recognised as the Appendix where a sequence of architectural projects solidify Manhattan.

Manhattan has a short presence in the world but a rich history with different civilisations interacting to create the place we see today. Starting from the sixteen century Christian era, predominantly being of white farming class. Slowly the east enter where Indians came buying and selling their way into Manhattan. During the 17th century Europeans came calling 'New Amsterdam' creating places to live, worship and work. Starting a community with city halls, market places and much more. Nowadays we see this New Amsterdam as modern day New York

City.

Rem Koolhaas describes Manhattan in a thoughtful way, where Manhattan is transformed from a city to a metropolis. Where new infrastructures created making it the most modern fragment in the world.

The street grid calls attention to the finitude of the Island, a skyscraper being a piece of territory repeated in which it breaks the traditional connection between the exterior appearance and the interior use, calling it the 'Lobotomy'. Lobotomy being where less and less surface is represented to create more and more internal space for activities, a high rise building, being Urbanism. Therefore entering a building in Manhattan, where changing floors become like changing worlds having a city within a city. Each new building on a block is a collection of urban islands.

During these playful journeys through Manhattans history, Koolhaas advocates his duty to modernity, and the architectural modernism as a movement. He focuses on Manhattan's ability to inventing the modern, the city's buildings being a tool for reinventing the city life not as just architectural masterpieces.

'The city is an addictive machine from which there is no escape'
Rem Koolhaas in Delirious New York

Delirious New York tells as how globalisation is the increase relationship of the culture, people and economy. Where the people influence society and how we live. Change is inevitable, so the urban fabric is created by us to live, work and enjoy.

Daniel Libeskind



Daniel Libeskind is an international figure in architectural practice and urban design. His practice extends from building major cultural and commercial institutions, including museums, hotels, shopping centres and schools.

Libeskind is a Polish born American based Architect. Born in post-war Poland 1946, became an American citizen in 1965.

Libeskind has taught and lectured at many universities around the world. He has received numerous awards including Hiroshima Art Prize in 2001, the 1999 Deutsche Architekturpreis for the Jewish Berlin Museum and many more.

In 2004 Riverhead Books had published his memoir, 'Breaking Ground', where he talks about his personal life, his emotions and feelings of his younger life living in an anti-Jewish city and how he had to leave home to get a better life.

He is a contemporary Deconstructivist, which is a development of Post-Modern architecture that began in the late 1980s. His buildings are characterised by ideas of fragmentation and manipulating forms of a structures surface. His works includes shapes which distort and dislocate some of the elements of architecture.

Freedom Tower



Freedom Tower, designed 2002

Daniel Libeskind has won a lot of awards but he is most recognised for the design of the Freedom Tower.

The Freedom Tower is named after the freedom for the American people after 9/11 attacks, it will be the centrepiece of the site, lighting Ground Zero after its devastation.

Libeskind's Freedom Tower has been designed to look upon the themes of motion and light. A shimmering glass surface creates the towers base reflecting its surroundings. This will consist of simple symmetries and a more traditional design intended to bear comparison with selected elements of the existing New York skyline. Originally it was planned that the tower would have an off central spire to resemble the Statue of Liberty but later this was redesigned to be a centre spire.

The tower rises from a cubic base to a base clad more than 2000 pieces of prismatic glass. Its base will be clad in glass prisms. Ultra clear glass will be used instead of reflective or tinted glass, this is so it reflects the surrounding areas making the site seem larger than it really is.

The central spire takes influences from the Empire State building, the Chrysler Building and the previous World Trade Center. With its spire and antenna it will stand at 1776 feet to mark the year of the signing of the American Declaration of Independence. This will ensure that it qualifies as the tallest office building in the world.

The designer stated that the tower will be a “monolithic glass structure reflecting the sky and topped by a sculpted antenna”.

Post-Modernist architecture is a style which comes after Modernism, from 1950s to the present. It is an international style in response to Formalism. It has functional shapes and spaces replaced by diverse aesthetics. It is also ‘neo-eclectic’ - where ornament has returned to the facade, replacing the aggressively unornamented modern styles. This movement has diverse influences and styles and it is helped by CAD and hi-tech materials. Libeskind is from this style, where he designs the impossible.

Buildings also on the site



Reflecting Absence voids, open and visible reminders of the Michael Arad absence.

Norman Foster has designed Tower Two, a distinctive slanted form with a diamond shaped roof. Also Richard Rogers designed Tower Three, across the Memorial's reflecting pools.

Spanish Architect Santiago Calatrava has designed a Transit Hub which will be completed in 2009, which is a modern styled design. The glass roof will feature ribbed arches that evoke a cathedral. The Transit Hub features spikes of a hedgehog. Calatrava's structures often include zoomorphic elements.



New York Transportation Hub, designed 2003

Zoomorphic is a Greek word, meaning animal for a shape or form. This is a Post-Modern style in architecture where the architect recreates the form of animals or living things and includes this in the design of a structure.⁴

Calatrava is influenced by the different forms of nature, the different shapes of animals and their behaviour, whereas all humans look and act very similar. His style is very personal and derives from numerous studies that he makes of the human body and the natural world.

The roof of Calatrava's Transit Hub can be opened each year in remembrance of September 11 attacks and can provide ventilation and natural air conditioning. The hub pays tribute to the 84 Port Authority employees who died in the attacks. I think that this structure is also based on the visual ideas of a child's hand releasing a dove, expressing love and beauty.

The unusual style and form for a building for New York, the size is very different as most of the buildings that are being built are very tall. "I hope New Yorkers will detect its presence too, with deep appreciation, it has been described as a breathtaking structure".⁵

"Calatrava's bird has grown a beak, its ribs have doubled in number and its wings have lost their interstices of glass. Calatrava's design for the PATH Station should satisfy those who believe that buildings for ground zero must aspire to a spiritual dimension".⁶

The new plans for the World Trade Center site are very unique. However, many of the architects have had to make compromises, which have simplified many of the original ideas. The four skyscrapers are very geometrical and simple, having no resemblances of nature or animal forms, unlike Calatrava's Transit Hub.

⁴Jurgen Tietz (1999). The Story of Architecture of the 20th Century. Konemann

⁵ Quoted by Santiago Calatrava in his interview with New York Times.

⁶ Project Rebirth. Available at: <http://projectrebirth.org/>

I personally think that Libeskind's Freedom Tower does not compliment the Calatrava Transit Hub as Calatrava's structure is very zoomorphic in a form of a bird whereas Libeskind has designed a simple geometrical triangular form with no resemblances from nature or animals. The physical element of the structure is very fascinating as it feels like it is alive.

Libeskind's plans will integrate with the other skyscrapers as they are of very similar styles and forms. However, Calatrava's piece is very different but adds a different effect to the site. "Already captured the favour of the general public".⁷ This is due to its innovative symbolism and for Calatrava's talent in designing unusual spaces.

At first Libeskind's designs were not made, he had a lot of paper projects and models but were not made in reality, at the time people disliked it and thought it was a fantasy or too futuristic, at the time it was also impossible to build. But now Libeskind is recognised all over the world, even though they are unusual but

now people admire his projects and his imaginative instincts.

His designs also show his personal feelings, emotions from his past years as a child. He tries to be very inventive and his designs being very childlike, trying to build the impossible, playing with shapes and inventing new forms.

⁷According to the www.calatrava.info website

It has always been said that New York is a place of dreams, so designing the impossible is part of its understanding, it is needed within the site to have something special as commemoration so these projects put together within the central context of a major global city will make it remarkable and needed.

New York recognised of changing faces, how recently it has developed to be the home of many different cultures and people. Creating new spaces and structures to hold for the future, making buildings which break boundaries is part of the lifestyle where we live now. So Koolhaas thoughts on New York is all about regeneration and people being the main force to change to a place, so developing minds will encourage change in the world.

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