

# Fakultät für Architektur Technische Universität München

# World Trade Centerness Repercussions of the Twin Towers

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### Abstract

World Trade Center 1 and 2 in New York, known as the Twin Towers, opened in 1973 in an almost timely coincidence with the end of the gold standard, the onset of a new global economic and cultural system. Targeted and destroyed during the terror attacks on September 11, 2001, the Twin Towers remain highly iconic, representing the global system as it has emerged from the 1970s onwards.

This dissertation starts with the paradoxical imbalance between the strong fame of the Twin Towers as 'the' World Trade Center and the largely unknown hundreds of existing World Trade Centers worldwide. It analyses the interrelation between the Twin Towers, the many World Trade Centers and the global organisation owning the World Trade Center trademark, the World Trade Centers Association. Its objectives are to understand why and how the Twin Towers became to represent the global system and why and how their proliferation in a series of World Trade Centers occurred.

In an abductive research approach, a theoretical framework is developed to observe and describe a phenomenon coined as World Trade Centerness, not only as a series of buildings, but as dissemination of multiple effects concerning the cultural, political and economic realm. In three main chapters, this dissertation first examines the relevant conditions and features of the Twin Towers which enabled their specific agency. Second, it makes the largely unknown multiplicity of World Trade Centers visible by mapping and contextualising them. Third, by elaborating elements of World Trade Centerness, qualitative aspects of the proliferation and repercussions of the Twin Towers are formulated.

At the case of the World Trade Center Twin Towers and its repercussions, this dissertation demonstrates how architecture is stabilising the unstable global system as it exists since the 1970s. It shows how the agency of architecture enables the instrumentalisation of buildings within this global system. By describing architecture's embeddedness in political and economic conditions, it provides knowledge about architecture as a cultural technique and about mechanisms of the global system itself: how it organises, operates and maintains itself.

# Zusammenfassung

World Trade Center 1 und 2 in New York, bekannt als die Twin Towers, wurden 1973 fast zeitgleich mit dem Ende des Goldstandards, dem Beginn eines neuen ökonomischen und kulturellen globalen Systems, eröffnet. Die Twin Towers, die während der Terroranschläge vom 11. September 2001 gezielt zerstört wurden, sind auch nach ihrer gewaltsamen Zerstörung starke Ikonen und repräsentieren das globale System, wie es seit den 1970er Jahren entstanden ist.

Diese Dissertation beginnt mit dem paradoxen Ungleichgewicht zwischen der starken Berühmtheit der Twin Towers als 'das' World Trade Center und den weitgehend unbekannten Hunderten von bestehenden World Trade Centers weltweit. Sie analysiert die Wechselbeziehung zwischen den Twin Towers, den vielen World Trade Centers und der globalen Organisation, die die Handelsmarke der World Trade Center besitzt, der World Trade Centers Association. Ziel der Dissertation ist es, zu verstehen, warum und wie die Twin Towers zur Repräsentation des globalen Systems wurden und warum und wie es zu ihrer Verbreitung in einer Serie von World Trade Centers kam.

In einem abduktiven Forschungsansatz wird ein theoretischer Rahmen entwickelt, um ein Phänomen zu beobachten und zu beschreiben, das als World Trade Centerness nicht nur als Serie von Gebäuden, sondern auch als Verbreitung von vielfältigen Auswirkungen auf den kulturellen, politischen und wirtschaftlichen Bereich geprägt wurde. In drei Hauptkapiteln werden in dieser Dissertation zunächst die relevanten Konditionen und Merkmale der Twin Towers untersucht, die ihre spezifische Wirkungsweise ermöglichten. Zweitens macht sie die weitgehend unbekannte Vielfalt der World Trade Centers sichtbar, indem sie diese räumlich abbildet und kontextualisiert. Drittens werden durch die Ausarbeitung von Elementen von World Trade Centerness qualitative Aspekte der Proliferation und der Auswirkungen der Twin Towers formuliert.

Am Beispiel der World Trade Center Twin Towers und ihren Auswirkungen zeigt diese Dissertation, wie Architektur das instabile globale System, wie es seit den 1970er Jahren besteht, stabilisiert. Sie zeigt, wie Architektur die Instrumentalisierung von Gebäuden innerhalb dieses globalen Systems ermöglicht. Indem die Dissertation die Einbettung der Architektur in politische und wirtschaftliche Konditionen beschreibt, vermittelt sie Wissen über Architektur als Kulturtechnik und über die Mechanismen des globalen Systems selbst: wie es sich organisiert, funktioniert und erhält.

# **Table of Contents**

I. INTRODUCTION: APOTHEOSIS AND LETDOWN	1
1. Research problem and objectives	4
2. Research questions and hypothesis	7
3. Case study profile	8
4. Relevance	16
II. METHODOLOGY	21
1. Research approach	21
2. Methods used	22
3. Limitations	24
III. LITERATURE REVIEW: THEORETICAL FRAMEWORK AND KEY CONCEPTS	27
1. Which global system?	28
2. Postmodernism and Marxist critique	30
3. Global capitalism in architectural theory	34
4. Architecture and agency	39
5. Summary and conclusion	42
IV. THE TWIN TOWERS: WORLD TRADE CENTER 1, 2	47
1. Buildings	48
1.1. Exterior	49
1.2. Interior	52
1.3. Positionality	54
2. Currency	55
2.1. Financialisation	55
2.2. Crises	61
3. Global flows	64
3.1. Traffic, trade	64
3.2. Tourism, terrorism	69
4. Summary and conclusion	76

V. WORLD TRADE CENTERS 3 - 325	83	
1. The World Trade Centers Association: Describing the 'machine'	84	
1.1. Clandestine: What is it?	85	
1.2. Club: How does it work?	90	
2. Mapping World Trade Centers	92	
2.1. Morphologies	94	
2.1.1. Void	95	
2.1.2. One	98	
2.1.3. Many	106	
2.2. Positionalities	111	
2.2.1. Centre	112	
2.2.2. Border	114	
2.2.3. Periphery	117	
3. Summary and conclusion	120	
VI. ELEMENTS OF WORLD TRADE CENTERNESS	127	
1. Seriality	128	
1.1. Sequence	130	
1.2. Seriality and network	133	
2. Ambiguity	135	
2.1. Centre, multiples	136	
2.2. Visible, invisible	139	
2.3. Concrete, currency	141	
3. Fluidity	143	
3.1. Re-positioning	144	
3.2. Stabilisation	146	
4. Summary	149	
VII. CONCLUSION: GLOBALISATION, GROUNDED	153	
1. Repercussions of the Twin Towers 1973 - 2016		
2. Liquefaction, liquidation and Soft Power	159	
List of figures	165	
Image sources	166	
Name index	173	
Bibliography	175	
APPENDICES	189	
A. World Trade Center database		
B. Member benefits		
C. Assurance of Discontinuance (Office of the Attorney General)		
D. Letter Guy Tozzoli, World Trade Centers Association / Kofi Annan, United	ed Nations	

#### I. INTRODUCTION: APOTHEOSIS AND LETDOWN

"Modern Architecture died in St. Louis, Missouri, on July 15, 1972, at 3.32 p.m." Charles Jencks, 1977<sup>1</sup>

"... Along with the Concorde, they are modernism's apotheosis and its letdown at the same time - unreal perfection that can never be equaled."

Rem Koolhaas, 2003<sup>2</sup>

One year after the event that Charles Jencks declared as the death of modern architecture, the destruction of the Pruitt-Igoe social housing complex in St. Louis, the World Trade Center Twin Towers opened in New York. Simultaneously, the end of the Gold Standard in 1971 and the beginning of a new fluctuating global currency system, is considered a paradigm shift in global culture. If the beginning of the Twin Towers marked a historic turning point, so did their end: their destruction during the terror attacks on September 11, 2001, denoted, again, a highly visible event, a pivotal moment in global history (Images 1, 2). There is an understanding that both architectures — Pruitt-Igoe and the Twin Towers, both fatefully designed by the architect Minoru Yamasaki — were destroyed for what they stood for and that together with these buildings, a culture which had enabled their conception to begin with, had ceased as well. It is out of this context that this dissertation investigates the agency of architecture within the process of the current globalisation at the example of the World Trade Center Twin Towers.

Under the address World Trade Center 1 and World Trade Center 2, the Twin Towers opened in 1973 after a decade-long planning process. Two out of seven buildings within a new World Trade Center complex in Lower Manhattan, they had been commissioned and owned by a public agency, the Port Authority of New York and New Jersey. Though envisioned as office buildings, housing domestic and foreign businesses involved in global trade, this concept of use emerged as unsuccessful almost immediately following their opening: instead of being the center of global trade, the Twin Towers, throughout the course of history, emerged a representation of global trade and the global system itself. Furthermore, they represent Manhattan, New York, the United States and other multiple, at times conflicting identities. The Twin Towers became and still are, years after their physical destruction, 'the' World Trade Center, despite the fact that they were part of a multi-complex World Trade Center in New York and despite the fact that more than 300 World Trade Center buildings exist worldwide, with many more having been planned throughout the last decades. While this multiplicity of World Trade Centers is largely unknown and invisible, the Twin Towers, in contrast, remain highly iconic as a

symbolic object beyond their destruction as a physical object. Jean Baudrillard writes in his essay about the Twin Tower's destruction during the terror attacks of 9/11:

"Let us be clear about this: the two towers are both a physical, architectural object and a symbolic object (symbolic of financial power and global liberalism). The architectural object was destroyed, but it was the symbolic object which was targeted and which it was intended to demolish."

Following Baudrillard's interpretation, who sees in the Twin Towers the embodiment of the global system, at which the terror attacks had aimed, the Twin Towers seemed fundamental in sustaining the current global system. Investigating the role of the Twin Towers within the global system, the field of observation needs to be widened to the network of World Trade Centers and the global organisation spanning it, the World Trade Centers Association. Hence, this dissertation looks at the interrelation of Twin Towers, World Trade Center network and the current global system in its cultural, economic and political dynamics. Largely unknown, the World Trade Centers Association functions as a membership club and licenses the World Trade Center name against a fee exclusively to its members. Founded in 1968 within the Port Authority, from which it had acquired the name rights in 1986 for the symbolic amount of 10 dollars, the World Trade Centers Association claims to have established an infrastructure of global trade based on the value of the World Trade Center name.

Coining the term *World Trade Centerness*, this dissertation describes the phenomenon, in which the current unstable global system is stabilised by a process of constant repetition of what had contributed to the Twin Tower's stabilising agency in the cultural and economic context of the time when they were realised. It views the proliferation and dissemination of World Trade Centers as recursive representation with the Twin Towers as 'original', 'first' or 'master'. The Twin Towers' representation of the global system is utilised by the World Trade Centers Association when multiplying World Trade Centers in order to exponentiate this representation and to enforce its effects, creating copies, which, again, aim at representing and reinforcing the global system.

By current global system, this dissertation refers to the system that constituted the process of globalisation since the early 1970s. Timely coinciding with the completion of the Twin Towers, the end of the Gold Standard as the beginning of an unstable, globally interdependent currency system marks a paradigm shift in the global economy, symbolising an increased global financial interconnectivity, competition and marketisation and creating a global culture permeating the social, economic and political. In this context, the Twin Towers also mark the era of accelerated global

connectivity, as their lifespan coincides with the operation of the supersonic jet airliner Concorde, symbolising "modernism's apotheosis and its letdown at the same time", as Rem Koolhaas observed.4 Often termed post-Keynesianism, late capitalism or neoliberalism, this period has been the subject of many disciplines ranging for example from geography, sociology, literature studies, economics to architecture and urban studies. When analysing the cultural conditions of World Trade Centerness, this dissertation establishes a theoretical framework, drawing from positions in critical cultural theory observing this particular global culture. Here, the works of David Harvey, Fredric Jameson, Jean Baudrillard and other theoreticians within Marxism, postmodernism, semiotics and materialism serve as preconditions to establish a theoretical framework for this dissertation. While disciplines like semiotics, geography or philosophy provided an almost immediate timely reaction to the cultural shift in the early 1970s, the occupation with the relation of cultural and economic conditions entered architectural theory much later, rather as an effect of the world financial crisis in 2008. Hence, architectural theories included in the theoretical framework derive from more recent publications, such as the works of Keller Easterling, Beatriz Colomina or Reinhold Martin. Given the theoretical grounding of this dissertation — the interplay of symbolic meaning and material agency of the Twin Towers — this dissertation draws in its interpretation from cultural concepts of representation. A key element in the argumentation of Marxist critiques and semioticians, the concept has been reevaluated and problematised in particular from the field of materialism and Actor Network Theory, as for example formulated by Albena Yaneva. Viewing these positions in context, they can provide an understanding of architecture and agency of the Twin Tower buildings.

The described paradigm shift in timely coincidence with the completion of the Twin Towers provides the main time frame for this dissertation (Fig. 2). Starting from their completion until 2016, the election of Donald Trump as President of the United States and the year when the International Monetary Fund declared the end of neoliberalism, mark the end of this dissertations observation of the repercussions of the Twin Towers within a global culture and a certain time frame. Throughout the period observed, there will be a strong focus on the years immediately following the completion of the Twin Towers in the 1970s, as well as on the period around their destruction. In order to describe repercussions, preconditions need to be explained; thus, the planning period of the Twin Towers during the 1960s will be subject when describing and contextualising the Twin Towers.

#### 1. Research problem and objectives

A vast amount of research, literature and media exists about the World Trade Center Twin Towers from the onset of their development as early as the 1960s; a global icon and the world's tallest building at their completion, their fame has been even topped by a magnitude due to the massive event of their destruction during the terror attacks of 9/11. However, little attention has been given to their relation to the World Trade Centers Association and the global network of World Trade Centers. So far, the architecture of the Twin Tower buildings and the World Trade Centers Association as well as the global system have been viewed mostly separately; an in-depth contextualisation of the Twin Towers, World Trade Centers and the World Trade Centers Association is therefore necessary. On a disciplinary level, the narrowed view of this complex relationship is mirrored by the fact that specific aspects are observed and studied only from specific disciplinary angles. For example, the Twin Towers architecture has been subject rather in architectural history and theory, whereas other aspects tend to be more the focus of social, cultural, economic, political or organisational studies. Thus, in this dissertation three research areas are in focus: the buildings and architecture of the Twin Towers, the current global system and the multiplicity of World Trade Centers, comprising the World Trade Centers Association as an organisational body as well as the network of World Trade Center buildings. This dissertation seeks to interrelate the described research areas and to close a knowledge gap between architecture and the current global system by describing the phenomenon of World Trade Centerness in order to better understand the agency of architecture within the global system.

The emergence, history and business operations of the World Trade Centers Association are widely unknown in comparison to the highly iconic World Trade Center Twin Tower buildings. While the narrative used by the World Trade Centers Association is based on its founding myth of the Twin Towers as the 'original' or 'first' World Trade Center, architectural research and cultural studies mostly disregarded the global organisation and the effect of the Twin Towers as architecture on global finance and business. Poignantly, the World Trade Centers Association is a spin-off from the developer and owner of the Twin Towers, the Port Authority of New York and New Jersey, a public agency operating with public money. The World Trade Centers Association succeeded in acquiring the licencing fee to the rights of the World Trade Center name from the Port Authority for the symbolic amount of ten dollars in 1987, leading to enormous profit out of this transaction, resembling a coup with wide-spinning implications. The specific agency of architecture in this business maneuver and network constructions has been widely disregarded so far.

In front of this background, this dissertation is investigating the link between the timely coincidence of the Twin Towers' completion with the paradigm shift in the early 1970s, the asymmetric stardom of the Twin Towers as being highly known and yet enigmatic in terms of their proliferation, and their iconicity as a symbolic object. The socioeconomic paradigm shift in the early 1970s, associated with the end of the Bretton Woods system, post-Keynesianism and the onset of neoliberalism<sup>5</sup>, has been subject to architectural theory in particular since the last world financial crisis in 2008. Since then, architectural research had an increased focus on architecture, urban planning and economic conditions, referring to the Marxist cultural critique from the 1970s and 1980s and broadening the focus by interrelating critical geography, poststructuralism and postmodernism in architecture to get a better understanding of the economic conditions of the cultural production of architecture. The Twin Tower buildings, this research argues, offer a specifically interesting case in this regard. Opened in timely coincidence of the global currency shift and at the peak of the first oil crisis, which would be followed shortly by the fiscal crisis of New York City, and with its dedicated iconicity to perform as a unique icon for global connectivity and trade, the relation of these buildings and the global system needs be further examined.

The World Trade Center Twin Tower offer a twofold case of asymmetric stardom: one, the almost unchallenged stardom of the World Trade Center Twin Towers in relation to the shadowy existence of the more than 300 World Trade Centers worldwide; second — despite the intention explicitly stated in the tender process for the Twin Towers, to create a highly visible architectural icon with global impact — a then fairly unknown architect, Minoru Yamasaki, has eventually been awarded with the commission to design the World Trade Center in New York.

Last, the iconicity of the World Trade Centers Twin Towers is so strong, that it must be taken as a prime example for iconicity in architecture and cultural studies. In this regard, it needs top be asked, what the Twin Towers represent, even after their physical destruction, and how this representation is employed by more than 300 World Trade Centers worldwide. Beyond the mere exemplification of representation, however, a critical investigation is necessary in respect to how this representation translates into the materiality and agency of World Trade Centers.

To summarise, the research problem stated in this dissertation is as follows:

Research fields that have previously not been viewed together due to their affiliation to separate research disciplines need to be viewed together.

The vast amount of literature about the World Trade Center Twin Towers is focused rather on their iconicity as well as their agency within the terror attacks on 9/11. Neither has their affiliation with the World Trade Centers Association been scrutinised yet, nor has, in this context, an in-depth critical deconstruction of the Twin Towers' iconicity been undertaken.

Rather, the seeming irrelevance, 'greyness' and anonymousness of the multiplicity of World Trade Centers needs to be investigated. Adding to the clandestineness of the multiplicity of World Trade Centers, the paradox of the World Trade Centers Association as a club and the Twin Towers as its club good, needs to be looked at.

The World Trade Center Twin Towers offer a case to test the assumptions taken by Marxist critiques such as David Harvey and Fredric Jameson, that the beginning of the 1970s marked a paradigm shift in global cultural.

With the intention of getting a better understanding of the agency of architecture within the current global system, it needs to be examined, how the Twin Tower's architecture and their agency as buildings relate to each other.

The objectives of this dissertation are to contribute to the understanding about the agency of architecture within the current global system with the case of the World Trade Center Twin Towers in New York as a representation of the current global system. It aims to investigate the proliferation of the phenomenon of World Trade Centerness through the development of more than 300 World Trade Centers globally within the time period from 1973 until 2018, shedding light on the commonly unknown multiplicity of World Trade Centers and the organisation behind, the World Trade Centers Association. In a comparative and interdisciplinary approach, it examines the interrelation of the Twin Tower buildings, the World Trade Centers Association and the current global system. Last, the dissertation intends to provide information on the agency of architecture not only as real estate, but also as finance, as currency. In order to reach these objectives, this research will proceed by:

1) spanning the research fields corresponding to the three main chapters: architecture and building (node), global system (field) and global phenomenon (global flow, infrastructure),

- 2) setting up a theoretical framework drawn from architecture and cultural theory, extracting key concepts that will serve as a common thread when conceptualising the phenomenon of World Trade Centerness,
- 3) describing and analysing the architecture as well as the spatial and timely context of the World Trade Center Twin Towers, focusing on their physicality, currency and function as a node to channel global flows,
- 4) describing and analysing the World Trade Centers Association in its linkage to the Twin Towers and the multiplicity of World Trade Centers,
- 5) creating a database of current World Trade Centers in order to generate empirical, compatible information when mapping World Trade Centers,
- 6) providing quantitative and empirical information about the multiplicity of World Trade Centers by mapping them, using categories and providing examples to show patterns, intersections and contradictions; describing how the World Trade Center network is constructed and maintained,
- 7) synthesising findings in order to describe and analyse the qualities of connections and intersectionalities among World Trade Centers,
- 8) conceptualising elements of World Trade Centerness and relate them to architectural agency within the current global system.

## 2. Research questions and hypothesis

Subsequent to the outlined research problem and objectives, this dissertation poses the following research questions:

Why and how have the Twin Towers been instrumentalised by the World Trade Centers Association? Which aspects of their architecture and their spatial and timely context enabled such agency?

How are the Twin Towers, World Trade Centers Association and the more than 300 other World Trade Centers connected, what are the processes involved in the production and maintenance of the interconnectivity between the Twin Towers and the multiplicity of World Trade Centers?

What is the agency of the Twin Towers in the process of globalisation since the early 1970s, why did they represent the current global system and how did they stabilise an unstable global system?

Hence, this dissertation formulates the following hypothesis:

Due to the timely coincidence of the cultural and economic paradigm shift and the completion of the World Trade Center Twin Towers, the Twin Towers represent not only global trade, but the global system itself. The World Trade Centers Association is utilising this phenomenon to construct its identity and financialise space. This provides an example of how organisations embodying the global system that has emerged from the paradigm shift in the early 1970s utilise architecture to sustain and stabilise an unstable system.

In order to test this hypothesis, this research is taking the following preconditions as a starting point for its investigation: 1) The socioeconomic paradigm shift in the early 1970s and the development of the World Trade Center Twin Towers relate; 2) The World Trade Center Twin Tower buildings represent not only global trade, but the global system itself; 3) The phenomenon of World Trade Centerness is being utilised by the World Trade Centers Association, by constructing and utilising narratives to stabilise an unstable system; and 4) The unstable global system and global organisations such as the World Trade Centers Association relate to each other for stabilisation.

## 3. Case study profile

Using the World Trade Center Twin Towers as a case for the agency of architecture after the paradigm shift caused by the end of the Bretton Woods system, it needs to be filtered, what knowledge from the large amount of existing knowledge provided by literature, media and research about the World Trade Center Twin Towers is relevant for this dissertation. Therefore, in the following, a profile of the Twin Towers will be given under the premise of identifying relevant knowledge and knowledge gaps in relation to the research questions: how did the Twin Towers become to represent the global system after Bretton Wood? What aspects of their architecture and their agency as a building contributed to this? How did the World Trade Centers Association emerge from the group of stakeholders involved in the planning of the Twin Towers? What knowledge about the Twin Towers can help explain the paradox of the Twin Towers ,fame' and strong iconicity in relation to the relative anonymity of the World Trade Centers Association and the multiplicity of other World Trade Centers?

Planned over more than a decade and opened in 1973 as the then tallest buildings in the world, the World Trade Center Twin Towers were part of 7 buildings within the World Trade Center Complex in New York. Designed by the architect Minoru Yamasaki and

commissioned by the Port Authority of New York and New Jersey, they were conceptualised, like a vertical port, as office towers for businesses involved in world trade. Already throughout their planning phase and after their completion they received a large amount of attention and quickly became a national symbol as well as a symbol of global trade. Their destruction during the terror attacks on September 11, 2001, enhanced this strong media attention, iconicity and ,fame' even beyond their physical existence. This dissertation draws its information about the Twin Towers from media reports, monographs about the Twin Towers, research articles, architectural publications and archives from the New York Public Library and the Rockefeller Foundation.

This dissertation considers three monographs to be the most relevant in describing the history of the Twin Towers: "Divided we stand" by Eric Darton6, published in 1999, two years prior to their destruction and equipped with an adapted last chapter in the second edition which was published in 2002; Twin Towers: The Life of New York City's World Trade Center by Angus K. Gillespie<sup>7</sup>, published in the same year, and City in the Sky by James Glanz and Eric Lipton<sup>8</sup>, published in 2001 in the aftermaths of 9/11. All three publications tell the history of the Twin Tower buildings from their conception, their existence to their destruction (Darton and Gillespie adding this information in the second editions). They describe the socio-political and economic context of the era during which the Twin Towers were planned, completed and existed; they describe the post-war urban development and infrastructure planning in Manhattan, emphasising on the re-development of Lower Manhattan. They all offer an account of the transformation of the port and international trade, as well as the transformation of global finance and global real estate. In detail, they portray key stakeholders and organisations involved in the conceptualisation, planning, financing, construction and design of the Twin Towers: David Rockefeller, Chairman of the Chase Manhattan Bank; Nelson Rockefeller as Governor of New York; Austin Tobin, Executive Director of the Port of New York Authority (later: Port Authority of New York and New Jersey); Guy Tozzoli, Director of the World Trade Center Development Department at the Port Authority of New York and New Jersey and, as of 1986, Director of the World Trade Centers Association; Minoru Yamasaki, the architect and Leslie E. Robertson, the structural designer. In addition, activist groups and their protests against the World Trade Center have been reported in these monographs, as well as experiences of users, neighbours and visitors of the Twin Towers.

Out of the these monographs, this dissertation uses the publication by James Glanz and Eric Lipton as the main resource for the history of the Twin Towers. After publishing an article in The New York Times Magazine about the Twin Towers, *The Height of Ambition*,

one year after their destruction, Glanz and Lipton continued their research, resulting in their monograph City in the Sky. Throughout their research, Glanz and Lipton compiled documents such as interviews, notebook entries, correspondences, which are archived as the World Trade Center Research Files at the New York Public Library, constituting the largest research collection about the World Trade Center Twin Towers. Asking "What happened here?",9 referring to the creation, existence and destruction of the Twin Towers, Glanz and Lipton started their investigation with the buildings' physical grounding in Manhattan's geology, as well as their grounding in their social, economic and political context. Looking at the Twin Towers as both physical bodies and symbolic objects, information most relevant to this dissertation in Glanz and Lipton's work is about the Twin Towers's architecture, their use, their role as an agent for re-positioning and urban transformation, their financialisation, their agency in respect to global trade and interconnectivity and the role of the Port Authority. Glanz and Lipton undertook a thick description of the complex set of interests and objectives involved in the Twin Towers' realisation and provided knowledge about why the World Trade Center has been developed as the Twin Tower buildings in New York at that specific time and place and how the World Trade Centers Association emerged from the Port Authority of New York and New Jersey.

One of the first arguments relevant to this research is their notion of the significance of the creation of distinct and visible space for the representation of international trade, referring to the 1939 World's Fair, in Queens, New York, during which the chambers of commerce had made a pavillion available for an exhibition organised by the World Trade Center, entitled "world peace through world trade". Put to a stall during World War II, it took some time for the organisation and the promoters of international trade to gain momentum again. An opportunity arose, according to Glanz and Lipton, at the 1963 World's Fair in New York, known for the iconic Unisphere, representing a then newly emerging internationalism and international trade system. The authors also argue, that it was at the 1964 World's Fair in Seattle, where Guy Tozzoli, contractee at the Port Authority, after visiting the Federal Science Pavilion designed by Minoru Yamasaki, formed his choice to commission Yamasaki as designer of the World Trade Center Twin Towers (Images 5, 6).

Another key information for this research is Glanz' and Liptons account of the Twin Towers as an icon that had been developed and realised in an attempt to transform the identity not only of Lower Manhattan, but also of New York and the United States, and that the Twin Towers were intended to serve as an agent of re-positioning from the start. Here, Glanz and Lipton show how the interests of actors in real estate and finance

correlated in the run-up to the Twin Towers development. As a key trigger for the World Trade Center Twin Towers development, they point at the building of Chase Manhattan Bank<sup>10</sup>, a highly ambitious real estate project driven by Chase's chairman at the time, David Rockefeller. Rockefeller was a pioneer in international trade and international finance. He was responsible for making Chase the largest Bank in the United States, at the forefront of expanding international trade and finance and personally connected to world leaders. The new Chase Manhattan Bank headquarters (Image 13) were supposed to become a visible icon of internationalism and international finance in Lower Manhattan, in direct vicinity to Wall Street (Fig.1). In order to realise it, existing buildings at the site had to be bought and demolished; streets needed to be closed and blocks transformed — a maneuver that would be called "Wall Street Maneuver". However, due to the development of international style office skyscrapers in Midtown Manhattan, large corporations flew from Downtown to Midtown, and the new Chase Manhattan Bank headquarters threatened to be isolated and, as a result of the midtown boom, situated in devaluated ground:

"The new Chase project would ultimately be a failure, and the Wall Street maneuver ruined, if the bank did not think bigger and find a way to stabilise the financial district against the defections to Midtown and elsewhere. (...) (Robert) Moses told Rockefeller that unless the bank ,got others to see there was a future in Lower Manhattan, they would move out before we finished the building. It could be a disaster. You may find yourselves left alone down there. "12"

To avoid this foretold disaster, the plan to develop of an even more iconic urban component gained shape, that would signal undeniably to the city and the world the value and renewal of Lower Manhattan's real estate ground: the Twin Towers. In support of this project, David Rockefeller founded the Downtown-Lower Manhattan Association, involving key stakeholders from banking, urban governance, telecommunications and others. In the Associations' record in May 1959, the

"World Trade and Finance Center appears for the first time and is described as a complex that would "serve as a place "where the United States and foreign business and financial interests can meet to do business; where representatives of the United States and foreign governments are available for consultation and aid; and where facilities are available to expedite business transactions. Such a center might accelerate the development of international business and act as symbol of this country's growing world leadership in the international business community."<sup>13</sup>

Glanz and Lipton presented two commissioned reports concerning the World Trade Center development, which disclose the intentions and desired impact of planners and developers. A study carried out by McKinsey in 1959, which came to the conclusion, that the "world trade center could be a serious financial bust", because "major companies

had already started exploiting international trade and would gain little real advantage from a world trade center", and further: "If the world trade center was going to work, "it would have to be unusual in nature and spectacular in proportions to act as an irresistible magnet." Because of the negative diagnosis the report provided about the World Trade Center project, it had not been published by the Port Authority at the time, according to Glanz and Lipton. In 1961, the Sullivan report had been commissioned by the Port Authority, who, in the meantime, had become the most important partner for Rockefeller and his planning partners. The feasibility study and "founding document for the project" came to conclusion differing from the ones of the McKinsey report. The principal features of a World Trade Center formulated in the report, were the improvement of administrative processes in import and export of goods by the port, the centralisation of trade information services, the provision of an international marketplace for goods from the United States and the establishment of central locations for agencies of international governments.<sup>15</sup>

Glanz and Lipton outlined the pivotal role of David Rockefeller in the Twin Towers development due to his position as chairman at Chase Manhattan Bank, the largest bank in the United States, and driver of international trade and finance, as real estate developer and investor of the new Chase Manhattan Bank headquarters in Lower Manhattan, as the key driver of the transformation of Lower Manhattan and chair of the Downtown Lower Manhattan Association. Furthermore, according to Glanz and Lipton, the dynastic position of the Rockefeller family and the family's historic evolvement and deciding power in the development and financialisation of large urban projects in New York, its strong network in real estate, banking, finance and politics both in the United States and worldwide empowered David Rockefeller to pursue such an ambitious project as the Twin Towers.

Highly relevant for this dissertation is the information provided by Glanz and Lipton in regard to the role of the Port Authority of New York and New Jersey throughout the development process and eventually as owner and operator of the Twin Towers. Furthermore, the World Trade Centers Association had been created within the Port Authority in 1968. The key planning figure at the Port Authority, Guy Tozzoli, director of the World Trade Department at the Port Authority had become the director of the World Trade Centers Association in 1968. As a public agency created in 1921, the Port Authority was originally established to manage the port. Due to the massive infrastructure development in New York and Manhattan — associated with the name Robert Moses and the urban and regional transformations he undertook — the agency had become exceedingly powerful and wealthy through the expansion of their

infrastructure as a result of the construction of bridges, tunnels and airports in the city and the two states. One of the most central questions in the development of the Twin Towers, why a public transportation agency would invest, develop and own a commercial office building, and, even more, at an unprecedented scale and hence risk factor, has been explained by Glanz and Lipton with the narrative that trade was traffic. Answering, why the port authority received the legal right to use the authority's public money to build office space, they write:

"He (Tobin) was going to sell the World Trade Center as a port without water, a place to bring together all the people and firms who were now directing international trade and functioning a s an ersatz "port" for goods and money that could be moving anywhere on the globe". 16

Both the political power and relative independence of the Port Authority – which was subordinated to the States of New York and New Jersey, not to the City of New York – as well as their existing wealth, consistent income through tolls from bridges and tunnels and ability to issue bonds, made the agency the perfect partner for David Rockefeller's endeavour to create a World Trade Center. Glanz and Lipton write:

"Without its power to condemn land and secure financing with the lucrative tolls from its tunnels and bridges – there would be no World Trade Center, at least not one that cost hundreds of millions of dollars and required the bulldozing of more than thirteen acres in Lower Manhattan." <sup>17</sup>

When talking about the architectural design of the Twin Towers, Glanz and Lipton stressed the fact, that client and developers quasi imposed the Twin Towers' gigantism and overdimensionality on the architect Minoru Yamasaki. "The building "had to be enormous", they wrote, "on a scale like nothing of the kind that had ever been welded and bolted and hammered together before." Quoting a representative form the Port Authority:

"The Port Authority wants this to be the most dramatic project in the world. It must be a symbol of New York. And we want the tallest building in the world (...) we can't afford a corporate status symbol, this is not a trophy we are building. It is a speculative office building."

To summarise the relevance of Glanz and Liptons' research for this dissertation, their description and contextualisation of the Twin Tower's specific position, the multiple stakeholders involved in the Twin Tower's development as well as the timely context, including the political, economic and social environment within which they have been conceptualised, is of great value for this dissertation.

Having laid out information covering the lifecycle and developmental context of the Twin Tower buildings, in the following, a brief overview of the discourse within architectural criticism as well as architectural theory and history will be given. It is one of the paradoxes this dissertation is interested in, that the Twin Towers had become a world famous architectural icon with a highly positive image worldwide — so positive, that the World Trade Centers Association, over decades is able to make financial profit by the serialisation of World Trade Centers; so famous, that they were targeted to be destroyed in one of the most impactful, most violent and certainly most broadcasted terror attacks at the beginning of the new millennium. At the same time, throughout their planning, their existence and post-destruction, they have consistently been regarded as 'bad architecture'. Contemporary architectural critics such as Ada Louis Huxtable, Jane Jacobs, Lewis Mumford or Paul Goldberger highly criticised their architecture, backing public interest groups that had formed a protest movement against the Twin Towers project (Image 7), which had been perceived as monumentalistic and as a violent urban intervention and for not fitting into the urban and social fabric of the city. In her article Big, but not so bold, published in the New York Times on the occasion of the opening of the Twin Towers in 1973, Ada Louise Huxtable wrote:

"The towers are pure technology, the lobbies are pure schmaltz and the impact on New York of two 110-story buildings and auxiliary structures with a projected population of 130,000 workers and visitors using a city-size amount of services is pure speculation. (...) The module is so small, and the 22-inch wide windows so narrow, that one of the miraculous benefits of the tall building, the panoramic view out, is destroyed. No amount of head-dodging from column to column can put that fragmented view together. It is pure visual frustration. (...)

These are big buildings but they are not great architecture (...). The Port Authority has built the ultimate Disneyland fairytale blockbuster. It is General Motors Gothic. "20

If the completion of the Twin Towers in 1973 stirred up the architectural discourse, asking, what architecture had been at play at the massive, highly visible and impactful urban intervention that the Twin Towers depicted, their destruction, 22 years later, again raised the question: what architecture was it, that had been targeted and destroyed. This dissertation chose two edited volumes as the main resources to understand the reevaluation in architecture of the Twin Towers post-mortem: *After the World Trade Center. Rethinking New York City*<sup>21</sup>, edited by Michael Sorkin and Sharon Zukin and *World Trade Center*, the CLOG magazine edited by Kyle May.<sup>22</sup> In their introduction, Sorkin and Zukin wrote:

"The World Trade Center was the eye of the needle through which global capital

flowed, the seat of an empire. However anonymous they appeared, the Twin Towers were never benign, never just architecture."23

After 9/11, every writing about the World Trade Center Twin Towers had to be written through the lease of these events, even if it was not subject to the publication. Since this dissertation is interested in the impact and effect of the Twin Tower buildings, the question why the Twin Towers became a target of the terrorist attacks, rather than how they were physically destroyed, is relevant. While Sorkin's and Zukin's publication appeared soon after 9/11, the CLOG publication by May appeared as the new World Trade Center building in New York neared completion in 2014. The articles in the CLOG publication focus in particular on the decade-long competition and design selection process of the Twin Towers development, thus providing information about how intended agencies of the Twin Towers had been translated into the design process and what criteria had been chosen to fulfill the desired effect of the Twin Tower buildings, such as the criteria established by the Port Authority for the selective process in the competition in 1962:

- "1) Does the architect have a great creative talent that would produce a W.T.C. of historical significance?"
- "2) Is the architect generally consistent in producing outstanding architecture?"24

These criteria stress, how the Twin Towers were intended to become iconic and out-of-proportion in the first place. A graphic illustrating architectural criticism on a timeline shows, how, when the design proposal by Yamasaki was initially introduced to the public in 1964, criticism was very positive. Already as early as a few years prior to completion, however, the view on the project shifted and negative reviews were published, as cited above. Quoting Minoru Yamasaki, who claimed that the Twin Towers should "become a living representation of man's belief in humanity",<sup>25</sup> the editors focus, similar to the critics in the early 1970s, on the issue of scale and proportion, its gigantism both in its physicality but as well in the sense of the technical and processual barriers that needed to be overcome. Relevant to this dissertation's interpretation of the multiplicity of World Trade Centers as a series, is Erik Herrmann's chapter in the CLOG volume, where he examines the twinness as an initial process of copying:

"The New York twins became the global model for world trade centers and commercial tower districts. Twinness allows for simultaneous occupancy and gaze, towers for Narcissus. The branding here is not in the buildings' form, but in its doubling. Excess masquerading as economy: two for the price of one." <sup>26</sup>

Concluding this case study profile, the research gap is evident when it comes to the investigation of the interrelation between the World Trade Center Twin Towers and the multiplicity of hundreds of existing World Trade Centers.

#### 4. Relevance

This research draws a main argumentation form the proposition, that the current global system has emerged in the socioeconomic context of the early 1970s, with New York City and the United States of America as its epicentre<sup>27</sup>. At the time of writing of this dissertation, a momentum of scrutinisation of this global movement is strongly visible: already shattered by various global crises, in view of the end of growths28, diminishing resources and a potential end of capitalism, a report published by the International Monetary Fund (IMF) in 201629 that offered an explicitly critical review of neoliberalism provoked the debate, whether this system could sustain itself any further or what measurements were to be taken in order to transform and sustain the global system as it is. Until this point, the term neoliberalism had only been used by its critiques and not by an organisation that embodied neoliberalism such as the IMF. In the same year, 2016, Donald Trump was elected to become President of the United States of America, adding to the relevance of this momentum of scrutinisation of the global system. While representing identitarian anti-globalist politics along with a growing number of national elected leaders during this time, Donald Trump was immediately put in context with neoliberalism in various connotations, ranging from either "alter-neoliberalism", "national neoliberalism" or the apotheosis of neoliberalism.<sup>30</sup> This paradox, embodied by Donald Trump, how identity politics, protectionism and nationalism are compatible with globalism, has been fueling the discourse about the condition of the global system since.31 More so, with global trade being key on Donald Trump's political agenda, trade wars and protectionism are currently luring as a threat to the global infrastructure that is ought to thrive on global connectivity, infrastructure and exchange. Thus, the ecosystem that enables what will be described as World Trade Centerness in this research, is, at the time of writing this dissertation, under scrutinisation more than ever. This momentum is leading to an increased interest within architectural theory in the sociocultural and economic conditions impacting architecture and the built environment; an interest, that had already gathered pace in the context of the last global financial crisis in 2007/2008.32

This dissertation draws from literature in cultural theory, architectural theory, urban sociology and geography throughout the last decades and test these heterogenous

criticisms at the case of the World Trade Center Twin Towers and the phenomenon they represent, by analysing its agency in the context off the global organisation and the global system. Attempting to assess an aspect within the current critical inventory of the global system since the 1970s, this research uses the story of the World Trade Center Twin Towers in order to add to the understanding of the global system under scrutiny. It focuses in particular on the agency of architecture and how architecture interacts and interrelates to other parameters such as global organisation and global system.

In theoretical terms, this dissertation builds upon existing literature, in particular on literature concerning cultural processes in the context of economic conditions as well as literature on architecture and representation, materialism and agency. While a large part of literature rather elaborates on how the World Trade Center represents the global system, this research reflects not only on how significance, meaning and symbolism are constructed, but also what it does, how it operates and functions by describing the phenomenon of World Trade Centerness. Closing the loop between building, organisation and phenomenon, it seeks to add to the understanding of architecture within the current global system by conceptualising the phenomenon of World Trade Centerness.<sup>33</sup>

Empirically, the knowledge gap about the World Trade Centers Association and the hundreds of World Trade Centers globally needs to be closed, given the global iconicity and relevance of the World Trade Center Twin Towers. Often lacking architectural significance and lacking famous star architects as World Trade center designers, these buildings have been under the radar of both media and research. Furthermore, an organisation such as the World Trade Centers Association has little to do with architecture at a first glance and, besides, has shown little interest in media relations beyond the commerce and real estate sector.

To summarise, this dissertation builds upon a large body of research, documentation and media coverage about the World Trade Center Town Towers in New York; it is particularly connecting to what is known about the representation of the global system, often equally interpreted in literature with global capitalism, by the Twin Tower buildings. This dissertation identifies the following research gaps: one, because of the Twin Towers' perfect aptitude to function as representation of the global system and global finance, they have been utilised to serve as a picture book example of a global icon over the past decades. The attention they have received as such since its conception was once more multiplied through their destruction on 9/11. This dissertation rather problematises the concept of representation not by disregarding it, but by critically

reviewing it and adding the aspect of agency and materialism. Second, this dissertation is not solemnly looking at the Twin Tower buildings, but is taking as its main focus on the relation of the building, the global organisation of the World Trade Centers Organisation including the multitude of World Trade Center buildings. By conceptualising the phenomenon of World Trade Centerness, it seeks to add new knowledge about the global system as an operational system and the agency of architecture within it. In this interdisciplinary approach, it exposes the intersectionality between architecture, economic conditions and the socio-political. In relation to architecture and the built environment, this research hopes to provide a blueprint for the complexities and impact of global architecture and global real estate development and help support a critical evaluation in support of the future development of innovative and sustainable development schemes in architecture and the built environment. It further seeks to strengthen the understanding of economic, monetary and financial conditions and policies by describing trade as a cultural performance with a broad impact on the built environment. Last, by describing a specific aspect of the global system and its modus operandi, it supports the argument that "architecture is not innocent", as Keller Easterling coins it.34 The terminology used in the title of this dissertation, Repercussions of the Twin Towers, thus implies a less univocal and purposely more ambiguous spectrum of the impact of the World Trade Center Twin Towers. More than representation, repercussions allows for the description of a less clear, but a more diffuse and contingent multiplicity of meanings and interrelations.

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- <sup>14</sup> ibid., p. 33.
- 15 ibid., p. 53.
- <sup>16</sup> ibid., p. 40.
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#### II. METHODOLOGY

This dissertation examines the interrelation between the highly iconic World Trade Center Twin Towers and the multiplicity of hundreds of rather unknown World Trade Centers within the context of the current global system. Its goal is to gain knowledge about the effect of the Twin Towers and the current global system and, on a more abstract level, to gain knowledge about the agency of architecture within the current system. Grounded in architecture and cultural theory, this dissertation uses theoretical constructs and concepts from different disciplines to construct a theoretical framework and applies this framework when describing and analysing the World Trade Center Twin Tower buildings, the multiplicity of hundreds of World Trade Centers, and when conceptualising elements of World Trade Centerness as a synthesis of the previous observations. In this examination, the Twin Towers are used as a case study for the analysis of how architecture enables buildings to acquire agency within the current global system. It uses empirical data to show the global development of World Trade Centers. Mapping World Trade Centers and establishing criteria to compare, interrelate and see patterns of World Trade Center development allows, in comparison to the thick description of the Twin Towers, a synthesis, in which elements of World Trade Centerness can be qualitatively elaborated and conceptualised as a phenomenon within the context of the current global system.

#### 1. Research approach

This dissertation suggests that the phenomenon of World Trade Centerness — the serialisation of a specific agency of the World Trade Center Twin Towers within the current global system, utilised by the World Trade Centers Association — exists. It assumes, that the paradigm shift in global culture at the beginning of the 1970s as an effect of the end of the Bretton Woods system enabled a global culture, of which World Trade Centerness is part of. To test this assumption, this dissertation is taking an abductive research approach, throughout which it will identify elements of World Trade Centerness and show, how these elements enable architecture to stabilise an unstable global system. A phenomenon such as World Trade Centerness emerges within a certain context, which is in the case of this dissertation the current global system. By observing relevant conditions that created this context and its underlying agencies and processes, it seeks to get a broader understanding of the agency of architecture within the global system using the case of the Twin Towers.

Abductive validation is an inferring process which uses a result as an explanation for the consequence, thus affirming the consequent. The abductive research process occurs as a successive approximation in search for the best available observation. The validation process of abductive reasoning combines deductive and inductive approaches (Fig. 5). Starting with an observation that is backed by theory and literature, the empirical world is being tested in a deductive process. Next, empirical findings are tested in return by theory, thus creating a process which oscillates between theoretical framework and empirical database. Accumulating evidence from various angles and fields, the initial assumption is validated by collecting a critical amount of evidence. This dissertation uses an abductive approach, since it relates theoretical positions to the real world of the multiplicity of World Trade Centers. Its initiating point is the observation of the paradox of the Twin Towers' high iconicity and the unknown of the multiplicity of existing World Trade Centers as well as the clandestine existence of the World Trade Centers Association. From there, it collects evidence in order to be able to filter and describe elements of World Trade Centerness, oscillating between theoretical framework, the case of the Twin Towers and the empiricism of the World Trade Center network (Fig. 5).1

Taking an abductive research approach means finding, describing and explaining a series of yet unrelated facts which are assumed to amount to the phenomenon of World Trade Centerness, utilising architectural knowledge as well as knowledge from other research disciplines, such as sociology, economics, geography, linguistics or philosophy. This comparative and interdisciplinary approach is necessary to find intersections, patterns and correlation which, in its whole, provide enough evidence to validate the phenomenon of World Trade Centerness. This interdisciplinary approach offers an opportunity by spanning a wider field and offering more and new perspectives about how the phenomenon comes into being and how it works. The agency of architecture cannot as easily be seen from inside architectural knowledge rather than in combination with outside perspectives.

#### 2. Methods used

Both qualitative and quantitative methods are applied when approaching the phenomenon of World Trade Centerness, a combination of inductive and deductive reasoning is undertaken within the abductive research setup. Considering the research fields as described above, different methods are utilised for each specific research field.

In chapter III, this dissertation develops a theoretical framework out of a literature review and defines key concepts, which will be utilised when describing and analysing the Twin Towers and exploring and identifying elements of World Trade Centerness. The theoretical framework will test the findings deriving from the observation of the Twin Towers as well as the mapping and observation of the multiplicity of World Trade Centers and the World Trade Centers Association. In reverse, empirical data and information found from the case study and the mapping of World Trade Centers will test the arguments made when setting up the theoretical framework.

This dissertation uses the World Trade Center Twin Towers as a case study to observe how elements of World Trade Centerness have evolved throughout the process of globalisation. Furthermore, it uses the Twin Towers as a case study to show the agency of architecture within the current global system, arguing, that they are stabilising an unstable system. In the introduction to this dissertation, a case study profile has been given and the focus of interest in the knowledge available about the Twin Towers has been outlined. The first of three main chapters in this dissertation, chapter IV, will study the Twin Towers as a case, describing and contextualising them as buildings within their specific position, in their specific morphologies and their timely context. A thick description is necessary to widen the view and include relevant economic, social, cultural and political aspects. The global scale, the ' worlding' aspect of the Twin Towers, as much as the 'grounding' aspect, their local urban context, needs to be considered. Last, the transformative agency concerning the Twin Towers' multifaceted, often ambiguous identities needs to be described as well as their agency to transform identities others than their own. As nodes within the global system, their need to be analysed in terms of how they channel cultural practices as well as what it is that they channel, transport and transform. To make these observations, the planning period throughout the 1960s needs to be viewed. In light of the starting point in this dissertation, the consideration of the end of the Bretton Woods system as a paradigm shift in global culture and the timely coincidence of the Twin Towers' completion, a main focus will be on the first decade of the Twin Towers' existence, the 1970s, a contextualisation of their destruction in 2001 is relevant as well as their agency post-mortem. Here, the dissertation sets a timely boundary to its observation in the year 2016, the declared end of neoliberalism and the election of Donald Trump as President of the United States.

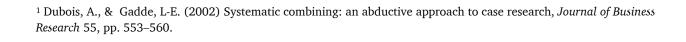
The inductive approach described above will be matched with a deductive approach when compiling a World Trade Center database. The database in the appendix of this dissertation consist of tables with information about World Trade Center development within the research time frame. It lists 258 out of 325 World Trade Centers that exist worldwide according to the World Trade Centers Association at the time of compiling the database, according to when they opened and where they are positioned on a world map. Furthermore, they are grouped according to their morphologies and positionalities within their local context. The information compiled in the database is used to map the multiplicity of World Trade Centers in chapter V, in which, the multiplicity of World Trade Center is, in an inductive step, qualitatively analysed and contextualised under similar criteria as the Twin Towers are scrutinised in chapter IV. Last, in chapter VI, elements of World Trade Centerness will be laid out in a qualitative synthesis, describing and analysing the phenomenon of World Trade Centerness by merging quantitative and qualitative findings from the previous chapters. In this way, context, processes and agencies involved in the emergence of the phenomenon of World Trade Centerness can be explained.

#### 3. Limitations

This dissertation is taking an interdisciplinary approach to gain a wide angle when observing the phenomenon of World Trade Centerness. Knowledge from other disciplines needs to be added to the knowledge of architecture, in order to gain a larger perspective and find information, that could not be seen through the exclusive lens of architectural knowledge. Different research fields such as buildings, a global organisation, a global network as well as global infrastructure as a spatial and cultural category are observed. The political, social and economic context is considered when describing cultural conditions of the current global system and the agency of architecture. The approach taken focuses on width under the premise to observe as many indicators as possible, thus forgoing at times a more in-depth scrutinisation.

A further limitation to this dissertation is the accessibility and availability to information about the World Trade Centers Association and the World Trade Centers. A lot of documents concerning the transfer of the name rights from Port Authority to the World Trade Centers Association were destroyed with the Twin Towers, were the archives of both organisations were located. Furthermore, the World Trade Centers Association has kept this transaction secret over a period of 27 years — from 1986

until 2013, and has avoided disseminating or publishing most information relevant to this dissertation. The World Trade Centers Association has not responded to interview requests; most information available is hidden behind a membership wall. A similar limitation to access and availability of information exists concerning the World Trade Centers. Since most World Trade Centers that have been planned and realised since 1973 have not been designed by known architects, they have rarely been recorded in architectural publishing or portfolios of architectural firms. Thus, many World Trade Centers that no longer exist are not part of the World Trade Center database, which only depicts the information provided on the website of the World Trade Centers Association during the time when the database was complete. In summary, it has to be stated that the World Trade Center data base is neither complete nor neutral; it still is considered a valuable and necessary source in this dissertation, since it provides enough information to allow conclusions about the quantitative and qualitative conditions of World Trade Centers.



#### III. LITERATURE REVIEW: THEORETICAL FRAMEWORK AND KEY CONCEPTS

This chapter provides a review of the literature used and spans the theoretical framework with its key concepts relevant to the research objectives. As outlined when explaining the abductive approach taken in this dissertation in chapter II, the theoretical framework and its key concepts will test empirical findings when scrutinising the Twin Towers and the multiplicity of World Trade Centers in order to explore elements of World Trade Centerness. While literature resources used to describe and analyse the Twin Towers have been outlined in the case study profile given in chapter I, this literature review focuses on the cultural conditions of the current global system, since this is the cultural context within which the phenomenon of World Trade Centerness is conceptualised.

The literature review therefore introduces four aspects relevant when investigating the agency of architecture in the current global system, based on its initial assumption, that the end of the Bretton Woods system marks a paradigm shift in global culture and initiated a corresponding process of globalisation. First, the use of terminologies will be explained and its position as both context and object, *explanans* and *explanandum*, will be specified. Second, cultural theories from an interrelating disciplinary background that observed the paradigm shift in global culture as a result of the economic conditions post Bretton Woods will be outlined. Third, positions in architectural theory that focus on the interrelation between architecture and economic conditions will be presented and, fourth, literature concerning the scrutinisation of architecture and agency will be shown. The literature review will conclude with key concepts derived from the four interrelating fields and it will be explained, how they will be operationalised throughout the course of this dissertation when exploring and explaining elements of World Trade Centerness.

To lay out a wider theoretical field that provides a broader set of tools when explaining the phenomenon of World Trade Centerness within the context of the current global system, this dissertation works with theories utilised by multiple scholarly disciplines that share their interest in the interrelation of cultural, social, economic and political aspects of architecture and the built environment. Other than utilising theories in the field of architectural and cultural theory — in which this dissertation is grounded — it borrows views from disciplines such as political economy, financial geography, urban geography, urban sociology, critical geography, critical theory and ethnology.

The theoretical framework is anchored within the argumentation that the politicaleconomic circumstances since the beginning of the 1970s initiated a cultural change with an all-embracing global reach. This observation has been made in response to the cultural-economic shift in the early 1970s by a heterogenous group of cultural theoreticians and critiques coming from various disciplinary backgrounds and formulating their criticism in differentiating, contradicting, complementing or supporting each other's argument and work. The theories framing this research are grounded in the thinking of Marxism and Critical Theory, postmodernism, poststructuralism, semiotics and materialism. All of these movements are to some extent concerned with the conditions of the global system since the beginning of the 1970s. This research seeks to extract key theoretical concepts from this group of theories to utilise them when exploring and explaining the phenomenon of World Trade Centerness as repercussions of the Twin Towers, thus providing knowledge about the agency of architecture within the current global system with the case of the World Trade Center Twin Towers. It is important to stress that it is not the aim of this theoretical framework to match the architecture of the Twin Towers with specific categories. Rather, they are tools to explore and explain the Twin Towers in relation to the multiplicity of World Trade Centers:

"Defining a building as modern or postmodern, high tech or traditional Welsh or German, will not help us understand architecture. Yet, keeping a diary of the controversies that surround its design and construction, and meticulously accounting for the related event allows us to ethnographically report on what has happened in, around, and related to, this building."

## 1. Which global system?

This dissertation argues that the World Trade Center Twin Towers represent not only global trade, but the global system itself. It argues further that the Twin Towers have a stabilising agency within the current unstable global system. It exemplifies this argumentation by exploring and explaining the phenomenon of World Trade Centerness. In this chapter, the terminology used when referring to the current global system is explained and its position as both context and object, *explanans* and *explanandum*, is specified. Many theories and definitions concerning concepts of globalisation exist in the fields of economic, political and social studies. While many approaches at first regard globalisation as an economic phenomenon as seen in the internationalisation of businesses for example, approaches most relevant for this dissertation are the analysis of globalisation from cultural perspectives, scrutinising particular conditions that evolve from economic and political aspects of globalisation,

as undertaken for example by Roland Robertson.<sup>2</sup> This dissertation uses the term global system as coined by Barrie Axford when referring to the current process of globalisation since the beginning of the 1970s.3 It seems to best describe the intersectionality of economic, social and political elements involved in the process of globalisation and the conditions that emerge from this fluid and unstable hybridisation of cultures as a result of the interactions between local and global cultures.4 Much literature in globalisation studies equalises globalisation with a certain era or age, such as the Oil Age or the American Age. While this conclusion seems evident considering the subject and time frame of this dissertation, its positionality is the following: even though it thematises the Oil Age and the American Age and uses these concepts in its reasoning; it does not, however, regard globalisation to be equal to Americanisation. While explanations and emphases differ, common grounds in globalisation studies most relevant in this dissertation will be briefly outlined in the following: Interconnectivity, accessibility, instabilities and financialisation. One of the most common notions is the one taken by Imanuel Wallerstein in his world system theory, that, societies relate and are shaped by their multiple connections within a process of globalisation.<sup>5</sup> The complex interconnectivity and the interrelation between the global and the local is a core element of globalisation. At the same time flows or mobilities of goods, people, ideas, money, commodities but also violence are interchanged via this connectivity, travelling via nodes within the system, in a process of worlding. This interconnectivity is based on the technical innovations provided by internet technology and the resulting role of media, as depicted in Marshall McLuhan's phrase of the 'global village'6 and as studied in-depth by Manuel Castells in the Network Society.<sup>7</sup> When studying the quality of global interconnectivities, throughout the past decades, their frequency and volume have increased, impacting almost all societal aspects. As an effect, protocols for processing global flows have increased8, and organisations and groups which promote, reject or control global interconnectivities have grown. Furthermore, as James Beckford describes, new ideologies of globalism are increasingly evident, shaping political and economic conditions.9 When describing interconnectivity as a key concept of the global system, the aspect of accessibility to the global system and the criteria involved for the participation in these interconnectivities has to be addressed as well. On an economic level, this means the formation of membership clubs and policies; on a political level, this concerns questions of identity and national boundaries regulating why and how citizens can participate in certain processes and under what conditions of equality. Furthermore, the aspect of the instability inherent to the global system is of high relevance to this dissertation. Instability addresses both the quality of interconnectivities,

contingencies, the processual and transformative character of the global system, its risk affinity and speculative character as best seen in the concept of fiat money. Theories addressing this aspect are for example the works of Ulrich Beck<sup>10</sup> and Zygmunt Bauman. Both Beck and Bauman, along with many others, also examine the concept of modernity in relation to the process of globalisation. Disruptions, shock, even processes of deglobalisation characterise the instability of the current global system; the destruction of the Twin Towers during the terror attacks on 9/11, for example, can be seen as such a disruption. The aspect most commonly regarded as fundamental to the current global system is that of financialisation. It includes increasing consumerism, commodification and marketisation; in fact "late capitalism" as terminology for the financialised global world is often equated with the current global system, as outlined in the following chapters III.2. and III.3. In addition, the spatialisation of finance within the current global system, as outlined in the following, is relevant to this dissertation.

# 2. Postmodernism and Marxist Critique

With the timely distance at the end of the 1980s and the beginning of the 1990s, the impact and effect of the global socio-economic changes in the 1970s could be observed and cultural phenomena in the context of the economic conditions since the end of the Gold Standard could be analysed. These observations and theory formations in cultural theory and criticism were grounded within the discourse of postmodernism and Marxist critique. Literature and theory emerging within this discourse originated from disciplines as divers as philosophy, sociology, linguistics, geography, economics or anthropology. While the postmodern discourse understandingly, considering the importance of semiology in postmodern thinking explicitly focused on symbolism and the meaning of architecture, generated by its iconicity, images and spectacularisation. Marxist critique focused rather on spatial and temporal transformations including the economic, political and societal effects. Postmodernism and Marxist critique are, however, strongly intertwined and it is not the intention in this dissertation to differentiate the two, rather, utilise the discourse and its key concepts within its theoretical framework in order to find explanations about the phenomenon of World Trade Centerness as a condition of the current global system. From the large amount of existing literature within this discourse, in the following, positions of David Harvey, Fredric Jameson and Jean Baudrillard that are relevant for this dissertation are outlined and given as examples. David Harvey, a Marxist geographer and Fredric Jameson, a philosopher and Marxist political theorist,

produced in 1990 and 1991 the most prominent observations of the cultural conditions in relation to the economic paradigm shift in the early 1970s, analysing *The Condition of Postmodernity*<sup>12</sup> and *The Cultural Logic of Late Capitalism*<sup>13</sup>. Jean Baudrillard, a sociologist and philosopher, provides a semiotic analysis of the cultural conditions of postmodernity. His concepts of simulacra, simulation and hyperreality will be utilised when conceptualising elements of World Trade Centerness. Harvey, Jameson and Baudrillard observe a "sea-change in cultural as well as in political-economic practices since around 1972", as David Harvey writes. He continues:

"This sea-change is bound with the emergence of a new dominant ways in which we experience space ands time. While simultaneity the shifting dimensions of time and space is no proof of necessary or causal connection, strong a priori grounds can be adduced for the proposition that there is some kind of necessary relation between the rise of postmodernist cultural forms, the mergence of more flexible modes of capital accumulation and a new round of ,time-space compression' in the organisation of capitalism. But these changes, when set against the basic rules of capitalistic accumulation, appear more as shifts in surface appearance rather than n as since of emergence of some entirely new postcapitalist or even postindustrial society."14

## In comparison, Fredric Jameson writes:

"Meanwhile, it is my sense that both levels in question, infrastructure and superstructures — the economic system and the cultural "structure of feeling" — somehow crystalized in the great shock of the crises of 1973 (the oil crisis, the end of the international gold standard, for all intents and purposes the end of the great wave of "wars on national liberation" and the beginning of the end off traditional communism), which, now that the dust clouds have rolled away, disclose the existence, already in place, of a strange new landscape: the landscape the essays in this book are trying to describe (...)."15

Jean Baudrillard, referring to the end of the Bretton Woods system and its replacement by a fluctuating interdependent global currency system:

"We now live in a world dominated by the free play of the ,monetary sign' that is beyond reference to any ,real' of production or even a monetary referent in the form of a gold standard. In this world, the idea of a ,real value (of equities, of commodities, of houses, of anything) is meaningless as what matters instead is nor value per se but ,infinite speculation'." <sup>16</sup>

Harvey, Jameson and Baudrillard all observe the cultural paradigm shift in conjunction with the economic transformations in the early 1970s, acknowledging a link between economic conditions and cultural phenomena. First, key concepts of Harvey's and Jameson's works will be outlined, before turning to Baudrillard. For Harvey and Jameson, the global system is a power system driven by ideologies,

operating in a sense of totality and working towards a unity of the global. In such a system, there is no otherness, no difference, no heterogeneity within. Within this world system, trade, global finance, consumerism and the commodification of almost everything is imperative. In front of the background of an ever-expanding global market and global competition, a trend to privatisation, the retreat of nation states and public organisations in favour of the strengthening of private entrepreneurism are features of the global system, they argue. In accordance with the interdependent and unable currency system, they outline the system's instabilities, contingencies, predisposition for crises and fluidity and describe architecture as a cultural action under these economic conditions. Fredric Jameson uses architecture to describe the postmodern condition, describing it as "spatial equivalent in the world system". To him, in postmodernity, the monumental in architecture is "Pittsburgh rather than the Parthenon".<sup>17</sup> His observation about the distinction between the inside and outside is useful for this dissertation, insofar as it describes the two-dimensionality versus the three-dimensionality, similar to how Beatriz Colomina describes this spatial relation later in Privacy and Publicity<sup>18</sup>. For Jameson,

"(...) the appetite for architecture today (...) must in reality be the appetite for something else:" (...) "I think it is an appetite for photography, what we want to consume today are not buildings themselves (...)."19

Comparing this representational character to currency:

"It is like the transition from precious metals to the credit card: the "bad new things" are no less expensive, and you no less consume their very value, but (...) it is the value of the photographic equipment you consume first and foremost, and not of its objects." 20

Jameson's concept of "wrapping" relates explicitly to architecture:

"Wrapping" can be seen as reaction to the disintegration that roe traditional concept Hegel called "ground", which passed into humanistic thought in there for named "context". (...)

What is wrapped can also be used as the wrapper; the wrapper can also be wrapped in its turn." (...)

What is also perpetuated by the strategy of the wrapper and the wrapped is the suggestion (...) that none of the parts are new, and it is repetition rather than radical innovation that is henceforth at stake."21

David Harvey's observations about architecture focuses on the financialisation and eventisation of urban space, which is useful when considering the development of the World Trade Center concept from the World Fair tradition and the redevelopment of Downtown Lower Manhattan:

"(...) It is understandable, given the grim history of deindustrialization and restructuring that left most major cities in the advanced capitalist world with few options except to compete with each other, mainly as finical, consumption and entertainment centres. Imaging a city through the organisation of spectacular urban spaces became a means to attract capital and people (of the right sort) in a period (since 1973) of intensified inter-urban competition and urban entrepreneurialism."<sup>22</sup>

Bearing in mind how postmodern architecture and writing is revolved around the media, iconicity and the spectacle and their provenance from semiotics and linguistics, it becomes clear how the political and the visual merge and the concept of representation becomes central to the condition of postmodernity, late capitalism and the global system that is subject to this research. The concept of representation is relevant in terms of how it represents economic conditions such as global trade and finance, but also economic or fiscal policies for example or conditions of labour. It is relevant in its function to re-present time: the convergence of re-presenting past and future simultaneously or what Harvey describes as "time-space" compression and by what he refers to the distorted relation of space and time due to for example internet technologies and image production. The concept of representation also becomes central to this research in terms of the image, iconicity and the two-dimensionality of architecture as a mere image producer.

With Simulacra and Simulation, Jean Baudrillard provides a key reference for the concept of representation in sign theory.<sup>23</sup> He describes the development from "real" representation of reality, to reproduction of reality in modernity and as an effect of the industrial revolution, as elaborated by Walter Benjamin<sup>24</sup>, and from there to the representation of a reality that only claims to be real, but is not. Last, with "simulacrum" he describes a "hyperreality" a representation that has no preceding original and that does not claim to have any. In 2002, Baudrillard published a volume with essays <sup>25</sup>, in which he depicts global terrorism as an effect of the global system. Due to its totality, the global accepts no other and hence asks for its own destruction. The World Trade Center Twin Towers, according to Baudrillard, were built as a symbol of the global totality and as such built to be destroyed. In detail, he describes the symbolic character of the terror attacks on September 11, 2001. He writes that "the two towers of the "World Trade Center" were perfect embodiments, in their very twinness, of that definitive order, "26 and that "the symbolic collapse of a whole system came about by an unpredictable complicity, as though the towers, by collapsing on their own, by committing suicide, had joined in to round off the effect."27 He concludes his essay Requiem for the Twin Towers:

"Moreover, also the two towers have disappeared, they have not been annihilated. Even in their pulverized state, they have left behind an intense awareness of their presence. No one who knew them can cease imagining them and the imprint they made on the skyline from all points of the city. Their end in material space has borne them off into a definitive imaginary space. By the grace of terrorism, the World Trade Center has become the world's most beautiful building — the eights wonder of the world."<sup>28</sup>

In the above, the positions of Jean Baudrillard, David Harvey and Fredric Jameson have been outlined in respect to the cultural system they describe as a result of the economic paradigm shift that occurred during the early 1970s with the end of the Gold Standard. Key concepts of their work relevant to this research have been introduced; it has been pointed out how themes such as iconicity, medialisation, image and spectacularism have travelled from semiotics and linguistics to postmodern authors and, in the context of how capital represents itself in society, to Marxist writing. Harvey, Jameson and Baudrillard have been selected as exemplary positions; throughout this dissertation, cultural theorists from postmodernism and Marxism will be referred to, such as Manuel Castells,<sup>29</sup> Henri Levebvre,<sup>30</sup> Umberto Eco, Charles Jencks<sup>31</sup> or Denise Scott Brown and Robert Venturi<sup>32</sup>.

# 3. Global capitalism in architectural theory

As shown, the preoccupation with and the criticism of the cultural conditions of late capitalism have emerged almost immediately as a response to the global paradigm shift at the onset of the 1970s. It can be observed, however, that the issue had hardly been a subject within the architectural discourse; rather, it had been thematised in mostly post-Marxist cultural criticism from within different disciplines, such as geography, economics, linguistics, philosophy and sociology. In these investigations, architecture, seen as a cultural practice, had served as an example of how economic conditions and cultural phenomena interrelate. Furthermore, considering the postmodern flavour for symbolism and iconicity, architecture had been a core subject to the postmodern discourse. This dissertation observes, that it was — without few exceptions — not before the global financial crisis in 2008, regarded as a key disruption point in the process of the current globalisation, that the interrelation of finance and economy had become a subject within the architectural research discipline. This dissertation regards The Death and Life of Great American Cities by Jane Jacobs(1961), Delirious New York. A Retroactive Manifesto for Manhattan by Rem Koolhaas (1978) and Carol Willis' Form Follows Finance (1995) as exceptions that need to be mentioned in the context of this work. Jane Jacobs, author, activist and

journalist at the intersection of urbanism and economics, had been a prominent activist against the Twin Towers' development and urban renewal of Lower Manhattan already during the Twin Towers' conception throughout the 1960s. *Death and Life of Great American Cities* served as a backdrop to the civil protests during the 1960s against the urban transformations under Robert Moses and the urban redevelopment of Lower Manhattan and the Twin Tower project, infiltrating social injustice and inequality on the cost of the financialisation of urban space.<sup>33</sup>

In the immediate aftermath of the 2007 global financial crisis, Tahl Kaminer,<sup>34</sup> Peggy Deamer<sup>35</sup> and Douglas Spencer<sup>36</sup> published volumes within the architectural discipline focusing on the history of architecture and economics (Peggy Deamer), the contextualisation of architectural knowledge and knowledge from disciplines that have been involved earlier in the critical observation of architecture and late capitalism (Spencer) in architectural theory and history, that focused explicitly on the agency of architecture within the global system of financialisation and its sociocultural impact on architecture, and, with Kaminer, in the discussion of architectural agency within post-Fordism. While Deamer starts her historic observation with the origins of modern capitalism in 1945, Spencer focuses on the time period starting around the 1970s and devotes his monograph to a critique of neoliberalism, thus focusing on the capitalist period of post-Keynesianism and post-Fordism.<sup>37</sup> While Spencer retraces theory formation in the context of architecture and critical theory, Deamer provides a history of architecture and capitalism. In a timeline, she relates socio-economic global events to the history of architecture, for example the lunar landing (1969), the end of the gold standard (1971), the oil crisis (1970), the incorporation of Microsoft (1975), the award of the Nobel Prize for economics to Milton Friedman (1975) or the fall of the Berlin Wall (1989). Since then, the preoccupation of architecture with the conditions provided by late capitalism, neoliberalism, post-Fordism or post-Keynesianism, considered as constituting for the current global system, has only increased.

In the following, key positions in recent architectural theory concerning the connection between late capitalism and architecture are presented. With the example of Reinhold Martin, Keller Easterling and Beatriz Colomina it will be shown how contemporary architectural theory relates to the concepts elaborated earlier and from outside architectural knowledge by Harvey, Jameson and Baudrillard and if and how these concepts, for example representation, medialisation or commodification are observed differently in recent architectural theory. Reinhold Martin reiterates in *Utopia's Ghost: Architecture and Postmodernism, Again*<sup>38</sup> key positions of postmodern

theory both in respect to the role of architecture within this theory formation as well as how postmodern culture might have affected architecture in its wider societal complex throughout the past decades. Like Harvey, Jameson, Baudrillard and others, he, too, identifies the beginning of the 1970s as a turning point and looks at the "multidisciplinary nexus in which the postmodern and its progeny continue to circulate, sometimes in barely recognizable form."39 He is interested not only in the formal aspects of postmodern architecture, but in particular in its discursive forms and how it has emerged throughout the past decades as "generalized cultural assemblage". He directly refers to cultural theorists that had adduced architectural examples in the mid-1980s to define the cultural assemblage of postmodernism, such as Harvey and Jameson. He picks up some of Harvey's, Jameson's and Baudrillard's key concepts such as territory, the role of the mirror, inside/outside, or the meaning of the centre. He re-reads their arguments: "by the mid-1980s, "postmodernism" had come to designate a discursive formation. In architecture, this formation reorganised a number of key concepts", Martin relates "objects with events and phenomena in the political, social, and economic domains — not to contextualise the architecture but to decontextualise it with respect to existing narratives. "40 When describing "topology as aspatial/territorial imaginary that both brackets and reproduces the real 41, he points at what will be described in this chapter as the problem of representation, the doublecoding of architecture as material and meaning: "The emergent critique of representation suggested that all such choices were ultimately contingent upon forces to which the author/actor/agent had by definition only limited access, if any. It is no surprise, then, that the relation between cultural forms and historical truth was problematised in architecture largely by way of experiments with representation."42 He depicts the categories of representation and material production as axially situated:

"At the threshold pf postmodernity, aesthetic experience — including meaning, affect and the representational codes they entail — is coterminal with the sphere of production and with the organisation of everyday life. Here architecture, as a form of "immaterial production", fully materialized, stands at what we can call a crux of postmodernism, operating simultaneously along and axis of representation and an axis of production."

"The economic never simply precedes the cultural (or the social for that matter), nor does it simply follow it. Instead, the different levels reflect and refract one another, along the axes of representation and of production with which I began."

Martin examines in the role of architecture within the global system and how it participates in its underling power play. "To speak, as I do, of architecture's immanence is to identify an apparent paradox running through my argument.

Namely, that architecture's participation in heterogenous networks of power, including biopower, actually increases with its withdrawal into private games played in an esoteric literature.(...) "This is how to understand architecture's "autonomy". It is how architecture makes power real, rather than the other way round."<sup>44</sup> Rereading key cultural concepts through the lens of architecture, Martin, unlike cultural theoreticians such as Harvey and Jameson, is, due to his timely position, much more able to associate the cultural and economic transformations associated with postmodernism with the term globalisation:

"In this and other respects, postmodern architecture's aesthetic project is inseparable from the cold war and the rise of western consumerism, as well as from the intertwined sets of relationships gathered together under the term globalisation." (...)

"Architecture is among globalisation's outputs, but it is also among its inputs."45

Throughout her work, Keller Easterling investigates the interrelation between architecture and global infrastructure. For her, who already in her first book publication demonstrated her vicinity to network theory, design and organisational space or infrastructure space are identical. In Organisation Space: Landscapes, Highways, and Houses in America she describes the "protocols" that define the formation of global infrastructures, and explores the linkage between communication networks and corporate and spatial organisation.<sup>46</sup> In Enduring Innocence: Global Architecture and its Political masquerades<sup>47</sup> she focuses on "spatial products" by which she means "familiar commercial formulas that index the world by marketing or scheduling protocols, thus presumably avoiding the political inconveniences of location. They are generally considered to be the Teflon formats of neoliberal enterprises. Architects often treat them as banal or unresponsive to recognized systems of architectural language, and indeed architecture is, for these formats, often only a by-product of data and logistics"48. Here, she describes architecture as a medium, an "open platform storing both structure and content. The information it stores, as both data and persuasion, is literally a product, property, or currency."49 For her, unlike the common notation of 'world' as a global unity or totality, "World is a plural condition. There is no one world — only many worlds. Worlds share no single logic, but proliferate as multiple monotheisms of retail or trade in a totemic market".50 In a chapter derived from this book, she directly refers to the Twin Towers as the World Trade Center: "On September 11, a terrorist network, inhabiting this familiar, denationalized territory, declared architecture — as building structure and as urbanism — to a primary adversary or rival on the pirate sea. By translating the static envelopes of buildings and the conventions of urbanism into an apparatus of war, the attacks revealed a latent political agency for architecture."51 She describes the World

Trade Center Twin Towers as a "symmetrical, serial organisation rather than a parallel organisation". This dissertation regards the symmetry and serial organisation of the Twin Tower buildings, Tower 1 and Tower 2, as the first two elements within the range of the development of hundreds of World Trade Centers. In her book, Extrastatecraft: The Power of Infrastructure Space<sup>52</sup>, Easterling describes the interrelation of space, power and politics; her interest lies in decoding the protocols of how the global infrastructure operates as a system. Again, she describes architecture as a medium and actor, as a container of information and information itself. She describes "zones" beyond the national state category, for example the "free zone" beyond state jurisdiction, almost no-name architectures, yet essential agents within the global infrastructure. With putting the "operating system" in her focus, she intends to describe and analyse how the global system works, what its underlying power structures are how architecture and the built environment is being instrumentalised within this system. Unlike research interested in globally visible iconic star architecture, Easterling investigates the agency of often invisible, yet powerful and spatially large-scaled infrastructures within the architectural realm, such as commercial centres.

Beatriz Colomina's examinations of photography and modern architecture, the relation between interior/exterior, public/private, inside/outside leads to one of her key arguments, in which she proclaims modern architecture as mass media. In her chapter *Media as Modern Architecture* she takes the example of the artist Thomas Demand's work to describe how and why modern architecture is produced as a two-dimensional image rather than as three-dimensional space. Thomas Demand builds paper models of 'famous' spaces, architectures that become known through the media because of relevant events, often related to politics, crime or scandals that took place. Photographs taken from these models are his artworks — the models are being destroyed after their use: Demand builds the architecture of images, argues Colomina, exactly the other way round to how she sees architectural production:

"More significantly, I find myself in an asymmetrical position to Thomas Demand, since I have been arguing for some time now that modern architecture is a form of media, that is not just a set of buildings in the streets but is built as image in the pages of magazines and newspapers."53

For Colomina, modern architecture is staged architecture, architects construct images as space, their project is the image. In its dematerialised condition, architecture can 'travel', can be multiplied and disengaged with its ground:

"Media was transforming architecture into an image to be circulated around the world. Under the advent of photography and the illustrated magazine, never had so many people become intimately familiar with so many buildings they would never see. (...) The impact of the images has been so transformative that even when in presence of an actual building, visitors inevitably see it through the lens of the mages they already know trying to match it to the images, attempting to reproduce canonical photographs in their snapshots."54

Colomina sees in postmodernism's view of architecture as a sign, communication and as such culture a dematerialisation of the building itself, and thus a withdrawal from societal realities. Tahl Kaminer refers to a "shift" in the 1970s in his review of Colomina's *Privacy and Publicity: Modern Architecture as Mass Media*:55

"It is reasonable to attribute this shift to the late twentieth-century expansion in media available to and used by architects; however, it can also be seen as an implicit rejection of the idea of architecture as agency and therefore related to the architectural retreat from social concerns into the realm of culture, beginning with the dissipation of modernism three decades ago.(...) "as long as the architectural discipline continues to understand its production merely in terms of cultural representation, it will remain 'locked' in a hall of mirrors." 56

Architecture being an image and mass media, it becomes dematerialised and reduced to the representation of the real. The high weight in the architecture on the significance of meaning and signage comes, argues Colomina, with the cost of architecture's social and material agency.

## 4. Architecture and agency

It has been shown in the above how theory formation in social and cultural studies occurred as a response to the economic and political paradigm shift at the beginning of the 1970s, with the end of Bretton Woods having a key impact next to factors such as the innovation of internet technology. In postmodern and critical Marxist theories, certain concepts have been shown to be characteristic for the global system as it emerged from this paradigm shift, such as for example iconicity, spectacularity, commodification or representation. In cultural studies during the second half of the twentieth century, it has prevailed to describe shifts in the understanding of culture as cultural turns; in this line of thinking, the postmodern and Marxist theories introduced represent what has been coined linguistic turn or iconic turn. Over time, in the process of globalisation and in the process of the understanding of it, a material turn has occurred in cultural studies, in which cultural phenomena are seen as interrelated and contingent processes, rather than reducing them solemnly to

signifiers of meaning. This dissertation does not operationalise the concept of cultural turns, it also does not seek to polarise iconic and material turn. Rather, it recognises that throughout the process of globalisation, knowledge and understanding of the current global system has widened and transformed. Thus, postmodern and materialist viewpoints are regarded as different but not contrary. Understanding architecture in the context of the current global system, neither point of view can be disregarded and is instead seen in its temporal sequence as well as how they complement each other based on the knowledge available today. The shift in the cultural understanding can be best exemplified with the "crisis of representation" and its effect on how the role of architecture is understood within the global system. Within the architectural discourse, the "crisis of representation" is reflected in the recognition that architecture cannot be reduced to a visual symbol of meaning that explains societal conditions; rather, architecture needs to be seen in its complex material reality and interdependencies.

The interplay of the material and symbolic resonates throughout this dissertation, as it observes a process within a timespan from 1973 until 2016. In line with positions from within architectural knowledge such as those taken by Reinhold Martin, Dominik Bartmanski and Jeffrey C. Alexander or Anthony Vidler, it regards the materialist point of view as useful in critically observing the spectacularisation and iconisation that has guided architectural production throughout the past decades. Most importantly, when critically observing context and effects of architecture within the global system and asking how the Twin Towers could be utilised as a tool to stabilise the global system, the processual and the interplay of actors involved is necessary. Martin Reinhold<sup>58</sup> situates representation and production along two axes:

"Rather than see architecture or urban space as a network of meanings, we might pay closer attention to how architecture or urban space makes meaning. Spectacular skylines, pipelines, parks, camps, and villages: all of these operate infra structurally, as representation machines. The question is not what they mean but how they mean." <sup>59</sup>

# Dominik Bartmanski and Geoffrey C. Alexander write:

"But icons exist not only in the re- mode — representing, reflecting, refracting. They are also actants, seeming to possess volitional qualities relative to human ways of being."  $^{60}$ 

While in postmodern and Marxist critique, architecture has been seen as a sign and spectacle representing capital, as coined by Guy Debord in *Society of the Spectacle*<sup>61</sup>, theoreticians in architecture have come to realise the reciprocal effect of architecture

representing capital — that the "spectacle is an image accumulated to the point where it becomes capital", as Anthony Vidler argues in the introduction to the edited volume *Architecture between Spectacle and Use*,62 thus acknowledging the agency of architecture. This dissertation argues, that the agency of architecture enables the instrumentalisation of buildings. Observing the effects of the Twin Towers and exploring why and how one of their effects is the emergence of hundreds of World Trade Centers and its utilisation by the World Trade Centers Association, the buildings need to be seen as a transformative process within the process of globalisation, its context. Critically observing the correlation between architecture and power structures — political, economic, ideological — requires their spatial and timely contextualisation.

Turning towards the methodological and philosophical approach of the Actor-Network-Theory, theoreticians in architecture observe buildings as processes and agents within an interrelated network, seeking to verbalise the complex effects and interrelations of architecture, thus abandoning the notion of architecture as an autonomous discipline as well as its heroism, depicted in the perception of the author-architect. In the following, the positions of Jeremy Till and Albena Yaneva are outlined as examples of how architectural agency is delineated within architectural knowledge. Jeremy Till's discussion of the agency of architecture starts with an epistemological approach by ascribing the dual meaning of the term *architecture*:

"(...) it refers to both the professional activity and also to the outputs of that activity, the stuff out there that elevates itself above mere building. Architects thus presume to define, and so control, the whole field of architecture from its internal processes to its external products." <sup>63</sup>

For Till, this assumption is only possible when conflating architectural knowledge, profession, product and practice. He argues to abandon "the apparent security and stability of the self-defined domain of the profession into a much less stable and predictable set of conditions." Till suggests, speaking with Zygmunt Bauman, architecture as rather interpretative than legislative and thus acknowledging the transformative agency of architecture. By acknowledging the contingent interrelations architecture is entangled with and the observation how architecture enacts and how it does not enact or might otherwise act, opens the possibility for criticality and thus the empowerment of architecture.

Albena Yaneva refers in her work to the Actor-Network-Theory and to the sociologist Bruno Latour, whose name is most prominently associated with science and technology studies and the Actor-Network-Theory. Yaneva writes:

"Architecture is, however, adjectival in nature. Not architecture but the architectural. Architectural as a type of connector. (...) "Following architectural process unfold means to follow what kinds of trails of associations among heterogenous elements they shape."

In her book, Mapping Controversies in Architecture, she positions herself against the modernist bifurcation between subject and object, cause and effect, building and society and sees in the utilisation of an Actor-Network-Theory-based approach the possibility to tackle buildings in a "non-representational way", not in terms of what they mean, but rather how thy mean.<sup>68</sup> This approach is non-heroic, since it does not trace back meaning to the intention of a single architect, but rather as an effect of a process brought together by many different actors. As outlined when given the case study profile in chapter I.3., Minoru Yamasaki's marginal role in correlation with the multiple stakeholders involved in the conceptualisation and utilisation of the Twin Towers confirms this observation. Consequently, the approach taken by Yaneva follows the ethnographic approach of a thick description. To take this approach, Yaneva proposes the application of mapping to describe architectural objects, processes and practices and to capture the complexity of phenomena.<sup>69</sup> Mapping also allows for the inclusion of time instead of viewing architecture as a static spatial object: "following how architectural processes unfold means to follow what kinds of trails or associations among heterogeneous elements they shape. "70 In this approach, society and culture are not considered abstract constructs opposed to the architectural object. Instead, "the social, the cultural and the economic are underlying dimensions of architectural processes that can only be grasped by following how they unfold."71 When observing the Twin Towers in relation to the global system and the processes they set off during the process of globalisation, the observation of architectural agency allows to understand how the Twin Towers and the network of World Trade Centers operate, why and how they are positioned and how they transform their context.

## 5. Summary and conclusion

This literature review provided a theoretical framework for this dissertation and elaborated key concepts, which will be operationalised through the course of the exploration and explanation of the phenomenon of World Trade Centerness as a condition representative to the current global system. It introduced main theoretical approaches in the context of architecture and economy within the current global system and outlined how these positions intersect. Key concepts of these theoretical

positions serve as a common thread when describing and conceptualising the phenomenon of World Trade Centerness and architecture as stabilising element within an unstable current global system.

The key concepts relevant to this dissertation can be categorised under four different aspects: globality, economy, visuality and agency (Fig. 6). All categories interrelate and reflect the perception of a global system that consists of a field (the global), nodes (cities, ,points', hubs, visible elements) and infrastructure (connecting the nodes within the field). Concepts around a newly emerging globality due to the socioeconomic paradigm shift have emerged in cultural theories in response to the events shaping the world in the 1970s. They are concepts of connectivity, territoriality as well as deterritoriality, unity and centerness. Concepts discussed in the context of economy are concepts of commodification, privatisation and marketisation. Within the category of visuality, the concepts relevant to this research are the concept of representation, medialisation, spectacularity and iconicity. Within the category of agency, the concepts of ambiguity, stability as well as instability, positionality, and identity will be focused on. Concepts from all four categories introduced relate to each other. For example, the end of the gold standard and the onset of an interdependent and unstable global currency system was key in the establishment of a global market as it operates today, resulting in global competition, which lead to the need to become visual on the global stage. With the global system being grounded on unstable connectivities and connected via staggering exchange rates, crises, uncertainties and instabilities became a reality affecting all sorts of interactions, planning and decision making. All these categories relate to the 'new' world trade as it emerged in the early 1970s and as it was meant to be symbolized by the World Trade Center Twin Towers that opened in New York at around the same time.

The following research gaps in literature could be observed: due to their strong iconicity, the World Trade Center Twin Towers are largely viewed in their symbolism and as a representation of world trade, the United States or the global system. Rarely, their long-term impact and effect on the global system has been looked at. While buildings ar usually analysed regarding the impact and effect they have on their immediate spatial context, for example the urban environment, there is a lack of research that investigates the impact on a global scale.

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- <sup>20</sup> ibid., p. 99.
- <sup>21</sup> ibid., pp.103 104
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#### IV. THE TWIN TOWERS: WORLD TRADE CENTER 1, 2

"Who's afraid of the big, bad buildings? Everyone, because there are so many things about gigantism that we just don't know. The gamble of triumph or tragedy at this scale — and ultimately it is a gamble — demands an extraordinary payoff. The trade center towers could be the start of a new skyscraper age or the biggest tombstones in the world."

Ada Louis Huxtable's critique published in 1966 in the New York Times during the construction period of the Twin Towers is one of many examples of the widespread refusal of the Twin Towers during their time of conception and completion. How does bad architecture go together with the Twin Towers' enormous fame and iconicity, which they started to obtain during the second half of the 1970s? Prior to the completion of the Twin Towers, Huxtable's assessment cited above shows the potential of agency as well as its contingency and one of the buildings' ambiguities — controversies, to speak with Yaneva: They could be either an opportunity or a threat, an affirmation or a void.

The first of three main chapters in this dissertation, the following chapter focuses on the World Trade Center Twin Tower buildings in New York. It describes and analyses why and how the Twin Tower buildings became to represent the global system and what they provide as buildings for them to have been instrumentalised by the World Trade Centers Association as the organisations' trademark and symbol of global trade. It explores what aspects of the Twin Towers contributed to the development of hundreds of World Trade Centers, all of them referring to the Twin Towers as the original' World Trade Center.<sup>2</sup> This dissertation provides first an understanding of the World Trade Center Twin Towers as architecture and buildings, before, in the second main part, mapping the multiplicity of existing World Trade Centers and analysing their interrelation with the World Trade Centers Association (Chapter V). In the third main part, elements of World Trade Centerness are conceptualised as a result of this contextualisation (Chapter VI). As shown in the case study profile of the introduction to this dissertation, a large amount of knowledge exists about the Twin Towers given their strong iconicity and fame and, furthermore, their destruction during the terror attacks on 9/11.

Chapter III outlined the condition of the current global system; key elements described among others were spatial financialisation, commodification, spectacularisation and instability. In order to explore evidence about the Twin Towers' agency within the current global system, chapter IV observes the Twin Towers within

its ambiguous condition of being both concrete and currency, both physical building and fluid money. Furthermore, it observes the Twin Towers' agency as nodes to channel information within the current global system, identifying four intersecting categories of information channelled: traffic and trade; tourism and terrorism.

This chapter describes and analyses the transformative and self-transforming quality of the Twin Tower buildings in their spatial and timely dimensions and regards this as exemplary for a cultural process that was initiated simultaneously with the Twin Towers' conception and realisation. In this way, explanations can be found in a two-fold way: first, about the complex agency of the Twin Tower buildings in their social, economic and political dimension; second, the buildings can be seen as a contemporary witness of the cultural transformations that took place throughout the last decades, looking at the socio-material context of the buildings and the transformations and cultural processes they were involved in. This chapter reduces the Twin Towers neither to their iconicity nor symbolism, but rather, to speak with Albena Yaneva et al., looks at the multiplicity of identities and agencies both on a vertical axis of time, as well as on a horizontal axis of complex and multiple coexisting identities, treating the Twin Towers as a "pertinent ethnographic object" and *mapping* them as "the art of describing architectural objects, processes and practices".3

## 1. Buildings

Buildings are considered to be stable per se: they are real and solid; in order to stand, they are constructed in a stable way. They are three-dimensional structures whose interior and exterior spaces (Images 14, 15) are being used, inhabited, worked in and visited by people. At the same time, they are also visible objects within the cityscape and as images; as such, they create meaning. In this chapter, the World Trade Center Twin Tower buildings will be described and analysed as physical bodies, thus with a focus on their morphology, use and positionality. With *exterior*, it describes the Twin Towers' morphologies as visible volumes as seen from the outside within the urban and — via image dissemination — the global context. With *interior*, it describes what is not seen from the outside, their use. *Interior* and *exterior* refer to Beatriz Colomina's analysis of the two-dimensionality of architecture.<sup>4</sup> This widened lens is useful to capture a larger context of the buildings compared to an analysis reduced to their architectural design only. By the end of this chapter, a greater understanding should be evident of how the buildings' physicality and architecture eventually

contributed to the Twin Towers' instrumentalisation as a representation of world trade and the global system.

#### 1.1. Exterior

The significance of the Twin Towers' morphology can be most understood, when recalling the public processing of their loss after their destruction during the terrorist attacks on 9/11, as presented for example in the *Tribute in Light Installation*, an annual art installation of searchlights reaching into the sky at the former Twin Towers site, creating two vertical columns representing the Twin Towers' morphologies.<sup>5</sup> Furthermore, as Lipton and Glanz observe, during the aftermaths of the terrorist attacks, next to the mourning of the loss of thousands of lives, the buildings themselves were being mourned as if they were bodies.<sup>6</sup> The Twin Towers are mostly characterised by their monolithic forms, doubled by their twinness, as well as by their disproportionate height. A monolithic volume is defined as a large, often tall block standing by itself and being independent, powerful, stable to the point of inflexibility and disengaged with its surroundings. The twinness of the building volumes seems to double this stability, almost as a double negation, evoking, in Baudrillard's interpretation, destabilisation:

"In the case of the Twin Towers, something particular is added: precisely their symmetry and their twin-ness. There is, admittedly, in this cloning and perfect symmetry an esthetic quality, a kind of perfect crime against form, a tautology of form which ca give rise, in. A violent reaction, to the temptation to break that symmetry, to restore an asymmetry, and hence a singularity."

The monolithic appearance had been emphasised by the materiality of the facade — from afar, the steel and glass shell gave the volumes a slick and polished surface, often, when reflected by sunlight, appearing as glass with dazzling mirror effects for the spectator, giving the impression of hermetically closed blocks. Like a plain screen, the facades were empty, plain, boring, yet or because of their flatness, open to be charged with meaning and (self-)reflections. In fact, in their ability for reflection, the facade can be interpreted as an anticipation of the curtain wall facade, which became synonymous for a globally homogenous corporate business architecture throughout the process of globalisation. From their conception on, the Twin Towers were judged by their critiques as plain and generic, in great discrepancy to the heroic ambition behind their conception. Even their twinness had been regarded as repetition, self-reference, self-reflection.<sup>8</sup> The monolithic form of the Twin Towers in combination with their exceptional height and their ambitious disproportions has

often led to the ascription to the Twin Towers of being a monument. By definition, monuments are buildings or structures that are built in honour of particular people or events9. In that sense, this research ascribes monumentality as an attribute to the Twin Towers without categorising it as a monument; however, it suggests that they became a monument post-mortem, as a memorial ground, they resemble, compressed into ground zero, self-mourning physical bodies. A more complex interpretation of the Twin Towers' monumentality derives from reading Roland Barthes' description of the Eiffel Tower. In Barthes' description of the Eiffel Tower as a monument, he describes it as a "present to the entire world", as a "pure — virtually empty — sign — is ineluctable, because it means everything", as "an object which sees, a glance which is seen; (...) a complete verb, both active and passive", what "makes the Tower a singular monument". 10 As a monument, the Eiffel Tower "offers consumption, a certain number of performances", and "constitutes a little world". For Barthes, a total monument is a useless monument, in this understanding, the Twin Towers as office building do not fit in this category. However, in Barthes' interpretation of a monument with the example of the Eiffel Tower, monuments are often "rationalized under the rubric of use", and "Use never does anything but shelter meaning".11

At the time of their opening in 1973, the Twin Towers were, at 110 storeys each, the world's tallest and largest, until the Sears Tower surpassed them one year later. The Height of Ambition, as Glanz and Lipton titled their key article in 200212, reopened at the first anniversary of the Twin Tower's destruction a critical discussion that had already been made by contemporary architectural critiques such as Ada Louis Huxtable<sup>13</sup> throughout the Twin Tower's development and after they were opened. Certainly, after the fall of the ambitiously high towers, ambition, competition and risk of the World Trade Center Twin Towers project gained a new perspective: the implication of a fall within ambitious height — an insinuation, that is also shown in the bell curves of interrelated and unstable financial systems, commonly used within the imaginary of global finance as a reassuring gesture of risk management and counterbalance of contingencies: what goes up, must go down, and vice-versa. From early on in the Twin Towers' conception in the early 1960s, the developers of the World Trade Center Twin Towers - Chase Manhattan Bank, the Downtown Lower Manhattan Development Association, the Port Authority of New York and New Jersey - agreed that an exorbitant height would not only be a key feature of the new building project, but would be its very main prerequisite: "The port authority wants this to be the most dramatic project in the world. It must be a symbol of New York. And we want the tallest building in the world."14 A building (the twinness evolved only later in the design process) with enormous height, would be outstanding and as such visible as a powerful, strong, competitive and innovative symbol to the world. This effect has been desired by the developers in order to re-position the declining port area and Downtown Lower Manhattan, as will be further elaborated later in this chapter. Like a lighthouse, the World Trade Center, positioned at the port, would visibly mark its location as a powerful trade hub within the global trade infrastructure. The Twin Towers have often been described as a symbol of the space age: as the first human being was landing on the moon, in an era of Cold War competition, the Twin Towers were one of the most visible buildings representing man's ambition to aim high, to risk high and to literally strive to the stars. Towers, typologically, tower over their surroundings. As such, the Twin Towers were never intended to fit into their urban context or even match, as Minoru Yamasaki has famously stated, a "human scale": the intention was, in many aspects, to aim higher than use or context would have required, to overachieve ambitiously. Without naming the World Trade Center Twin Towers directly, Rem Koolhaas' description of what he calls "Manhattanism" in Delirious New York, reads along this line. For him, key prerequisites of the Manhattan skyscraper were the laboratory grounds of the lunar parks on Coney Island, where events, spectacles and risk-taking set the ground for Manhattan's development as well as the technical invention of the elevator: "Like the elevator, each technological invention is pregnant with a double image: contained in its success is the specter of its possible failure."15

In the above, the Twin Towers' morphology has been described, specifically their monolithic volume, height and tower shape, their twinness and their monumentality. As will be shown in Chapter V of this dissertation, the over 300 existing World Trade Centers all but follow strictly this volumetry, in fact, they vary highly in their morphologies. So how could one deduct certain principles from the World Trade Center Twin Towers' morphology and first, relate them to other World Trade Centers and second, ascribe them to a phenomenon of World Trade Centerness? This dissertation argues, that the specific morphology of the World Trade Center Twin Towers functions as a prerequisite for World Trade Centerness. "To morph" means to undergo transformation, to change shape, character, etc. As shown, the Twin Tower buildings' ability to morph, change, be (self-)referential makes them an agent for repositioning: by their volume, they are highly representative, without, at first, representing much. It seems, their iconicity was there before their meaning. Like an empty stage, this emptiness can be filled with events and performances, it can be ambiguous, can be "both-and"16, local and global, stable and fragile, a "platform for performances and consumptions".17

#### 1.2. Interior

"In the most fundamentalist sense, the corporate building has no interior". 18

Mark Wigley's remarks in his analysis of the Twin Towers' instability — proven by their collapse during the terror attacks on 9/11 — point at the typological phenomenon of the corporate office building, as of which Wigley describes the Twin Towers in their generic office tower design: "an abstract body, a corpus composed of many bodies networked together into a single organism". For Wigley, a corporate building can be reduced to a "neutral screen", with no inside, reflecting back the outside without revealing what is happening inside — over the process of globalisation, this typology has transformed to the curtain wall facades as seen in business quarters all over the world, resembling each other and mirroring each other unattached to their local context.

Marketed as "the first office building of the 21st century," 20 with almost 10 million square feet to rent on two times 110 floors, the Twin Towers' intended use was, at first, that of office buildings. Besides of being offices - Lewis Mumford had characterised the towers as a "gigantic pair of filing cabinets" 21 — the towers offered publicly accessible private zones, including a viewing platform, a restaurant and a plaza. In the following, the Twin Towers' mixed use as office space and publicly accessible private space will be interpreted as a predecessor for a building typology representative for the spaces of global business architecture, as it has emerged since the early 1970s: ',mixed-use', often labeled 'plaza' or 'centre', imitating the public realm in several functions. Hence, the use as office space as publicly accessible space and as a centre will be discussed in the following, with the intention to understand how the World Trade Center Twin Towers were programmed to become the prototype of hundreds of World Trade Centers to follow. When examining the Twin Towers' use under the premise, how their occupancy could have affected the building's instrumentalisation as a representation of world trade and its role as a prototype for World Trade Centers to follow, one asks: What kind of work took place inside the towers, under which conditions? Were the intended use and actual use identical, did the tower's use transform over time? What kind of other activities, performances, events took place within the towers, who visited them, and why?

Already as early in the Twin Towers' planning as 1959, a report compiled by McKinsey & Company and commissioned by the Port Authority had predicted that the planned office space for companies related to world trade would not be abled to be

filled and not become profitable.<sup>22</sup> At the towers' opening, the report was proven to be true and international companies involved in world trade did not buy into the marketing campaign by the Port Authority, promoting office space in the Twin Towers, since the work scenarios described in these brochures no longer matched the actual corporate world:

"A buyer, for example, could view a massive automatic computer, fully assembled; a powerful bulldozer; a towering yacht; or any of the countless pieces of equipment and merchandize that are routinely shipped via the New York New Jersey Port. After inspecting the products could sit down in a modern, comfortable and quiet office to discuss the purchase. Financial and shipping arrangements could be made in another part of the center." 23

In particular in the context of the beginning global oil crises and the resulting economic downturn that coincided with the opening of the Twin Towers, the Port Authority was not able to fill the vacant office space according to their own policies, that only companies involved in world trade were approved as tenants. As a result, next to vacancy, the Port Authority ended up occupying the Twin Towers' office space to some part with their own employees: "The twin towers by 1974 were complete the program had been delivered. But even after so many government agencies subsidized the project by occupying nearly half of all the space in the World Trade Center complex, there was still acre after acre of empty real estate. "24 In the years to follow, again, given the backdrop of the fiscal crisis of New York City in the late 1970s, the Port Authority could not turn the World Trade Center's finances around and could not become profitable (Fig. 3). By 1976, the Twin Towers were operating at a \$20-million-a-year deficit.<sup>25</sup> In addition to these dire early years in terms of occupancy, the Twin Towers were regarded as hostile intruders within the city. The office space inside the Twin Towers — cubicles on open floor plans, monotonously stacked on top of each other in vertical repetition — was by no means innovative as a work environment and rather resembled average modernist open office spaces. Moreover, tenants in the early years reported a variety of discomforts, owing to the towers' unusual height. Vertigo due to the swinging towers, noise created by wind, restricted sight due to the narrow windows are some examples of discomfort office workers reported.<sup>26</sup> Starting in the early 1980s, however, the Twin Towers' reputation began to shift together with their economic performance. In addition to the economic recovery as an external supportive factor for this transformation, the following internal factors were decisive for this transformation: one, the port authorities' opening of the Twin Towers not only to public visitors and tourists — the observation deck was open in 1975 and the restaurant Windows on the World in 1976 (Image 24) — but also making it available for highly visible performances and spectacles: in 1974, the tightrope artist Philippe

Petit performed a tightrope act between the two towers (Image 21); in 1977, the climber George Willis climbed the facade of the South Tower (Image 19), which helped, according to Glanz and Lipton, to "humanise" the towers and change their reputation among the public. Second, the loosening of the Port Authorities' original policy, to allow only companies involved in world trade as tenants, helped turn the Twin Towers' occupancy and finances around. Arguing that "financial services companies are trading firms"<sup>27</sup>, the Port Authorities opened the Twin Towers for companies involved in global finance. Eventually, few of the companies doing business in the Twin Towers had much to do with world trade and the port, resulting in a revenue increase from 83 million dollars in 1978 to 204 million dollars in 1983.<sup>28</sup> Eventually, when bought by Larry Silverstein from the Port Authority for the equivalent of 3.2 billion dollars over the next 99 years in 2001, shortly before their destruction, the Twin Towers were considered to be "one of the most valuable and respected pieces of real estate in the world."<sup>29</sup>

# 1.3. Positionality

After describing and analysing the Twin Tower buildings in respect to their morphology and use, the buildings' positionality is subject to the following paragraph. Signified as a centre, the Twin Towers constitute a centre at their specific position, whereby it needs to be approached, what the ascribed centreness contains. As a centre, they define their specific locations' position within and in relation to their context, with the ability to act as an agent of re-positioning and transformation. In this way, the Twin Towers are both place-makers and place-holders, in their ability to act as a ',wild card' for meaning. Since their spatial position marks the centre of concentric circles, they are a centre of a hyperspace: simultaneously, they assert to be the centre of Downtown Lower Manhattan, Manhattan, the United States, the world — local and global. Other than marking a spatial centre, a 'centre' is an attraction; it is also an assertion of power, an agent of inclusion and exclusion: the closer to the centre, the closer to the power. Being part of a network, or not being part of a network. In the case of the Twin Towers, the centre promises to be a hub within a global trade network, a hub that not only connects, but also holds the centre. 'Centre' means belonging to the 'global', the 'first world', the 'one world', disregarding multiplicities in a unifying tendency. As a centre, the Twin Towers are agents of repositioning identities. In an effort to move the centre — in itself an ambiguity between stability and instability — to the declining area of Downtown Lower Manhattan, the Twin Towers were conceptualised as such from the beginning. Their

two-folded agency in both affirming and yet moving the centre can be seen in the urban re-positioning of the port area, in the transformation of New York from *Fear City* (Image 17) to the City of the *I*♥*NY* campaign (Image 19) and even in their violent destruction. Their role in the urban development scheme of the new Chase headquarters building in Lower Manhattan shows the Twin Towers' ability to move, bend, be flexible — be currency.

## 2. Currency

This dissertation argues, that the Twin Towers had a stabilising role within an unstable and crisis-prone socio-economic global system, regarding them as a cultural phenomenon that reflects the paradigm shift associated with the end of the Gold Standard and the beginning of a global unstable interrelated currency system from the early 1970s onwards. Having described the Twin Towers' solidity and their physical stability as buildings in the previous chapter, here their liquidity and thus instability as currency is outlined. When scrutinising the Twin Towers as finance as well as their role within the global financial system, they need to be viewed in their historic context and the economic conditions under which their conceptualisation took place (Fig. 3). Furthermore, they need to be observed in the context of the conditions from the moment of their completion onwards, which were — considering the paradigm shift in global finance coinciding with their completion — different from the conditions under which the Twin Towers were planned. Hence, in the following, first the economic context of the Twin Towers will be outlined with reference to the theoretical framework provided in chapter III. Having described the economic context, the Twin Towers' utilisation within the real estate development of the new Chase Manhattan Bank headquarters as an example of spatial financialisation will be given, as well the Port Authorities' financing model for the Twin Towers project as an example for the spatialisation of finance. Last, the unstable crises-ridden global economic context after the Twin Towers' completion will be described in its intersectionality to global political and social conditions.

## 2.1. Financialisation

The onset of the current global system is marked by the transition from the post-war Keynesian economic model towards an increasingly globally acting free market economy, that was initiated by the end of the Bretton Woods system in 1973, when it

was terminated by the members of the Group of 10<sup>3</sup> in favour of a floating exchange rate, with the underlying intention to increase global lending ability. The new system of interdependent global currency system meant fluctuating exchange rates, hence increased instability, uncertainty, risk and speculation. Money was no longer a real asset and bound to real value (gold), but rather the promise of value exchange. Since then, the dollar as the leading global currency had no longer been tied to the gold standard as equivalent value. Rather, a free global currency system based on volatile exchange rates helped to establish a relational and unstable system of value creation based on fiat money. The concrete, solid, self-referential and real value of gold had been replaced by the fluid condition of currency (lat. correre), which can be described as a promise of or speculation on value that is not yet real but that is hoped to become real in a given future. Fiat money as paper money or digital numeric has no intrinsic value per se, what it does provide is a promise of value. Money, in this context, is no longer value (gold), it represents value and hence makes itself more valuable than its actual value as a piece of paper, based on what it represents. According to this concept, a global market infrastructure has since developed, in which nearly anything can be commodified and exchanged as value as long as it carries a cipher, sign as meaning that helps identify the value it represents.

The commodification of specifically architecture within global capitalism can be described with the ambiguous connotation of "real estate": both terms "real" and "estate" refer to the concrete and solid property of land and building(s), at the same it is understood to be a market product and even a financial product. "Real", in this sense, can be seen as "realised" value that can at the same time be "unrealised" in the moment it functions as a transferable market product. The German translation of real estate as "Immobilie" also suggests the solidity and stability embodied by a physical building, while paradoxically at the same time, when referred to "Immobilie" as a financial product, the mobility of fiat money is implied. This phenomenon is currently well reflected in the increased presence of Real Estate Investment Funds (REITs), an indexed and publicly traded financial product with the intention to liquify real estate into currency and make it tradable and transferable on global financial markets. In the urban planning context, this signifies engaging in architectural production most likely means to participate in the global financial market. As a result of the unstable condition of the global financial system, phenomena such as crises, boom and bust are inherent. Hence, contingency planning and risk management are part of every process of production and consumption, leading to a wide range of effects on the process of architectural design and production. Speculation, being based on cyclical differences, impacts architectural design in particular as it creates a need for narratives and images that can be coded with meanings and implicate monetary value, success and stability. As a consequence of the power shift from nation states towards transnational corporations as well as increased global competition, the role of city governance within the global infrastructure is changing in a way that cities feel the need to act more entrepreneurially or engage in public private partnerships in order to manage large urban projects. City branding and marketisation result in a need to create images for global dissemination, culminating in the travelling of architectural images both inwards to shape urban identity for citizens, and outwards directed, readable in a global market. Against the background of this cultural turn in global finance, this chapter shows the instrumentalisation of the Twin Tower buildings as currency and finance.

The case study profile in chapter I has provided information, how the initial occupancy policy by the Port Authority to only rent office space in the Town Towers to tenants that are tied to international trade were opened to companies in the financial business, based on the reinterpretation of money as a traded good currency. This maneuver led to the financial stabilisation of the Twin Towers, which, under the previous rent policy, performed poorly financially. Two main explanations can be given for this re-positioning of the Twin Towers' ,program': one, the Twin Towers had been conceptualised over a long period during a time, that had preceded the paradigm shift ion the early 1970s. In this era, the global financial system had not been nearly as established as a global marketplace, as it became as a result of the new interdependent global currency market. Hence, the Twin Towers were first conceptualised as buildings, where, like a vertical port, international sales representatives would exchange goods. With the rapid development of a global financial market, supported by the emergence of new internet technologies<sup>30</sup>, this model had already been outdated by the opening of the Twin Towers. A second explanation for the Twin Towers' financial turnaround is given in the activation of the publicly accessible space. The combination of spectacle (seeing the world) and the attraction of highly visible performances in combination with global finance, speculation and risk had made the Twin Towers by the end of the 1980s a ,hotspot' of the global. When describing the Twin Towers' morphology, use and positionality, this dissertation has described the buildings as solid bodies that yet are able to transform, morph, change shape, ,move': themselves, by re-programming their use and inscribing different messages in their mirror-like facades; their surroundings, by acting as change-maker within their urban environment and for the institutions and corporations they represent. In this way, the Twin Towers are ,liquid' carrying ambiguity, in the sense of Zygmunt Bauman's liquidity.31 'Liquidation', in its financial

terminology, means dissolving real assets into liquid currency, in order to transform an existing entity into another, within the circulation of money. Thus, liquidation, when translating it back from its financial terminology into the social context, is the process of transformation between the concrete and the current, as an agent of repositioning and economic upward (or downward) valuation. To substantiate this argument, two brief excursions into the Twin Towers' development history will be undertaken. First, the Twin Towers' role in the real estate development of the new Chase Manhattan Bank headquarters; second, the financing scheme of the Twin Towers project by the Port Authority.

In 1961, the new Chase Manhattan Bank headquarters, then the largest bank in the United States, opened in Downtown Manhattan, in direct proximity to Wall Street (Fig. 1). The first international style building in Downtown Manhattan had been the project of David Rockefeller, the Chairman of Chase Bank:

"The significance of the Chase bank's decision went beyond the building's contribution as architecture. The announcement of the project, more than any other singled factor, triggered the economic revitalization of lower Manhattan, which had been so threatened by decline that the board of directors of the New York Stock Exchange had become alarmed for the entire financial community's physical stability," 32

The new 60-storey headquarters building served as a symbol for the bank's expansion due to the acquisition of several smaller banks, as well as for their transformation into an international bank, as a key player in building up a global network of financial trade. To create the building site, two building blocks needed to be merged and one street closed off. In parallel to this development, Midtown Manhattan had emerged as the new corporate district, attracting corporations from across the world as well as businesses fleeing Downtown and the declining port area in Manhattan. Hence, at the time of the new Chase Manhattan Bank headquarters' opening, the huge financial investment and prestigious corporate icon threatened to become a real estate failure because of the area's rapid devaluation. Out of this dilemma, the plan emerged to create an even larger architectural icon, one that would upgrade Downtown Manhattan and be visible on a global scale quasi as a lighthouse of stability, wealth and power from afar. Out of this situation and under the oversight of David Rockefeller, the Downtown Lower Manhattan Association (DLMA) was formed with the intention of transforming Lower Manhattan into a World Trade Center. In his memoirs, David Rockefeller recounts how he followed the advice of Robert Moses to "put together an organisation that could speak on behalf of the downtown financial

community and offer a cohesive plan for a physical redevelopment of Wall Street", or else, according to Moses, "You'll be wasting your money unless others follow suit."

"He (Moses) pointed out, that many of Wall Street businesses had already moved uptown or were about to leave the City altogether. If any more left, Chase's decision to remain wold be viewed as a colossal blunder."<sup>33</sup>

As a result, the DLMA had been founded with key stakeholders from city government, the Port Authority and banking on board:

"Two years after our first report, D-LMA proposed the construction of a World Trade Center that would firmly establish lower Manhattan as the world's trade and financial capital. In those days moving beyond the core of Wall Street meant entering a veritable commercial "slum." <sup>34</sup>

The above excursion shows the several real estate maneuvers — Glanz and Lipton talk about the 'Wall Street Maneuver',<sup>35</sup> when describing the real estate financing scheme behind the development of the Chase Manhattan Bank headquarters building and the remapping of the downtown area. In all literature, including the reports of the DLMA, it becomes obvious, how the conception and development of the World Trade Center Twin Towers relates immediately to the real estate investment and vision for a new global financial business by Chase Bank. The Twin Towers were conceptualised to re-position not only Lower Manhattan, but to financially secure and stabilise Chase's risky and speculative real estate project and to re-position and transform the bank's image to a powerful and stable — meaning credible and worthy of credit — global financial agent.

As a second example to outline the Twin Towers' agency to be used as a financial vehicle, the financing scheme of the Twin Towers project by the Port Authority of New York and New Jersey will be briefly outlined. It provides an account of how public money can be liquified via a building project such as the Twin Towers and be converted into private corporate money. A scheme that has become common in real estate development over the past decades, most prominently in recent years for example in the case of the Hudson Yards development in New York.<sup>36</sup>

There are several aspects why a public transport agency became the owner and developer of the largest office building in the world, one being its ability to utilise public money. The Port Authority of New York and New Jersey — at the beginning of the Twin Towers' development still named Port of New York Authority — had become wealthy throughout decades of infrastructure development such as the construction of highways, tunnels, bridges and respective infrastructure architectures.

Under the regiment of Robert Moses, in an era dominated by automotive traffic and fuel-based consumption, the Port Authority had become a powerful agent within planning politics. Without its

"(...) power to condemn land and secure financing with the lucrative tolls from its tunnels and bridges - there would be no World Trade Center, at least not one that cost hundreds of millions of dollars and required the bulldozing of more than thirteen acres in Lower Manhattan."<sup>37</sup>

The Port Authority was able to use the money generated from public transport based on its interpretation of the Twin Towers as a

"(...) port without water, a place to bring together all the people and firms who were now directing international trade and functioning a s an ersatz "port" for goods and money that could be moving anywhere on the globe".<sup>38</sup>

Equipped with the ability by the State of New York to issue bonds, the Port Authority turned out to be a more powerful stakeholder than the City of New York:

"Increasingly, the Port Authority relied on a spectacular source of power: the ability to issue bonds (...). Those bonds, secured by then nearly endless flood of tolls the port agency collected from its own bridges and tunnels, could finance huge new capital projects, whose revenues could support another round of bonds and further expansion of the Port Authority empire. The assurance that these tolls would continue as long as humankind scurried across the earth in automobiles made the bonds lucrative for giant investors like banks and independent financiers. Public authority bonds were the safest of all investments for those big institutional spenders — which included, of course, the Chase bank."

These two aspects from the Twin Towers' early development, their role in financially securing the unstable real estate projects of the new Chase Manhattan Bank headquarters as well as their role in converting public money into corporate money via processes of financialisation, show how they presented and represented finance from their conception on.

"(...) the suspension of capitalism as usual, entwined with the anxious nationalization of the event, had the effect of revealing in stark outline the very real fusion (and confusion) of an ideological Americanism with the interests of global capitalism.Not just the national borders but the national pastime of money making was closed down capitalism as usual was suspended. The New York Stock Exchange quickly closed (causing domino closures around the world) and remained closed for an unprecedented four trading days; transnational currency transactions were suspended; and, in the days to follow, an already emerging national recession (actually global) was increasingly laid to the doorstep of September 11 terrorism.<sup>40</sup>

#### 2.2. Crises

At around the same time as when the World Trade Center Twin Towers opened in 1973, it was only month before the first oil crisis took place and an oil embargo was imposed by OPEC, which would be followed by a second oil crisis later in the 1970s; it was at the time of the stock market crash of 1973 and the 'Nixon Shock'; it was in the course of New York City's increasing indebtedness, which would lead to the city's near bankruptcy in 1976. As elaborated earlier in this chapter, the Twin Towers suffered under-occupancy during their first years of operations, which led to an operating deficit of \$20 million. By 1976, despite the fact that it was heavily subsidised by government agencies, which occupied nearly half of the office space instead of the desired companies involved in international trade.<sup>41</sup> At the same time, when Fear City pamphlets (Image 16) warned visitors against entering New York City<sup>42</sup>, the newly erected Twin Towers were considered unsafe, not the least because of a series of fire outbreaks over a period of time and a bomb threat in 1977 (Fig. 2). The 1970s, the decade that began with the completion of the Twin Towers as the tallest towers in the world and the proclamation of a new global economic era ended with President Jimmy Carter's Crisis of Confidence Speech in 1979.<sup>43</sup> In retrospect, the turn of the decade has been interpreted as a pivotal moment, with political and economic incidents, that would shape the global environment for decades. Christian Caryl describes the coincidence of the Islamic revolution, the first election of Margaret Thatcher as British Prime Minister and China's opening to the World economy under Deng Xiaoping, all in 1979, as this constellation,<sup>44</sup> Niall Ferguson et.al. speak about "the shock of the global" when analysing the 1970s in the context of its instabilities and crises.45

This dissertation describes instabilities and susceptibility to crises as paramount to the condition of the current global system (Fig. 4). In a last paragraph within the account about the Twin Towers' ambiguities as stable and unstable, and after describing their agency within finance, a brief account of their interrelation to crises, in particular to financial crises will be given. Conceptualised to stand strong and represent financial power, the Twin Towers opened at the time of the first global economic crisis within the new global financial system after the paradigm shift towards a new global currency system: the oil crisis. Major crises to follow within the Twin Towers' life cycle would be the fiscal crisis of New York City, in the mid 1970s, the second oil crisis in 1979, Black Monday in 1987 and the Dotcom Crash in 2000. How have the Twin Towers been affected by financial crises? Did they have any transformative agency that would lead out of a financial crises? Did they show any resilience to

crises? And finally, how has their agency in crises been translated into the World Trade Center trademark created by the World Trade Centers Association? In order to approach these questions, a closer look will be taken in the following at the interplay of crises affecting 1970s New York: the global oil crises in 1973 and 1979, the 'Nixon Shock' in the context of the end of the Bretton Woods System, the stock market crash in 1973 and its resulting stagflation until 1975, and, the city's fiscal crisis that had developed over several years, leading to the city's near bankruptcy and the famous newspaper headline: *Ford to City: Drop Dead* in 1975 (Fig. 3).

Mapping these crises, it becomes clear that financial crises are by no means isolated phenomena. In this dissertation, it is of interest how financial crises interrelate with multiple conditions that affect planning processes in the built environment, such as the Twin Towers project. Mapping crises along the same axis as planning development, the case of the Twin Towers shows how planning is inherently contingent, the more complex and large building projects are. Planning for the World Trade Center had started in the early 1950s, roughly twenty years prior to the Twin Towers' opening, in an era with different political, economic, social and technical conditions. Planning had to be speculative, since future conditions of occupancy, use, social relevance and valorisations could only be unknown. Risk is inherent when planning buildings and urban space for a future that does not exist yet. Mapping financial crises shows furthermore that they simultaneously relate to crises of identity, crises of image, political crises or social crises. Crises are not isolated fixed conditions, but rather a momentum between stabilities and instabilities. The cultural theories concerned with instabilities and crises as outlined in the theoretical framework of this dissertation are matched with economic theories of instability and crises, theorising crises as a stabilising element within economic instabilities, such as the concept of creative destruction by Joseph Schumpeter, the Financial Instability Hypothesis by Hyman Minsky or the research on turbulence by Heinz von Förster. From these positions, crises as a pivotal moment are leading to transformation and repositioning.

Looking at the interplay of various crises and instabilities throughout the 1970s within the context of the Twin Towers, New York and political and economic conditions, as well as various efforts of counterbalance, one asks: how did the crises pivot, what did the crisis-prone decade lead to? As a pivotal, moment the following measurements, almost taken simultaneously, can be regarded. On a city level: the implementation of a 5-year economic recovery plan for Yew York City,<sup>46</sup> a de facto austerity programme, which meant the abandonment of many social-democratic

aspects; the INNY campaign, a massive public relations campaign to re-position the city's image as "Fear City".<sup>47</sup> On a nation-level: the recession and resulting stagflation were responded by the deregulation of the financial markets and increasing privatisation, a development, which increased in the following decade under the presidency of Ronald Reagan. The Twin Towers' negative performance and image had been turned around by the opening of their office space for tenants from the financial industry; in addition, the opening of the observation deck helped transform the Twin Towers into an international tourist attraction and icon. Spectacular events taking place such as the tight rope act by Philipp Petit or the climbing of the Twin Towers' facade helped them gain attraction and attention, documented in images travelling the world.

The crisis responses between adaption, toleration and aestheticisation cannot be seen without assuming political and ideological motivations. Just as much as the eventisation and spectacularisation of the work place anticipated a global work culture to come; the austerity plan for New York City marked a political paradigm shift from a strong, Keynesian state towards a liberal global market economy, characterised by increasing privatisation and financialisation and the withdrawal from the state. New York City's risk response even prompted David Rockefeller to write:

"The end of the fiscal crisis also marked the end of an era in the history of New York City. The terms of the financial rescue put the City in a budgetary straitjacket that made it impossible to sustain the high level of social activism and income redistribution that had characterized the Lindsay and Beame mayoral years." 48

Given the above correlations in crises and crisis response, this dissertation sees an explanation about how the Twin Towers entanglement in the crises of the 1970s could have been translated into the World Trade Center trademark created by the World Trade Centers Association. The events during the 1970s lead to a "crisis of confidence", to an overall consciousness of instability and risk. The response — on the cultural side adaption, toleration or aestheticisation and commercialisation, on the economic side market liberalisation, increased competition and financialisation, an attention economy versus a 'real' economy<sup>49</sup> helped create a new global business culture and commerce. Networks that appeared as strong seemed necessary to protect against the de-facto risky, volatile free market forces — a paradox, considering that there is an apparent necessity for the global system to protect itself against the forces it had created itself.

#### 3. Global flows

Throughout the past chapter, different aspects of the Twin Towers' ambiguities between a stable and an unstable condition, between the concrete and the current, have been outlined. The Twin Towers have been examined in their property as a physical body as well as in their property as liquid currency, finance and an agent of financialisation. In this way, their specific positionality in their urban context as well as in their global context has been investigated. When conceptualised, the developers envisioned a symbol for global connectivity in order to exchange goods and finance and the urban ground was considered a hub within a global market. Taken upon this narrative, the World Trade Centers Association marketed global connectivity as the most valuable asset and constituting element of their organisation.

In the following, the Twin Towers' quality as a node within the global infrastructure will be explored, focusing on why and how they channelled *global flows* such as traffic, trade, tourism and terrorism and how these different flows interrelate. This chapter observes and explains the Twin Tower buildings as a 'global player', its quality of connectivity, its capability to transport information as a medium and media platform, its visibility and readability within the global system. It will serve as a prerequisite when exploring in Chapter V, how the network of the multiplicity of World Trade Centers relates and connects.

## 3.1. Traffic, trade

Looking at the history of the World Trade Center Twin Towers, one of the first questions that arises is why the local transport agency, with a track record of building highways, terminals, ports and other infrastructure spaces, became the real estate developer, owner and operator of the then largest office building in the world, the World Trade Center? To answer this question, this chapter focuses on three aspects: one, the transformation of global traffic, infrastructure and transportation during the second half of the twentieth century; two, the transformation of the Port of New York as a result of these developments and in the context of the Twin Towers' development; three, the port authority's role within the building project of the Twin Towers.

For many centuries, global trade routes and connections were by land or by sea; where roads ended, seaports opened up to a maritime networks of routes and

connectivities, connecting different continents of the globe for the exchange of goods, people and ideas. During the second half of the twentieth century, however, the global infrastructure and, with it, traffic and transportation changed drastically due to the transformations triggered by containerisation, airline traffic, data connectivity and globalisation itself. Before containerisation, vessel-based trade dominated maritime routes, connecting port cities with each other, often placing a major role in growth, prosperity and cultural and political dominance of the cities, many of them becoming capital cities as a result. As containerisation prevailed during the post-war years of the twentieth century, ports changed, since many of them needed to either adjust to the new container traffic, or relocate altogether, resulting in multi-scale urban transformations in many established port cities worldwide. Airline traffic transformed not only the infrastructure of freight transformation, but also gives an account of the transformation of exchange value. With international business and banking rising, not only merchandise travelled, but also business travelers, trading knowledge and forming global alliances, took part in the global exchange. A mere historical correlation, but of symbolic meaning, is the timely coincidence of supersonic air travel, the Concorde-era (Image 4), with the lifespan of the Twin Towers.<sup>50</sup> The new quality of knowledge as exchange value and new mode of labour in the "new economy", as Manuel Castells describes it in The Networked Society, is based on the internet revolution and the internet infrastructure as it emerged during the second half of the twentieth century. Stephen Graham and Simon Marvin show how technological mobilities and multiple infrastructures such as roads, energy supply and the internet are creating a "splintered urbanism",<sup>51</sup> one that is fragile, creating unequal access and as such affecting the urban conditions as a whole. The terminology of internet technology such as reach, scale, ubiquity, port or accessibility reveal how internet infrastructure is a spatial category, adding to the complex stratification of existing infrastructure layers. Compared to more traditional global infrastructures, globalisation has added a new level of connectivity: whereas connections used to exist between a multiplicity of hubs and port cities, globalisation has added the connectivity from the local hub to the global itself as a unity, a superior entity.

The Port of New York, has for a long time in history been one of the main nodes of the world maritime cities network. The transformations of global infrastructures as elaborated above, had multiple impacts on the Port of New York and its urban environment. As Carola Hein points out, many ports shaped and reshaped themselves according to economic, social or geographic changes, as for example imposed by industrialisation or globalisation. Often, cities reacted in re-positioning and

transforming their waterfront, at times transforming former port areas into tourist areas, recreational areas or office use.<sup>52</sup> New York City's identity as the big apple, as a multicultural and diverse world city, a melting-pot, has always relied on its history as a port and arrival city for many immigrants from all over the world. Given Manhattan's geography as an island, local and regional water connectivity always represented a vital engine for everyday life. In the case of New York, the port, situated in Lower Manhattan, suffered from the shift in maritime traffic, too. In addition, the massive wave of infrastructure development during the Robert Moses era, in which bridges and tunnels were constructed, connecting the island to the mainland, changed the port's position as the unique access point and with it its economic strength and urban surrounding. The port district called Radio Row (Image 11) on the Lower Westside had been an area suffering from the economic decline of the port. In search for a building site for the Twin Towers, which would suit the interests of all relevant stakeholders such as the Downtown Lower Manhattan Association and David Rockefeller, the states of New York and New Jersey, as well as the Port Authority, Radio Row was demolished and its tenants evicted under much public resistance in order to create the site for the Twin Tower buildings.

Why did the Port Authority as a transport agency, whose core activity was to regulate traffic and transportation and in particular to manage local and bi-state transportation, become a real estate developer and investor? This dissertation outlines four explanations: one, the above described structural transformations of global transportation and the effect on ports and their built environment created a momentum for the re-positioning of the agency's agenda; two, thanks to the large infrastructure projects driven by Robert Moses, the Port Authority had accumulated financial assets; in addition, it had established a stable income through tolls and fees. This financial power created the need for the Port Authority to invest and made the agency an attractive partner for a public-private development partnership, due to its ability to issue bonds and due too the privileged conditions to lend as a public agency. Leonard Ruchelman, in his early analysis of politics, policies and the impact of the Twin Towers, writes:

"Of some significance, also, is the fact that the building complex is exempt from the existing building and zoning codes of the city. This is because the World Trade Center is sponsored by the Port Authority of New York and New Jersey, an agency created by compact between the two states. It can be argued that the absence of normal governmental controls provides a unique opportunity for comparing the results of "uncontrolled" development with that which is controlled."  $^{53}$ 

This statement emphasises the extraordinary political planning power of the Port Authority, which this research regards as a third explanation for the Port Authority's role as developer of the Twin Towers. As a state agency supported by two states, it outweighed the City of New York in political and financial power. Ruchelman writes: "... the superior bonding authority of this semi-public agency means that it pays less than a private builder in interest cost, loans and mortgage money".<sup>54</sup>

Last, as a fourth argument, this research agrees with Glanz and Lipton and regards the narrative of trade as traffic as fundamental for the legitimisation of the public agency to engage in a real estate project of the scale of the World Trade Center Twin Towers. First introduced by the Port Authority's executive director, Austin Tobin, and later continued by Guy Tozzoli, the Director of the World Trade Center Department of the Port Authority and later Founder and Director of the World Trade Centers Association, the narrative was created of the World Trade Center as "a port without water, a place to bring together all the people and firms who were now directing international trade and functioning as an ersatz "port" for goods and money that could be moving anywhere on the globe".55

"The World Trade Center, with its gleaming twin 110-story towers, will add a new symbol of international trade to the world-famous Manhattan skyline . . . The great Trade Center . . . will be recognized throughout the nation and the world as a focal point for the convenient and efficient administration of all phases of international trade. "(PA, 1966: 1).

As Patrick Haughey points out in the introduction to A History of Architecture and Trade, 56 trade, like architecture, is as old as humanity, and the activity of trade is often facilitated by architecture. Likewise, as can be seen in the case of the Twin Towers, so has the activity of trade-shaped architecture and the built environment. Spatial networks affect architecture and built environment by connecting and enabling the flow and exchange of things, ideas, money and people. Within this interchange, ports function as a demarcation line between the fluidity of the spatial infrastructure and the urban concrete space, echoing the Twin Towers' ambiguity of being both concrete and currency. In further support of their argument, trade equaled traffic, the Port Authority had compiled the "Sullivan Report" in 1961, entitled: "A World Trade Center in the Port of New York", in support of the agency's argument for a World Trade Center in the Port of New York during the negotiation with city representatives, according to Glanz and Lipton. Representatives of the City of New York were sceptical that the Port Authority would neglect their core business of transportation management while being preoccupied with a large, costly and lengthy real estate project. The report said, as rephrased by Glanz and Lipton, that the new

World Trade Center would simplify administrative processes of import and export, centralise trade information services, provide a marketplace for United States products and for international goods as well as establish a central location for agencies concerned with the port's commerce.<sup>57</sup> It has been shown, that the plan never worked, the World Trade Center Twin Towers have never been an international trade center. Immediately following their completion, it became evident, that the World Trade Center real estate project was not able to deliver what it had promised throughout its conception and development. With high vacancies, economic deficit and most office space occupied by workers from the Port Authority itself, the Twin Towers have never been the global marketplace their developers had envisioned. Conceptualised in a different political and economic period, the Twin Towers were conceptually outdated by the time of their opening. Manuel Castells describes the transformation of international trade towards a "new economy" that he defines by the liberalisation of global trade, the regionalisation of the world economy and the formation of a network of trade relations between firms, cutting across regions and countries:

"The evolution of international trade in the last quarter of the twentieth century was characterized by four major trends: its sectoral transformation; its relative diversification, with a growing proportion of trade shifting to developing countries, albeit with great differences among developing countries; the interaction between liberalization of global trade and regionalization of the world economy; and the formation of a network of trade relations between firms, cutting across regions and countries. Together, these trends configure the trading dimension of the new global economy."58

Instead of being a trade center, the Twin Towers became a representation of a global trade center already throughout the course of the 1970s, as commercialisation of commerce. This outcome and development of the Twin Tower buildings in the immediate years following their opening reflects the transition from an urban economy based on industrial production and the marketisation of manufactured goods towards an urban marketplace based on media, banking, service industries and eventually the knowledge society. By the time the Twin Towers were finished after decades of planning, a new order of global trade had replaced the one that had been domineering international trade relations at the time of the Twin Towers' conception. As a result, it did not work and it needed to reinvent itself to be more than an office building: spectacle, performance, medialisation of commerce. Paradoxically, this strategy succeeded and resulted in the transformation of the Twin Towers' initially spoiled identity. The Twin Towers became economically sustainable, and symbolically an enormous success as an icon of the global system.

#### 3.2. Tourism, terrorism

Throughout this chapter, it has been shown under various aspects how the Twin Towers' image transformed during the mid-1970s, starting only shortly after their opening. It has been described how they performed poorly as an office building, let alone as an office building of international trade, resulting in bad economic performance. In addition, the towers suffered poor acceptance from New Yorkers, its gigantism appeared threatening, adding to the image of New York City in the mid-1970s as being dangerous and dirty — Fear City. In the following, an account will be given about the Twin Towers' role in the re-positioning of New York City for global tourism. Furthermore, a line will be drawn between the attraction and desire that is part of the tourist destination — including high visibility, spectacularity — and terrorism, by describing how the Twin Tower's embodiment of the global system entailed the risk of becoming a target for destruction. When discussing tourism and the Twin Towers, their function as a platform and world stage for performances and spectacles will be explained, as will the significance of their image. Furthermore, it will be outlined how tourism relates to consumerism and finance, as well as how specifically the Twin Towers tourism contributed to one exclusive cosmopolitanism and to a continuous homogenisation of the city. Last, what has been coined dark tourism at Ground Zero will be analysed.

In Delirious New York, published in 1977, Rem Koolhaas dedicates an entire chapter to describe the role of Coney Island's Amusement Parks — at the time recreational areas created for city dwellers seeking refuge from urban life — as a laboratory for what would become the metropolis of Manhattan around the late nineteenth and early twentieth century. Koolhaas draws a line from technological innovations such as free-fall rides to the invention of the elevator, from various fair rides, curious structures and spatial experiences to the conception of what later would become the metropolis of Manhattan. Its "Deliriousness", according to Koolhaas, was born in the incubator of the Coney Island fairgrounds for local recreational tourism, the real city being conceived as a representation of the unreal city. 26 Years after Delirious New York, and two years after the fall of the Twin Towers, Koolhaas published an article about New York, entitled delirious no more.<sup>59</sup> How does New York's deliriousness and its loss — relate to the Twin Tower buildings? In its beginnings, an "extreme and exhilarating democratic machine, one that is able to process all newcomers", a "deeply irrational experience that uses sparkling new technologies to exacerbate desire "60, Koolhaas sees a turning point for New York in 1972: "The towers are delivered in the exact moment New York's passion for the new is spent", 1977, according to Koolhaas,

the *"annus horribilis"* at the peak of various economic and social crises, he sees another turn, in which a "global city turns world city":

"A blast of self-love pulls the city out of its doldrums. New York is rescued by a double whammy of denials, a heroic non sequitur: the I\(\mathbb{N}\)Y campaign (...) and Liza Minnellis "New York, New York (...). The campaign mobilizes disbelief to fight disbelief; the song overpowers urban anxieties through loudness, introduces the high kick as a euphoric goose step".61

Mirjam Greenberg presents in her work an in-depth analysis of the cultivated commercial image or brand of New York as a global finance center and tourist destination, assigning a large role to the Twin Tower buildings in this process of urban re-positioning. Greenberg identifies four stages of branding in New York in the context of the Twin Towers: one, in the late 1960s, when the developers featured the Twin Towers' monumentality and bigness in the years prior to their opening; second: the  $I\Psi NY$  campaign during the fiscal and economic crisis in the mid 1970s; three: the branding campaign following the stock market crash in 1989, and four: in the urban branding efforts post 9/11.62

Greenberg shows in her research, how the Twin Towers were instrumentalised in the context of New York's fiscal crisis by the city's and the state's development agencies as a tool to re-position New York's spoiled global image. In the wake of the city's decline, airlines had stopped flying to New York and Fear City pamphlets at the airport warned visitors to stay away from New York City, which had by then acquired a reputation to the outside world of being dirty and dangerous. In New York, city branding had happened before, but this time, the public agencies took a more entrepreneurial approach in their efforts to change New York's image. "Starting in the late 1970s", Greenberg writes, "the city also began to institutionalize and subsidize mass marketing as a strategy of urban development for the first time. To accomplish this goal, the city transformed itself into an entrepreneur. It seized upon the latest corporate marketing techniques and joined forces with business leaders to package and sell the image of New York as a global brand. In the process, it was hoped, the deepening social and economic crisis would be both obscured and, ultimately, ameliorated."63 To boost the city's economy by branding it for tourism and utilising architecture was a new approach, as Greenberg proves by quoting various agency reports. The Big Apple Campaign, created by the advertising firm Wells, Rich & Greene with its famous I♥NY logo, used specifically the World Trade Center Twin Towers as a symbol for New York, that had overcome several crises and prevailed as a global attraction for finance and tourism. Greenberg writes:

"In this effort, the new trade towers were seized upon as the perfect, unambiguous logo for a globally resurgent Big Apple. (...) This was to involve a masterful separation of the interior of the buildings, still largely empty and losing money, from their gleaming exterior, presented as a symbol of resurgence. Harkening back to the original, symbolic intentions of the RPA, the site's use value as a provider of jobs and goods was to be downplayed, emphasizing instead its exchange value as an image of social and economic order, which could translate into higher real estate values and future investments."

The urban transformation of New York City in the 1970s by managing a spoiled identity shows how the cultural production of identities can work as a strong force in the maintenance of the global network from a variety of theoretical perspectives. Identities of cities, organisations and corporations are complex; they constantly change over time, are multiple, intersect with corresponding identities and in this correlation are highly contingent.<sup>65</sup> As seen in the case of the Twin Towers and its relation to the urban context, the representation of urban identities shows how often identity constructions with the intention to increase global competitiveness serves to devalue social justice and cohesion values.66 For Manuel Castells, the permanent production of identities, as well as conflicting identities, is an organising principle of the "network society", affecting urban space, politics and the social sphere. 67 To "produce culture", hence economic and symbolic exchange value, city authorities manage identities. Here, contingency planning becomes necessary in order to deal with the different and dynamic qualities of identity: identities can change unexpectedly or become "spoiled",68 depending on internal and external economic, social or political risk factors, instabilities and crises.<sup>69</sup> The transformative process of re-positioning requires a cohesive narrative that allows the represented identity to be seen, understood and accepted within a common value system.

Within this urban re-positioning, the World Trade Center Twin Towers had transformed towards the end of the 1970s from boring, empty office buildings to vibrant hotspots for global tourism. Here, on top of the world, at the centre, tourists could visit the public viewing platform *Top of the World Observatory*, to see the world and be seen. The Twin Towers had been freed from their interior, perceived now only from their exterior facade, as a world stage and platform for performances, events and spectacles that could travel the world via images<sup>70</sup>. Often, performances taking place at the Twin Towers played with the symbolism of global connectivity, instabilities and risk. In 1974, Philippe Petit performed a tight rope act between the two towers (Image 21), in 1977, George Willig, "the Human Fly", climbed the facade of one of the towers (Image 20). Ronald Reagan, Mikhail Gorbachev and George H. W. Bush chose the Twin Towers as a platform and wallpaper for the Governor's Island

Summit in 1988 (Image 23). Within the cultural and economic environment that emerged during the 1970s the commodification of cultural processes can be traced at the Twin Tower buildings (Fig. 3). As foreseen by Guy Debord,

"Tourism, human circulation considered a consumption, a by-product of the circulation of commodities, is fundamentally nothing more than the leisure of going to see what has become banal. The economic organisation of visits to different places is already in itself the guarantee of their equivalence. The same modernization that removed time from the voyage also removed from it the reality of space."71

Along the same line, an increasing homogenisation can be seen, in opposition to the multiplicity that Rem Koolhaas had detected in the Manhattan in the early twentieth century, as a "democratic machine, one that is able to process all newcomers into New Yorkers".<sup>72</sup> In preparation for the Reagan years to come, the city's early entrepreneurialism as an effect of the 1970s crises paved the way for increasing inequality, vanity, expressed in a Cosmopolitanism displayed for example at the restaurant Windows on the World on the 107th floor of the North Tower (Image 24), taking the place of New York's previous multiculturalism. "If you are up, you can't be down!", read an advertisement for the Twin Towers top platform (Image 25), referring to the economic direness on the ground and the exclusivity of being able to be up on the top of the World Trade Center. Later, during the 1980s, this homogenisation towards a more exclusive society, which up until today, increasingly closes urban social borders under the narrative of security and with the effect of increasing privatisation, took place. Associated with Mayor Rudolph Giuliani's "Zero Tolerance" campaign, the city had been "cleaned up" with the effect of abandoning diverse and socially marginalised citizen groups from the city, in order to create the image of a "clean city".

"What is the connection between zero tolerance and the cult of Ground Zero?" asks Rem Koolhaas in *Delirious no more*.<sup>73</sup> And how do both phenomena relate to World Trade Centerness? Zero tolerance, as Rudolph Giuliani's politics have been paraphrased, and as argued above, is the homogenisation of the social and urban fabric under the narrative of security and with the aim to present a valuable and safe ground in order to promote businesses and tourism, two economic factors that interrelate. While the zero tolerance approach is first an action of policy-making, it also involves the production of images. Within the global financial system, images, just as any currency, need to constantly fluctuate in order to maintain and increase their exchange value. At Ground Zero, it can be exemplified, how the World Trade Center Twin Tower buildings — now, in their morphology, reduced to their footprints,

levelled to zero — once more, served as an agent for urban economic re-positioning. By 2003, Ground Zero had outperformed the Twin Tower buildings in success and profit:

"Tourism officials estimated that the site of the Sept. 11 terrorist attack has attracted more than a million out-of-town visitors since January. And perhaps more striking is that the fallen trade center site has done what it could not do when standing: turn the financial district into one of the city's top attractions. According to the Downtown Alliance, a Lower Manhattan business group, the trade center's observation deck used to attract an average of 1.8 million people a year. Its ruins are on pace to bring in 3.6 million this year."

Ground Zero, in the context of this dissertation, relates to the 9/11 memorial, entitled *Reflecting Absence* that has been designed by Michael Arad and Peter Walker. As an open underground construction, built exactly on the footprints of the former Twin Towers, the memorial — in the media also referred to as an example of *dark tourism* — is both an architectural building in itself, as much as it represents the Twin Tower buildings. It also, as its title indicates, is absence, void. On a symbolic level, they represent, as Jean Baudrillard had stated, their existence as a symbolic object beyond their physical destruction:

"The towers, for their part, have disappeared. But they have left us the symbol of their disappearance, their disappearance as symbol. They, which were symbols of omnipotence, have become, by their absence, the symbol of the possible disappearance of the omnipotence - which is perhaps an even more potent symbol."

75

On a material level, *Reflecting Absence* is a physical structure, mirroring the verticality (and seemingly infinity) of the former Twin Towers in negativum. As volumes, they contain the void of the former Twin Towers. As stated above, beyond being symbolic and material object, they are political action as well as an instrument of urban financialisation, in their agency to booster tourism in post-9/11 New York (Image 27). Cross dissemination in social media reveals how images of ground zero are disseminated and intersect with other layers of imagery: #911memorial, #citythatneversleeps, #bigapple. Like currency these images are cross-selling the entrepreneurial city. Coming back to the description of the Twin Towers' morphology as outlined in chapter IV 1.1., Exterior, one could say, that the Twin Towers became a true monument only after their physical disappearance.

When describing tourism as one of the global flows that have been channeled by the World Trade Center Twin Towers as much as they have been impacted by it, in a total impact, a range of aspects have been discussed and contextualised above. The

transformation of multiple identities of the Twin Towers have been shown, as well as their agency in various urban transformations and their utilisation by financial and political programmes. Being a platform where one can see the world and can be seen by the world (via images), the Twin Towers' image had been branded as a tourist attraction and center for global finance. As a tourist attraction, the Twin Towers outperformed its profitability as office buildings throughout their various identities, mostly after their physical destruction. As terrorist attraction, the Twin Towers and their destruction during the terror attacks on September 11, 2001, are in the following viewed under the aspect of their medialisation, politicisation and financialisation in order to test, if and how 9/11 had an effect on the phenomenon of World Trade Centerness.

Why did the buildings that represented global trade become a target for global terrorism? In the literature reviewed, there is a widespread understanding that the World Trade Center either provoked their destruction (Koolhaas, Baudrillard, et.al.) or as Keller Easterling puts it, had their self-destruction already programmed within their own structure and organisation:

"In this treacherous oscillations between reciprocal and symmetrical architectures, between the expansions that admit new information and the contractions of righteous war, the World Trade Center both provoked and succumbed to warfare. The goal of terrorists is to prompt there enemy's own self-destruction, and in this symmetrical relationship, the World Trade Center with both combatant and intended instrument of suicide."

In particular in architectural theory and history, some interpretations can be found that the specific architecture of the Twin Tower buildings provoked the terror attacks on 9/11. Here, the random relation of the Twin Towers' destruction to the destruction of the Pruitt-Igoe housing complex by the fact that they were both designed by Minoru Yamasaki, serves easily as narrative, as does Osama Bin Laden's celebration of the attack on the Twin Towers and the Pentagon as "the destruction of America's greatest buildings".<sup>77</sup> Others, like Easterling, find an explanation in their structural collapse: "The towers were exactly the kinds of structure that an epidemiologist would regard as highly susceptible to contagions."<sup>78</sup>

Within the theoretical discourse, there are varying interpretations concerning the Twin Towers and their violent destruction. While some authors focus on analysing the Twin Towers as building structures,<sup>79</sup> most authors, in particular in less recent writings, strongly focus on symbolic aspects when looking for explanations, as to why the Twin Towers have been targeted to be violently destroyed. In this line of

argumentation, the Twin Towers' ambitious height and its symbolism as a world stage for spectacles set the ground for the terrorist attacks as the ultimate spectacle and stage for the image of destructions, which even multiplied the global dimensions of 9/11. As a symbol representing aspects of the global system such as totality, societal exclusion and homogenisation, the Twin Towers were a target and provocation for global terrorism.<sup>80</sup>

This dissertation follows the explanation of Terry Smith, who points at the complex interrelation of image production and materiality in architecture and argues against the "simple idea of the triumph of the image over the material, of spectacle over use", how one might easily argue in the case of the Twin Towers' destruction:

"All imagery, however symbolic — indeed, precisely as a symbol, including that of architecture as image — is embedded in real relations: the raising of icons and (as we saw on 11 September 2001) their erasure, is consequential. The iconomy is a real economy, and it is, more to the point, an economy of the Real. As Slavoj Zizek argued, 9/11 was an eruption of the real into the symbolic, fissuring it, as it does so still."81

Immediately following the events on 9/11, media and politicians had nationalised the terror attacks. *U.S. attacked*, titled the New York Times the day following the attack, *Act of War*, the New York Post, *America at War*, the Daily Telegraph.<sup>82</sup> George W. Bush, in his address to the nation on September 11, 2001, spoke of "our way of life, our very freedom" that had come under attack, and further: "America was targeted for attack". <sup>83</sup> Significantly, it was the burning Twin Towers that served as a wall paper for these headlines, while little mention took place about the simultaneous attack on the Pentagon, the Defence Ministry of the United States and therefore, as a symbol of military power, a stronger national symbol than the World Trade Center, an office building. Baudrillard writes:

"(...) in bungling their attack on the White House (...), they demonstrated unintentionally that that was not the essential target, that political power no longer means much, and real power lies elsewhere."

The images of the terror attack and the destruction of the Twin Towers on 9/11 not only served the intended live broadcast of the terrorist's performance, circulated as a global flow via TV screens and media images live, but also, like a repetitive loop that had been unscripted into the global system's DNA. At the same time as the event and its image production met the expectations of the terrorists, it served the political interests of the United States. The terror attacks and the images they produced served the political interests of the United States government to pursue a globalist strategy,

which would lead to a *war against terror* as proclaimed by President George W. Bush. The target of the terror attacks, as outlined among others by David Harvey,<sup>85</sup> seems to have been rather global trade infrastructure and global capitalism, rather than the nation state. It is precisely this effect which is interesting for this dissertation: how did the destruction of the World Trade Center Twin Towers impact the global trade network? Neil Smith writes:

"The notion of a networked global empire, freed of geographical boundaries and spatial difference as decentralized and deterritorialized empire which ,establishes no territorial centers of power and does not rely on fixed boundaries or barriers" has surely collapsed with the same finality as the World Trade Center. "86"

The destruction of the World Trade Center Twin Towers in an act of terrorism reveals how global flows as introduced in this chapter — traffic, trade, tourism and terrorism — interrelate and how their analyses can provide a deeper understanding of the global system and the agency of the Twin Towers.

#### 4. Summary and conclusion

Chapter IV described and analysed why and how the Twin Tower buildings became to represent the global system and what they provided as buildings for them to have been instrumentalised by the World Trade Centers Association as the organisation's trademark, resulting in the development of hundreds of World Trade Center relating to the Twin Towers. Three main aspects of the Twin Towers were elaborated in this chapter, which this dissertation considers as essential in the shaping of the Twin Towers' identities and positionality within the global system: their dichotomous and ambiguous character of being both concrete, stable and real building as well as being currency, solid and hence unstable. Under this condition, the Twin Towers seemed flexible, yet stable, allowing them to transform and morph themselves as well as their urban context. Besides of being both sold buildings as well as liquid currency, the Twin Towers functioned like nodes within the global system, channelling or trafficking information and cultural practices such as traffic, trade, tourism and terrorism, thus allowing for global flows and interchange.

In this chapter, the Twin Tower buildings have been approached first from their exterior, their morphological outside appearance and volumetry within the urban context. It has been shown how the buildings' physicality and architecture contributed to the Twin Towers' instrumentalisation as a representation of world trade and the global system by the World Trade Centers Association. Their specific

morphology as doubled monoliths and their disproportionality (Image 8) have been interpreted as a stabilising element in relation to an unstable environment. It was further argued that the specific morphology of the Twin Towers served as a prerequisite for World Trade Centerness: the Twin Towers' ability to morph and be agents for re-positioning by their volume, which is highly representative, without, at first, representing much. Drawing from sources of contemporary architectural criticism, it has been shown how, as buildings, they have appeared hostile to their urban context and considered bad or boring architecture, despite the ambitious and competitive intentions behind their development to create a strong architectural icon with global visibility. This emptiness towards their surroundings, however, has also been seen as an empty screen or empty stage, whose emptiness can be filled with nothing and anything. Describing their interior, their use and three-dimensional qualities, focused on their intended use as office space, the publicly accessible space as it had emerged and their function as a centre. It was shown, how in the years after their opening, the office space could net be rented to companies involved in international trade, resulting in vacancies and poor economic performance, which had been countered by renting space to the Port Authority's own employees, loosen rental policies towards financial companies and by opening up space for public access. In this analysis, the Twin Towers' mixed use as office space and publicly accessible private space has been understood as a predecessor for a building typology representative for the spaces of global business architecture, as it has emerged since the 1970s: mixed-use, often labelled plaza or centre. When observing the Twin Towers' positionality, the building's transformative agency in the re-positioning of their own identity as well as their urban context has been elaborated, substantiated by referring to the Twin Towers development history on the context of the Chase Manhattan Bank headquarters development and the revival of Downtown Lower Manhattan.

After describing the Twin Towers as solid and real buildings, their character as currency, liquidity and finance was outlined. Here, it has been shown how the Twin Tower buildings both present and represent finance, embodying an example of spatial financialisation within global capitalism as described in the theoretical framework in chapter III. Accordingly, considering the unstable economic conditions that shape the current global system, the Twin Tower buildings have been viewed in their agency during the crisis-prone decade of the 1970s, which served as a timely context of their realization. Here, global and local economic, social and political events have been mapped and contextualised with the Twin Towers.

In a third part of chapter IV, the Twin Towers have been viewed in their agency as nodes for global flows and relevant types of global flows in the context of the Twin Towers' identity formation — trade, traffic, tourism and terrorism, all of them intersecting. Taking up the developer's argument that trade equals traffic, the transformation of global traffic, infrastructure and transportation, the resulting transformation of the Port of New York and its effect on the urban environment of New York City have been viewed, as well as the particular role of the public transport agency, the Port Authority, as a real estate developer, investor, owner and operator of a large real estate project such as the Twin Towers. It has been outlined how the Twin Towers had never been the global marketplace the developers had imagined, and instead, had become a representation of a global trade center. It had already been outdated conceptually at its opening due to the reasons given, and therefore needed to reinvent itself to be more than an office building: a spectacle, a performance, a medialisation of commerce. Paradoxically, this strategy worked and resulted in the transformation of the Twin Towers' initially spoiled identity. The towers became economically sustainable, and symbolically an enormous success as a global icon of the global.

When describing the global flows of tourism and terrorism, the Twin Towers' role in the transformation of variable identities has been shown. Most importantly, it has been shown how the attraction of being a global tourist destination, a national symbol and a symbol of power and global competitiveness goes hand in hand with the proneness to becoming a target for terrorism and violence. Being a platform where one can see the world and can be seen by the world, the Twin Towers image had been branded as a tourist attraction and a centre for global finance, as which it had outperformed their profitability as office buildings during their existence, but, even more so after their physical destruction. Having been the centrepiece of the Big Apple marketing campaign, which was launched within an increasing entrepreneurial strategy to lead New York City out of the fiscal crisis, the Twin Towers proofed to be once more an agent for transformation. This urban transformation would also contribute to an increased social homogenisation and exclusion, as has been shown. In this dissertation, the World Trade Center Twin Tower building in New York serve as a case study for architectural agency within the global cultural and economic system as it has emerged since the early 1970s. First, essential aspects and qualities of the buildings needed to be understood, before opening the field to the multiplicity of existing World Trade Centers and relating the Twin Towers to the World Trade Center network as well as to the World Trade Centers Association.

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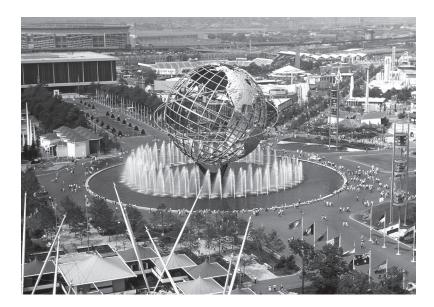


- Destruction of the Pruitt-Igoe Housing Complex in St. Louis, Missouri, 1972
   Destruction of the World Trade Center Twin Towers on September 11, 2001









- 3. Aerial view of the Port and Lower Manhattan, New York, United States ca. 1931 4. Concorde flying over Manhattan

- Right:
  5. 1962 World's Fair Seattle, US Science Pavillion designed by Minoru Yamasaki
  6. 1963 New York World's Fair, Queens, New York City

7. The Mountain comes to Manhattan. Full page ad by the Committee for a Reasonable World Trade Center, New York Times, May 2, 1968

8. Minoru Yamasaki, models of World Trade Center Twin Towers, late 1960s

9. Biggest Building in World to Rise at Trade Center. New York Times, January 19, 1964

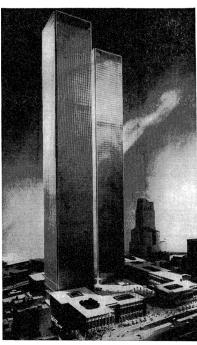
10. Sign announcing World Trade Center completion schedule, circa 1969

#### Right:

11. Cortlandt Street in the neighborhood known as Radio Row, circa 1930s

12. World Trade Center 1, 2, Lower Manhattan (ca. 1974)

13. One Chase Manhattan Plaza (today: 28 Liberty Street), New York, 1961



NEW LOOK IN SKYSCRAPERS: Model of the proposed trade center demonstrates how twin 119-story towers will soar above their astellite buildings, to be 70 feet high. View is

## BIGGEST BUILDINGS IN WORLD TO RISE AT TRADE CENTER

Twin 1,350-Foot Towers to Be Surrounded by Plaza With Small Structures

GOVERNOR HAILS PLANS

Sees Construction, to End in '70, Taking Up Slack After Fair Is Finished

By BERNARD STENGRE

Twin 1,350-foot towers, the world's tallest buildings, will be erected to house the World Trade Center planned downtown. The towers and a cluster of 70-foot-high satellite buildings will form a ring around a five-acre plaza containing reflective roofs.

Plans for the \$350 million complex on the Lower West Side were disclosed yesterday at a preview in the New York Hilton Hotel.

ernmental and private activities in the export-import field now widely scattered in the metropolitan area. It will have exhibition halls, shops, restaurants and a 250-room hotel, for travelers whose business brings them to the center.

Each of the center's twin towers will be eight stories and 100 feet—taller than the Empire State Building, Without its 222-foot television antenna mast, the Empire State is 1,250 feet high and has 102

the Latest 'Community'
The center is the latest of a
number of self-contained "communities" in the city. It follows the trend of the Lincoln
Center for the Performing Arts,
the projected Civic Center near
City Hall and the Brooklyn













14. World Trade Center Exterior, 1973

15. World Trade Center Interior. Office photo from a former worker at the Twin Towers

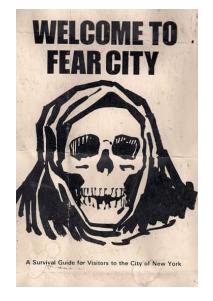
Right: 16. Concorde and Twin Towers. Website Port Authority of New York and New Jersey 17. Fear City Pamphlet, 1975
18. World Trade Center Logo by Port Authority of New York and New Jersey, 1989 - 2001
19. I love NY Campaign logo











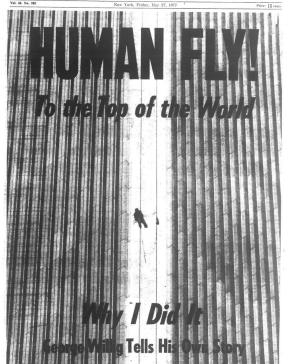


- 20. Human Fly!, To the Top of the World, Why I Did It, George Willig Tells His Own Story, Halfway up the South Tower of the World Trade Center, Daily News Front page, May 27, 1977
- 21. Philippe Petit walks across a tightrope between the Twin Towers, 1974
- 22. Visitors on the viewing platform on the viewing platform on the South Tower, World Trade Center 1,1984
- 23. Ronald Reagan, George H.W. Bush and Mikhail Gorbachev at the Governor's Island Summit, 1988

#### Right

- 24. The Windows on the World Dining room on the 107th floor of the North Tower (World Trade Center 1)
- 25. Pamphlet: The Closest Some of Us Will Ever Get to Heaven by he Port Authority of New York and New Jersey (ca. 1980)



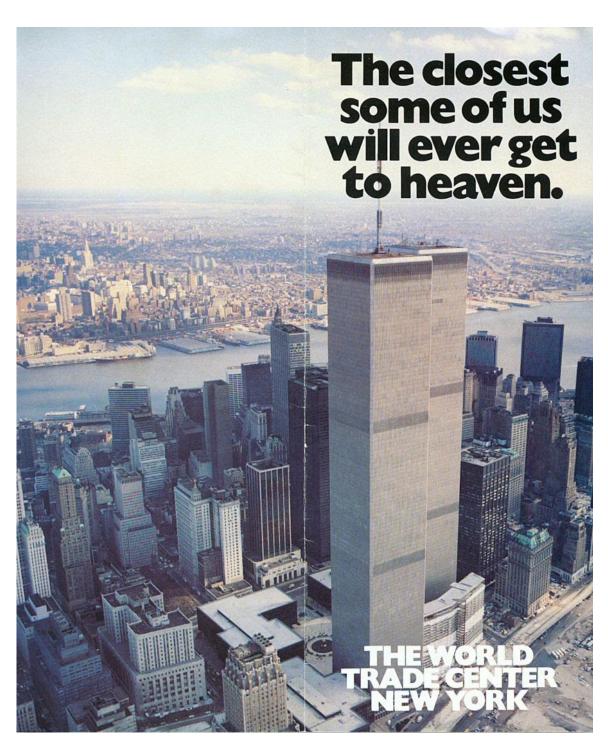


Talfway up the South Tower of the World Trade Center -- Stories start on p. 3; other nictures in centerfold











"All the News

# The New York Today, sunny, a few afternoon clouds. High 77. Yenight, slightly men clouds. High 78. Tenday, sunny, a few afternoon clouds. High 77. Yenight, slightly men clouds. High 81. Vesterbay, high slightly men clouds.

VOL. CL. . No. 51,874

## U.S. ATTACKE

## HIJACKED JETS DESTROY TWIN TOWERS AND HIT PENTAGON IN DAY OF TERROR

## A CREEPING HORROR

**Buildings Burn and Fall** as Onlookers Search for Elusive Safety

Continued on Page A7

### A Somber Bush Says Terrorism Cannot Prevail

By ELISABETH BUMILLER with DAVID E. SANGER WASHINGTON, Sept. 11 — Presisent Bush vowed tonight to retailate gastest those responsible for today's ratecks on New York and Washing-in, declaring that he weuld "maske obstinction between the terrorists to committed these acts and those to barbor them." Sa murker were

cannot touch the foundation of America."

His speech came after a day of
His speech came after a day of
trauma that seems destined to define
his presidency. Seeking to at once
calm the nation and declare his determination to exact restribution, he
center of the seems of the seems of carmage that "these acts
shattered steel, but they cannot denthe steel of American resolve."

Mr. Bush spoke only hours after
returning from a zigzag course
across the country, as his Secret
Service and military security teams
moved him from Florida, where he
press for his education bill, to command posts in Louisiana and Nebrasmand posts in Louisiana and Nebras-







the second of two jettiners slammed into the World Trade Center; less than two hours later, both of the 110-story towers were gone. Hijackers crashed a third airliner into the Pentagon, setting off a huge explosion and fire.



## President Vows to Exact Punishment for 'Evil'

By SERGE SCHMEMANN



In Lower Mannussum.

Japaed. Hundreds were treated for Cute, .....

But the real carnage was concealed for now by the twisted, smoking, ash-choked carcasses of the twin towers, in which thousands of people used to work on a weekday. The collapse of the towers caused another World Trade Center building to fall 7 hours later, and several 

\*\*Continued on Page AIM\*\*

#### Awaiting the Aftershocks

Washington and Nation Plunge Into Fight With Enemy Hard to Identify and Punish





26. New York Times front page, September 12, 2001

Right: 27. World Trade Center site including 9/11 Memorial & Museum, World Trade Center Facebook, November 20, 2018

Fig. 1 Positionality of World Trade Center 1, 2 in Manhattan

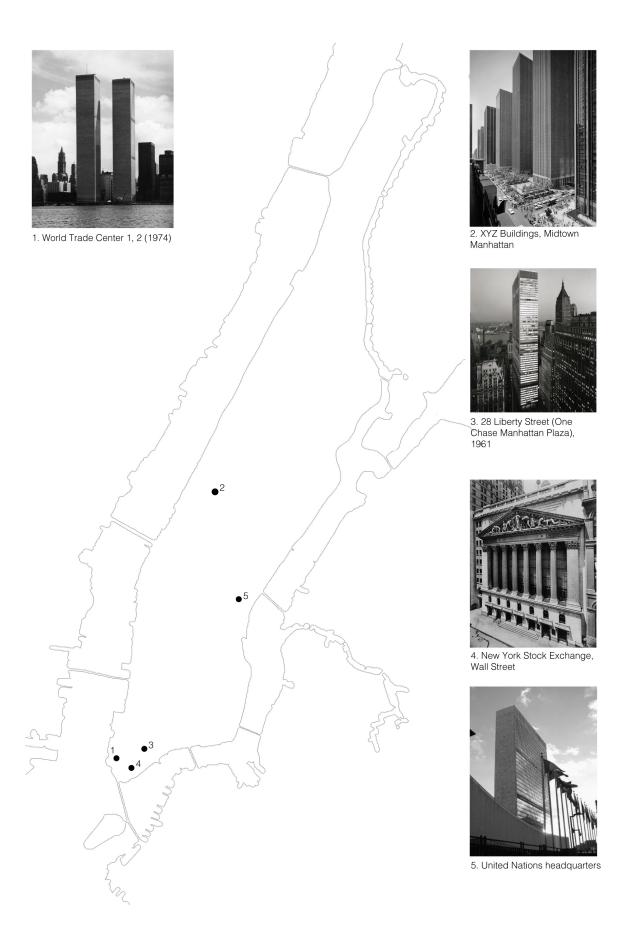


Fig. 2 World Trade Center 1, 2 - research timeframe

WORLD TRADE CENTER 1, 2

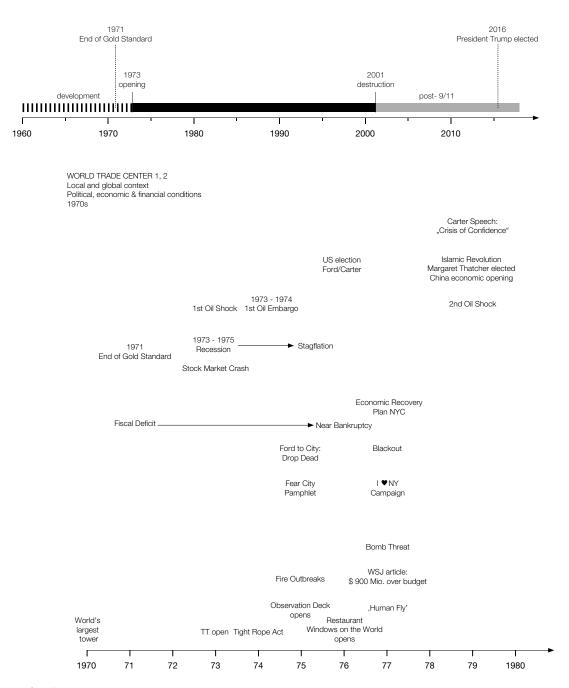


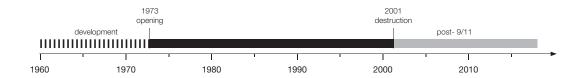
Fig. 3 World Trade Center 1, 2, 1970s and global context; political, economic & financial conditions

Fig. 4 Context World Trade Center 1, 2 and crises

CRISES

WORLD TRADE CENTER 1, 2





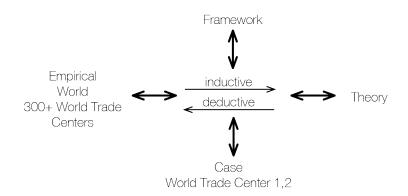
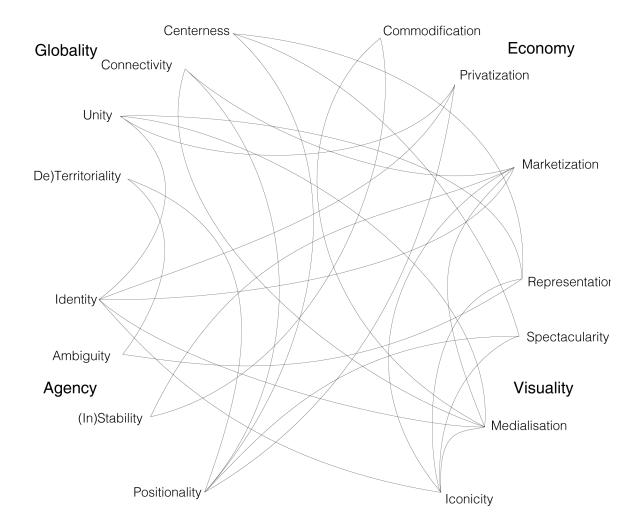


Fig. 5
Abductive Research Model (from Dubois, A. & Gadde, L.-E., 2002, p.555)

# KEY THEORETICAL CONCEPTS



#### V. WORLD TRADE CENTERS 3 - 325

In the previous chapter, The Twin Towers, World Trade Center 1 and 2, have been described and analysed in their solid materiality as physical buildings and in their agency as currency; furthermore, global flows — traffic, trade, tourism and terrorism — which they display and channel, have been identified. Despite the common notion throughout their conception and in the years following their completion that the Twin Towers were failures in terms of how they blended into the urban context in terms of architectural aesthetics as well as financially, the Twin Towers had become not only an icon for Manhattan, but also a national icon and an icon for the global system as it has emerged from the beginning of the 1970s onwards. Their destruction reinforced their iconicity beyond their physical existence even more. Today, they are still known as 'the' World Trade Center. This research explores, how and why the Twin Towers could become a valuable trademark and how the concept of World Trade Center travelled and had been instrumentalised. Currently, 325 World Trade Centers exist — what are they, where are they and what do they serve? How do they relate to World Trade Center 1 and 2, the Twin Towers, that opened in 1973 in New York? How do they interrelate?

This chapter provides quantitative and empirical information about the grid of World Trade Centers in its temporal and spatial dimension (Fig. 7). First, it explains what the World Trade Centers Association is, how it came about and how it operates. In a second part of this chapter, the multiplicity of World Trade Centers is introduced by laying out the grid of interrelated World Trade Centers. In parallel to how chapter IV has been structured, the World Trade Centers are described in two physicalities: first in their morphologies, as bodies and volumes, as well as their function as nodes, positioned on the field spanned by the global system (Fig. 9). Second, the positionalities within this field are going to be described and analysed (Fig. 10). Subcategories when describing morphologies are void, one and many, in terms of building volumetry. When describing positionalities, subcategories are centre, border and periphery, in terms of spatial radius. The categories chosen aim to characterise the multiplicity of World Trade Centers in a mode of a thickening approximation, due to the impossibility of a complete analyses of World Trade Centers — too many projects are undocumented, too much information disclosed and the scope of this dissertation would be exceeded. Each category is explained by using specific examples of World Trade Centers. Furthermore, it describes how categories intersect and how World Trade Centers within the given categories relate to the Twin Towers, to other World Trade Centers and how their development has been affected by economic, political and cultural implications. A database of World Trade Centers in the appendix is used as a reference to provide further empirical information. The objective of chapter V is to make the largely unknown multiplicity of World Trade Centers visible by mapping and contextualising them and to shed light on the organisation owning the World Trade Center trademark, the World Trade Centers Association, in its self-ascribed role as 'global club'.

## 1. The World Trade Centers Association: Describing the 'machine'

There are many transnational organisations concerning international trade relations, like the World Trade Organization (WTO), the International Monetary Fund (IMF), the World Bank, the Organisation of the Petroleum Exporting Countries (OPEC) or the United Nations Conference on Trade and Development (UNCTAD), to name some of the most prominent. Most of them were established in the aftermaths of World War II and underwent constant transformational processes, in particular in the context of the paradigm shift in the early 1970s as an effect of the end of the Bretton Woods system and the gold standard. There are also non-governmental organisations, which are membership-based and committed to fostering world trade and global business, such as for example the Word Economic Forum (WEF), which was established in 1971. Unlike these transnational organisations concerned with trade and business, the World Trade Centers Association (WTCA) is an association and membership organisation, which possesses the exclusive name rights of the World Trade Center name and licenses it against fees to its members, the developers and operators of World Trade Centers. In a stark contrast to the Twin Towers' prominence as World Trade Center, the World Trade Centers Association and the currently over 300 World Trade Centers worldwide are largely unknown (Fig. 8). When investigating, why and how the Twin Towers have been instrumentalised by the World Trade Centers Association before this background, an empirically paradox situation becomes apparent concerning its relevance: why, in order to participate in world trade, do businesses, institutions or organisations invest in the membership of a largely unknown club, although the participation in world trade is not tied to its membership? What spatial or organisational function does this club provide, what are the values exchanged between the club and its members?

When attempting to obtain information about the World Trade Centers Association, the association's lack of transparency to the public becomes quickly apparent. Public information about the World Trade Centers Association can be found on the

association's website and social media presence. There, annual reports designed for the public can be downloaded, and a carefully and frugally crafted narrative about the association's identity is communicated. The information provided for the public omits critical information and uses the strategy to align the association with official international trade organisations, for example by quoting them or using their material as sources. By commissioning a division of the Financial Times for complying annual reports, the organisation manages to associate itself with the respectability and trustworthiness of journalism that is esteemed as high-quality and trustworthy reporting. In contrast, media coverage found online is predominantly in lesser known business media outlets; the information found there is often univocal, which allows the assumption that the information found is less based on journalistic enquiry but rather repeating press releases provided by the World Trade Centers Association. The lack of press coverage further leads to the assumption, that the association is not interested in engaging with the public, and/or is not relevant enough to attract media interest. An exception marks the discovery of the transaction of the World Trade Center name rights from the Port Authority to the World Trade Centers Association in 2013, the following investigation by the State Attorney of New York and the subsequent settlement between the Port Authority and the World Trade Centers Association in 2015. The publicly accessible settlement agreement and the official communication of the New York government agency concerning this case serves as a primary source in this dissertation. An equally valuable source is the external communication provided by the World Trade Centers Association and its dissemination in the media. Here, a critical reading will be performed in order to describe strategies in the self-creation of the association's identity. In the following, different parts of information available about the World Trade Centers Association will be compiled and put in context in order to understand what the organisation is and how it works.

## 1.1. Clandestine: What is it?

When searching for information about what kind of organisation the World Trade Centers Association is, one finds the following sources: 1) information generated by the World Trade Centers Association itself, communicated via its website and social media platforms; 2) various indexes of global trade organisations list the World Trade Centers Association, though without providing further information; 3) lesser known media business platforms reporting based on media releases provided by the World Trade Centers Association; and 4) the governmental website of the New York State

Attorney General provides information about the organisation in the context of the investigation into the transfer of the World Trade Center name rights from the Port Authority of New York and New Jersey to the World Trade Centers Association, which took place without public notification in 1986 and became public in 2013. In this chapter, the accounts of the World Trade Center Association and the report of the investigation led by the New York State Attorney between 2013 and 2015 will be compared, in order to see how the organisations' self-description compares to the facts compiled in the investigation led by the New York State Attorney General (Fig. 11).

Based on the facts provided in the settlement report (Appendix 4), the World Trade Center name was first used around 1960 when describing the planned complex to be built in Lower Manhattan. In 1962, Guy Tozzoli, an employee who had worked with the Port Authority since 1946, at first working with Robert Moses on the development of the Queen's World Fair in 1962/63 (Image 6), became the director of the newly created World Trade Center Department at the Port Authority. In this function, he oversaw the entire development and design project of the World Trade Center Twin Towers. In 1969, the World Trade Centers Association was established, working under the auspice and within the office space of the Port Authority. From this time on, the World Trade Center Association started to grow its network and the development of World Trade Centers worldwide. On its website, the organisation names the "Tokyo Meeting" in 1970, during which the first 15 members met in Tokyo at the Tokyo World Trade Center. According to the settlement agreement, starting from 1972 up until 1985, the Port Authority acted to defend unauthorised use of the World Trade center name on several occasions. However, it suspended this effort due to worries, that legal costs could be higher than future revenues gained by the Port Authority when licensing the World Trade Center name. The opening of the Twin Towers in 1973 is claimed by the World Trade Centers Association on its website as an event solely associated with the World Trade Center Association, without mention of the Port Authority: "WTC opens for business. The World Trade Center Association moves to the 77th floor". In 1986, the World Trade Center name rights were transferred for a symbolic amount of \$10 from the Port Authority to the World Trade Centers Association:

"On February 18, 1986, as advised by Robinson, the Port Authority executed the Confirmatory Assignment, which transferred to WTCA "the entire right, title and interest in and to said service mark WORLD TRADE CENTER," various registrations for the Service Mark, "the good will of PORT AUTHORITY's business in the services in respect of which the mark is used, together with all rights to apply for, obtain and hold registrations of the same and renewals and extensions

thereof, and together with all rights to bring suit for any past and future infringement of said mark." In exchange, WTCA agreed to pay the Port Authority \$10 and "other consideration" not specified in the Confirmatory Assignment. The Port Authority retained certain rights to use the Service Mark."

This event was kept clandestine for a period of 27 years, until it became public in 2013. Immediately following the transfer of name rights, Guy Tozzoli left his position of director of the World Trade Center Department to become full-time President of the World Trade Centers Association. From then, the organisation expanded both its network of World Trade Centers as well as its revenues in incoming licensing and membership fees. When the news broke about the name transfer deal in 2013, a 2-year investigation by the Attorney General of the State of New York found no legal wrong-doing on the part of the World Trade Centers Association, but concluded lax oversight of the sale, based on internal mis-interpretation of the potential value of the World Trade Center name for future decades, as well as a conflict of interest by the outside counsel used.<sup>3</sup> The parties settled with the following agreement, that the World Trade Center Association will:

"Pay \$184,000 to New York State.

Pay 33% of any revenues received from use of the name in New York and New Jersey to for the next twenty (20) years, for up to \$15,000 a year And waive membership fees for the Port Authority in perpetuity.

The agreement further requests that New York State direct the funds paid pursuant to this Assurance to the September 11 Memorial Foundation."4

On its website, the organisation describes itself as an association, that "serves as an 'international ecosystem' of global connections, iconic properties, and integrated trade services under the umbrella of a prestigious brand". As a World Trade Center, according to the website, businesses can "connect globally" and "prosper locally", they can "gain competitive differentiation & advantage" and position themselves for success. "Iconic and prestigious, a WTC offers an internationally recognised address suited for any company seeking to enhance their profile and trade globally". 5 And furthermore:

"The World Trade Centers Association (WTCA) is a network of more than 325 highly connected, mutually supporting businesses and organisations in nearly 100 countries. As the owner of the "World Trade Center" and "WTC" trademarks, the WTCA licenses exclusive rights to these brands for Members to use in conjunction with their independently-owned, iconic properties, facilities and trade services offerings. Through a robust portfolio of events, programming and resources that it offers its Members, the goal of the WTCA is to help local economies thrive by encouraging and facilitating trade and investment across the globe through Member engagement."

The settlement agreement, a document provided by the New York State Attorney General, concludes their investigation of the World Trade Centers Association by describing it as follows:

"WTCA is na not-for-profit organisation found in 1969 and registered as a membership organisation under United States Internal revenue Service Code § 501 (c)(6). At its inception in At its inception and for the first 18 years of its existence, WTCA operated under the auspices and within the office space of the World Trade Department of the Port Authority. WTCA's stated mission is to promote world trade through the establishment and operation of World Trade Center facilities (WTCs). Currently, WTCA has over 300 members worldwide, each of which is required to pay annual dues. In 2012, WTCA reported revenue of approximately \$7 million, primarily from dues and new member initiation fees"7

Comparing the two text passages, commonalities as well as differences become apparent. The World Trade Centers Association describes itself as an agency, which provides a global network for businesses and organisations, enabling mutual trade, financial and economic growth within a local and global market. It uses a language that is filled with positive adjectives, all highlighting the strong and stabile quality of the World Trade Center network, such as highly connected, mutually supporting, exclusive, robust or encouraging and facilitating. It offers no information on the legal form, the cost side for members and omits negative parts of the organisation's history. On the contrary, the text passage from the settlement report provides a fact-based account of the organisation. It states, that the World Trade Centers Association is a not-for profit membership organisation under United States Internal Revenue Service Code §501 (c)(6), which means that it is a partially tax-exempt organisation. By collecting annual fees from its members, the organisation generated approximately 7 million dollar of revenue in 2012. Furthermore, it states that it has operated throughout the first 18 years under the auspices of the World Trade Center Department of the Port Authority.

Comparing the narratives provided by the World Trade Centers Association about its own history with the facts that can be traced from the settlement report, one can summarise that the World Trade Centers Association depicts a narrative about itself as an organisation that has rather the character of a global organisation then the one of a business club. Building most notably on the narrative that the organisation helps sustain world peace and greater values such as diversity and connectivity by fostering trade, the organisation managed to have itself at times aligned in the media with organisations such as the United Nations in news lines such as "United Nations

Secretary General U Thant recognised Guy's vision as a 'United Nations of Commerce'"8, or the nomination of World Trade Centers Association's director Guy Tozzoli for the Nobel Peace prize in 1997, 1998 and 1999.9 In the aftermaths of the terror attacks on 9/11 and the destruction of the Twin Towers, Guy Tozzoli was able to convince Kofi Annan, then Secretary General of the United Nations, to write a letter (Appendix 4) in support of the values transported by the World Trade Centers Association, which are, according to Guy Tozzoli in his request to Kofi Annan, diversity, opportunity for all, "Stability through Trade" and the honoring and recognition of diverse cultural heritages:

"We want to use the World Trade Centers located in over 91 countries representing over 300 cities to demonstrate that the global village in which we live can be the source of opportunity for all. To that end we have special programs in developing countries. For example, at our Spring Meeting held in Sofia on April 14, we welcomed Tanzania to the family of the WTCA.

As part of our work we have decided to designate the second Wednesday in June of every year as "WTCA Day"" as a celebration of our diversity and worldwide presence. This celebration was born in part out of our firm commitment in the light of the tragic events of September 11, when our member in New York was attacked. We have suffered a terrible loss of life and want the world to know that our goal of promoting "Stability through Trade" is stronger than ever. World Trade Centers in every part of the globe will "pass the torch" from time zone to time zone in celebration of WTCA Day. For example, the World Trade Center in Amsterdam will have an event during which they will make a substantial donation to the Peace Park in South Africa. The World Trade Center in Tampa, Florida, will hold a day to honor and recognize diverse cultural heritages. The Sao Paulo World Trade Center is planning a major public ceremony that will last two or three hours, highlighted by speeches and a performance by young dancers. A huge white ribbon will be tied around the building to honor the occasion and tenants and others working in the building will join hands and physically surround the building in an embrace. At the conclusion, hundreds of white balloons symbolizing peace will be released."10

The World Trade Centers Association depicts an image of itself of an organisation promoting universal values of doing good while "protecting the World Trade Center brand". In fact, based on the investigation of the Attorney General and considering the legal organisation as which it is registered, the World Trade Centers Association is a club, the World Trade Center name a club good. As such, it represents itself as clandestine. First, given the disclosure, under which it obtained the name rights and with it an enormous economic value from a public organisation, the Port Authority. This disclosure lasted from 1986 until 2013. Second, given its exclusivity as a club — where information and access to certain benefits remain hidden behind the membership wall.

#### 1.2. Club: How does it work?

In the previous chapter, the inconsistency between the self-described identity of an organisation promoting the common goods such as diversity, inclusion, connectivity, with the exclusivity of a club, in combination with the appropriation of a good belonging to a public agency has been pointed out and the organisation has been described as clandestine. The following chapter scrutinises what kind of club the World Trade Centers Association is and how it operates based on the information available. By getting a more fact-based understanding of the character of the World Trade Centers Association, the paradox of why developers, investors, planners and businesses were and still are willing to commit to the costs involved with being a World Trade Center, can be elucidated. Legally, the World Trade Centers Association is filed as a non-profit organisation in the category under §501(c)(6) of the Internal Revenue Services in the United States, which implies a tax exemption status based on the organisation's characteristic of being non-for profit and membership-based:

"501(c)(6) is an Internal Revenue Service (IRS) tax exemption status that applies to nonprofit business leagues and related membership organisations including real estate boards, chambers of commerce, boards of trade and professional football leagues. Business leagues refer to associations of individuals organised for the purpose of advancing the common interest of a particular field of business or a specific profession. A 501(c)(6) association may participate in certain for-profit business activities, but these activities must not function as the organisation's primary purpose. No amount of a 501(c)(6) organisation's earnings may be applied toward the private gain of a particular individual or member.

501(c)(6) organisations must rely on membership dues as a significant, though not necessarily primary, means of financial support. Affiliated trusts established by a 501(c)(6) organisation for the purpose of administering funds may also qualify as 501(c)(6) organisations."<sup>11</sup>

In economic terms, the World Trade Centers Association exemplifies a Club Good. Just like tolled highways, infrastructures like tolled tunnels and bridges connecting for example Manhattan with the mainland, political organisations like the European Union, subscription clubs, sports clubs or access to copyrighted works such as academic publishers, Club Goods are artificially scarce<sup>12</sup>, meaning they "may not have been inherently scarce but can be made scarce through the excludability (invite-only) element". In the case of the World Trade Centers Association, this occurred when the name rights were transferred to the association, which from then on collected membership fees and licenses, making the use of the name a scarce good. Whilst the name was already protected when it belonged to the Port Authority, the

Port Authority had been negligent in collecting fees, disregarding and miscalculating the potential source of income. Club Goods are defined as "non-rivalrous but still excludable"14. The World Trade Centers Association is non-rivalrous, since the nomination "World Trade Center" of non-member buildings, organisations or businesses engaged in world trade would not prevent or even weaken the engagement of World Trade Centers in world trade. The World Trade Center Association is at the same time excludable, in that it prevents others from using the World Trade Center name, unless they become a member of the club. If "World Trade Center" was not a privatised good and rather be a public good instead, like, for example the name "shopping center", any building or space could be named world trade center. The distinction between a public good and a club good by the category of excludability was first undertaken by James M. Buchanan, when he introduced a theory of clubs in 1965. From then, the continuous discussion of club goods is relevant for this research in the immediate context of the foundation of the World Trade Centers Association in 1968 and the latter acquisition of the name rights in 1986. More-though, in the context of the described paradigm shift at the beginning of the 1970s, encompassing increasing privatisation, marketisation and competitiveness, the theoretical background of a flavour for the formation of exclusive clusters, are of special interest. In their review about the theorisation of club goods, Usman W. Chohan and Aron D'Souza stress psychic benefits and network effects as positive externalities of club goods. Both criteria apply to the World Trade Center phenomenon: the association with the highly iconic Twin Towers including the wide range of what it represents, can be categorised as a psychic effect for members of the World Trade Centers Association. The network effect applies in that it is beneficial to formal members, if more, possibly iconic and highly visible, World Trade Centers open, thus helping to disseminate and upgrade the brand's value. In economic theory, the question about the Pareto Moment of clubs — optimisation models for example regarding provision, utilisation and congestion<sup>15</sup> — is a relevant factor in the economic evaluation of clubs. In the focus of this research, however, are qualitative aspects of club goods and their memberships. Furthermore, the relation of the value of the World Trade Center name and the World Trade Center Twin Towers as buildings and architecture needs to be addressed. According to the association's website, commercial property developers as well as economic development agencies are invited to become members of the World Trade Centers Association; international businesses are invited to join World Trade Centers (Table 3). To these interest groups, the association offers as benefits, which are categorised on the organisation's website as a "prestigious brand", "global network", "iconic properties" and "integrated trade services<sup>16</sup>. All of these benefits listed under this categories are goods and services that do not require membership per se, with the exemption of the membership and the use of the World Trade Center name itself. As a cost for these benefits, the association charges, according to a media report in 2013, "a yearly fee of \$10,000, plus a \$200,000 initial registration." Adding to the described imbalance of cost and benefit, further paradoxes can be observed. For example, the declared goals of the World Trade Centers Association: protecting the World Trade Center name and promoting world peace; where does the value of the name derive, is it an effect of branding or of culture, does it originate from the Twin Towers and the World Trade Center buildings, or does the label add value to buildings? Last, there is the paradox of anachronism. In the digital age, financial centres are not only no longer situated visibly in the centres of global cities. Instead, they could be anywhere, including in the digital space. Having laid out known facts about what the World Trade Centers Association is and how it works, in a next step, the multiplicity of the associations' members, the network of World Trade Centers, is going to be laid out.

# 2. Mapping World Trade Centers

At the time of compiling the World Trade Center database for this dissertation, 325 licensed World Trade Centers exist worldwide, according the World Trade Center Association's website. Many more have existed, been planned, destroyed or re-used since the inception of the World Trade Centers Association in 1968.<sup>18</sup> Paradoxically, these architectures are mostly unknown, invisible within the global imaginary and in the media. Emphasised by the fact that a high majority of World Trade Centers has not been designed by known architects or global star architecture firms, the media dissemination usually related to star architecture does not apply to World Trade Center buildings. In the following, a cartography of World Trade Centers will be spread out, in order to get a thicker understanding of the architecture designed and developed in repercussion of the World Trade Center Twin Tower buildings in New York. In reference to chapter IV.1., in which morphology, use and positionality of the Twin Towers were described, this chapter lays out a critical number of World Trade Center buildings within their global infrastructure. It is the intention of this chapter, to provide an empirical overview of World Trade Centers and their physical and material reality by showing their positionality, morphology and interrelation. Without ironing out their multiplicities, examples of World Trade Centers will be grouped into categories, which will support the descriptive qualitative analysis of the phenomenon of World Trade Centerness in chapter VI. Rather than having an isolated view on single World Trade Centers, this research seeks to describe the physical organisation of the network of World Trade Centers, contextualising the buildings as nodes within the grid of World Trade Centers. While deeper case studies of individual World Trade Centers would be of interest in further research, within the frame of this dissertation, it is rather the bandwidth of the grid that is of interest than the single node. Questions asked in the following are: what is the physical and material reality of World Trade Centers, what is their morphology as nodes, what is their position within the global grid of World Trade Centers, and how do they interrelate? Furthermore, how do the many World Trade Centers relate to the World Trade Center Twin Towers in New York? How have the criteria defined when describing the Twin Tower buildings travelled over time and space, how did they morph and transform throughout the development of more than 300 World Trade Center buildings? When describing the spatial organisation of World Trade Centers, morphologies and positionalities will be described in their respective scales and by identifying categories that will be used as marks in order to show patterns of World Trade Centerness within the multiplicity of World Trade Centers.

This chapter uses internet sources and databases<sup>19</sup> in order to gather empirical data about World Trade Centers, collecting a critical mass of information in order to draw conclusions, which will help the qualitative description of elements of World Trade Centerness in chapter VI. The information found has been compiled as a World Trade Center database allocated in the appendix of this research, from which this chapter feeds. The database compiled in the appendix and used in this chapter works with the following limitations:

- Incompleteness. Many World Trade Center projects are not documented, such as in areas with different media dissemination or limited access; in particular information about past and failed World Trade Center projects is documented only insignificantly online.
- Arbitrariness. Often, different sources needed to be combined in order to increase the net of information. Sometimes, the numbers and information given were arbitrary, thus leading to arbitrary or even false information.
- Bias. Due to the general lack of information about World Trade Centers, the main source is the World Trade Centers Association. Biased and lacking independence, the information given needs to be seen through the lens of the organisation's marketing and PR strategies.

Further exclusions and limitations have been made in the creation of the World Trade Center database, these are: World Trade Centers, that are neither categorised as ' operating' or 'certified' by the World Trade Centers Association have been excluded from the database; past, failed and eventually not realised World Trade Center planning projects have been excluded in the database. For this reason, the database compiled in this research lists 258 World Trade Centers of the 325 World Trade Centers, that have been listed on the World Trade Centers Associations' website at the time of compiling the database. The Associations website is constantly updated and altered, therefore the data available only reflects an incomplete catalogue of World Trade Centers.<sup>20</sup> Despite these limitations, the information gathered provides information that, whilst fragmentary, is thick enough to identify and describe patterns and structures concerning the quality of the grid of World Trade Centers and that allows the description of the phenomenon of World Trade Centerness.

# 2.1. Morphologies

First, the morphologies of World Trade Centers as physical bodies, as nodes within a field, are introduced and described in their varying scales, providing examples of World Trade Centers matching these specific scales. It is the purpose of the following, to demonstrate, how World Trade Centers developed through the last decades relate to the Twin Towers in multiple ways in their morphologies. Being recognisable as a World Trade Center, being like the Twin Towers, does not necessarily mean being an identical copy of the Twin Towers. Rather, the seriality that has been initiated with the Twin Towers as World Trade Center 1 and 2, according to the legitimating narrative for the World Trade Centers Association, spawns buildings in multiple morphologies. In this chapter, the categories void, one and many are used to provide an overview of this scale. The scale established refers to degrees of both visibility and volume; the cases shown are examples of patterns that can be observed within the multiplicity of World Trade Centers. Furthermore, the categories used intersect and overlap, meaning that a World Trade Center can fall into more than one category or fall in between two or more categories. This chapter relates to chapter IV.1.1., in which it has been argued that the Twin Towers' specific morphology served as a prerequisite for World Trade Centerness, highlighting their monolithic forms, doubled by their twinness, as well as by their disproportionate height. It has also been pointed out that the Twin Towers' specific morphology showed, in the course of their physical existence, the ability to 'morph', change identity and serve, like an empty screen or stage, as a platform for varying performances and projections. It is in this light that in the following the morphologies of multiplied World Trade Centers are being laid out.

#### 2.1.1. Void

Describing certain World Trade Center morphologies as *void*, this chapter groups World Trade Centers, that are non-existent as buildings, not or merely visibly or 'grey' architecture and considered to be banal or irrelevant in terms of architectural aesthetics. In this category, World Trade Centers are grouped that are: 1) mere postal addresses, without any physical space; 2) World Trade Centers occupying partial space in buildings that are not World Trade Centers; 3) World Trade Centers in existing historic buildings; 4) World Trade Centers occupying specifically assigned World Trade Center buildings, which feature a more or less generic design. In the following, these groups will be described and examples will be given.

From the 258 World Trade Centers listed in the database of this research, 15 occupy no physical space, neither a building nor part of a building, and consist of a postal address only. These c/o World Trade Centers are holding a postal address at a different location from the position which they mark as a node within the World Trade Centers Association's network. They are non-existent as physical bodies within the World Trade Center network, however they mark a node within it by reference. The positions marked by these nodes via postal address are all weak positions, which are, on the one hand, relevant for the network to hold and to keep it tight, on the other hand, they require multiple ties to be connected to. Like all World Trade Centers, they refer to the World Trade Center Twin Towers. In addition, they refer to the specific World Trade Center, from which they use the address. Furthermore, due to the lack of their own visibility, they might even refer in their branding to an iconic building associated with their position that has no relation to World Trade Centers per se. To illustrate what is described above, the World Trade Center cluster of the World Trade Center Cyprus Holding will be used as an example (Image 32).

The World Trade Center Cyprus holding forms a cluster with 17 World Trade Centers under its roof and one affiliate World Trade Center, the World Trade Center Doha. From the 17 other World Trade Centers within the Cyprus Holding, three form a group for itself: World Trade Center Riyadh, World Trade Center Jeddah and World Trade Center Al Khobar. Six are part of the Cyprus Holding, but are located in buildings or World Trade Center buildings at their designated positions: World Trade Center Algeria, World Trade Center Beirut, World Trade Center Cyprus, World Trade Center Fuzhou, World Trade Center Perth and World Trade Center Ramallah. The remaining eight World Trade Centers belonging to the Cyprus Holding share a phenomenon, which also applies to the overarching organisational body of the World

Trade Center Cyprus Holding itself: they ascribe a certain geographical position, a node, within the World Trade Center network. This position is not identical to their address, in terms of location, and it is neither identical with the image they use for their own branding. In all cases, images of either national icons or national heritage are used to represent the World Trade Center, due to the lack of a World Trade Center building that could represent its respective World Trade Center. These World Trade Centers are: World Trade Center Aleppo, World Trade Center Amman, World Trade Center Basra, World Trade Center Benghazi, World Trade Center Casablanca, World Trade Center Pingtan, World Trade Center Sanaa, World Trade Center Tunis. Except the World Trade Centers in Perth, Australia, and in Fuzhou, China, all World Trade Centers positioned under the Cyprus Holding are located in Northern Africa or, predominantly, in the Middle East. The group of World Trade Centers described above, which holds only a mailbox address at their designated position within the World Trade Center network and lacks respective buildings of their own are all positioned at 'weak' places, in terms of places with spoiled identities, as Erwing Goffman described it and as Lauren A. Rivera elaborated it in the urban context.<sup>21</sup> Places like Aleppo, Amman, Benghazi, Sanaa are still or recently have been entangled in difficult and unstable situations such as war, conflict, social unrest or economic turmoil. Marking these positions as part of the World Trade Center network, seems to strengthen them in the sense that this marks the belonging to a more stable, stronger group, leading to a transformation from a weaker position to a stronger position. Thus, being part of the World Trade Center's Association appears to be an instrument for the re-positioning of places with spoiled identities. Adding to the leverage between position and location, is the lever of the image. Just like the high visibility and resulting iconicity and 'fame' of the Twin Towers helped them become an agent for the re-positioning of identities — urban, organisational, national ones countries and cities seem to rely on the repeating effect of these transformations. With the lack of an icon of their own, in particular the World Trade Centers only holding a postal address use, branding iconic buildings as such relates to their national or urban identity. In another category of transforming identities, the World Trade Center brand becomes reinforced, justified, valorised and strengthened, when the images of highly iconic buildings are medially disseminated in association with their organisation. Paradoxically, in this way iconic buildings become associated with the World Trade Centers Association and might appear as World Trade Centers, that are not. Examples for this phenomenon are: The Kingdom Centre in Riyadh, Saudi Arabia, whose image is used by the World Trade Center Cyprus Holding itself instead of their real address, the Arch Tower in Riyadh. The Kingdom Centre (Image 28) is also used as an image for the World Trade Center Riyadh, whose real address is in the Arch Tower in Riyadh, too. World Trade Center Amann uses the Jordan Towers in Amann (Image 30) as image and World Trade Center Casablanca uses the Casablanca Twin Towers as image (Image 29). Using iconic visible buildings that are not World Trade Center buildings or images of national heritage with the objective to be associated with symbols of economic stability is a strategy that can also be observed with the other types of World Trade Centers grouped into the category *void* in this chapter: World Trade Centers that occupy space in buildings that are not exclusively World Trade Center buildings or World Trade Centers that feature a World Trade Center building, that is architecturally generic and lacks visibility and is therefore not suitable for branding activities.

From the 258 World Trade Centers listed in the database of this dissertation, some occupy space in buildings that are not exclusively World Trade Center buildings. They are usually part of multi-business complexes, often located at peripheries or part of airport business facilities, such as the World Trade Center Schiphol Airport in Amsterdam, the World Trade Center Malpensa Airport in Milan or the World Trade Center Washington Dulles Airport. The latter uses, for example, the iconic terminal building of the Washington Dulles Airport, designed by Eero Saarinen. Another examples of a World Trade Center that is part of a business complex and uses iconic architecture for its own branding is the World Trade Center in Frankfurt (Oder). Located at the border position between the former Eastern and Western Europe, the World Trade Center is located in a business complex situated on a green filed in the periphery. On the World Trade Centers Association's website, however, the iconic Oder Tower, (Image 31) a modernist skyscraper built during the 1970s in the city center of Frankfurt (Oder), then part of the German Federal Republic, has served as an image for the World Trade Center since its inception in 1991 after the German reunification.

From 258 World Trade Centers listed in the database of this dissertation, the largest single group of morphologies differentiated is the group of World Traded Centers that are categorised in this research as 'generic.' 'Generic' here is understood as 'grey' architecture, banal or irrelevant in architectural aesthetics and as a result not disseminated in the media via images, not designed by known architectural firms, non-iconic, and generally inconspicuous and rather imperceptible. From 258 World Trade Centers listed in the database of this research, the 136 World Trade Centers categorised in the database as generic can be subdivided by region: 49 in Europe, 39 in North America, 14 in Central and South America, 27 in Asia Pacific and 7 in Africa and the Middle East.

A few World Trade Centers occupy historic existing buildings, which has the effect that their local and national identity is being emphasised, the anchoring in the local historic context, and to the past in general. Examples are the World Trade Centers in Saigon, San Diego, Warsaw, Washington DC and Winnipeg. Most of them, however, consist of office buildings, infrastructure buildings, business centers, service centers, mixed-use complexes, consisting mostly of office space, sometimes including conference spaces, a hotel or even apartments. Unlike iconic tall World Trade Center buildings, which are almost exclusively located in city centres, generic World Trade center buildings can be found in city centres, in peripheries, on the green field and at border positions such as national borders, ports or airports. In fact, most of the generic World Trade Centers, 96, are located in cities. 40 are in the periphery, and, out of these two categories combined, 43 are located at a port or airport position. All relate in their branding, communication and on their websites to the Twin Towers. Often, the Twin Tower narrative is recounted on the website, in addition to images of the Twin Towers that are shown to market the World Trade Center and to strengthen the belonging to the same system as what the Twin Towers represent. In addition, some use, the branding strategy described above and use another national or local iconic building that resembles some characteristics of the Twin Towers, such as height, monolithic, twinness or simply disproportionateness, to represent their identity as a World Trade Center, others present in their building in their branding activities and communication.

#### 2.1.2. One

While in the previous chapter, certain World Trade Center morphologies were described as *void*, as either non-existent or merely visible architecture, the following chapter groups World Trade Centers, that are stand-alone single buildings, into the following categories: 1) generic World Trade Center buildings, that are visibly marked as World Trade Centers and usually feature a medium height; 2), medium height World Trade Center buildings, that feature a prominent design; and 3) iconic, disproportionately high tall buildings.

From the 258 World Trade Centers listed in the database of this research, 37 fall under the category of iconic, disproportionately high tall single buildings, described as monoliths in the database attached to this dissertation (Fig. 9). The majority of them are located in the Asia Pacific Region (17), 2 in Africa and the Middle East, 7 in

Central and South America, 7 in Northern America and 4 in Europe, that have been built after the Twin Towers opened in 1974. The comparably large amount of single, iconic and disproportionately tall buildings in the Asia Pacific region started to occur in the 2000er years, and accelerated as of the 2010er years. In Northern America, no single, iconic and disproportionately tall World Trade Center buildings have been established for many decades, with the exception of One World Trade Center in New York, which opened in 2014 after a 12-year-long competition and planning process, replacing the Twin Towers that were destroyed during the terror attacks on September 11, 2001.

Examples for generic, but visible as World Trade Center buildings and usually of medium height are: World Trade Center Helsinki Airport (Image 82), World Trade Center Bogota, World Trade Center Bucharest, World Trade Center Ciudad del Este, World Trade Center Montana, World Trade Center Lagos, World Trade Center Limassol, to name just a view. In the World Trade Center database of this research, these World Trade Centers are classified as 'generic'). Examples of World Trade Center buildings of medium height, but with prominent design, are: World Trade Center Guadalajara, World Trade Center Macau, World Trade Center Salt Lake City. These World Trade Centers are designed in a postmodernist style and are classified in the World Trade Center database of this research as 'generic'.

Iconic, disproportionately high World Trade Center buildings are usually located in city centres and are highly visible within the city, the region or country and some even globally, depending on their media dissemination. Some feature an observatory platform and a restaurant. When examining the repercussions of the Twin Towers and looking at the multiplicity of World Trade Centers, this research tries to avoid simplifications and rather show the multiplicity of possible trajectories and approaches, of how the concept of World Trade Centerness has travelled. When looking at iconic World Trade Centers, ,contemporaries' to the Twin Towers need to be mentioned: World Trade Centers that opened at around the same time or before the Twin Towers in New York, for example: World Trade Center Tokyo (1970), World Trade Center Mumbai (1970), World Trade Center New Orleans (1970), World Trade Center Baltimore (1970) or World Trade Center Toronto (1970). All of these World Trade Centers are iconic, modernist monoliths in city centres, positioned visibly in vicinity to the port. Typologically, they are similar to the Twin Towers, albeit they are single towers and not twins. It can be argued, whether these 'contemporaries' can be described as repercussions of the Twin Towers, since planning and design of the Twin Towers circulated throughout the 1960s. This research, however, considers the completion of the Twin Towers and thus their real physical existence as the starting point of any repercussions.

In the previous chapter, void and generic World Trade Centers have been shown and described, demonstrating the discrepancy between the highly iconic Twin Towers and the multiplicity of 'grey', banal, unknown and thus, within the global imaginary invisible World Trade Centers. Concluding from this, that the highly iconic Twin Towers found their serial continuation in generic buildings that do not match their scale in visibility. In fact, there are highly iconic World Trade Centers, single and twin buildings, across the world which need to be examined in terms of their morphologies and positionalities. To demonstrate, how the phenomenon of World Trade Centerness has travelled and shifted across space and time and how various strategies in World Trade Center development relate and intersect with cultural, economic and political implications, a closer look will be taken in the following section at three single iconic World Trade Centers and how their development intersects with the Twin Towers (Fig. 12): Dubai World Trade Centre (1979), China World Trade Center III (2010) and One World Trade Center in New York (2014).

At its opening in 1979, the Dubai World Trade Centre stood at 39 storeys tall, literally alone in the dessert (Image 41). Only a few scattered low level buildings and a rudimentary road system can be seen on early images. Also in 1979, China started to open its economy to the world market, Margaret Thatcher became prime minister in Great Britain and began a programme of increasing market liberalisation and privatisation, revolutionary Islam emerged as a global force with the events in Iran and Afghanistan and resistance movements in Eastern Europe that ultimately led to the fall or the iron curtain, started — in the analysis of Christian Caryl, all events that would massively shape the trajectories of the globalisation up until now. The completion of the World Trade Centre Dubai marks, as well, a major point within globalisation, too. To understand the key role of the World Trade Centre Dubai as an agent of re-positioning, its development needs to be put in context with the political development of Dubai, the development of the Twin Towers in New York and the role of oil for the global system. In 1960, the British architect John Harris presented a master plan for the urban development of Dubai to Sheik Rashid bin Saeed Al Maktoum, that was characterised by the development of a road network, low-rise commercial buildings and one-storey dwellings for the desert town, that had been a local trade place, port and hub along the silk road and was, until 1971, still dependent on British colonialism. At the same time in the early 1960s in New York, the Downtown Lower Manhattan Association had been founded and the development of the World Trade Center to re-position and strengthen New York and Lower Manhattan was well underway. In 1966, the discovery of oil in Dubai marked a pivotal moment in the city's development, and the masterplan from 1960 needed to be changed according to the new geopolitical and economic position, leading to a new masterplan in 1971. In 1973 and 1974, major events coincided: the first oil shock and the oil embargo happened when Dubai joined the United Arab Emirates and the Twin Towers opened. In 1974, planning started for the World Trade Centre in Dubai.

"Even before the iconic World Trade Center of New York City is fully occupied, Sheikh Rashid already plans for such a concept in Dubai. Upon viewing Harris' first model for the project, he simply states it needs to be higher, much higher than Dubai's 3-5-story skyline. Growing gradually after each review, a 34-story project is finally approved. However when consecution reaches 8 stories, Sheikh Rashid asks for revision - 5 additional floors. With a rapid response to fulfill the demand, the final building is completed with 39 stories."<sup>22</sup>

At its opening in 1979 attended by of the Queen of England, the World Trade Centre Dubai marked the beginning of a massive transformation of Dubai, the United Arab Emirates and the Gulf region. From a port and trade hub along the silk road, Dubai developed into the global megapolis as it is known today. It would remain the tallest building in the Middle East for twenty years, until in 1999 it was surpassed by Burj Al Arab in 1999 in Dubai. An employee was quoted saying:

"Our mission at the trade centre was very much about marketing Dubai internationally, (...). "Our strategy was to try to make it comparable with a top-quality office building you'd find anywhere else in the world," <sup>23</sup>

The opening of the World Trade Centre marked the beginning of and economic upswing and the urban development of Dubai, with large international companies positioning themselves at in the Gulf throughout the 1980s and 1990s. Gradually, the focus in urban development in Dubai shifted from the business of oil towards the business of tourism, and the cityscape changed again with the development of mega projects, intended to ensure prosperity beyond oil.

A pivot came, again, in the context of the Twin Towers in New York. The terrorist attacks on September 11, 2001, not only resulted in a downturn of globalisation, they also enhanced an increased awareness of nations' own identities and stimulated various demarcation efforts, encouraged also by the growing anti-Islamism in the United States. Since 1979, the year of the completion of the Dubai World Trade Centre and during the second oil shock — US President Jimmy Carter had delivered his crisis of confidence speech — China had increasingly positioned itself to

participate in the global trade market, which resulted in a stark rise of GDP in China throughout the 1980s and 1990s. Not surprisingly, in 1985, the development of a World Trade Center complex in Beijing started. Following the destruction of the Twin Towers in New York, two major World Trade Center developments of large iconic buildings — both of them aiming to be the tallest building in the world — got underway almost simultaneously. In 2002, the competition and planning of a new World Trade Center in New York started, replacing the Twin Towers that were destroyed. In Beijing, planning for Tower III of the China World Trade Centre commenced (Image 42). China World Trade Centre III was completed in 2010, One World Trade Center in New York in 2014.

One World Trade Center (Image 43) is part of the renewal of the former World Trade Center site, that was destroyed during the terrorist attacks on September 11, 2001. Overseen by the Lower Manhattan Development Corporation, which had been incorporated in the aftermaths of the destruction, three more World Trade Center Towers were erected next to One World Trade Center, situated around the memorial site at the footprint of the former Twin Towers, the memorial museum and the new transportation hub. One World Trade Center was completed with delays after a long and dire process that was marked by intense controversies among stakeholders, concerning the competition process, design, financing, safety and many other issues. The tallest building in the US and the Western hemisphere, it is charged with symbolism concerning not only September 11, but the past in general, referencing a variety of aspects of the 'American Age'. Labelled as the 'replacement' of the 'original' World Trade Center, the Twin Towers, One World Trade Center holds the paradoxical double function of being a monument and an office building at the same time, as stated in the design brief of the competition proposal:

"One World Trade Center was designed as a memorable architectural landmark – a symbol of the American spirit, whose simplicity and clarity of form will remain fresh and timeless.

One World Trade Center is a bold icon filling the skyline void left by the fallen towers. While the adjacent World Trade Center Memorial speaks of the past and of remembrance, One World Trade Center speaks about the future and hope as it rises upward in a faceted form."24

As an office building, it faced at its opening — similar to the Twin Towers 30 years earlier — harsh difficulties to find not only tenants involved in world trade, but tenants at all. As a monument, it is charged with nationalism and fear. Named "Freedom Tower" throughout the design process, One World Trade Center is marketed as bold, competitive and proud: not only the tallest building, but also the

most expensive office building at the time, the tower's height of 1,776 feet references the year 1776, when the United States Declaration of Independence was signed.<sup>25</sup> In the architectural project description, One World Trade Center, an office building, is described as an "icon for our country", "a memorable architectural landmark for our city and our nation" and seen in the "tradition of great New York City icons such as the Chrysler Building and Empire State Building."<sup>26</sup> At the same time, it is labeled as "unprecedented in terms of life safety and security" and as a building "among the country's safest". <sup>27</sup> The project description states:

"While the memorial, carved out of the earth, speaks of the past and of remembrance, Freedom Tower speaks about the future and hope as it rises into the sky in a faceted, crystalline form filled with, and reflecting light." <sup>28</sup>

In contrast to the proclaimed future-orientation of the project, several arguments can be made to proclaim the opposite, and to portray One World Trade Center as a repetition of the Twin Tower project. Certain misconceptions that had already been diagnosed as such at the Twin Tower development, have been repeated, for example the exclusion of city and citizens in the design and development process; the spatially disproportionality regarding a real need in office space, resulting in vacancies and difficulties to find tenants. The intense focus on security measurements both technically, but also in the use of One World Trade Center, resulting in constant surveillance and control of the tower and its urban surrounding, does not match the idea of an open, connected society as it is proclaimed by the idea of internationalisation and connectivity. Furthermore, the choice of commissioning with Skidmore Owings and Merrill and the project lead architect David Childs one of the most established architectural firms over a more innovative design, depicts a rather traditionalist, conservative approach rather than one that is innovative and future-oriented. The completely curtained facade of not only One World Trade Center, but all four World Trade Center buildings mirroring each other can be interpreted as self-reflection, self-centredness and as a visual doubling effect via mirror, as if the towers need to reinforce each other by seriality. There was, however, one large difference between the Twin Towers' development and the development of One World Trade Center. While the new World Trade Center is still to 95 percent owned by the Port Authority of New York and New Jersey and fully controlled by the public agency, it now needs to pay the initial and annual license fees to the World Trade Centers Association, to which the public agency had sold the name in 1986. When comparing the actual use of the publicly owned office tower as a World Trade Center, One World Trade Center, like the Twin Towers 40 years earlier, was rather occupied by public agency tenants. Financial services firms, as they had established themselves in the Twin Towers during the 1980s and 1990s, had given space to tech companies

and media companies such as Condé Nast as main tenants in One World Trade Center:

"One World Trade's leasing troubles echo the early years of the original World Trade Center. With 10 million square feet of space, the Twin Towers struggled for years with slow leasing, renting significant chunks of the buildings to government agencies." <sup>29</sup>

The first private-sector tenant at One World Trade Center was, the Chinese real estate Company Vantone, situating the China Center in One World Trade Center with the aim of fostering trade and cultural exchange between China and the United States. The project initially envisioned the design of a Chinese garden across several floors in One World Trade Center, but was reduced in scale and size during the early planning process.<sup>30</sup> The engagement and position of the China Center as the first commercial tenants in One World Trade Center indicates the different positions on world trade the United States and China took and the different strategies they pursued during this period. One World Trade Center, conceptualised in a context of insecurities and national self-awareness, was labelled, in a "stronger-than-ever gesture", as the rebuilding of the first and original World Trade Center, the Twin Towers, that had become to symbolise the American Age and the global system encompassing it. A comparison to the concurrent development of China World Trade Center III in Beijing provides a closer understanding about how the global system and the cultural concept of trade has shifted.

China played a large role in the transformations in global culture that occurred throughout the 1970s, as described earlier in this dissertation. The political transformation in China triggered by Mao Zedong's death in 1976 and the coming to power of Deng Xiaoping in 1979 as the new leader of China transformed China, China's role within the global system and the global system itself. Postwar geopolitics have been predominantly shaped by the dualistic power relation between the United States and the Soviet Union; the United States' dominance of world markets and its strong economic standing within global capitalism was consolidated throughout these years and continued throughout many decades to follow. China after the Cultural Revolution under Mao Zedong had disengaged itself from the world market economy. Under the new leadership of Deng Yiaoping, however, China re-positioned itself culturally, politically and economically, resulting in an opening to the world market and to the formation of international relations. Immediately after his taking power, Deng Yiaoping started to meet leaders from the Western world, for example did he visit President Jimmy Carter in Washington in 1979. Following this shift, China gradually expanded its position in the world market over the following decades,

following a clear target. The development of positionality on major trade hubs, the creation of new trade hubs and the development of trade infrastructure has since been key to China's political and economic agenda. Against this backdrop, it is to no surprise that World Trade Center development in China emerged in the 1980s and increased throughout the following decades. In 1985, construction began on the China World Trade Center, a complex comprising multiple buildings, which opened in 1990. On the same day twenty years later, in 2010, China World Trade Center III opened, a super-tall building as an iconic tower of the existing World Trade Center. Planning of China World Trade Center III started in the same year as planning for One World Trade Center in New York, in 2002, one year after the destruction of the Twin Towers. It too, was designed to become the world's tallest building and held this title until 2018. Designed by the same architectural office that designed One World Trade Center in New York, Skidmore Owings and Merrill, the buildings differ in particular in how they relate to their surroundings. One World Trade Center in New York is hermetically closed to the public and its surrounding. In design and accessibility, reinforced by the presence of surveillance systems and the guarding presence of police and security personnel and equipment, the tower is sealed from the public. In contrast, China World Trade Center III is on its base open to the public, featuring retail space and publicly accessible gardens. In its volumetry and facade, it resembles the Twin Towers that were destroyed just one year before planning for the China World Trade center III started. According to the project brief, "it's seamless integration with the surrounding areas seeks to return to a walkable, urban fabric that comprised traditional Beijing". And furthermore, in the project leader's opening speech:

"The business of China connects to the rest of the world, so we sought a design that further connected Beijing to the China World Trade Center. Not only does the Tower emphatically mark the Central Business District but the development also provides citizens of Beijing with quality buildings and open space for business, shopping, hospitality, culture, education and enjoyment in a high density urbane environment." 31

Comparing One World Trade Center and China World Trade Center III, it is noticeable that the World Trade Center in New York is closed to its surrounding in its physicality and use, whereas the World Trade Center in China opens itself in physicality and use to its surrounding, both on a local and a global scale, considering trade relations.

### 2.1.3. Many

In the above, World Trade Center buildings were introduced on a scale ranging from mere mailbox addresses to stand-alone buildings, ranging from invisible, 'grey' architecture to tall, iconic towers with high visibility. Another design strategy in referencing the Twin Towers' morphology is, evidently, a reference to the Towers' twinness. Here, strategies deployed range from sublimation — the citation of twinness in a stand-alone building —, copy — the reproduction of twin buildings or reinforcement of twinness — the multiplication of twin buildings or addition of any other building volumes. From the 258 World Trade Centers listed in the database of this dissertation, 5 are single buildings that cite twinness; 35 are twin buildings and 22 are part of a building complex, whereby twin buildings can be part of a larger World Trade Center building complex, like the World Trade Center in New York, which included in addition to the Twin Towers as World Trade Center 1 and 2 also the World Trade Centers 3, 4, 5, 6 and 7. In order to identify variables and patterns in the serialisation of World Trade Centers, the following chapter describes three morphological categories: 1) the citation of twinness in a stand-alone building; 2) the reproduction of twin buildings and 3) the multiplication of twin buildings or addition of any other building volumes. A potential category describing design concepts of large new urban developments, as they currently exist predominantly in Africa, China and India, will not be included in this research, since they are still in a planning process and it is yet unclear if they will be developed as planned.

The sublime strategy of citing twinness in a single World Trade Center building (Images 53-59) has been first deployed in the context of postmodern design in the 1980s and 1990s. One World Trade Center in Long Beach, United States (1989, Image 55) is an example, so is the World Trade Center of Grenoble, France (1993, Image 54), the World Trade Center in Genoa, Italy (1984, Image 57), the World Trade Centre in Chennai, India (2013, Image 60) or the design proposal for a World Trade Center in Riyadh, Saudi Arabia, by the Saudi Binladin Group and Gensler Architects (2011, Image 56). These buildings feature one structure, but appear, through added geometries in the facade and by the mixed use of concrete and glass facade, as two twin buildings, mirroring each other. A World Trade Center that is currently under construction, the World Trade Centre Riyadh, Saudi Arabia (Gensler, estimated completion 2021) uses a similar strategy, by overlapping the building envelope of the iconic super-tall building, thus evoking the appearance of two buildings instead of one.

Given the strong iconicity of the World Trade Center Twin Towers as a representation of global finance and stability, their twinness has been copied in various building projects with no relation to the World Trade Centers Association; for example at the Deutsche Bank Twin Towers in Frankfurt, Germany (Walter Hanig, Heinz Scheid and Johannes Schmidt, 1978-1984), the Casablanca Twin Center, Morocco (Ricardo Bofill, 1999) or the Bahrain Financial Harbour Twin Towers (2007). Neighbouring the twin towers Harbor Tower East and Harbor Tower West in Manama, Bahrain, is the Bahrain World Trade Center (Atkins, 2008), designed as highly iconic twin towers. The construction period and completion of both twin towers in Bahrain overlapped more or less in time and coincided with the global financial crisis in 2007/2008.

The Bahrain World Trade Center (Image 50, Fig. 13) is positioned in the downtown central business district of Manama. Commissioned by Bahrain's ruler, King Sheik Hamad bin Isa Al Khalifa, the towers have been designed by the British multi-national design firm Atkins as outstanding iconic and highly visible landmark buildings. Situated on the sandy ground, resembling the sails of an over-dimensional sailboat and featuring large wind turbines, which visibly connect the two towers, the Bahrain Twin Towers symbolise, first, global financial power. Furthermore, the highly visibly positioned wind turbines emphasise the country's innovative and sustainable future-orientation, by referring to its cultural past, traditional Arabian "Wind Towers":

"(...) the Client readily embraced the concept to portray to the world that Bahrain is committed to options that reduce demand on fossil fuel energy reserves and will move urban and building design in desert climates in a more sustainable direction.(...) The Bahrain World Trade Center sets a technological precedent that sets new standards in sustainable design."<sup>32</sup>

In the following, it will be outlined why and how the completion of the Bahrain World Trade Center occurred at a moment of national and global re-positioning of Bahrain. It will be further shown, how this strategy instrumentalised the New York World Trade Center Twin Towers.

Bahrain, a desert archipelago in the Persian Gulf and geographically one of the smallest countries in the world, has been like many of its neighbouring countries under the British protectorate until 1971. Compared to for example Dubai, oil was discovered already in 1931 in Bahrain, thus enabling it even more than others to economically thrive from the oil boom as well as to develop economic, politics and cultural strategies early on to position itself for the post-oil era. The Twin Towers in New York were planned throughout the 1960s, during which, specifically in the

United States and the Western World, all aspects of life were built around fossil fuels and the car culture — originally, there were large parking decks planned within the Twin Towers. When the oil crisis hit the Western world in a timely coincidence with the opening of the Twin Towers in 1973, it became clear, that the Twin Towers had been planned for an era that ceased to exist after the paradigm shift at the early 1970s. As a result, the Twin Towers needed to be rebranded and re-positioned as symbols of global finance, spectacle, performance and tourism, thus partaking as a stabilising symbol in the economic upswing of the 1980s and 1990s. Following Bahrain's independence in 1971, an Emirate was established under the leadership of Isa bin Salman Al Khalifa, the father of today's ruler, Hamad bin Isa Al Khalifa, who became King in 2002. In particular the period of Isa bin Salman Al Khalifa's leadership was characterised by a strong economic upward development due to the oil economy and the establishment of Bahrain as strong financial centre in the Middle East and worldwide.

Throughout these years, global business and all major institutions in the financial sector positioned themselves in Bahrain. At the same time, this era was characterised by poor human rights conditions. A pivotal moment came at the turn of the millennium with the change in leadership of power from the Emir to his son. One year after the Twin Towers had been destroyed in New York, the political system in Bahrain changed from emirate to constitutional monarchy. During the events of September 11 and the impending "war on terror", Bahrain aligned itself with the United States militarily against the Taliban and, in 2004, in the same year when construction of the Bahrain World Trade Center and the Bahrain Harbor Complex started, signed a free trade agreement with the United States. The Bahrain World Trade Center had been planned and commissioned in the context of the leadership change in Bahrain in order to create not only a symbol of economic strength and stability, but also a national icon:

"Buildings that represent the World Trade Center organisation are by nature emblematic of the city they are located in and are recognised internationally. In becoming an associate of such a prominent organisation, it was important that Atkins put forward a concept design that was not only strikingly beautiful, but one that would also break new ground in environmentally friendly design. It was also important to create a highly sustainable building that would become a world first in integrating wind turbine renewable energy in Bahrain, showing global leadership in innovation and future concern for the environment in what is considered as an oil rich region. (...) It has very much become a symbol of Bahrain, in the same way that the Opera House is representative of Sydney or the Eiffel Tower is synonymous with Paris."33

One year after the destruction of the New York Twin Towers, the new kingdom and its new ruler envisioned reinforcing the strong economic and financial power Bahrain had gained during the previous era based on its oil-wealth and its global position as a key financial hub. The global financial system depends highly on the display of stability and safety beyond the present, in the future. Thus, it is imperative for a strong financial hub to demonstrate stability for investors to give 'credit' into the location and remain and reinforce the presence of finance and its institutions on its location. Under this premise, the design concept applied with the Bahrain World Trade Center — twin iconic oversized sailboats in the desert with the figurehead of sustainability — aims to position and stabilise Bahrain as a stable and future-proof haven for money. Like the financial rating system, the multiple sustainability certificates that have been awarded to the innovative sustainable design of the Bahrain World Trade Center increase its value and credit rating and its credibility. The economic and financial strength and its image of stability stands in high contrast to the poor human rights conditions and social unrest that continues to be present in Bahrain, despite a decline during the first years of the new kingdom, during which the Bahrain World Trade Center was conceived. While high economic rating and low human rights ratings coincide, Bahrain has successfully positioned itself as a global financial centre and tourist destination. In 2017, the same year when Bahrain signed an arms deal with the United States under President Trump, an underworld theme park opened in Bahrain, featuring a sunken Boeing (Image 51). While the Concorde served as a symbol at the opening of the Twin Towers in 1973 for a coming age of global, airplane-driven connectivity, more than 40 years later, the iconic Bahrain World Trade Center Twin Towers in the shape of sailboats are emphasised by the image of the sunken Boeing at the playground of the Persian Gulf.

In some cases of World Trade Center development, the twinness, already a doubling of the first building, has been reinforced by the multiplication of twin buildings or the addition of a third or more identical buildings. Such are for instance the World Trade Centers in Jakarta, Indonesia (triple buildings 1985, 1985, 1985: twin buildings 2002, 2017, Image 67), in Istanbul, Turkey (six identical buildings, 2000, Image 65) or in Brussels, Belgium (three identical buildings, 1970, 1972, 1983, Image 52). In the following, the World Trade Center development in Brussels will be described in relation to the New York Twin Towers (Fig. 14).

In 1966, a plan to develop eight identical World Trade Center towers in Brussels was introduced. They were part of a large redevelopment plan of the historic Northern district, which was dubbed the 'Manhattan Plan' (Image 53) during protests that

followed in 1968. The protests were turned against 'Brusselization', an urban transformation that had been in process since the 1958 World Exhibition in Brussels and the increasing influx of European institutions throughout the 1960s. From the eight World Trade Center towers that had been initially planned, three of them were realised as World Trade Centers (1970, 1972, 1983), a fourth one was never realised, two twin buildings were realised much later on the ground that had been cleared for the World Trade Centers as telecom towers Proximus Tower 1 and 2, (1996) and as government buildings, North Galaxy Tower 1 and 2 (2004). The politician Paul Vanden Boeynants and the real estate developer Charlie De Pauw had visited the construction site of the New York Twin Towers and were inspired to develop a series of World Trade Centers in Brussels in order to position Brussels as a centre of politics and business in Europe. Katarzyna M. Romańczy ascribes the following elements to the phenomenon of 'Brusselization': demand for office space for European institutions, weak urban policies enabling uncontrolled planning and development, destruction of existing historic urban fabric, including expropriations and evictions, new office buildings with architectural shortcomings.34 Mostly affected by ' Brusselization' was the Leopold Quarter, that became the European Quarter since European Union and more European institutions located themselves in Brussels, including NATO moving their headquarters from Paris back to Brussels in 1967; and the Northern quarter, where the World Trade Center twin towers at their completion were the first and highest office towers in the historic district that had been cleared, starting a development of Business Center District architecture for the decades to follow. The World Trade Center became the symbol of 'Brusselization':

"Located on a one-square-mile plot formerly occupied by working-class neighborhoods, it would have constituted the largest business and administrative area in Belgium. Architecturally, the complex would have fulfilled the standards of the International Style. Monofunctional buildings — at least eight 300-foot towers devoted to office space exclusively—would be built on a site organised to maximize the efficiency of automobile and pedestrian traffic. A system of elevated plazas, overpasses and underpasses would have allowed cars and pedestrians to circulate at separate levels. Nationally, the Brussels World Trade Center would have acted as Belgium's new geographical nexus. The country's two main expressways—the North-to-South axis from Amsterdam to Paris and the East-West axis from Germany to Ostend—were meant to intersect at the foot of the central high-rises."

Due to planning failures and the economic crisis in the context of the 1973 oil crisis, the World Trade Center project envisioning 8 towers was never completely realised:

"By the mid-seventies, only three office towers, a few social housing blocks and a bus terminal adjoining the railway station had been built. For fifteen years, these few completed structures were surrounded by large vacant lots, cut off from the rest of the city."<sup>36</sup>

The World Trade Center development shows various parallels to the Twin Tower development in New York, such as the violent demolition of an existing urban fabric, the endeavour to develop and upgrade an urban area, the intention to build a ,lighthouse' in order to attract more businesses and enhance more real estate development in the area, and the impact the oil crisis had on the outcome of the project. While the New York Twin Towers managed to re-position themselves and adjust to the paradigm shift by being branded as a financial centre, tourist attraction and spectacle, the World Trade Center towers in Brussels never managed to turned their spoiled identity around. In recent years, public protests against the development in the Northern District increased. In 2019, World Trade Center 1 and 2 were destroyed in order to give space to a new real estate project to be erected on their site. Thus, by being destroyed, a last similarity to the New York Twin Towers. According to Baudrillard, however, the Twin Towers were destroyed for the symbolic value they represented, whereas the Brussels World Trade Center towers had to give in to their worthlessness.

#### 2.2. Positionalities

Having laid out the multiplicity of morphologies in World Trade Centers in the previous chapter in order to describe the physicality of the nodes that connect the grid of World Trade Centers, in the following, positionalities of World Trade Centers are going to be described, using the categories *center*, *periphery* and *border*. Together with the categories created in the previous chapter, *void*, *one* and *many*, when describing morphologies, they will provide a thick understanding of how World Trade Centers interrelate, without reducing their multiplicity. All categories can intersect or change, as will be outlined.

As shown in part 2.1.1. of this chapter, when describing the global network of World Trade Centers under the umbrella of the World Trade Centers Cyprus Holding, address, position and image do not necessarily correlate within the concept of World Trade Center placement. This non-conformance is part of the agency for transformativity and re-positioning, as will be outlined in Chapter VI when describing specific elements of World Trade Centerness. Here, positions are addresses, coordinates of the nodes. Just like the Twin Towers in New York where, at once, centre, periphery and border positions constantly change within the fluid

interrelation not only of World Trade Centers, but economic, political and cultural dependencies and factors.

Using the categories *centre*, *border and periphery*, three main strategies of World Trade center positioning are emphasised: visibility, transformativity and connectivity. The placement of World Trade Centers in city centers coincides with high and immediate global visibility; placement of World Trade Centers in the periphery — on a green field, in no-man's land — allows larger volumes to be developed and more space at lower cost, thus strengthening the connecting ties of the grid. The placement at borders such as ports, national borders, geographical borders or cultural borders enhances the transformativity from borders into boundaries.

### 2.2.1. Centre

As seen in particular at the World Trade Center development of iconic buildings, these buildings mark a centre by reinforcing an existing centre or by moving the centre — in the case of the Twin Towers from Midtown Manhattan to Lower Manhattan, in the case of the World Trade Centre Dubai into the dessert, in the case of the China World Trade Center from a world order dominated by the United States towards an order ruled by China. Like lighthouses, these World Trade Centers are highly visible, often featuring publicly accessible observatories and restaurants for tourists and citizens to come and see the world and be seen. From the 258 World Trade Centers listed in the database of this research, 174 are positioned in city centres, 18 of those in Africa and the Middle East, 44 in Asia Pacific, 22 in Central and South America, 44 in Europe and 46 in North America. Prominent examples include the World Trade Center Mexico (1994), the World Trade Center Atlanta (1982), the World Trade Center Denver (1987), the World Trade Center Boston (1985), the World Trade Center Kuala Lumpur (1984), the World Trade Center Macau (1985, Image 73) and the World Trade Center Sao Paulo (Aflalo & Gasperini Arquitetos, 1995). In the following, the World Trade Center Sao Paulo will be described in more detail (Image 70, Fig. 15). The World Trade Center Sao Paulo was planned from 1992-1994, during a political and economic transition period following a time characterised by various economic stabilisation measurements, culminating in the Pesos Crisis, the introduction of the real as the new currency bound to the US dollar in 1994 and coinciding with the completion of the Sao Paulo World Trade Center. Positioned centrally in the Brooklin Novo business district, it had opened 1

year prior to the iconic United Nations Business Center; a complex, to which it is connected underground:

"This place may be dysfunctional for the pedestrian tourist, but it makes absolute sense from the helicopter. The main buildings are Postmodern boxes that would look at home in Atlanta or Houston: the Cento Empesarial Nacaos Unidas by Botti Rubin Arquitetos (1989-99), three enormous towers in reflective glass, each describing a different variation on a triangular plan; the central tower, at 158 metres, is the second tallest building in the city. As Serapiao notes, the group relates formerly to the World Trade Center, adjacent (1992-5, Aflalo and Gasperini Architects). "In its emphasis on surface, it also relates to a smaller, explicitly Postmodern building by Königsberger Vannuchi architects, the Terra Brasilis. Enormously controversial when completed in 1990, this is one of the few genuinely Postmodern structures in the city. It makes ironic reference to the architecture of Niemeyer, the Paulista school, the historicist architecture fo Centro and 1930 Modernism. The reference points are largely local, but the effect international."

To describe the economic, political and social pivotal moment Brazil was in at the time of the World Trade Center development in Sao Paulo, a look back into the 1970s, when the Twin Towers in New York opened, is instructive. During this time, Brazil was, like other Southern American countries such as Argentina, Chile, Uruguay, Paraguay and Bolivia, ruled by military dictatorship, lasting from 1964 until 1999. This period was coined by brutal state criminality, persecution, torture and killing of many. Furthermore, the South American military juntas shared a neoliberal ideology, that had spread into the region via a group of Chilean economists, known as the ' Chicago Boys', who studied under Milton Friedman in Chicago. Despite the regime's brutalities, the initial economic upswing, coined 'economic miracle' was caused by privatisation, the opening to international financial markets and a large investment in infrastructure, backed by leading countries, in particular the United States. By the end of the 1970s, however, Brazil held the world's largest debt.38 Like in the case of the New York Twin Towers, the oil crisis in 1979 was a pivotal moment for the Brazilian economy and society; when the country turned towards democracy, the economy went into a downward spiral as a consequence of the indebtedness during the previous years. Like most other countries named above, Brazil continued its neoliberal agenda beyond the dictatorship: "By the end of the 1980s most Latin American countries had adopted the so-called 'Washington consensus' policy orientation", and the "1990s marked the triumph of neoliberal economic policies and globalisation in Latin America".39 The period of the 1980s was shaped by continued neoliberalisation, the debt crisis and economic crisis; various efforts to stabilise politics and economics failed. During this period falls the urban development of the new business district Brooklin Novo, where the World Trade Center is located at:

"This development is closely modeled on refurbished waterfronts in old northern hemisphere cities: Battery Park City and canary Wharf in London are essential reference points. The developments in all these cases are - to invoke a term invented by the sociologist Manuel Castells - meant to represent the "space of flows", that is, an international space in which capital can move freely, and be seen to move freely. The architecture of the space of flows is therefore functional on one level - it is office space of a certain kind that facilitates such transactions, but it also represents such transactions."<sup>40</sup>

Economic instabilities and uncertainties lasted until 1994, the year of the World Trade Center opening, when, within the *plano real*, a new currency, the real, was introduced. First fixed to the US dollar, it became free-float in 1999 and worked successfully as a stabiliser of the Brazilian economy. Stability continued over a longer period under the presidency of Lula da Silva, which led to Brazil's repayment of its debt, a strong resilience during the 2007 world financial crisis and played a key role in the formation of the BRIC states in 2009, with Brazil emerging as a strong and stable leadership country. The above excursion shows, how the World Trade Center in Sao Paulo functioned as an agent for re-positioning during an economic, political and social transition period. Compared to the World Trade Center developments in different geopolitical contexts, it shows how the concept of World Trade Centerness travelled and proved itself to be adaptable.

#### 2.2.2. Border

Describing the category of positions at borders, this research refers to Richard Sennetts' distinction between borders and boundaries.<sup>41</sup> It chooses the term borders over boundaries, since it seeks to use Sennett's terminology in order to describe repositoning processes in the context of the placement of World Trade Centers. In these processes, boundaries become borders, allowing processes of transformation and change. Boundaries as limes, edge or demarcation can be manifold and can intersect, they separate geographical, political, economic, social or ideological fields or systems. Often, they are situated in remote places, distanced from the center, at the periphery, in industrial belts, or vast and infrastructurally underdeveloped areas. Borders can also appear within cities, if, for example, cities are sectioned by national physical borders.

While port cities are by tradition often centres or even global cities, they are also identified as borders. Ports and airports mark border positions, such as the World Trade Centers in Rostock, Antwerp, Gothenburg, Brest, Barcelona or Osaka, to name

just a few. Examples for World Trade Centers positioned at national borders are the World Trade Center in Hunchun (China 2015), the World Trade Center in Tijuana (Mexico, 2010, Image 81), the World Trade Center in Saarbrücken-Metz (Germany, 1988, Image 62) or the World Trade Center in Dandong (China 2012). The latter is also positioned at an ideological border. A number of sanctions imposed for examples by the European Union, the United Nations or the United States have imposed trade sanctions on North Korea, the United States economic sanctions, for example have been imposed because

"(1) North Korea is seen as posing a threat to U.S. national security; (2) North Korea is designated by the Secretary of State as a state sponsor or supporter of international terrorism; (3) North Korea is a Marxist-Leninist state, with a Communist government; and (4) North Korea has been found by the State Department to have engaged in proliferation of weapons of mass destruction."<sup>42</sup>

In China, one of North Korea's largest trading partners, sanctions have been imposed against North Korea as late as in 2017, closing a vital trade hub between China and North Korea, which served as a marketplace not only for trade between China and North Korea, but also as a hub for North Korea to forgo existing trade barriers to a certain extend.<sup>43</sup> From the 258 World Trade Centers listed in the database of this research, 91 are positioned at ports or airports and 4 at national borders. In the following, a more detailed example will be given by describing the World Trade Center in Frankfurt-Slubice (1992) in its position of a former national and ideological border (Fig. 16).

Frankfurt (Oder) developed, like the cities of Dresden and Rostock, a World Trade Center during the early 1990s, following the fall of the Berlin Wall in 1989. The fall of the Berlin Wall signified a fundamental system change for the entire global world order. As a physical boundary, the "Iron Curtain" had symbolised the separation of Europe into an Eastern and Western bloc. After this divide, following the German Reunification, cities and regions in the former East took various efforts to re-position themselves within the new world order and its encompassing cultural, economic and political codes, with architecture serving as an agent to represent the new global system.

The term 'Wende' (German: turn) describes the socio-political change within the GDR, eventually leading to its end and to the beginning of a united Germany. It also describes a system change, the transition from one state to the other. Most research literature describes the developments in post-socialist urbanism as 'transformations', considering the processual character of urban transformations. This dissertation uses

the term "transition", as used by Oleg Golubchikov.<sup>44</sup> He differentiates the terms transformation and transition, describing transformation as a particularised, arearelated process, while transition is seen as a political and even ideological, totalising tool of systemic change, implementing power. Golubchikov suggests that transition should not be equated with contextual transformations, or else the totalising power of transitions would be obscured. "Urbanisation is a major institutional dimension of transition, not simply its playground". An orientation towards the Western capitalist culture, its practices and symbols, took place as part of a societal re-positioning. At the same time, the political, economic and financial opening, supported by financial development subsidiaries, enabled cities in the former GDR to connect and establish business relations abroad and it allowed foreign countries to invest in the new regions and profit from the new market under the narrative of reinforcing national reunification. Transitions associated with the 'Wende' were: from a bipolar to a multipolar world order, from communism to capitalism, from a planned economy to market economy, from a one-party system to a parliamentary democracy, from separation to unity, from a territorial position at the edge of Europe to the centre of Europe, from closed borders to open boundaries and, finally, from a state-governed urban planning system to an urban planning environment, which is dominated by public and private partnerships, developments and investors and highly driven by the global real estate market. The development of World Trade Centers in post-socialist urban planning in the former GDR happened to support the transition from one ideological system to another, the subsumption of the former Eastern Bloc by the global value system of the Western world. The presence of a building in an urban environment that is signified as World Trade Center symbolises the belonging to the same system, which the 'original' World Trade Center, the New York Twin Towers, represents. It hence acts as an agent for unification. Frankfurt (Oder) had a particular situation: situated directly at the national border to Poland; like in Berlin, the iron curtain used to divide the city of Frankfurt from its Polish part, which is, since its division, the city of Slubice. The Oder River separates these two parts and functions as the national border. With the turn of the 'Wende', its geopolitical position changed from being situated at the boundary of Europe and the so-called 'Western world', at the Iron Curtain, to being in the centre of Europe, with open borders and many new possible connectivities. As such, Frankfurt's position changed from a marginalised, disconnected position to the one of a hub within the global trade network. Separated from Poland only by the Oder River, it also functions as a territorial border and has been divided as a city since the Oder-Neisse Peace Contract, when a former district of Frankfurt (Oder) became the Polish town Slubice. As such, Frankfurt (Oder) became a symbol of the German division and the Iron Curtain, with the river functioning as

territorial border between the Western and Eastern Bloc, dividing the city. While the city's marginal position before the 'Wende', situated at the edge of Germany, Europe, symbolising the then bipolar world order shaped its economic and cultural identity, this changed with the end of the Iron Curtain. Suddenly, Frankfurt (Oder) found itself in the territorial centre of Europe rather than at its edge, confronted with the opportunities of open borders rather than closed boundaries. As such, the World Trade Center Frankfurt (Oder)-Slubice positions itself as a door opener for Polish-German business relations, building on its identity as bridge-maker, the symbolic place of the Oder-Neisse peace contract and cross border relations. With the geopolitical changes evoked by the 'Wende', the territorial, political and economic positions of cities in the former GDR changed fundamentally; in its position within Germany, Europe, as well as the global infrastructure. The establishment of World Trade Centers has served as a tool not only in Frankfurt (O), but also in cities like Dresden and Rostock, to re-position themselves within the new post-socialist global system. During the transition from one ideological system to another, the need for cities to re-position themselves in the new geopolitical and territorial system, the symbolic representation of world trade served as a tool not only for the German unification, but also for the new unity of the global. When referring to the World Trade Center Twin Towers in New York, cities seek to position themselves as hubs within the global network, as participants of the one global system. 45

### 2.2.3. Periphery

Positions categorised as periphery in this research are positions that are neither centre nor border locations. They are middle field, either industrial areas, suburban areas, green fields, or remote, marginalised places. Here, many times more space at lower cost can be developed, thus strengthening the connecting ties of the grid of World Trade Centers. Lacking visibility either by iconic architecture or the visibility provided by an urban context, World Trade Centers in the periphery are rather infrastructure spaces, functioning as hubs within a digitalised network. From the 258 World Trade Centers listed in the database of this research, 54 are positioned in the periphery, 9 in the green field, such as for example the World Trade Centers in Aachen, Germany (2000, Image 76), Lille Arras, France (2013, Image 77), Vilnius, Lithuania (2009) or Venlo, Netherlands (2009). While airport locations are often situated in the urban periphery, they are considered to be part of the city they cater to — for example the World Trade Centers Washington Dulles Airport, United States

(1997), the World Trade Center at Milan Malpensa Airport, Italy (2001) or the World Trade Center at Hong Kong International Airport, China (2001).

In the following, an example will be given for a particular type of World Trade Center development as it has emerged in more recent years, predominantly in China and India. There, the development of very large real estate complexes in greater urban zones have been designed and marketed as global financial hubs, often including World Trade Centers. Planning for these mega-projects started in the aftermath of the global financial crisis in 2007/2008, with some of them still in process. In order to attract international firms, they are free-zones, developed by public-private enterprises in collaboration with the state, including governmental funding and the necessary policy framework. Next to World Trade Center Noida, India (2012, Image 85), World Trade Center Guiyang, China (2014, Image 88) World Trade Center Harbon, China (2015) the World Trade Center GIFT City, Gujarat, India (in planning since 2013, Fig. 17) is one of those developments and will be introduced in this section. GIFT City (Images 83, 84) an acronym for Gujarat International Finance Tec-City is a greenfield development in the larger Gandhinagar metropolitan region in the state of Gujarat. Envisioned during the second 'Vibrant Gujarat Global Investor Summit' by Narendra Modi, then Chief Minister of Gujarat, construction started for the mega-project in 2014 and is ongoing. According to the project's website, GIFT City is positioned as follows:

"GIFT City is an emerging global financial and IT services hub, a first of its kind in India, designed to be at or above par with globally benchmarked business districts. It is supported by state-of-the-art infrastructure encompassing all basic urban infrastructure elements along with an excellent external connectivity. Companies from Financial Services, Technology and all other services sector will be targeted as potential occupants within the city.

GIFT City is changing the economic face of Gujarat and would keep India on the global map as Centre of excellence in the Financial & IT/ITeS Services domain. To create large employment in the field of services industry in Gujarat is also one among the main reasons for setting up GIFT City."46

Also according to the website, business segments targeted are offshore banking, capital markets, offshore insurance, offshore asset management, ancillary services and IT services. The construction of planned landmark towers — GIFT Diamond Tower, GIFT Gateway Tower, Gift Crystal Towers — has not started and is likely to be suspended.<sup>47</sup> An additional landmark as part of the city branding is the World Trade Center GIFT City. The project website shows images of the World Trade Center as rough construction and indicates the development as ongoing.<sup>48</sup> The World Trade Center GIFT City is planned as a complex of 4 towers with heights ranging

from twice 6, 28 and 18 floors, including commercial office space, conference rooms and business facilities. One tower is planned as an apartment building.<sup>49</sup>

More than simply a part of India's urbanisation strategy, which was envisioning, according to the Economist Special report in 2015, the development of up to 200 smart cities to meet the country's need for urban space<sup>50</sup>, GIFT City is regarded as the showcase for not only Narendra Modi's rise to power from his early positions in Gujarat to becoming Prime Minister of India in 2014, but also for his ideological agenda, which has become increasingly prevalent in India during the past years. Navdeep Mathur et.al. analyse GIFT City as a "text-book case of a lack of public accountability and transparency, reflecting the operation of such semipublic governance institutions in promising unbelievable public benefits while expending massive amounts of public money". Planned as an enclave, GIFT City caters toward foreign investors and capital and functions as an "entrepreneurial urban showcase for the nation."51 Tommaso Bobbio shows how the neoliberal agenda as show-cased in GIFT City is linked to the rise of subnationalism and the oppression of the Muslim population in India, by tracing Narendra Modi's rise to power along the GIFT City project.<sup>52</sup> In the early 1990s, India had emerged from a decade-long textile industry crisis. A new industrial policy in 1991 turned the economy around and helped in transforming its cities from "industrialized cities to globalised cities" by adopting neoliberal economic policies such as market and labour and tax releases for companies investing in the state. The economic recovery can be seen in parallel to the rise of Narendra Modi's Bharatiya Janata Party (BJP), who supported these politics:

"In Gujarat the emergence of such a political culture assumed peculiar features and went along with the rise of the BJP as a dominant electoral force, particularly in large urban centres, towards the end of the 1980s. The party took the basic elements of neoliberal economic propaganda—liberalisation, privatisation of services and infrastructure management, deregulation of the labour market, globalisation of investment—and enclosed them in an ethnonationalist frame. By associating economic progress and religious bigotry, the Sangh Parivar contributed to producing a political culture aimed at addressing an imagined urban, Hindu middle class."53

In 2001, when the New York Twin Towers were destroyed during the terror attacks on September 11, Narendra Modi became Chief Minister of Gujarat. One year later, the 'Gujarat Programme' took place in Gujarat, a violent outbreak against the Muslim minority which marked an escalation step in the subnationalist prosecution of Muslims in India. The Modi government in Gujarat at the time had been accused of endorsing the attacks. Coincidently, as a backlash to the terror attacks in the United States on September 11, Islamophobia increased worldwide, ignited by the

nationalist rhetoric of George W. Bush in the aftermath of 9/11 and in preparation of a "war against terror". In 2002, Modi initiated a biannual series called 'Vibrant Gujarat Global Investor Summit' in order to promote the region of Gujarat to global investors. During the following summit in 2003, the GIFT City project was introduced, and Navdeep Mathur et.al.regard this as a strategy to "erase the taint of Modi's role in the Gujarat pogrom of 2002."<sup>54</sup> Bobbio makes a similar observation when linking the construction of a specific global culture to social marginalisation and the suppression of minority groups. The "so-called Gujarati cultural tradition", he writes, "specifically from an upper-caste Brahmin and Bania fold", has been mixed "with the stereotypical features of a globalised society, in order to create the image of the Gujarati population as more predisposed to entering global economic markets and doing business in a 'modern', post-industrial, economy. Modernity, globalisation and development became keywords to represent the economic miracle of Gujarat." Bobbio concludes:

"In this perspective the subnational discourse underpinned what has been defined as a process of 're-imagination' of the state, based on the interrelation of ideas and values at different levels, from the religious to the economic, in order to include Hindutva within an ideology of development and modernisation." <sup>55</sup>

At the example of the World Trade Center GIFT City, it has been shown, how World Trade Centers can be part of re-positioning processes not only on an urban scale, but on a political, cultural and ideological scale as well. Similar to the World Trade Center development in Sao Paulo, Brazil, the World Trade Center development helped to brand a specific place as 'global', enforcing political and economic change towards market liberalisation, privatisation, and the opening to the global financial market.

### 3. Summary and conclusion

After having examined in chapter IV the World Trade Center Twin Towers in New York as a first in a series of World Trade Centers both in their physicality — as both stabile and unstable —, as well as in their function as nodes with the ability to channel various global flows, chapter V laid out the quantitative and empirical information available about the World Trade Center network. In this second of three main parts of this dissertation, the focus has been first widened to, an examination of the World Trade Centers Association, a member-based club, which owns the right to the World Trade Center name and licenses its use to its members, which are currently more then 300 World Trade Centers worldwide. In a second part, the wide field of

World Trade Centers is laid out, the linkage within this network as well as the hyperlink to the Twin Towers shown. In part one, first, the World Trade Centers Association has been described as what it is. Here, the discrepancies between the narrative based on what the World Trade Centers Association constructs as its own identity has been compared to fact-based information available. Comparing definitions and events in the history of the World Trade Centers Association, the denomination of clandestine has been used concerning two aspects: first, the clandestine transfer of the rights to the World Trade Center name from the public Port Authority to the Association for a symbolic amount of \$10 in 1986 had been kept secret until 2013; second, given the exclusivity status that derives from the status as a member-only club. Furthermore, it has been examined how the club operates. Based on definitions available about club good, a parallel has been drawn between an increased interest in club good theory in economic research in the context of the paradigm shift around the early 1970s and the encompassing global tendencies towards an increased privatisation, marketisation and competitiveness. Paradoxes in the self-declared goals of the club, the cost benefit ratio and the valorisation have been pointed out.

In part two, Mapping World Trade Centers, it showed the multiplicity of World Trade Centers, exposing the paradox relationship of the Twin Tower's strong iconicity and the banality and apparent irrelevance of other World Trade Centers. This chapter faced two main limitations: one, the large number of World Trade Centers; two, the lack of accessible information about these World Trade Centers, which is due to the fact that they are precisely not iconic buildings designed by global star architecture firms, branded by respective marketing efforts and disseminated for example in architecture related media. To deal with these limitations, a database of World Trade Centers has been compiled and placed in the appendix of this dissertation. From there, this chapter drew examples when describing characteristics of World Trade Centerness in parallel to the characteristics selected for the interpretation of the Twin Tower buildings in chapter IV. Both observations focused on morphologies, as material bodies, and positionalities, meaning how the buildings contextualise and interrelate. Within the structure of this dissertation, this chapter served first as a counter-balance to chapter IV, in which the Twin Tower buildings were described and analysed. It further serves to set the ground for the following chapter VI, in which the elements of World Trade Centerness will be qualitatively described and analysed, synthesising chapter IV and V. While chapter IV focused on 'the' World Trade Center, the Twin Towers, chapter V focused on the 'other' World Trade Centers, with the intention of providing the information necessary in order to further carve out the paradoxes, ambivalences and ambiguities of the relation between the one and the many, the New York Twin Towers and the other more than 300 World Trade Centers.

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Left (clockwise from top right):

- 28. Markaz Al-Mamlakah (Kingdom Centre) Riyadh, Saudi Arabia, 2002 (Ellerbe Becket, Omrania and Associates)
- 29. Casablanca Twin Towers, Casablanca, Morocco, 1999 (Ricardo Bofill)
- 30. Jordan Gate Towers, Amann, Jordan, (Ja'afar Tuqan), since 2015
- 31. Oderturm (Oder Tower), Frankfurt (O), Germany, 1976 (Hans Tulke, Paul Teichmann)

### Right (clockwise from top right):

- 32. World Trade Center Cyprus, Trust Re Building, Cyprus, Limassol, 2004
- 33. World Trade Center Lugano, Switzerland, 1989 34. World Trade Center Poitiers, France, 2007

- 35. World Trade Center Talinn, Estonia, 1995
  36. World Trade Center Belgrade, former Yugoslavia
  37. World Trade Curacao, Curacao, 1985
  38. World Trade Center Arkansas, USA, 2006

- 39. World Trade Center Stockholm, Sweden, 1987
- 40. World Trade Center Taichung, Taiwan, 1990

































- 41. Dubai World Trade Centre, Dubai, United Arab Emirates, 1979 (John Harris)
- 42. China World Trade Center 3A, Beijing, China, 2010 (Skidmore, Owings & Merrill)
  43. One World Trade Center, New York, USA, 2014 (David Childs, Skidmore, Owings & Merrill)

- 44. Sakishima Cosmo Tower, World Trade Center Osaka, Osaka, Japan, 1995 (Nikkei Sekkei)
- 45. Wuhan World Trade Tower, Wuhan, China, 1998
- 46. Wenzhou World Trade Center, Wenzhou, China, 2010
- 47. World Trade Center Doha, Qatar, 2013 (MZ & Partners) 48. Korea World Trade Center, Seoul City, South Korea, 1988
- 49. World Trade Center Tabriz, Iran, 2017









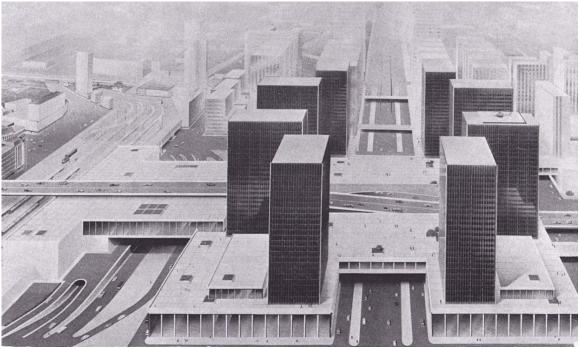












- Left: 50. Bahrain World Trade Center, Manama, Bahrain, 2008 (WS Atkins) 51. Sunken Boeing 747, Dive Bahrain, The World's largest Underwater Theme Park, Bahrain.

- Right: 52. World Trade Center Brussels, Belgium, 1970, 1972, 1983 (Groupe Structures S.A.) 53. Manhattan Plan Brussels













- 54, World Trade Center of Grenoble, France, 1993 (Claude Chautant)
- 55. One World Trade Center, Long Beach, USA, 1989 (Wou & Partners; Hammel, Green and Abrahamson)
- 56. World Trade Centre Riyadh, Saudi Arabia, design proposal 2011 (Gensler Architects, Saudi Bin Laden
- 57. World Trade Center Genoa, Italy, 1984 (Piero Gambacciani e Associati)
- 58 World Trade Center Guangzhou, China, 2005
- World Trade Center Abu Dhabi, United Arab Emirates, 2006 (Foster + Partners)

- 60. World Trade Center Chennai, India, 2013
- 61. World Trade Center Queretaro, Mexico, 2010 62. World Trade Center Metz-Saarbrücken, France, 1988
- 63. World Trade Center Moscow, Russia, 1973
- 64. World Trade Center Denver, USA, 1987











### Left:

- 65. World Trade Center Istanbul, Turkey, 1980
- 66. World Trade Center Colombo, Sri Lanka, 1993 67. World Trade Center Jakarta, Indonesia, 1974
- 68. World Trade Center Montevideo, Uruguay, 1992 69. World Trade Center Jaipur, India, 2013

- 70. World Trade Center Sao Paulo, Brazil, 1986
- 71. World Trade Center Rotterdam, Netherlands, 1970
- 72. World Trade Centre Hongkong, China, 1975
- 73. World Trade Center Macau, Macau, 1985 74. World Trade Center Tokyo, Japan, 1970
- 94. World Trade Center Mexico-City, Mexico, 1994





























75. World Trade Center Frankfurt (O)-Slubice, Frankfurt (O), Germany, 1992

76. World Trade Center Aachen, Germany, 2000 77. World Trade Center Lille-Arras, Lille, France, 2013

Right: 78. World Trade Center Barcelona, Spain, 1992 79. World Trade Center Baltimore, USA, 1970 80. World Trade Center New Orleans, USA, 1970 81. World Trade Center Tijuana, Mexico, 2010 World Trade Center Airport Helsinki, Finland, 2006











- 83. World Trade Center GIFT City, India, since 2013
  84. World Trade Center City WTC studio, India, since 2013
  85. World Trade Center Noida, India, 2012
  86. World Trade Center Nanning, China, 2014
  87. World Trade Center Abuja, Nigeria, 2008
  88. World Trade Center Guiyang, China, 2014 (Skidmore, Owings & Merrill)











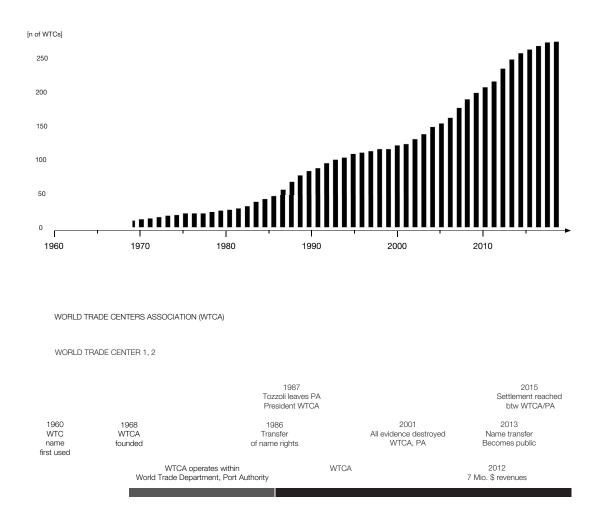


Fig. 7 Current World Trade Centers (source: www.wtca.org, accessed June 23, 2020)



Fig. 8 World Trade Center Development 1970 - 2019

GLOBAL WORLD TRADE CENTER DEVELOPMENT



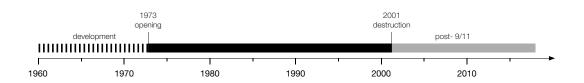
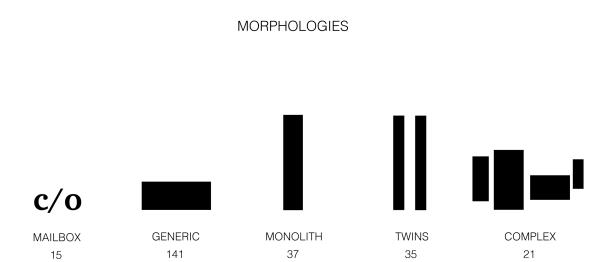


Fig. 11 Development of the World Trade Centers Association

Fig. 9 Morphologies (source: www.wtca.org, accessed March 11, 2020)



# **POSITIONALITIES**

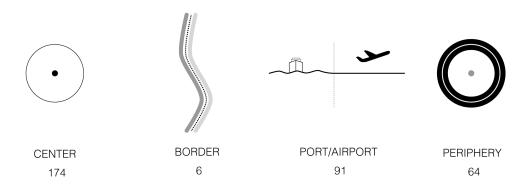


Fig. 10 Positionalities (source: www.wtca.org, accessed March 11, 2020)

Fig. 12 Dubai World Trade Center, Dubai, UAE, 1979 China World Trade Centre, Beijing, China, 2010 One World Trade Center, New York, United States, 2014

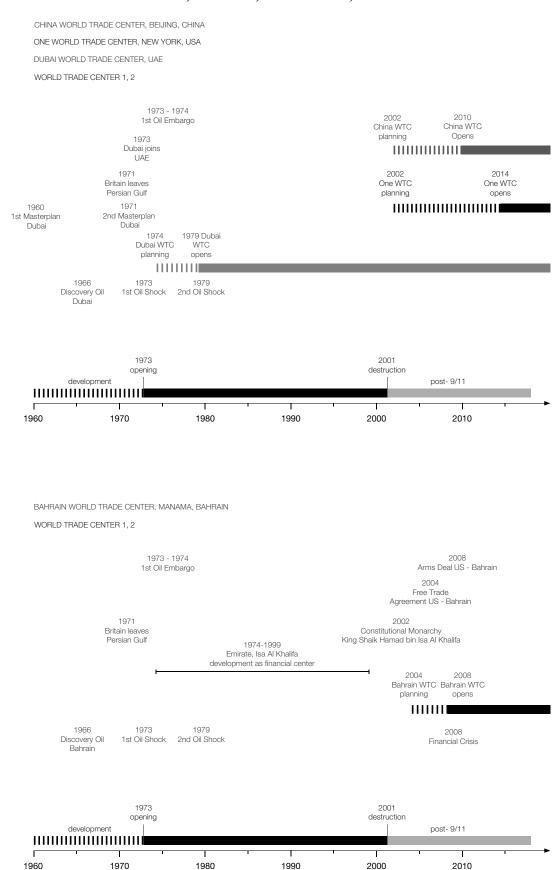


Fig. 13 Bahrain World Trade Center, Manama, Bahrain, 2008

Fig. 14 Brussels World Trade Center, Brussels, Belgium, 1970, 1972, 1983

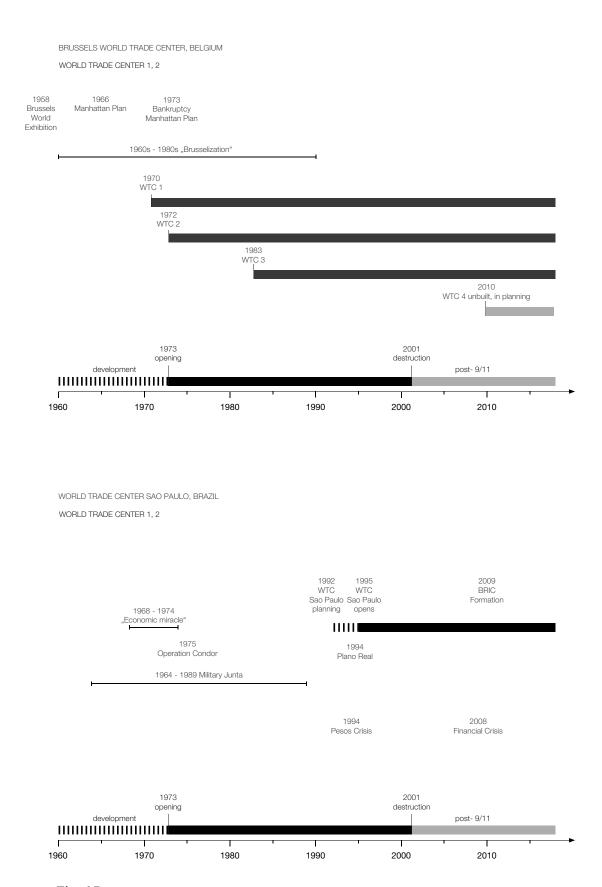


Fig. 15 Sao Paolo World Trade Center, Sao Paolo, Brazil, 1995

Fig. 16 World Trade Center Frankfurt (O) - Slubice, Frankfurt (O), Germany, 1992

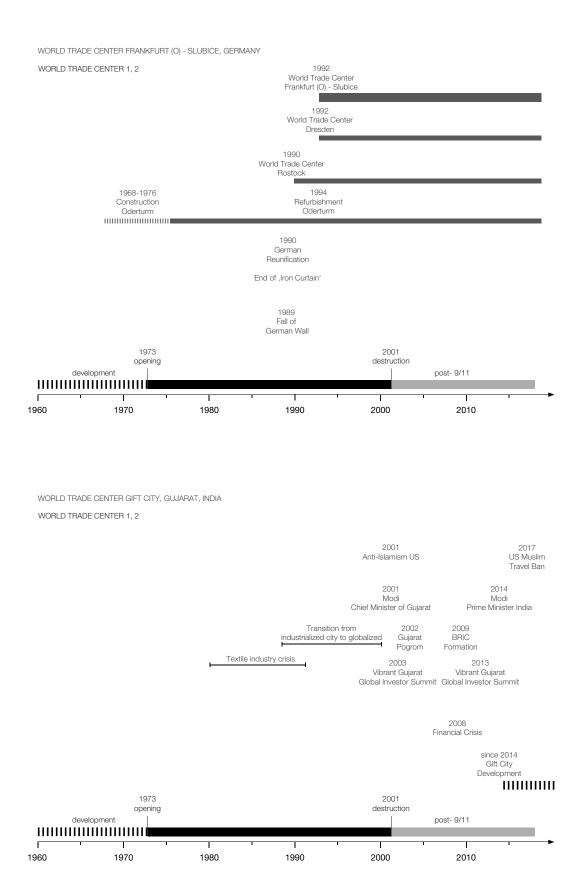


Fig. 17 World Trade Centre GIFT City, Gujarat, India, in planning since 2014

### VI. ELEMENTS OF WORLD TRADE CENTERNESS

Having contextualised and excavated the Twin Tower's specific characteristics that led to their agency as 'the' World Trade Center, having laid out the multiplicity of over 300 World Trade Centers as well as having pointed out the role of the World Trade Centers Association, in chapter VI, the objective is to elaborate elements of World Trade Centerness and formulate qualitative aspects of the proliferation and repercussions of the World Trade Center Twin Towers. A qualitative examination of the processes involved in the production and maintenance of the interconnectivity between the Twin Towers, the many World Trade Centers and the global system will be undertaken in order to understand how they relate. To describe the quality of the net that is spanned by World Trade Centers and the field that it creates, this dissertation uses the term World Trade Centerness. The term describes a phenomenon of recursive representation, in which the Twin Towers, as the 'original', 'first' or ' master' represents the global system. The World Trade Centers Association used this representation in order to exponentiate this representation in an effort to enforce its effects by multiplying World Trade Centers and creating copies, which, again, aim at representing the global system. As shown in chapter V, the multiplicity of World Trade Centers are not phenomenological replica of the 'original', they rather act like a World Trade Center in their agency to stabilise the global system, as if carrying its DNA. Like a worlding process, World Trade Centerness describes both epistemology and active form: being (like) a World Trade Center, and acting (like) a World Trade Center.

The following chapter is the third of three main parts in this dissertation. It synthesises findings from chapters IV and V. In chapter IV, an interplay of certain characteristics and specific contexts of the World Trade Center Twin Towers have been filtered out, which, as this research argues, set the ground for the Twin Towers instrumentalisation as a stabilising agent within the current global system as it has emerged from the early 1970s on. The World Trade Centers Association, this dissertation argues, has utilised this particular agency to establish a narrative of a global network, based on which it benefits financially. In chapter V, the World Trade Centers Association has been introduced as clandestine and a club, given that the organisation is rather unknown in stark contrast to the Twin Tower's 'fame'. In a second part, chapter V laid out the multiplicity of existing World Trade Centers, categorising them in terms of their positionalities and morphologies and explaining respective characteristics, intersections and relations with providing examples. Further to describing the World Trade Centers as nodes in their morphology and positionality, in the same mode as the Twin Towers have been analysed in chapter IV,

the examples given of World Trade Centers have been contextualised with political, economic and cultural phenomena, in parallel to the examination of the Twin Towers in chapter IV. Chapters IV and V provided facts and contextualised knowledge drawn from media and literature analysis; in particular chapter V served to lay out the material that is much lesser known about what World Trade Centers are and where they are positioned, drawing from empirical data in the appendix of this dissertation.

Chapter VI will bring findings about the Twin Towers, the World Trade Centers Association and the multiplicity of the many World Trade Centers together, providing a descriptive qualitative analysis of what is coined World Trade Centerness. It elaborates specific elements of this phenomenon, drawing from chapters IV and V as well as from the theoretical framework and its key concepts that has been laid out in the literature review in chapter III. In answering the research question, what it is for the Twin Towers' characteristics described in chapter IV that explains why the findings in chapter V, the description and analysis of the World Trade center network, could work and function, three main elements are filtered out in the following chapter: 1) seriality, 2) ambiguity and 3) fluidity. Seriality refers to the view of the Twin Towers as the 'first' World Trade Center, referring to their respective addresses, World Trade Center 1 and World Trade Center 2, viewing the development of currently 325 World Trade Centers as a serial continuation. It subdivides into an examination of the quality of sequencing and the relation of seriality to the network, as it is self-ascribed by the organisation. Ambiguity takes up three key ambiguities that are described as elements of World Trade Centerness: centre and multiples, visible and ephemera, concrete and currency. The third element formulated, fluidity, builds on the previous elements, seriality and ambiguity and points out the Twin Towers' agency of re-positioning and transformation and as a node to channel what has been as global flows.

## 1. Seriality

"The identity we have developed seeks to harness and leverage the plentiful positive connotations of 'One': first amongst many, leading from the front, singularity of vision. These are felt both at a conceptual level — the building taking its place amongst New York's and the world's architectural icons — and at the practical — Tower One in a masterplan of several other towers."1

This dissertation is structured following the perception of World Trade Centers as a series. It has been pointed out how the Twin Towers, World Trade Center 1 and 2,

were and still are considered as the first and second, 'original' World Trade Center. The above statement by the British real estate branding agency Wordsearch is an explanation of their approach taken when conceptualising the brand of One World Trade Center in New York, published in 2012, two years prior to the opening of One World Trade Center, which was built after the destruction of the 'original' World Trade Center Twin Towers. One World Trade Center, the branded identity of the new World Trade Center is identical to the address of 1 World Trade Center, the North Tower of the Twin Towers. Situated in direct vicinity to the former position of the Twin Towers, where today the memorial site 'void' is situated on the former footprints of the Twin Towers, the choice of name for One World Trade Center depicts several gestures: it is an act of restitution, an attempt to restitute a status quo that had been destroyed and lost. Restituting One World Trade Center in New York, after 1 World Trade Center had been destroyed, resembles an attempt to restore a status ante quo. Through the lens of ideology, this act can be also seen as resurrection. "Totemic for New York and for the US", the "most American of buildings"<sup>2</sup>, the design agency sees the ideological charge of One World Trade Center and the need to fill the void of the symbolic values the Twin Towers had carried. From a numeric logic, seeing the World Trade Centers as a sequential series, it marks a repetition of the number 1. By creating a replica, a double of 1 World Trade Center, World Trade Centerness is being affirmed. This affirmation relates to the argumentation Jean Baudrillard makes when describing the Twin Towers' twinness as an act of mutual stabilisation and support. The twinness for Baudrillard resembles in their affirmed unity the totality of the global. Baudrillard's "totality" of the global relates to several interpretations of seriality within the cultural context of the current global system, concerning political aspects, as Hal Foster points out, when relating Pop Art aesthetics to populism instrumentalised rather by right wing protagonists, as enhanced by the political culture under Ronald Reagan:

"In this way the recouping of Pop as postmodern did constitute an Avantgarde, but an Avantgarde of most use to the right. With commercial images thus cycled back to the built environment, Pop became tautological in the postmodern and no longer challenged official culture. It was official culture."

Umberto Eco, in his interpretation of serials, points at its inherent consumerism, we buy. In the case of the World Trade Center series, it is not the single World Trade Center that is recognised, but the sublime understanding of the ,plot', the overarching narrative — World Trade Centerness — which explains the value of something which is, per se, void:

"Let us now consider the universe of mass media and see the case in which (i) something is offered as original and different (according to the requirements of modern aesthetics), (ii) we are aware that this something is repeating something else that we already know, and (iii) not-withstanding this - better, just because of it - we like it (and we buy it)."

In chapter V, the World Trade Centers Association was described as 'machine', the multiplicity of World Trade Centers as continuous serial production, 1 - 325. Furthermore, the numeric sequence of this series was introduced in the categories *void, one, many*; in the second part, the networks' scale was introduced in the categories *centre, border, periphery*. Seriality is thus described as a first element of World Trade Centerness. Asking, how the World Trade Centers connect as a sequence and how they interrelate as a network is going to provide an understanding of the quality of the connections, hierarchies, interrelations, context and practices of proliferation.

## 1.1. Sequence

In this chapter, the seriality of World Trade Centers is analysed in its temporal, numeric sequence; before, in the subsequent chapter, its seriality as network will be analysed. Describing the World Trade Centers Association as a machine implies the notion of serial production and reproduction in a modernist way. In this line of thinking, the Twin Towers are seen as the prototype, a good with an assigned value, that is being reproduced to generate more value. In chapter V, the multiplicity of World Trade Centers was depicted in the logic of a binary system: void (zero), one, many (zero). Given the sequential character of a numeric series over a period of time, the following questions are being pursued in this paragraph: how does the temporal process of sequencing World Trade Centers affect the quality of the serial connectivity? How can the doubleness or dual repetition of the Twin Towers be conceptualised in the context of World Trade Centerness? Is the second element in the series, World Trade Center 2, affirming or voiding the first, World Trade Center 1? Answering these questions, this research takes up the following consideration of Jean Baudrillard:

"From the smallest disjunctive unit (question/answer particle) up to the great alternating system that controls the economy, politics, world co-existence, the matrix does not change: it is always the 0/1, the binary scansion that is affirmed as the metastable or homeostatic for the current systems. This is the nucleus of the simulation processes which dominate us. It can be organised as a play of

unstable variations, from polyvalence to tautology, without threatening the strategic bipolar form: it is the divine of simulation.

Why are there two towers at New York's World Trade Center?"5

Henceforth, this section will analyse World Trade Center 1 in its position as '1' within the sequence of World Trade Centers; it then analyses the position and role of World Trade Center 2 in relation to its predecessor, World Trade Center 1. Last, it will analyse the position and interrelation of consecutive World Trade Centers, the many.

Describing World Trade Center 1 as first in the sequence of World Trade Centers, the language of late modernism, the cultural grounding of the Twin Towers, provides relevant vocabulary. If World Trade Center 1 had been conceptualised, developed and designed as one tower, it would have been described as heroic, certainly a signifier, similar to neighbouring buildings such as the Seagram Building or the Chase Manhattan Bank headquarters in New York. As the first and origin of a sequence, it would have been an original; a master (copy). One World Trade Center would have been individual. As elaborated in chapter IV, the initial plan as it emerged in the late 1950s envisioned a very high, iconic tower, one that would be highly visible and iconic in order to symbolise the power and the lucrative character of Downtown Lower Manhattan, in its competition to the emerging business area in Midtown Manhattan, where office skyscrapers in International Style were booming. Throughout the design process, the doubling of the tower had emerged, a design solution owed to the disproportional amount of office space demanded by the developers and client. By doubling the tower with the intention to double its presence and power, however, its individuality was lost. With the existence of the second tower as a copy of the first tower, the sequence had begun and an infinite reproduction loop, the seriality of World Trade Centers had been initiated. This process highlights the argument this dissertation is based on, that the Twin Towers' mark a cultural paradigm shift, which took place in the timely context of their completion. Hence, the Twin Towers are, at the threshold between late modernism and postmodernism, not only the serial production and reproduction in a modernist way, as pointed out at the beginning of this chapter. While the initiation of the process of reproduction might have initiated in this context, in its course, the temporal continuation of seriality, the original dissolved and the process became simulation, the imitation of real-world processes, as Baudrillard coins it. Here, the vicinity to Pop Art has been noted, as Miriam Greenberg for example writes:

"As with the offset towers of Minoru Yamasaki's World Trade Center (1964-1973), the doubling is not exactly that of the classical modern

doppelgänger, an instance of mechanical reproducibility that for Freud and his followers captured the uncanniness of the self/other dyad,... It is more like a series with no beginning and no end, of the type explored by Minimal artists like Donald Judd and Sol deWitt but also by Warhol. It is a seriality on the cusp of the transition from an industrialized imaginary organised around mechanical reproducibility to one — Post-, but also Neo-industrial — organised around feedback."6

Coming back to the binarism previously stated, the sequence of World Trade Centers is shown not to be dynamic, but rather a loop, a proliferation without meaning: if number 2 in the series is voiding 1, what follows is 0, followed again by 1, and so on. In this logic, the number of World Trade Centers — at the time of writing this dissertation, according to the World Trade Centers Association's website, there are 325 — does not matter; 'many' equals ,any'. Dietrich Erben regards the doubling of the Twin Towers as ambivalent. For him, "the individuality of the solitaire is both suspended and affirmed in an ambivalent way by the doubling," and he points at the parallel to the principle of Pop Art:

"Yamasaki's idea of a completely identical reflection of a high-rise building may also have been inspired by the serial image principle of Pop Art. Since the early 1960s, Andy Warhol created his famous series of portraits using silkscreen printing, in which he made the disappearance of the individual in the fair and the self-assertion of the individual against his anonymous reproduction an equal theme."

The relation of the doubling act to Pop Art has also been drawn by Jean Baudrillard:

"Buildings are no longer obelisks, but lean one upon the other, no longer suspicious one of the other, like the columns in a statistical graph. This new architecture incarnates a system that is no longer competitive, but compatible, and where competition has disappeared for the benefit of the correlations.(...) This architectural graphism is that of the monopoly; the two W.T.C. towers, perfectly parallelepipeds, a 1/4 mile high on a square base, perfectly balanced and blind communicating vessels. The fact that there are two of them signifies the end of all competition, the end of all original reference. Paradoxically, if there were only one, the monopoly would not be incarnated, because we have seen how it stabilises on a dual form. For the sign to be pure, it has to duplicate itself: it is the duplication of the sign which destroys its meaning. (...) This is what Andy Warhol demonstrates also: the multiple replicas of Marilyn Monroe's face are there to show at the same time the death of the original and the end of representation."9

Pop Art plays with consumerism, pointing at the loss of aura by reproducibility, eventually the loss of meaning and individuality. In this context, the Twin Towers, as

pop culture architecture, are the beginning and the (immediate) end of a series, of individuality. Mirroring each other, the Twin Towers engage in a play of selves.

# 1.2. Seriality and network

Above, the multiplicity of World Trade Centers has been described as a temporal, numeric sequence, with the Twin Towers, World Trade Center 1 and 2, on a first and second position in the sequential series. It has been argued, that, with the existence of the second tower as a copy of the first, the original's originality, its individuality, has been voided. In the following, the quality of the spatial connection that interrelates the many World Trade Centers will be explored, their structure as network. In the same way the previous chapter referred to chapter V.2., which mapped World Trade Centers by laying out first the series of World Trade Center morphologies, this chapter mirrors the spatial mapping of World Trade Center positionalities in chapter V. In chapter V, World Trade Centers were spatially categorized in centre, border and periphery. This chapter analyses, how the seriality of World Trade Centers translates into the network of World Trade Centers, and asks, how the connection of seriality and network determines the phenomenon of World Trade Centerness. In this investigation, this research relies on the conceptualisation of the connection between network and seriality by Sabine Sielke.<sup>10</sup> For Sielke, phenomena as networks are processes of seriality, thus relating what seems, at first, two different structures. "The network has actually evolved from and superseded seriality", she states11.

The network of World Trade Centers has been depicted in this research as a "set of interconnected nodes", as Manuel Castells defines it,<sup>12</sup> with World Trade Centers positioned at nodes within the field of the global system, forming a grid, the World Trade Center network. The nodes or positions of World Trade Centers may be multifacetted in terms of address, position and image; as shown in chapter V, the three criteria may or may not collide. In her conceptualisation of the series-network connection, Sielke first works out the differences between series and network, before showing how they interrelate. She sees seriality as a "string", "chain", or "succession that works recursively, not linearly", foregrounding the "complexities of temporality".<sup>13</sup> For her, seriality accounts for "difference, not sameness".<sup>14</sup> A network, on the other hand, "privileges representations over temporal perspectives."<sup>15</sup> The strong emphasis on the visual functions as "closural generality", a "pervasiveness",

which "moves to the pervasiveness of "the imagery of the network" as if there was little difference between phenomena and their trope, model, or visualisation as network," whose' structure into "centralities" "hubs", and "subcommunities" neutralises hierarchies. Compared to series, networks "make things cohere and connect, locally, globally, universally," a phenomenon, which, together with the emphasis of both the visual within the network as well as the visuality of the network itself, corresponds with the conditions described as postmodern. Coming back to the seriality of World Trade Centers and the quality of the connectivity as described in the previous chapter — the paradox loss of the 'original' by its own copy, the void that is the result of the emptying of the first — correlates with what Jean Baudrillard designates as 'simulacrum', the condition of postmodernity:

"Today abstraction is no longer that of the map, the double, the mirror or the concept. Simulation is no longer that of the territory, a referential being, or substance. It is the generation by models of a real without origin or reality: a hyperreal. The territory no longer precedes the map, nore does it survive it. It is nevertheless the map that precedes the territory — precession of simulacra — that engenders the territory (...)." 19

Taking the qualitative description by Sielke about how series and network interrelate and associating it with the perspectives taken from cultural theory in the previous chapter, this research interprets the proliferation of World Trade Centers as a network that has emerged from seriality. At the example of the process of serialisation over a temporal continuum, the cultural shift from modernity to postmodernity can be depicted, based in particular on the emphasis of the visual, imaginary and the paradox of the centre. Categories such as 'the global', 'the network', 'connectivity' or ' global trade' are less real and rather mere images or narratives of their respective concepts. The paradox of the centre manifests itself in the World Trade Center narrative: World Trade Centers are centre-makers, signifiers, they assign centreness to specific places, which have the role of nodes in the network. Since there is no hierarchy in networks, neither temporal nor spatial, the centre is non-existent, but rather an idea of a centre. Similar to the voiding process described in the temporal sequence of the World Trade Center series, the existence of more than one centre voids the existence of a centre, when considering a central nucleus as the equivalent to the numeric 1 in a series. Quantity as well as centreness becomes an argument for itself in a constant reaffirmation of the hyperreal.

## 2. Ambiguity

"Contradictory levels of meaning and use in architecture involve the paradoxical contrast implied by the conjunctive "yet". $^{20}$ 

Having pointed out seriality as a first element of the phenomenon of World Trade Centerness in the previous chapter, the second element introduced, ambiguity, connects directly to the first. The paradox relation that is immanent in the Twin Towers' position as the first and second World Trade Center in a sequence has been shown: were they one or two buildings, did they affirm or void each other? Regarding them as one, as a unity, follows Jean Baudrillard's argumentation, who describes them as a symbol of the "totality of the global", reinforced by their twinness.<sup>21</sup> This dissertation has emphasised the juxtaposition of the Twin Towers, not only in their position within the sequence of World Trade Centers as 1 and 2, but also in their inherent characteristic of ambiguity. In the following, the element of ambiguity will be first elaborated, before it will be shown why and how it serves as a defining element of World Trade Centerness. In the consecutive subchapters, examples of ambiguities inherent to World Trade Centers will be elaborated.

The ambiguity of the Twin Towers is a paradox: they are two buildings, which, in their physicality, open a space in between, a void, an interrelation. Philip Petit has shown with his tightrope walk the distance between the two, visualising the difference between the towers, demonstrating the fragility of their connectivity by the risky balancing act (chapter IV). Yet, in their twinness, they are one. It is the argument of this dissertation that this inherent ambiguity allowed for the utilisation of the Twin Towers as a symbol of the global system, upon which the brand of the World Trade Centers Association is built. The global system, ambiguous in itself, as illustrated in the rethoric of being both local and global at the same time, 'glocal', McLuhan's global village or phrases like "connect globally and prosper locally", as used by the World Trade Centers Association. When mapping out World Trade Centers in Chapter V, their multiple, at times Janus-faced identities, morphologies and positionalities have been pointed out. It has been shown that World Trade Centers can be at the same time iconic and banal, centred and peripheral, one and many. In chapter IV, the Twin Towers were characterised as liquid in the sense of Zygmunt Bauman, as change-makers within their urban environment and for the institutions and corporations they represent, because of their ambiguous agency. It has been further shown that already their conceptualisation had been built on the narrative provided by the Port Authority, that traffic is not only traffic, but also trade, that the

Twin Towers would be 'safe', both structurally and financially, yet innovative, venture-some and bold. Characterising them as both stabile and unstable, chapter IV emphasised the Twin Tower's inherent ambiguities as both solid, concrete and immobile as physical buildings as well as fluid, current and mobile in their agency as global real estate and global fiat money. While chapter IV focused on 'the' World Trade Center, the Twin Towers, chapter V focused on the 'other' World Trade Centers, further excavating the paradoxes, ambivalences and ambiguities of the relation between the one and the many, the New York Twin Towers and the other more than 300 World Trade Centers.

The two poles framing the various juxtapositions that have been described throughout this dissertation balance the unstable interrelation in the postmodern context of the multiplicity of possible meanings in a constant state of uncertainty and contingency. Robert Venturi writes in *Complexity and Contradiction in Architecture*:

"I am for richness of meaning rather than clarity of meaning; for the implicit function as well as the explicit function. I prefer "both-and" to "either-or", black and white and sometimes grey to grey!"22

For Venturi, the conjunctions "or" and "yet" describe the ambiguous interrelation between opposites, opening a field of possible meanings and identities. Intended as heroic solitaire(s), the Twin Towers immediately in their doubling became empty screens, allowing for the mirroring of virtually any content, with the price of the abandonment of the very own individuality. For Manuel Castells, this ambiguity represents the internal condition of capitalism,<sup>23</sup> upon which the global system is built. In the following, juxtapositions, which are exemplary for the ambiguity of the World Trade Center phenomena, will be scrutinised, shedding light on how the Twin Towers, World Trade Centers and the global system interrelate: Center and multiples, visible and ephemera, concrete and currency.

## 2.1. Centre, multiples

"Today, the world stands on the brink of a boom in international trade.... To realize its role in the new era dawning for overseas trade and finance, this country must marshal its resources. One primary step in this direction would be to establish a single center, planned and equipped to serve that vital service."

The above statement, part of the Proposal for the Port of New York by the Downtown-Lower Manhattan Association in January 1960, shows, how the World Trade Center in New York, the later Twin Towers, was conceptualised as early as 1960 as a 'single center', in order to mark the United States' and New York's leading position in world trade.<sup>24</sup> The following paragraph will outline the spatial paradox of a single World Trade Center in relation to the multiplicity of existing World Trade Centers. At the time of the Twin Towers' conception and completion, they marked what was considered in the American Age the centre of the world, an epicentre of world trade and geopolitical power, which, in a logic of concentric expansion, eventually became identical with the world, scaling from the centre, to Manhattan, to the United States, to the global. In a spatial paradox, being 'the' centre of the world coincided in its meaning eventually with being the world itself. Just like the 'first' in the seriality, in the case of the centre as epicentre, as 'first', the centre has been voided by the existence of its copy by the second and its consecutive seriality of many World Trade Centers to follow. The centre has become a simulacrum by its repetition, either in a concentric or in a polycentric spread within the network.

The centre is not stagnant, as shown when describing the Twin Towers as well as examples of World Trade Centers in chapters IV and V. Similar to the process of 'worlding', every World Trade Center ascribes itself — by identity — as centre, but also centres its place, acting as an agent of re-positioning and transformation. By centring places, identities are transformed, be it under economic, social, or political aspects. Examples of centring were given when mapping World Trade Centers in chapter V, for example the World Trade Centre Dubai, Bahrain or Sao Paulo. While the processual and transformative character of globalisation will be discussed in part 3 of this chapter, *fluidity*, in the following, two interrelating aspects of the centre will be emphasised that are relevant for understanding the phenomenon of World Trade Centerness: the centre as a representation of unity and centrality as a practice of exclusion.

The global system very much relies upon the narrative of its unity: the unisphere, the one world, the all-embracing global. Jean Baudrillard has described this unity as totality in his analysis of the Twin Towers, hence evoking terror and exploitation.<sup>25</sup> As an effect, the unity of the global is ubiquitous. An exclusive centre functions both as physical place and image of global power and connectivity, symbolising its position and belonging to the global system. This unity is maintained by the exclusion of the other, creating a system of devalorisation. In this system, access and distance to the centre is controlled by borders and other access-restricting barriers. The centre is

always exclusive, a symbol, power and with boundaries. The centre itself has become a symbol of the unity and ubiquity of the global. In its powerful position, the centre, representing the global, controls narratives of identities and the assignment of places for identities, causing the exclusion of multiplicities, both in reality but also in narratives, symbols, images, language. Multiplicities have limited, restricted or no access to specific places (real and virtual). Narratives of class, gender, nationality, ethnicity, etc help to present and position multiple identities within the urban environment, while the urban infrastructure and the built environment are often designed in response to these narratives, leading to practices of exclusion and devalorisation and zones of demarcations and boundaries. Centres, in their exclusive character and by creating boundaries, are clubs that need to maintain the exclusivity by narratives, the construction of particular identities and a sense of sameness: "Globalisation inevitably leads to global uniformity—and the resistance to globalisation also leads to global uniformity".26 In chapter V.1.2., the World Trade Centers were analysed as such a club, with the World Trade Center brand as club good. It has been further pointed out, how the timely coincidence of the emergence of transnational organisations and clubs and the new global socioeconomic system that initiated in the early 1970s relates to the increased tendencies towards competition, marketisation and privatisation — McLuhan's phrase "global village" itself depicts that notion. James M. Buchanan, who was one of the first to theorise the concept of club and club good in economic science in the late 1960s has been intellectually connected to libertarian global think tanks such as the Mount Pellerin Society, the Cato Institute or the Ayn Rand Institute.

Moreover, a parameter of accessibility to the centre is the one of internet accessibility and quality. Today, all global trade, in particular on the global financial, real estate and commodity market, takes place in digital space, determined by access and speed of internet connectivity. Last, this paradox of the centre in respect to the digital space as an additional category of the global system needs to be pointed out, given that the process of globalisation since the beginning of the 1970s cannot be separated from the emergence of digital space and the use of internet technology. Stephen Graham and Simon Marvin provided a detailed account on how the digital and real space interrelate and how urban environments have been transformed.<sup>27</sup> Graham and Marvin show how technological mobilities and infrastructures are creating a "splintered urbanism", one that is fragile, creating unequal access and as such affecting the urban conditions as a whole. Internet infrastructure is a key stratification of the global system: Internet access, a commodity itself as well as a political power tool. Its language shows how IT infrastructure and built environment

relate: 'global reach', 'creating scale', 'ubiquity', 'port', 'accessibility'. The attraction of the centre, the competition to be the centre and to be *at* the centre points at the next paragraph, in which the ambiguity between the visible and the invisible will be outlined. The centre needs to be recognised and marked as such: by iconic buildings, which can be seen like lighthouses in the global imaginary, whose images can travel electronically around the world.

# 2.2. Visible, invisible

Why is it, that some World Trade Centers are highly visible, whereas others are not? How does the Twin Towers' stardom reflect on the visibility of other World Trade Centers? Having mapped World Trade Centers in chapter V, categories were used, first, on a scale of morphologies, from the physical non-existence of a mailbox address, to generic and iconic buildings and to building complexes. Second, on a scale of positionalities, from centre to peripheral to border positions. On these horizontal and vertical scales, it could be seen that highly visible World Trade Centers tend to be situated in city centres, often in port cities; they are usually tall buildings, at times twin buildings. Less visible World Trade Centers tend to be office space in existing buildings, occupy low or medium-high generic buildings and are rather situated in the periphery or on the green field. However, some paradoxical contradictions become evident concerning the global visibility of World Trade Centers:

- highly iconic World Trade Center buildings can be invisible,
- World Trade Center buildings in city centres can be invisible, very few World Trade Center buildings are designed by known architects or global star architecture firms,
- in their multiplicity, all World Trade Centers, with the exception of the Twin Towers and their 'successor', One World Trade Center, are invisible,
- the World Trade Centers Association itself is a clandestine and as such invisible.

Before elaborating on these contradictions, first, the spectrum between visibility and invisibility concerning the phenomenon of World Trade Centerness will be outlined and the use of terminology explained. Describing the dichotomy of visibility and invisibility as a key characteristic of ambiguity, this research refers to visibility in the context of architecture as icon, spectacle, image and medium. Invisibility, on the other hand, refers to architecture that can be considered as 'grey', generic, banal or

irrelevant and is therefore poorly disseminated in the media, in literature and via images. Architecture is a visual art and practice. In Chapter III, when setting the theoretical framework, it was outlined how image and architecture relate in the context of representation. Walter Benjamin elaborated the problem of representation when describing the loss of aura of the image by its reproduction<sup>28</sup>; later, Guy Debord had analysed the society of the spectacle and the commodification of image and spectacle<sup>29</sup>; finally, as part of the 'iconic turn' associated with postmodernism, architecture has been regarded as a symbol charged with meaning, a process that has been exemplified at the cultural perception and instrumentalisation of the Twin Tower. In more recent years, the discourse in architectural and cultural theory has focused on architecture as image and medium, critically viewing the visuality of architecture as a two-dimensional space rather than a three-dimensional space. Rather than seeing architecture as a mere image, the agency of architecture is put more in the centre of observation, to understand "how a building serves as an apparatus for the production and display of an image".30 When depicting the ambiguous dichotomy of visibility and invisibility as an element of World Trade Centerness, this research argues that the case of the Twin Towers and its serialisation by the World Trade Centers Association serve as an example of the cultural processes at play since the last decades of the twentieth century, predominantly since the beginning 1970s.

Conceptualised as an icon to be seen and to mark its territory, the Twin Towers were, from the outset, designed as an image to be globally disseminated. A symbol for global trade and finance, the image itself turned out to be a commodity, considering its career to re-brand New York City and the United States throughout the late 1970s and 1980s and to re-brand New York City and the United States, again, after the Twin Towers' own destruction post-911. Evaluated by contemporary design critics as a generic, eventually dysfunctional office building, the Twin Towers were made iconic, due to their utilisation as stage, platform or empty screen for spectacles performed for a global spectatorship. Like a lighthouse, they were seen, and the world could be seen from their observatory or the restaurant *Windows on the World*. Seeing the world and being seen — this visual connectivity helped construct the narrative of the global. Eventually, this 'worlding' of the Twin Towers and its visibility became the reason for its destruction. The terror attacks on 9/11 were conceptualised to be transmitted via life-image around the world. An object of desire to be visited by tourists, the Twin Towers ultimately succumbed to the desire for destruction by terrorists.

The series of World Trade Centers follows the logic of repeating the Twin Tower's success as an agent for re-positoning - Umberto Eco would likely describe this as a 'retake', in his interpretation of serials.<sup>31</sup> No matter if located in the city centre or at the periphery, World Trade Centers always mark a border position, considering their agency within strategies of transition; economically, ideologically or culturally. The dynamics involved in the process of referencing the image of the Twin Towers in the World Trade Center series are, again, one of voiding. With the serial reproduction of the image, its intrinsic value, individuality its aura, gets lost. What happens inside, is the performance of global trade; the Twin Towers' three-dimensional reality, their interior, is irrelevant compared to their two-dimensional facade, their wrapping, in the sense of Fredric Jameson.<sup>32</sup> Answering the question, why the multiplicity of World Trade Centers is widely invisible, in paradoxical opposition to the Twin Towers' high visibility, this research argues, that the same principle of voiding applies as described in the seriality of World Trade Centers: the copy in the shadow of the original cannot be seen.

# 2.3. Concrete, currency

In what follows, the ambiguous character of the Twin Towers as being both concrete, in terms of physical buildings, as well as currency, in terms of global finance and real estate, will be outlined. In front of the backdrop of the theoretical framework provided in Chapter III and in conjunction with the findings shown when mapping World Trade Centers in Chapter V, it will be explained how the ambiguity of being both concrete and currency translated from the Twin Towers to the development of consequential World Trade Centers. Similar to *Soft Power*, the dichotomous relationship between two opposing abilities enables the formation of a global network, that utilises common values such as connectivity, diversity or openness in order to promote financial or political interests<sup>33</sup> that are, at first sight, invisible. Since "financialisation is an inherently spatial phenomenon"<sup>34</sup>, the World Trade Center network can be seen as an example for the nexus of the concrete, solid and the current, fluid. Hence, World Trade Centers as real estate give an example of the liquidation of architecture:

"The particular commodification of architecture within global capitalism can be described by the ambiguous connotation of "real estate": both terms "real" and "estate" refer to the concrete and solid property of land and building(s) but at the same time is understood to be a market product and even a financial product. Real estate companies are sometimes indexed and publicly traded, their assets can become financial product. In other words, it is common to convert real estate

and even development projects into currency and make them tradable and transferable on global financial markets."<sup>35</sup>

In Chapter III, positions in cultural theory towards the cultural and economic paradigm shift as a result of the end of the Bretton Woods system in 1973 and the following floating exchange rate were introduced, David Harvey, Fredric Jameson and others have described it as a "sea-change in cultural as well as in politicaleconomic practices."36 The new interdependent global currency system meant fluctuating exchange rates, resulting in increased instabilities, risk and speculation. "Money was no longer a real asset and bound to real value (gold), but rather the promise of value exchange".37 In chapter IV, after describing the Twin Towers as buildings, their materiality and solidity, the Town Towers' unstable qualities were characterised: their character as currency, liquidity and finance, outlining their ambiguous dichotomy of concrete and current, architecture and finance. Recurring to the Twin Towers' development history, the Twin Towers' role in the real estate development of the new Chase Manhattan Bank headquarters, which meant to financially secure the unstable real estate project, was retold, as well as the financing scheme of the Twin Towers project by the Port Authority, which meant converting public money into corporate money. Most significantly though, the triple role of David Rockefeller as chairman of the Chase Manhattan Bank, real estate developer and pioneer in the establishment of global financial trade has been outlined in this chapter about the Twin Towers. The World Trade Centers Association, despite advocating real estate on its website, is neither an investor nor developer of real estate. Instead, the organisation contributes to the real estate — finance complex is its brand, which attaches itself to the flux of money and oscillating meaning between architecture and finance, concrete and real, without being invested itself.

"With more than 300 World Trade Centers (WTCs) in nearly 100 countries, the World Trade Centers Association (WTCA) provides a portfolio of branded offices and commercial real estate, alongside an extensive suite of trade services for tenants, thereby linking them with the rest of our global network.

Iconic and prestigious, a WTC offers an internationally-recognized address suited for any company seeking to enhance their profile and trade globally. WTCs provide flexible, modern office accommodations, including co-working and hotdesk space, as well as conference, meeting and exhibition facilities. "38"

As ostentatiously stated, the organisation attaches itself to global fluxes and interrelations in finance, trade or real estate. Transactions which could take place without the affiliation of the World Trade Center Association. Claiming a public good — the activity of trade — as its club good and making it exclusive, the organisation is adding value to its brand, thus creating income via membership fees. By attaching

itself to a global currency, solid income is being created. But what do its members get in return, other than the right to use the World Trade Center name? As can be seen in particular at the examples of World Trade Centers given, World Trade Center Brussels, World Trade Center Sao Paulo, World Trade Center Bahrain, World Trade Center Riyadh and World Trade Center GIFT City in Gandhinagar, political, ideological and cultural interests can be attached to international trade relations. Coming back to the term *Soft Power*, coined by international relations theorist Joseph Nye in his book *Power and Independence*, it shows both the invisibility and fluidity of global finance and the process of financialisation. In India and Brazil for example, the link between neoliberal financialisation and political and ideological interest becomes obvious. Embedded already in the theory of clubs as prominently formulated by Buchanan, the exclusivity of transnational clubs follows a neoliberal agenda.

### 3. Fluidity

Having carved out seriality and ambiguity as elements of World Trade Centerness, in the following, fluidity will be introduced as the third and last element of World Trade Centerness. It builds upon seriality and ambiguity as much as it synthesises the three elements. While seriality has been described as consecutive sequence and constituting part of network formation, ambiguity has been described as the quality of interrelations and network formation. Throughout this dissertation, the ambiguous character of the Twin Towers and World Trade Centers have been pointed out. Having described the Twin Towers as both stable and unstable, as both presenting finance and representing finance, as both concrete and current, as a node to channel global flows as well as a body that constantly changes appearance and holds the ability to morph itself as well as its surroundings, dynamic conditions and interrelations have been shown. The dynamics described are multi-layered and therefore complex: transformative processes involved in what makes the centre, the nodes intersect with the constant flow of information and cultural and economic activities, as described in chapter IV.3., global flows. In this chapter, traffic and trade, tourism and terrorism have been given as examples for global flows that intersect with the Twin Towers by using them as a platform, node or switch board, from which they are being disseminated across the global system. Fluidity becomes also apparent in the recursive dynamics described with the seriality of World Trade Centerness: the continuous process of voiding the previous result in a constant flow of meaning and connotations. Similar to the financial process of liquidation and speculation, the concept of fiat money applies as well to concepts stabilising the unstable global

system, or, in the terms of Manuel Castells, similar to the "space of flows", by which he means the constant and accelerated global interchange of money, information and images.<sup>39</sup> Hence, viewing the Twin Towers in relation to the multiplicity of World Trade Centers, a processual, non-stationary quality becomes apparent. With fluidity, the active form of World Trade Centerness is going to be demonstrated, pinpointing two main criteria of fluidity: *Re-positioning* will highlight the quality to transform identities and context, to act as change-maker for space as well as spatial, institutional, cultural, urban or national identities as well as the transportation of ideologies. *Stabilisation* will focus on the paradoxical character of World Trade Centerness of being able to stabilise unstable conditions, visualising it as integral to the dynamics of the current global system — one that sustains itself by being unstable, similar to the dynamics of a perpetuum mobile. Fluidity is understood in this dissertation as a condition that allows for transformation, thus being flexible, open and contingent.

# 3.1. Re-positioning

Describing positionalities has been central throughout the course of this dissertation. Positionality has been used as a term to describe the grounding, localisation, address of the Twin Towers and World Trade Centers. Viewing positionality as spatial localisation, it seems at first grounded, stable and firm as a category. However, considering the ambiguous quality and fluid dynamics described earlier as well as the interconnectivity between the positions within a series, positionality is rather fluid and able to change itself as much as it is enabling change of its context. Positionality and transformativity merge in the process of re-positioning, which is an active form that describes the agency of World Trade Centers, but also reveals intentions behind the process of spatial re-organisation, which can be of economic, social, financial, political or cultural nature and can include a complex group of stakeholders, such as city or regional governance, national governments, businesses, organisations, activists or other interest groups.

In chapter IV, the Twin Towers' positionality has been described as centre, but also as an agent that centres and is being centred. Centred not only on a local scale, but also in a worlding process. As described in chapter IV, the Twin Towers have been instrumentalised as agents for re-positioning again and again: more than a decade before their completion, they served to transform Downtown Lower Manhattan an dot stabilise a risky real estate project undertaken by David Rockefeller and the Chase

Manhattan Bank; for the Port Authority of New York and New Jersey, they served as a tool of financialisation, processing public money and income into a real state endeavour. After their completion, they helped stabilise the city of New York, which was shaken by fiscal crisis, as well as the nation state during years of political, economic and identical uncertainties. As Miriam Greenberg has outlined in her work, the Twin Towers played a central role in the rebranding of New York after the crisis. 40 Finally, after their destruction, the Twin Towers played the main role in the rebranding of ground zero, when re-positioning New York and the United States after 9/11. Architectural critics explained the Twin Towers' strong agency for repositioning with what they described as a certain emptiness or irrelevance of their design:

"Without a strong identity of their own, the towers lent an identity to the city at large. A facade for eternal projections, the twin towers design flaw became their gift to the world."41

In this dissertation, this aspect of the Twin Towers has been addressed when describing them as the first and second within a series. Similar to Pop Art, the existence of the second as a copy of the first voids the first, in the sense that it ends its individuality. This interpretation has been also instrumental when mapping the multiplicity of World Trade Centers, the continuation of the series that was initiated by the Twin Towers, in chapter V. Here, the chapter Void is based on the paradox, that a building, a physical, real object, can be nothing — void. An example given was the World Trade Center in Frankfurt (Oder). In part 2.2.2. of chapter V, it served as an example for re-positioning after the fall of the Berlin Wall. Similar to the World Trade Center in Rostock and the World Trade Center in Dresden, all three World Trade Centers that were positioned in cities in the former East Germany during the early 1990s, immediately after the fall of the Berlin Wall, marking the belonging to a new world order. With the fall of the Berlin Wall, the end of the Cold War and the division of not only Germany, but Europe and the world, the cartography has changed: what used to be a boundary position, such as Frankfurt (Oder), suddenly became a centreposition in Europe, and with it the identity of places.<sup>42</sup> The dynamics involved in the construction and permanent transformation of identities have been widely discussed. Being complex, they change over time, always intersecting and corresponding with other identities. The production of identities by architecture in the urban environment always involves the interplay between buildings, humans and the complex dynamics of political, economic and cultural context. The cultural production of identities can be considered a main force in the maintenance of the global network from a variety of theoretical perspectives: Anthony King speaks of "global cultures" in his analysis of the processes that construct and sustain the global

system, Manuel Castells describes the permanent production of identities as an organising principle of the "network society", affecting urban space, politics and the social sphere. In this process of globalisation, architecture is utilised as a visible landmark within the global network, increasing the city's global connectivity and transferability. Like in the case of cities in former Eastern Germany, identities of places can change unexpectedly or become "spoiled",<sup>43</sup> depending on internal and external economic, social or political risk factors, instabilities and crises. Within the economic and symbolic system, identities can therefore be value-adding, but, once spoiled, they can become stigma.<sup>44</sup> The transformative process of re-positioning requires a cohesive narrative that allows the represented identity to be seen, understood and accepted within a common value system.<sup>45</sup>

Above, the ability to be utilised as an agent for the re-positioning of multi-layered identities has been shown to be an element of World Trade Centerness; in its dynamic character it demonstrates the fluidity of World Trade Centerness. The next chapter will analyse, why re-positioning plays a significant role within the dynamics of the global system. It is part of this dissertation's hypothesis, that the Twin Towers served and still serve as a stabilising agent within the globals system. In the following, the process of stabilisation will be explained: why there is a need for stabilisation, and how the Twin Towers and World Trade Centers perform in this function.

#### 3.2. Stabilisation

"The World Trade Center is a living symbol of man's dedication to world peace... a representation of man's belief in humanity, his need for individual dignity, his beliefs in the cooperation of men, and, through cooperation, his ability to find greatness."

At the opening ceremony of the World Trade Center Twin Tower buildings in New York, its architect, Minoru Yamasaki, praised the buildings' stabilising character as a symbol of world peace. Trade and peace were considered to be nearly synonymous during the emerging new internationalism in the post-war decades, reinforced by a new global connectivity that had been bolstered by new technologies in communication, finance and mobility in the second half of the twentieth century. At their opening, the Twin Towers were the largest buildings in the world: two monoliths, they stood strong and tall, balanced in their twinness as if supporting each other, embodying stability and power. Coincidently and almost concurrently, bringing together creation and destruction, a previous building project by Minoru Yamasaki,

the Pruitt-Igoe housing project in St Louis, fell victim to its destruction by controlled implosion: a spectacular destruction viewed as a symbol of the failure of not only public housing, but as famously stated by Charles Jencks, the end of modern architecture:

"Modern Architecture died in St. Louis, Missouri, on July 15, 1972, at 3.32 p.m. (or thereabouts), when the infamous Pruitt Igoe scheme, or rather several of its slab blocks, were given the final coup de grace by dynamite." <sup>47</sup>

Years later, when the Twin Towers were destroyed, the images of the Pruitt-Igoe destruction returned to the public's collective memory, evoking a sense for a symbolic momentum and the question what the respective buildings stood for and if their destruction had somehow been inherently encoded within the buildings. "Ultimately", writes Matthew Hall, "both structures were destroyed for what they stand for". Just like the demolition of Pruitt-Igoe changed social housing, the destruction of the Twin Towers left "architecture, and the culture that constructed it (...) forever altered".48 In their aftermaths, both building projects happen to become symbols of stability and firmness, as well as of instability and vulnerability, embodying not only a physical structure, but also a social and cultural vision, yet with an inherent possibility of collapse (risk, speculation). The shimmering condition between stability and instability, the momentum of balance that appears highly sensitive to social, political and economic disruptions, sheds light on a system that like a perpetuum mobile needs to be in constant balancing movement between stability and instability in order to sustain itself.

It is in this sense, that the World Trade Center Twin Tower buildings are interpreted in this dissertation as stabilising factors within the unstable global economic system, that had been put in place as a new global trade culture in the early 1970s as a consequence of the new global currency system. It is for this reason that the period since the beginning of the 1970s has since been characterized as and proven to be crises-driven: the oil crisis in 1972, New York's debt-crisis in the late 1970s, the stock market crash in 1989, the Dotcom bubble in 2000 or the world financial crisis in 2007 all fall in this era. It is subject to this dissertation, how the Twin Tower buildings were utilised during these crises for them to be recognised as a relevant symbol to act as a stabilising element within an unstable global system. In the following, the Twin Towers' oscillating character between stability and instability will be further examined in respect to their ability to represent world trade and the global system.

How does the Twin Tower's agency in crises translate into the World Trade Center trademark created by the World Trade Centers Association? The crises responses

between adaption, toleration and aestheticisation can be seen not without attributing political and ideological motivations. Just as much as the eventisation and spectacularisation of the work place anticipated a global work culture to come; marked the austerity plan for New York City a political paradigm shift from a strong, Keynesian state towards a liberal global market economy, characterised by increasing privatisation and financialisation and the withdrawal from the state. Given the above correlations in crises and crises response, this research sees an explanation about how the Twin Towers entanglement in the crises of the 1970s could have been translated into the World Trade Center trademark created by the World Trade Centers Association. The events during the 1970s lead to a "crisis of confidence", to an overall consciousness of instability and risk. The response — on the cultural side adaption, toleration or aestheticisation or even commercialisation, on the economic side market liberalisation, increased competition and financialisation, an attention economy versus a 'real' economy helped create a new global business culture and commerce. Strong networks appeared necessary to protect against the risky, volatile free market forces — a paradox, considering that there is an apparent necessity for the global system to protect itself against the forces it had created itself.

Looking at the specific role of the Twin Towers as an agent for re-positoning in order to stabilise an unstable condition and comparing it with the World Trade Centers mapped in chapter V, the interrelation between re-positioning and stabilisation becomes evident. The examples given showcase a pattern seen across the World Trade Center Development, in which problematic situations, "spoiled identities", as Erwing Goffman puts it, such as post-war or post-economic crisis ridden places seek transformation, utilising World Trade Centers as a tool, for example Syria, Palestine or Lebanon. Other examples given were places that seek social and economic development and political and economic stabilisation, for examples countries in between conflict zones such as Pakistan or Jordan. The cases shown in the former GDR and former Eastern Bloc give and example of ideological transformations utilising World Trade Centers; the BRIC countries, such as the examples of Sao Paulo and Ghandinagar show, have complex transformations of identities underway, where ideological, political and economic identities intersect. Furthermore, the global power shift from the United States to China throughout the past decades can be read along the World Trade Center development. And finally, post-9/11 efforts in the United States provide an example of how the World Trade Center brand has been used and how spatial transformation and the construction of identities correlate. The correlation between the Twin Towers and the multiplicity of World Trade Centers in regard to crisis response and resilience shows, how World Trade Centerness provides stabilisation to a per se unstable global system. Like a perpetuum mobile or like balancing a scale, its promise is to hold something together that might otherwise fall apart — hence delivering its self justification. Just like the entity of the club, the World Trade Centers Association promises protection, peace and prosperity in conditions of crisis and uncertainties, World Trade Centerness builds its narrative on a counterbalancing continuity; like fiat money, the stabilisation lies within the constant fluidity.

# 4. Summary

The last of three main chapters in this dissertation, chapter VI has brought together the results from chapter IV, the description and analysis of the Twin Towers as the first and second World Trade Center, as well as chapter V, the mapping of World Trade Centers and the presentation of what the World Trade Centers Association is and how it works. Synthesising these findings, seriality, ambiguity and fluidity have been elaborated as elements of World Trade Centerness and it has been shown, what they are and how they interrelate and operate. Chapter VI outlined the process of network formation and laid open the quality of the connections within the grid of World Trade Centers, while scrutinising the role of the Twin Towers within this process. The chapter has been structured to display several steps involved in the process of network formation. With the doubling of World Trade Center 1, resulting in the twinness of World Trade Center 1 and 2, a series in sequential temporal order had been initiated. Drawing from Sielke's conceptualisation of series and networks, it has been shown, how networks emerge with series as subcategories; whereas the first is characterised as a recursive string, which accounts for difference, not sameness, and the latter is characterised as a concept that tends to neutralize hierarchies.<sup>49</sup> The Twin Tower's completion at the paradigm shift in the early 1970s marks a transition from late modernism to postmodernism. One tower taken for itself, would comply with modernist towers such as the Chase Manhattan Bank headquarters or the Seagram Building, except, more ambitious and more competitive, seeking to triumph over others. By doubling the tower with the intention to double its presence and power, however, its individuality was lost. With the existence of the second tower as a copy of the first tower, the seriality began and an infinite reproduction loop, the seriality of World Trade Centers was initiated. The field that is spanned within the network — the quality of connections and the constant process of the formation of connections — is characterised by bifurcations of juxtaposed 'both-and' ambiguities, such as centre-multiples, visible-ephemera, concrete-currency or, stabile-unstable,

hence, ambiguity has been described as a second element of World Trade Centerness. These juxtapositions open a space for open interpretation. Within this oscillating framework, a play room, a room for multiple possible actions and identities opens which allows meaning and identities to be balanced and counterbalanced. The perpetual mobility that derives from these dynamics allows for what has been interpreted in the analysis of World Trade Centerness as the phenomenon's third element, the element of fluidity. This inherent ability allows for constant repositioning and stabilisation, acting like a pendulum within a constant state of crisis, uncertainty and instability.

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#### VII. CONCLUSION: GLOBALISATION, GROUNDED

The concluding chapter of this dissertation is organised as follows: after a summary that connects findings of the individual chapters, the status quo of the current global system will be viewed through the lens of World Trade Centerness, closing a bow that started with describing the triumph of airplane connectivity which had characterised the global culture during the time of the Twin Towers' completion. The dissertation ends by returning to its opening quote by Charles Jencks, in which he declares the death of modern architecture at the time of the Twin Towers' opening. Turning to Zygmunt Bauman's concept of liquid modernity, the diffusion of World Trade Centerness in processes of liquefaction, liquidation and *Soft Power* in the cultural, economic and political domain will be outlined.

This dissertation used the World Trade Center Twin Towers in New York to explore how architecture and the process of globalisation interrelate. Arguing, that architecture functions as a stabilising element for an unstable global system, this dissertation observed first, in chapter IV, the Twin Tower buildings in their context, thickly describing why and how the preconditions developed which eventually caused the repercussions of the Twin Towers that were laid out in chapter V, when mapping the consecutive series of hundreds of World Trade Centers following the 'original' World Trade Center Twin Towers. In chapter VI, the phenomenon of World Trade Centerness was conceptionalised and explained by elaborating its specific elements.

The core of the chosen timeframe, in which the emergence of World Trade Centerness along the process of globalisation has been observed, was roughly between 1971, the end of the Bretton Woods system and the almost simultaneous opening of the Twin Towers and 2016, the year in which Donald Trump was elected President of the United States and the International Monetary Fund declared the end of neoliberalism. The field of observation frays, however, on both ends: viewing the development of the Twin Towers throughout the 1960s was necessary in order to lay out the preconditions for World Trade Centerness. The years after 2016 found mention for example when mapping out ongoing or planned World Trade Center developments, given the processual and continuous phenomenon of World Trade Centerness and the perpetual process of globalisation.

## 1. Repercussions of the Twin Towers 1973 - 2016

Prefixed to the three main chapters of this dissertation, the literature review provided a theoretical framework, introducing several related positions in the observation of the paradigm shift in the economic culture starting from the 1970s and the subsequent process of globalisation. From there, key concepts have been extracted in order to support the dissertation's argumentation when conceptualising the phenomenon of World Trade Centerness by describing and analysing the World Trade Center Twin Towers' serialisation, dissemination and diffusion over the course of the process of globalisation. This dissertation's starting point was the Marxist understanding of the interdependency between culture and economic conditions and the point of view that the shift from Gold Standard to a fluctuating and interdependent global currency system marked a cultural paradigm shift as well.<sup>1</sup> Form there, it identified key concepts within the theoretical framework relevant to the dissertation's field and objects of observation, categorised under concepts of globality (connectivity, territoriality, unity, centreness), concepts of economy (commodification, privatisation, marketisation), concepts of visuality (representation, medialisation, spectacularity, iconicity) and concepts of agency (ambiguity, contingency and the formation of identities). It was relevant to recognise how the cultural concept of representation has shifted from mere symbolism towards a more critical perspective taken by materialist approaches. Following Reinhold Martin's interpretation, this dissertation regards architecture at the intersection of representation and production, the symbolic and the material:

"Rather than see architecture or urban space as a network of meanings, we might pay closer attention to how architecture and urban space makes meaning. Spectacular skylines, pipelines, parks, camps and villages: all of these operate infra structurally, as representation machines. The question is not what they mean but how they mean."

The first of three main chapters, chapter IV, *The Twin Towers: World Trade Center 1, 2* describes and contextualises the architecture of the Twin Tower buildings, interpreting them as the first and second in series of World Trade Centers to follow. In this chapter, the question why and how the Twin Towers became to represent the global system and what they provided as architecture and buildings for them to have been instrumentalised by the World Trade Centers Association as the organisations' trademark and symbol of global trade. Essential to these characteristics is the Twin Towers' dichotomous ambiguity of being both stable and unstable, both concrete and currency, both solid and fluid. According to this first assumption, the chapter has been structured in studying the Twin Towers as volume, building, in their

morphology and physicality, their two-dimensional appearance to the outside (exterior) and their three-dimensional spatial use in the inside (interior). Furthermore, their positionality as nodes and place-markers are scrutinised. Here, stabilising elements in relation to an unstable environment have been detected; as well as the Twin Towers' ability to morph and to be agents for re-positioning by their volume, which was highly representative, without at first representing much. Analysing the liquid, unstable aspect of the Twin Towers, they have been interpreted as currency, finance as well as a tool for financialisation, again outlining their agency as a stabilising element within an unstable global financial system. Last, the Twin Towers' quality as nodes and hubs has been investigated, their capability to transport and channel — often ambiguous — information across the global system. Examples for global flows given were traffic and trade, as well as tourism and terrorism, with both pairs shown to relate.

During the years preceding the Twin Towers' realisation, the postwar era during which nations and cities positioned themselves within new trade activities and new modes of connectivity. With airline travel increasing and port areas in city centres declining, new interchangeable goods such as knowledge, real estate or financial products helped establish new global trade infrastructure. Not surprisingly, when planning and developing the Twin Towers, key stakeholders behind the project were David Rockefeller as the President of Chase Manhattan Bank and the Port Authority of New York and New Jersey, the client and owner of the towers. The narrative, trade was traffic, allowed for the use of public money by the public agency to engage in a highly speculative global real estate project, the Twin Towers. At their opening, however, the Twin Towers were shown to be conceptually outdated and became, as office buildings to host businesses engaged in global trade, a failure. Instead of being a trade centre, the Twin Towers became, already throughout the course of the 1970s, a representation of global trade. The Twin Towers needed to transform their 'spoiled identity' and needed to reinvent themselves to be more than an office building: a spectacle, a stage for performance and the medialisation of commerce. Paradoxically, this strategy worked and resulted in the transformation of the Twin Towers in becoming not only economically successful but also a highly successful global brand. Throughout the crisis-shaken 1970s, the Twin Towers' initially spoiled identity was not only transformed, more so, they became a tool for the transformation of the spoiled image of New York City. The marketing campaign shifted the city's image from Fear City to Big Apple, making the city a global attraction and a visit to the "top of the world", which was how by this point the observation deck on the 102nd floor of World Trade Center 1 was referred to as a highly desired destination. Tourists as world traders — this phenomenon resonated Guy Debord's critique of the consumerism and commodification of the society of the spectacle. Negative externalities from the spectacularisation of the Twin Towers such as increasing homogenisation, exclusion, Mayor Giuliani's "cleaning of the city" can be traced directly to the terror attacks on September 11, 2001, during which the Twin Towers, by then no longer an office building, but rather an icon of national identity and global power, were destroyed in a highly visible performance, broadcasted live on television all over the world. The immediate nationalisation of 9/11 (Image 26) as evident in media reports and most prominently in George W. Bush's war on terror speech, during the redevelopment and resurrection of the World Trade Center years later never considered the World Trade Center to be anything other than a national icon. Chapter IV showed the Twin Towers to be dichotomous and ambiguous themselves, as a tool for the re-positioning of 'spoiled identities' and the stabilisation of unstable conditions.

Whilst chapter IV focused on the World Trade Center Twin Towers, outlining their strong visibility, iconicity and heroism — their apotheosis, in Rem Koolhaas' words chapter V widened the view on the multiplicity of World Trade Centers. Providing examples of World Trade Centers spanning a period of over 40 years, by mapping them on a timely, spatial, morphological and positional scale, Koolhaas' "letdown" appeared, considering the multiplicity of largely unknown, often 'grey', banal and architecturally irrelevant World Trade Center buildings. Entitled World Trade Centers 3 - 325, this chapter introduced the multiplicity of — at the time of the investigation — 325 existing World Trade Centers, interpreting them as a series. In order to provide quantitative and empirical information about existing World Trade Centers, chapter V draws information from a database in the appendix to this dissertation, where information about location, years built, positionalities, morphologies and the chosen categories void, one, many as well as centre, border and periphery have been listed. Due to the large number of World Trade Centers, only a few have been selected to serve as examples for a variety of categories across time and space. As a pretext to the mapping of the World Trade Centers, the, again, largely unknown, organisation behind the World Trade Center dissemination and development has been introduced as an exclusive and clandestine club, telling the story of the organisation's formation out of the Port Authority and the takeover of the World Trade Center name rights for the public agency to the association. When mapping World Trade Centers, the chapter structure corresponded to the previous chapter: morphologies described the morphological appearances of World Trade Centers similar to how Exterior described the outside appearance of the Twin Towers. The same applied for Positionalities. Interior, the subchapter that depicted use and internal life of the Twin Towers has not been paralleled in chapter V, due to the interpretation made in this dissertation, that the authenticity of 'real world use' has been lost in during the replicating process, instead of real global trade, World Trade Centers function rather as a representation of world trade. In parallel to chapter IV, here, like the Twin Towers, the examples given of World Trade Centers have been contextualised with political, economic and cultural phenomena, revealing, how they function and intersect at times. Chapter V described, how the World Trade Center network has been built, transformed and maintained and how it traveled within time and space. World Trade Centers, as it has been argued, function as a stage to perform the cultural practice of globalisation, by performing global business and eliminating contingencies through imageries of stabilities — a paradox, considering, that far more generic, 'invisible' World Trade Centers exist worldwide than iconic ones.

Chapter VI, Elements of World Trade Centerness, the last of three main chapters in this dissertation, synthesises findings from chapters IV and V. While chapter IV had contextualised and described the Twin Towers as the 'original' first in a series of World Trade Centers, chapter V had laid out the multiplicity of World Trade Centers, mapping them within the field they are spanning. In the last of three main chapters in this dissertation, the phenomenon of World Trade Centerness has been conceptualised by elaborating key elements essential to it: seriality, ambiguity and fluidity. In this way, the qualities and interrelations of the World Trade Center serialisation could be demonstrated. The three elements introduced in chapter VI build upon each other. The first, seriality, discussed the interrelation between the original and the copy as the onset of the dissemination process. It concluded, that, similar as in Pop Art, the existence of the second element — in this case the twin already marked the voiding of the first, the individuality of the original, which, paradoxically, was intended to reinforce the original by doubling it. In its seriality, this dissertation described World Trade Centers as Pop Art, whereby it is not the single building or World Trade Center, and not the Twin Towers, that are regarded as Pop Art, but rather the process or performance of serialisation.

Matching Koolhaas' characterisation of the Twin Towers' as "modernism's apotheosis and letdown", this dissertation describes this phenomenon as a significant showcase of the cultural shift during the early 1970s and the emergence of what Harvey and Jameson described as the condition of postmodernity. Hence, the consecutive serialisation of World Trade Centers has been described as simulacra. Intended as heroic solitaire(s), the Twin Towers, immediately in their doubling, became empty

screens, allowing for the mirroring of virtually any content with the price of the abandonment of the very own individuality.

Ambiguity, the second element introduced in chapter VI, built upon the element of seriality in terms that it shows how the connecting ties between the serialised objects, the World Trade Centers, diffuse and what their quality is. It corresponds to chapter IV, where the ambiguous character of the Twin Towers was outlined throughout. Referencing Robert Venturi's "both-and-architecture", ambiguity has been described as a defining element of World Trade Centerness. Paradoxical, often juxtaposed and dichotomous, ambiguity opens a field of possible meanings and identities, balancing unstable and contingent conditions. Like the Twin Towers in their twinness, in their feature of being both concrete and currency, the 'glocal'-narrative of the global system itself that is built upon is ambiguous. As shown in chapter V, World Trade Centers can be iconic and banal, centred and peripheral, one and many.

The last element introduced, fluidity, builds on the previous elements, seriality and ambiguity. It emphasises how the processual, mobile and transformative aspect constitutes the phenomenon of World Trade Centerness, oscillating between unstable and stable, between changing identities and positions. Fluidity allows for the constant re-positioning of identities and the stabilisation of instabilities. The subchapter Repositioning corresponds to chapter IV, in which the re-positioning agency of the Twin Towers was described, its role in urban planning, its role as a tool of financialisation and its role to rebrand the City of New York in a state of crisis and spoiled identity. It also corresponds to chapter V, in which all examples given showed how World Trade Center development served as a tool for re-positioning, be it out of an economic, political or even ideological agenda. The subchapter Stabilisation corresponds to chapters IV and chapter V too; one of the founding narratives of the Twin Towers' project — trade is peace — , has been stated in the opening ceremony of the Twin Towers by Minoru Yamasaki; the slogan also serves as a key narrative of the World Trade Centers Association. In relation to the element of seriality as described earlier in chapter V, the continuous process of voiding the previous results in a constant flow of meaning and connotations. Similar to the financial process of liquidation, the concept of fiat money - money, that has no intrinsic value, its value is based on its fluidity as circulating currency — also resembles a process that stabilises an unstable global system, as Manuel Castells coins it when describing "space of flows" within the current global system.3 The element of fluidity involved in the phenomenon of World Trade Centerness enables the transformation of identities and context, for World Trade Centers to act as change-maker for spatial, institutional, cultural, urban or national identities as well as the transportation of ideologies.

# 2. Liquefaction, liquidation and Soft Power

"I did not think earlier and do not think now of the solidity versus liquidity conundrum as a dichotomy; I view those two conditions as a couple locked, inseparably by a dialectical bond (the kind of bond Francois Lyotard probably had in mind when he observed that one can't be modern without being postmodern first ...). After all, it was the quest for the solidity of things and states that most often triggered, kept in motion and guided their liquefaction; liquidity was not an adversary, but an effect of the quest for solidity, having no other parenthood, even when (or if) the parent night deny the legitimacy of the offspring. In turn, it was the formlessness of the oozing, leaking and flowing, liquid that prompted the efforts at cooling, damping and moulding. If there is anything that permits a distinction between ,solid' and liquid' phases of modernity (that is, arranging them in an order of succession), it is the change in both the manifest and the latent purposes behind the effort."4

This dissertation closes by referring to Zgymunt Bauman's understanding of liquid modernity. As quoted above, Bauman sees in what has been termed *stabilising instabilities* in this dissertation, the "quest for solidity" as the cause for motion and fluidity. For him, the dichotomous ambiguities of *liquidity* and *solidity* are not adversaries, but an effect, a movement without origin. The term 'liquefaction' already entails the interdependent ambiguity of liquid and solid — *factum*. The only way to distinguish between solid and liquid, according to Bauman, is, to arrange them in succession. It is in this understanding that this dissertation interpreted the serialisation of World Trade Centerness as an instrument to stabilise an unstable global system. Having pointed at the paradigm shift at the beginning of the 1970s, the timely coincidence of the Twin Tower's completion and the beginning of a new interdependent global financial system, this dissertation identified the architecture of the World Trade Center Twin Towers as an explanation for their agency within the shaping of the current global system and their subsequent serialisation as World Trade Centers throughout the process of globalisation.

As early as the beginning of their planning, the Twin Towers served as a tool to stabilise the unstable conditions of the global system as it emerged at the beginning of the 1970s. They were conceptualised and designed so that they would stabilise Chase Manhattan's real estate speculation in Lower Manhattan and the real estate market in Manhattan, strengthen the position of the United States on the global

financial market and function as a symbol of national identity, as well as liquify public money generated by the Port Authority and channel it into real estate business. As shown, the Twin Towers never served as only an office building, but more so as a building that had the agency to re-position its context and to be utilised to transform unstable situations and spoiled identities. Their architecture enabled such agency for the following reasons: first, being both iconic and banal<sup>5</sup>, causing what Koolhaas described as "Apotheosis and letdown", they allowed for a constant change of meaning, without having to have a specific one of its own. Second, as shown in chapter VI, with the existence of the second, the copy of the first, the first loses its originality and individuality, causing a recursive seriality of constant replication and voiding, similar to how Bauman described the interrelation of liquidity and stability within liquid modernity in the above quote. Third, their purposely planned disproportionality — too high for their urban context, too large for their local neighbourhood, and too over-dimensioned for the office space actually needed made it obvious from the onset that they were not what they claimed to be: a vertical port, providing space for business related to international trade. The economic paradigm shift at the beginning of the 1970s cannot be seen without one of its immediate effects, the cyclical occurrence of crises. The Twin Towers, built to stabilise various positions, opened in the year of the Nixon Shock and the first global oil crisis, to be followed by a financial crisis, a fiscal crisis, another oil crisis, political crisis and, as President Jimmy Carter diagnosed at the end of the decade, a "crisis of confidence". As shown in chapter IV, the Twin Towers proofed in their initial years how they could function as a stabilising change-maker, transforming "spoiled identities" and stabilising unstable conditions. The World Trade Centers Association, emerging from within the World Trade Center planning department of the Port Authority and eventually spinning itself off by acquiring the name rights to the World Trade Center, recognised the opportunity to capitalise on the effect of World Trade Centerness. Seeking to profit from this value-adding agency of the Twin Towers, the World Trade Centers Association built their business case on the serialisation and marketisation of the World Trade Center brand, promising their members the same effect of re-positioning and stabilisation as the 'original' Twin Towers showed to have in return for a membership fee. The paradox of the imbalance between the Twin Towers' enormous iconicity and the irrelevance and clandestine existence of the World Trade Centers Association and most of the over 300 World Trade Centers proves the argument made in this dissertation that with the process of replication, the individuality, the real value, in the case of architecture: the architectural value gets lost, becomes simulacrum. The value of architecture — in its social, aesthetic, practical aspects — has been liquidated; it has been liquified throughout the process

of serialisation into a tool of finance and ideology. Like *Soft Power*, it channels political, social and financial interests using the camouflage of World Trade Centerness.

Throughout this dissertation, fluidity has been ascribed as the active and constituting element of World Trade Centerness. Like a worlding process, liquefaction, as Bauman puts it, allowed for the global diffusion of World Trade Centerness, thus maintaining the global system by keeping it perpetual. At the time of the writing of this dissertation, however, the global system has come to a halt. Grounded by a global pandemic, the world remains motionless, in lockdown. The narrative bow of this dissertation started with the Twin Towers' completion at the moment of a global culture characterised by emerging airplane connectivity, the Concorde era had just started: *triumph*, *apotheosis*. Today, the images of grounded airplanes all over the world seem to mark a momentum, maybe a pivotal moment, or they label a specific era, similar to the images of the exploding Concorde at Charles de Gaulle Airport in Paris in 2000, or the images of 9/11, a year later, when the disproportional high Twin Towers were violently flattened to ground zero: *Tragedy, letdown*. Like Rem Koolhaas, who stated about the Twin Towers as quoted at the beginning of this dissertation:

"Along with the Concorde, they are modernism's apotheosis and its letdown at the same time - unreal perfection that can never be equaled."

Ada Louise Huxtable, then architecture critic at the New York Times, had had similar observations in 1966, years before the Twin Tower's completion:

"Who is afraid of big, bad buildings? Everyone, because there are so many things about gigantism that we just don't know. The gamble of triumph or tragedy at this scale - and ultimately it is a gamble - demands an extraordinary payoff. The trade-center towers could be the start of a new skyscraper age or the biggest tombstones in the world."

Triumph and tragedy, apotheosis and letdown, both quotations describe inappropriate and disproportional dynamics that can be found in aspects of the current global system such as increasing competitiveness, marketisation and privatisation at the cost of the real, that are not subordinated to financialisation. Throughout the time of writing this dissertation, these values have been increasingly questioned — the proclamation of the end of neoliberalism or the end of capitalism is omnipresent. In the course of this dissertation, it has become clear how triumph and tragedy have the ability to visualise cultural turning points: Pruitt-Igoe, the Twin Towers' completion and destruction. Grounding as the opposite of worlding, as letdown and disillusion. Thus, the process of globalisation is, at the same time, a process of deglobalisation;

attempts to stabilise or affirm this system, in a paradox ambiguity, have only contributed to its destabilisation. In parallel, when viewing the Twin Tower as heroic 'first' and original in a series of World Trade Centers, the voiding appears already in the moment when the first is doubled — or mirrored — by its twin.

This dissertation argued, that the Twin Towers stood for an era, what has been termed as current global system. While finalizing this dissertation, two major situations strongly impact the condition of the global system, marking a momentum: The global pandemic due to the Covid-19 outbreak since the beginning of 2020 and the protest against systemic racism in the United States and beyond, that has formed strongly in the aftermaths of the killing fo George Floyd. Both moments relate to the topic of this dissertation in terms that they reveal how factors destabilising the global system are inherent to it. Global connectivity and practices of trade finally proved to be not resilient in the pandemic; the political culture of neoliberalism has, as shown at the examples given in this dissertation with Brazil, India and the United States, produced politics that destabilises what was intended to be reaffirmed. Given its enormous impact, the current pandemic likely signifies another such turning point in global culture, marking "the end of the post-9/11 era",8or signifying the beginning of a deglobalisation process. Global relations are increasingly dominated by identitarian politics represented by national leaders such as Donald Trump, Jair Bolsonaro or Narendra Modi. This development is both the result and the affirmation of globalism in contrast to internationalism, as Boris Groys argues:

"Socialist internationalism is based on international solidarity, whereas neoliberal globalism is based on global competition. In the context of global markets, everybody competes against everybody—every individual competes against every other individual, every country against every other country, and so forth. (...) Indeed, economic liberalization and globalisation on the one side, and cultural nationalism on the other, are not mutually exclusive—precisely because cultural formations function de facto as preconditions for the effective participation of individuals in economic and political competition. That is why the combination of cultural globalisation and extreme cultural conservatism defines the politics and art of our time."

This dissertation demonstrated how the agency of architecture enables the instrumentalisation of buildings within the current global system, thus providing knowledge about the agency of architecture in the formation of cultural conditions within a political and economic context. Further, it provides knowledge about the process of globalisation itself. Given the current momentum in the process of globalisation, this dissertation closes with emphasising the difference of instrumentalisation and agency. Having shown, how buildings are used to stabilise

cultural conditions, the ability of architecture to activate space and have an effect on cultural conditions became apparent. As an agent, it relates and shapes political economic and social relations of everyone.

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# List of Figures

Fig. 1	Positionality of World Trade Center 1, 2 in Manhattan
Fig. 2	World Trade Center 1, 2 - research timeframe
Fig. 3	World Trade Center 1, 2, 1970s Local and global context; political, economic & financial conditions
Fig. 4	Context World Trade Center 1, 2 and crises
Fig. 5	Abductive Research Model (from Dubois, A. & Gadde, LE., 2002, p.555)
Fig. 6	Key Theoretical Concepts
Fig. 7	Map of World Trade Centers (source: www.wtca.org, accessed June 23, 2020)
Fig. 8	World Trade Center Development 1970 - 2019
Fig. 9	Development of the World Trade Centers Association
Fig. 10	Morphologies (source: www.wtca.org, accessed March 11, 2020)
Fig. 11	Positionalities (source: www.wtca.org, accessed March 11, 2020)
Fig. 12	Dubai World Trade Center, Dubai, UAE, 1979 China World Trade Centre, Beijing, China, 2010 One World Trade Center, New York, United States, 2014
Fig. 13	Bahrain World Trade Center, Manama, Bahrain, 2008
Fig. 14	Brussels World Trade Center, Brussels, Belgium, 1970, 1972, 1983
Fig. 15	Sao Paolo World Trade Center, Sao Paolo, Brazil, 1995
Fig. 16	World Trade Center Frankfurt (O) - Slubice, Frankfurt (O), Germany, 1992
Fig. 17	World Trade Centre GIFT City, Gujarat, India, in planning since 2014

#### **Image Sources**

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- 3 Aerial view of the Port and Lower Manhattan, New York, United States ca. 1931.
  Photograph, viewed 21 June, 2020 <a href="https://en.wikipedia.org/wiki/File:Manhattan\_1931.jpg">https://en.wikipedia.org/wiki/File:Manhattan\_1931.jpg</a> By Unknown author U.S. National ArchivesOriginal file: american\_cities\_047.jpg, Public Domain, <a href="https://commons.wikimedia.org/w/index.php?curid=7552588">https://commons.wikimedia.org/w/index.php?curid=7552588</a>>
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#### Name Index

Aflalo & Gasperini Arquitetos, 112, 113

Alexander, Jeffrey C., 40

Annan, Kofi, 89 Arad, Michael, 73 Atkins limited, 107, 108 Axford, Barrie, 29 Barthes, Roland, 50 Bartmanski, Dominik, 40

Baudrillard, Jean, 2, 3, 30-31, 33-36, 49, 73-75,

111, 129-132, 134-135, 137

Bauman, Zygmunt, 30, 41, 57, 135, 153, 159-161

Beck, Ulrich, 30 Beckford, James, 29

Beijing Vantone Real Estate, 104 Benjamin, Walter, 33, 140 Bharatiya Janata Party (BJP), 119

Bin Laden, Osama, 74 Bobbio, Tommaso, 119 Bofill, Ricardo, 107 Bolsonaro, Jair, 162

Buchanan, James M., 91, 138, 143

Bush, George H.W., 71

Bush, George W., 75-76, 120, 156 Carter, Jimmy, 61, 101, 104, 160

Caryl, Christian, 61, 100

Castells, Manuel, 29, 34, 65, 68, 71, 114, 133, 136,

144, 146, 158

Chase Manhattan Bank, 9, 11-12, 50, 55, 58-60, 77,

131, 142, 149, 155 Childs, David, 103 Chohan, Usman W., 91

Colomina, Beatriz, 3, 32, 35, 38-39, 48

Condé Nast, 104 D'Souza, Aron, 91 Darton, Eric, 9 De Pauw, Charlie, 110 Deamer, Peggy, 35

Debord, Guy, 40, 72, 140, 156

Demand, Thomas, 38

Downtown-Lower Manhattan Association (DLMA),

12, 50, 58, 66, 100, 137

Easterling, Keller, 3, 18, 35, 37-38, 74

Eco, Umberto, 34, 129, 141 Erben, Dietrich, 132 Ferguson, Niall, 61 Floyd, George, 162 Förster, Heinz von, 62 Foster, Hal, 129

Friedman, Milton, 35, 113 Gensler Architects, 106 Gillespie, Angus K., 9 Giuliani, Rudolph, 72, 156 Glanz, James, 9-13, 49-50, 54, 59, 67

Goffman, Erwing, 96, 148 Goldberger, Paul, 14 Golubchikov, Oleg, 116 Gorbachev, Mikhail, 71 Graham, Stephen, 65, 138

Greenberg, Mirjam, 19, 70, 80-81, 131, 145, 151-

152

Groys, Boris, 19, 81, 162, 164

Hall, Matthew, 147

Hamad Bin Isa Al Khalifa, 107-108

Hanig, Walter, 107 Harris, John, 100-101

Harvey, David, 3, 6, 30-37, 76, 142, 157

Haughey, Patrick, 67 Hein, Carola, 65, Herrmann, Erik, 15

Huxtable, Ada Louise, 14, 47, 50, 161

International Monetary Fund (IMF), 3, 16, 84, 153

Isa bin Salman Al Khalifa, 108

Jacobs, Jane, 14, 34

Jameson, Fredric, 3, 6, 30-32, 34-37, 141-142, 157

Jencks Charles, 1, 34, 147, 153

Kaminer, Tahl, 35, 39 King, Anthony, 145

Koolhaas, Rem, 1, 3, 34, 51, 69, 72, 74, 156-157,

160-161

Latour, Bruno, 41 Levebvre, Henri, 34

Lipton, Eric, 9-13, 49-50, 54, 59, 67 Lula da Silva, Luiz Inácio, 114 Martin, Reinhold, 3, 35-37, 40, 154

Marvin, Simon, 65, 138 Mathur, Navdeep, 119-120

May, Kyle, 14

McKinsey & Company, 11-12, 52 McLuhan, Marshall, 29, 135, 138

Microsoft Corporation, 35 Minsky, Hyman, 62

Modi, Narendra, 118-120, 162

Moses, Robert, 11-12, 35, 58-60, 66, 86

Mumford, Lewis, 14, 52 New York Public Library 9-10

North Atlantic Treaty Organization (NATO), 110

Nye, Joseph, 143

Organisation of the Petroleum Exporting Countries

(OPEC), 61, 84

Petit, Philippe, 53, 71, 90

Port Authority of New York and New Jersey, 1-2, 4, 9, 10, 12-15, 24, 50, 52-54, 57-60, 64, 66-67, 68, 77-78, 85-91, 103, 121, 135, 142, 145, 155-156,

160

Rashid bin Saeed Al Maktoum, 100

Reagan, Ronald, 63, 71, 129

Robertson, Leslie E., 9

Robertson, Roland, 29

Rockefeller Foundation, 9

Rockefeller, David, 9, 11-13, 58, 63, 66, 142, 144,

155

Rockefeller, Nelson, 9

Romańczy, Katarzyna M., 110

Ruchelman, Leonard, 66-67

Saudi Binladin Group, 106

Scheid, Heinz, 107

Schmidt, Johannes, 107

Schumpeter, Joseph, 62

Scott Brown, Denise, 34

Sennett, Richard, 114

Sielke, Sabine, 133-134, 149

Silverstein, Larry, 54

Skidmore, Owings & Merrill (SOM), 103, 105

Smith, Neil, 76

Smith, Terry, 75

Sorkin, Michael, 14-15

Spencer, Douglas, 35

Thatcher, Margaret, 61, 100

Till, Jeremy, 41

Tobin, Austin, 9, 13, 67

Tozzoli, Guy, 9, 10, 12, 67, 86, 87, 89

Trump, Donald, 3, 16, 23, 96, 109, 153, 162

United Nations (UN), 84, 88-89, 113, 115

United Nations Conference on Trade and

Development (UNCTAD), 84

United States Internal Revenue Service, 88, 90

Vanden Boeynants, Paul, 110

Venturi, Robert, 34, 44, 136, 158

Vidler, Anthony, 40-41

Walker, Peter, 73

Wallerstein, Imanuel, 29

Wells, Rich, Greene, Inc., 70

Wigley, Mark, 52

Willis, Carol, 34

Willis, George, 54

Wordsearch Ltd., 129

World Economic Forum (WEF), 84

World Trade Centers Association (WTCA), 2, 4,

6-10, 12, 14, 17, 21-25, 41-42, 47, 62-64, 67, 7-79,

83-97, 100, 103, 107, 120-121, 123, 127-128, 130,

135, 137, 139, 140, 142, 147-149, 152, 154, 156,

158, 160

World Trade Organization (WTO), 84

Xiaoping, Deng, 61, 104

Yamasaki, Minoru, 1, 5, 8, 9, 10, 13, 15, 42, 51, 74,

131-132, 146, 152, 158

Yaneva, Albena, 3, 41-42, 47-48

Zedong, Mao, 104

Zukin, Sharon, 14-15

## **Bibliography**

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**APPENDICES** 



# World Trade Center Database, chronological (Source: https://www.wtca.org/locations ,accessed on March 11 - 16, 2020)

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
1970	Amsterdam	Netherlands	EUR			х						x		
1970	Antwerp	Belgium	EUR				х				x			
1970	Baltimore	USA	NA				x				x	x		
1970	Houston	USA	NA			x						х		
1970	Mumbai	India	AP					x			x	x		
1970	New Orleans	USA	NA				x				x	x		
1970	Rotterdam	Netherlands	EUR				х				x	х		
1970	Tokyo (AF)	Japan	AP				x				x			
1970	Toronto	Canada	NA				х				x	х		
1971	Geneva	Switzerland	EUR			Х					х		х	
1972	Milan	Italy	EUR			х						х		
1973	Brussels	Belgium	EUR					x				х		
1973	Gothenburg	Sweden	EUR			х					x		х	
1973	Moscow	Russia	EUR					x				х		
1974	Dallas	USA	AME			x						х		
1974	Jakarta	Indonesia	AP					x			x	х		
1975	Hong Kong	China	AP				X				x	х		
1976	Sofia	Bulgaria	EUR			x						x		
1979	Dubai	UAE	AME				x				x	x		
1979	Marseille	France	EUR						x		x	х		
1979	Norfolk	USA	NA			х					x	x		
1980	Istanbul	Turkey	EUR					x	x		x		x	
1980	Sarajevo	Serbia (Yugoslavia)	EUR					X				х		
1981	Havana	Cuba	NA			X					X	x		
1982	Atlanta	USA	NA				X					х		
1982	Halifax	Canada	NA			X					х	х		
1983	Bogota	Colombia	CSA			X						х		
1983	Nantes	France	EUR			X						х		
1983	Vancouver	Canada	NA			X					х	х		
1984	Detroit	USA	NA			X						x		
1984	Edmonton	USA	NA			X						x		

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
1984	Genoa	Italy	EUR					x			x	x		
1984	Kuala Lumpur	Malaysia	AP			x						х		
1984	Montreal	Canada	NA			x						х		
1984	Sofia	Bulgaria	EUR			x						х		
1985	Boston	USA	NA			x					x	х		
1985	Curacao	Curacao	NA			x					x	х		
1985	Macau	Macau	AP			x					х	х		
1985	Miami	USA	NA								x	х		
1986	Cairo	Egypt	AME						x			x		
1986	Lyon	France	EUR			X						х		
1986	Sao Paulo	Brazil	CSA				х					х		
1986	Tacoma	USA	NA			x					х	х		
1987	Anchorage Alaska	USA	NA			X					х	х		
1987	Delaware	USA	NA			х					x		x	
1987	Denver	USA	NA					x				х		
1987	Hamburg	Germany	EUR	х										
1987	Kentucky	USA	NA				х					х		
1987	Lille	France	EUR			x							x	
1987	Panama	Panama	CSA				х				x	х		
1987	Paris	France	EUR				Х							
1987	Paris	France	EUR					х				х		
1987	Stockholm	Sweden	EUR			x					x	x		
1988	Charleston	USA	NA										х	
1988	Grenoble	France	EUR			X						х		
1988	Guadalajara	Mexico	NA				Х					х		
1988	Kiel	Germany	EUR	X										
1988	Los Angeles	USA	NA			X						х		
1988	Manila	Philippines	AP			X					х	х		
1988	Metz-Saarbrückern	France	EUR							X		х		
1988	Philadelphia	USA	NA					X				х		
1988	Seoul	South Korea	AP				Х					х		
1988	Sevilla	Spain	EUR			X						х		
1988	Shanghai	China	AP			x						х		

YEAR	СІТҮ	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
1989	Helsinki	Finland	EUR			х						х		
1989	Leeuwarden	Netherlands	EUR			x							x	
1989	Long Beach	USA	NA					x			x	х		
1989	Lugano	Switzerland	EUR					x			x		x	
1989	Monterrey	USA	NA			x						х		
1989	Portland	USA	NA			х						х		
1989	Providence	USA	NA			X							x	
1989	Tianjin	China	AP								x	х		
1990	Kansas City	USA	NA			X						х		
1990	Orlando	USA	NA			х						х		
1990	Pittsburgh	USA	NA			X						x		
1990	Rostock	Germany	EUR			x					x		x	
1990	Santiago	Chile	CSA				х					х		
1990	Taichung	Taiwan	AP			x					х	х		
1990	Warsaw	Poland	EUR		x							х		
1991	Bremen	Germany	EUR								x			
1991	Nice	France	EUR			х							x	
1991	St Louis	USA	NA			х						x		
1991	Tampa Bay	USA	NA			x					x	x		
1992	Barcelona	Spain	EUR			х					x	x		
1992	Dresden	Germany	EUR			x						x		
1992	Frankfurt (Oder)-Slubice	Germany	EUR	x						х				х
1992	Montevideo	Uruguay	CSA				x				x	x		
1992	Turku	Finland	EUR			X					х		x	
1992	Utrecht	Netherlands	EUR			X						x		
1992	Zurich	Switzerland	EUR			X							X	
1993	Bucharest	Romania	EUR			X						х		
1993	Colombo	Sri Lanka	AP					x			х	х		
1993	Lausanne	Switzerland	EUR			X							x	
1993	San Diego	USA	NA		x							х		
1993	The Hague	Netherlands	EUR			X					х		х	
1994	Mexico-City	Mexico	CSA				X					х		
1994	San Salvador	El Salvador	CSA			х						х		

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
1994	Veracruz	Mexico	NA						x		x	x		
1995	Ekaterinburg	Russia	EUR			х						x		
1995	Montana	USA	NA			х						x		
1995	Northern Carolina Sacramento	USA	NA			х						х		
1995	Osaka	Japan	AP				х				x	x		
1995	Talinn	Estonia	EUR			х					x	х		
1996	Hong Kong (AF)	Hong Kong	AP											
1996	Taipei	Taiwan	AP			х					x	x		
1997	Washington Dulles Airport	USA	NA								x		x	
1997	Washington D.C.	USA	NA		x							x		
1998	Algiers	Algeria	AME			Х						х		
1998	Almere	Netherlands	EUR			Х					X		x	
1998	Trieste	Italy	EUR								x	х		
2000	Aachen	Germany	EUR			х								Х
2000	Arnhem	Netherlands	EUR					х				х		
2000	Buffalo	USA	NA			X				X		x		
2000	Nansha	China	AP			X					X	X		
2000	Ramallah	Palestine	AME			X						X		
2001	Hong Kong Intl Airport	Hong Kong	AP								X			
2001	Milan Malpensa Airport	Italy	EUR								x		x	
2002	Barcelona Almeda Park	Spain	EUR			х							x	
2002	Beirut	Lebanon	AME			X						X		
2002	Doha	Quatar	AME				X				X	X		
2002	Harrisburg	USA	NA			х							х	
2002	Oxnard	USA	NA			х							х	
2002	Suwon	South Korea	AP				X		X			X		
2002	Zaragoza	Spain	EUR					X				x		
2003	Chelyabinsk	Russia	EUR			X							X	
2003	Dublin	Ireland	EUR								X	x		
2003	Eindhoven	Netherlands	EUR			X						x		
2003	Moscow	Russia	EUR					X				х		
2003	Poznan	Poland	EUR			X						X		
2003	San Marino	San Marino	EUR			х							х	

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
2003	Wenzhou	China	AP			x					x	x		
2004	Al Khobar	Saudi Arabia	AME	x							x	x		
2004	Aleppo	Syria	AME	x										
2004	Basra	Iraq	AME	x										
2004	Benghazi	Lybia	AME	х										
2004	Chittagong	Bangladesh	AP			x					х		x	
2004	Jeddah	Saudia Arabia	AME	x										
2004	Limassol	Cyprus	EUR			x					х	х		
2004	Riyadh	Saudi Arabia	AME					x				х		
2004	Sanaa	Yemen	AME	x										
2004	Xian	China	AP			х						х		
2005	Casablanca	Morocco	AME	х										
2005	Chonquing	China	AP				х					х		
2005	Guangzhou	China	AP					х				х		
2005	Tunis	Tunisia	AME								х			
2005	Wuxi	China	AP				х					х		
2006	Abu Dhabi	UAE	AME					x			х	х		
2006	Arkansas	USA	NA			х							x	
2006	Helsinki Airport	Finland	EUR			x					х			
2006	Malmo	Sweden	EUR						х		x	х		
2006	Pescara	Italy	EUR					x			x	х		
2006	Saigon	Vietnam	AP		x						x	х		
2006	Twente	Netherlands	EUR			x						х		
2006	Valencia	Venezuela	CSA			х						х		
2007	Almaty	Kazakhstan	EUR									х		
2007	Beijing	China	AP				Х		X			х		
2007	Changzhou	China	AP					х					x	
2007	Islamabad	Pakistan	AP			x						х		
2007	Oslo	Norway	EUR			X					х	х		
2007	Poitiers	France	EUR			X							x	
2007	Quanzhou	China	AP			X					X		x	
2007	Salt Lake City	USA	NA			X						x		
2007	Vaxjo	Sweden	EUR			X							x	

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
2008	Abuja	Nigeria	AME						x		x	x		
2008	Accra	Ghana	AME						x		x	x		
2008	Bahrain Manama	Bahrain	AME	х				x			х	х		
2008	Helsingborg	Sweden	EUR			х					x	х		
2008	Lund	Sweden	EUR			x							x	
2009	Amsterdam Schiphol Airport	Netherlands	EUR	х							x			
2009	Belo Horizonte	Brasil	CSA			x						х		
2009	Cali	Colombia	CSA			x						х		
2009	Kunming	China	AP			х		х				х		
2009	Lima	Peru	CSA				х						x	
2009	Nanjing	China	AP				x					х		
2009	Pilsen	Czech Republic	EUR			х						х		
2009	Rennes	France	EUR			х						х		
2009	San Luis Potosi	Mexico	NA			x							x	
2009	Venlo	Netherlands	EUR			х								х
2009	Vilnius	Lithuania	EUR			х								x
2010	Bangalore	India	AP				х					х		
2010	Cancun	Mexico	NA			x							x	
2010	Dakar	Senegal	AME			x					x	х		
2010	Las Vegas	USA	NA			x						х		
2010	Naucalpan	Mexico	NA			x						х		
2010	Queretaro	Mexico	NA					X					x	
2010	Tijuana	Mexico	NA			х				х	x	х		
2010	Wenzhou	China	AP				x				х	х		
2011	Asuncion	Paraguay	CSA					х	х			х		
2011	Basilicata	Italy	EUR										X	
2011	Buenos Aires	Argentinia	CSA			X		X						X
2011	Cartagena	Columbia	CSA			x					х	х		
2011	Gibraltar	Gibraltar	EUR			x					х	х		
2011	Savannah	USA	NA			X						х		
2011	Shenzen	China	AP			X					х		x	
2011	Shiraz	Iran	AME					X				х		
2012	Dandong	China	AP							X	x			

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
2012	Ibaque	Colombia	CSA			х						х		
2012	Melbourne	Australia	AP			x					х	х		
2012	Noida	India	AP						x				x	
2012	Rosario	Argentina	CSA			x					x	х		
2012	Sharjah	UAE	AME			x						х		
2012	Winnipeg	USA	NA		х							х		
2012	Yongkang	China	AP					x				х		
2013	Anyang	China	AP					x					x	
2013	Bhubaneswar	India	AP	x			x				x		x	
2013	Changsha Wanjiali	China	AP			x						х		
2013	Chennai	India	AP					Х	X		x		X	
2013	Ciudad del Este	Uruguay	CSA			х							x	
2013	Encarnation	Paraguay	CSA			х						х		
2013	Erbil	Iraq	AME			х						х		
2013	Fuzhou	China	AP				x					х		
2013	GIFT City Gandinaghar	India	AP						х					х
2013	Jaipur	India	AP					x	x			х		
2013	Lille Arras	France	EUR						x					х
2013	Medellin	Colombia	CSA								х		x	
2013	Nizhny Novograd	Russia	EUR			х						х		
2013	Pune	India	AP			х							x	
2013	San Francisco	USA	NA			х						х		
2013	Santa Cruz de la Sierra	Bolivia	CSA					x					x	
2013	Suzhou	China	AP				x				x	х		
2013	Wuhan	China	AP				х					х		
2014	Ahmedabad	India	AP	x										
2014	Ballerup	Denmark	EUR			х							x	
2014	Chandigarh	India	AP			х								X
2014	Chicago	USA	NA									х		
2014	Faridabad	India	AP											
2014	Guiyang	China	AP						х			х		
2014	Kochi	India	AP			х						х		
2014	Luohe	China	AP					х				х		

YEAR	CITY	COUNTRY	CONT.	c/o	Existing historic building	Generic office building	Monolith	Twin buildings	Building complex	National border position	Port / airport position	City center position	Periphery	Green field
2014	Nanning	China	AP						х				х	
2014	Navi Mumbai	India	AP			x					x	х		
2014	New York	USA	NA				X					х		
2014	Santo Domingo	Domenican Republic	CSA			х			х			х		
2014	Surat	India	AP			х						х		
2015	Colonia del Sacramento	Uruguay	CSA			x					x	х		
2015	Curitiba	Brazil	CSA						x			х		
2015	Dhaka	Bangladesh	AP										x	
2015	Goiania Sao Paulo	Brazil	CSA						x			x		
2015	Harbin	China	AP						x				x	
2015	Hunchun	China	AP							x			x	
2015	Patna	India	AP			X						x		
2015	Punta del Este	Uruguay	CSA				X				x	x		
2015	Xiamen	China	AP			x					x		x	
2016	Amman	Jordan	AME	x										
2016	Joinville	Brazil	CSA			х						х		
2016	Lisbon	Portugal	EUR			X					x		x	
2016	Vadodara	India	AP			х						х		
2017	Birmingham	USA	NA			X						x		
2017	Brest	France	EUR			X					x	x		
2017	Perth	Australia	AP					X			x	x		
2017	Saskatoon	Canada	NA			х							x	
2017	Tabriz	Iran	AME				х					х		
2018	Hangzhou	China	AP					X				x		
2018	Indianapolis	USA	NA			X							X	
2018	Shenyang	China	AP			X						x		
2018	Singapore	Singapore	AP			х					х	х		
2018	Sydney	Australia	AP						х					х
2019	Binh Duong New City	Vietnam	AP				x						x	

#### $World\ Trade\ Centers\ Association\ -\ Benefits\ for\ Members\ (Source: https://www.wtca.org/\#benefits,\ accessed\ on\ March\ 15,\ 2020)$

	Prestigious Brand	Global Network	Iconic Properties	Integrated Trade Services
Commercial Property Developer	competitive advantage by naming property "World Trade Center" attract high profile tenants receive rent premium and high utilization rates higher occupancy rates with long-term leases leadership by contributing to increased trade and investment transactions, business tourism and jobs Positioning within highly recognizable World Trade Center property portfolio	High visibility and value proposition Strategic insights through best practice exchanges Direct outreach to international business New advertising and marketing channels	Justifies your vision for architectural excellence and innovation to investors proven regional economic impact draws government and community support licensing provides independent developers the ability to realize success by association with similarly landmarked properties Increased focus on green buildings and sustainability	international business and investment enabler Diversifies tenant base Boosts hospitality revenues
Economic Development Agencies	access point for global trade and investment better competitive positioning for your city foreign direct investment Create, retain and expand jobs	global government and business connections Increase outreach, visibility and partnership Stimulate investment	anchor development and enhance the value of your city new public-private partnerships city a center for international events and visitors	Support local businesses  Create, retain and expand jobs  Cost-effectively market investment opportunities  resource to your local businesses
International Businesses	international business credibility Raise visibility	member of the network higher business confidence strengthen your community position	Enjoy professional workspace  Make an impression	Enter new markets quickly Avoid the pitfalls of country-specific tax and legal regulations selling your products or services Empower your team compete and succeed globally

OFFICE OF THE ATTORNEY GENERAL OF THE STATE OF NEW YORK	-x
In the Matter of	Assurance No. 14[]
The World Trade Centers Association, Inc.	
	-x

## **ASSURANCE OF DISCONTINUANCE**

WHEREAS, the Office of the Attorney General of the State of New York ("OAG") conducted an investigation into the 1986 transfer of the property and associated rights for the service mark "World Trade Center" (the "Service Mark" or "Mark") from the Port Authority of New York and New Jersey (the "Port Authority") to The World Trade Centers Association, Inc. ("WTCA" or the "Association"), as well as certain other matters, including compensation paid to WTCA's former President, Guy Tozzoli;

WHEREAS, WTCA and OAG each believe that the obligations imposed by this agreement are prudent and appropriate, will strengthen WTCA's relationship with the State of New York, and advance their common goal of resolving this matter in a way that is mutually beneficial for the People of the State of New York and WTCA; and

WHEREAS, OAG finds the financial relief and other obligations set forth in this agreement to be in the public interest, accepts the terms of this Assurance of Discontinuance ("Assurance") in lieu of commencing a legal proceeding, and hereby discontinues all aspects of its investigation on the terms below and agrees not to take further legal action against WTCA or any of the Association's officers, directors, employees, subsidiaries, or affiliates based upon the allegations set forth herein as to any matter within the scope of OAG's investigation.

This Assurance contains the findings of OAG's investigation and the relief agreed to by OAG and WTCA (collectively, the "Parties").

#### **OAG FINDINGS**

#### Summary

- 1. The Port Authority exercised lax oversight when approving the transfer and assignment of the Service Mark to WTCA in 1986 and performed virtually no due diligence. The available evidence nevertheless fails to establish that either WTCA or Port Authority officials exerted undue influence or engaged in unlawful conduct in connection with the transfer. Rather, surviving witnesses and documents indicate that the Port Authority simply failed to foresee the potentially considerable value of the Service Mark in the future or to take adequate steps to secure that value for the benefit of taxpayers in New York and New Jersey.
- 2. The outside counsel for the Port Authority had a clear conflict of interest in connection with the transfer of the Service Mark, simultaneously representing both WTCA and the Port Authority in connection with the Mark and its ultimate transfer to WTCA. Regardless of whether this conflict of interest colored his advice to the Port Authority, however, a court is unlikely on that basis to void the Confirmatory Assignment transferring the Service Mark to WTCA. The terms of that assignment have been acknowledged in numerous subsequent license and other agreements over 25 years, including recent agreements, where independent counsel represented the Port Authority.

## Background

- 3. On September 18, 2013, pursuant to Executive Law § 63(3), Governor Andrew Cuomo requested that OAG investigate the circumstances surrounding the Port Authority's transfer and assignment of its rights to the Service Mark to WTCA. OAG commenced an investigation shortly thereafter, subpoening WTCA for documents and information relating to, among other things, the Port Authority's 1986 Confirmatory Assignment (the "Confirmatory Assignment"), through which WTCA assumed control of rights the Port Authority previously owned in the Service Mark.
- 4. WTCA cooperated with OAG's investigation, and OAG reviewed approximately 30,000 documents related to the transfer of the Service Mark and to the operations of WTCA and the Port Authority over many decades. The offices and archives for both entities, however, were based at the World Trade Center Complex and destroyed in the horrific attacks of September 11, 2001. Thus, evidence that could further clarify the issues in this investigation has undoubtedly been lost.
- 5. OAG interviewed numerous surviving witnesses with some connection to the circumstances surrounding the assignment of the Service Mark, including former employees and professionals associated with WTCA and the Port Authority. In addition to memories that have faded in the 28 years since the transfer of the Service Mark, several individuals with knowledge of key issues have died, including Guy Tozzoli, who was a senior Port Authority executive and founding President of WTCA; the General Counsel of the Port Authority in 1986; the outside counsel advising both

WTCA and the Port Authority on the transaction; and the corporate secretary who signed the Confirmatory Assignment.

## The Port Authority, WTCA, and Guy Tozzoli

- 6. The Port Authority is a bi-state agency that builds, operates, and maintains transportation and transit hubs in the New York and New Jersey region, including a network of aviation, rail, surface transportation, and seaport facilities.
- 7. WTCA is a not-for-profit organization founded in 1969 and registered as a membership organization under United States Internal Revenue Service Code § 501(c)(6). At its inception and for the first 18 years of its existence, WTCA operated under the auspices and within the office space of the World Trade Department of the Port Authority.

  WTCA's stated mission is to promote world trade through the establishment and operation of World Trade Center facilities (WTCs). Currently, WTCA has over 300 members worldwide, each of which is required to pay annual dues. In 2012, WTCA reported revenue of approximately \$7 million, primarily from dues and new member initiation fees.
- 8. Tozzoli worked for the Port Authority in the 1960s, 1970s, and 1980s. He was an influential executive, most notably serving as director of the World Trade Department. In that role, he successfully managed the construction and development of the World Trade Center Complex in New York City.
- Tozzoli used his influence at the Port Authority to support the fledgling WTCA. In or about 1970, WTCA's members elected Tozzoli to serve as a voluntary President of

- WTCA. In or about 1986, WTCA hired Tozzoli to serve as its paid President, a position he retained until January 5, 2011.
- 10. During his tenure with WTCA, Tozzoli's salary varied, beginning at \$75,000 per year in 1986 and rising to an annual salary of more than \$400,000 in 2011. At certain times after 1986, Tozzoli also received fringe benefits from WTCA, including a luxury car, membership at Rockland Country Club, and a retirement package that took effect beginning in February 2012. Tozzoli died in February 2013.

## Use and Ownership of the Service Mark

- 11. In approximately 1961, the Port Authority adopted and began to use the words "World Trade Center" to describe the Complex of that name that was then being planned for construction in lower Manhattan. By 1969, WTCA had been formed, with members in Houston, New Orleans and elsewhere, including overseas, and the Association and its members had also begun to use "World Trade Center" in connection with trade promotion and association services.
- 12. Acting to defend its intellectual property rights, the Port Authority challenged the unauthorized use of the Mark by third parties at various times, including through litigation in 1972. By the mid-1980s, the Port Authority, however, had become concerned that the legal costs of defending the Service Mark were exceeding the revenue the Port Authority generated from owning it.
- 13. In early 1985, the Port Authority began to explore the best possible way to protect the Service Mark from unlawful infringement and limit legal costs. A letter dated March 14, 1985, from a Port Authority official to its outside counsel, Lee Robinson ("Robinson") of Curtis, Morris & Safford P.C., noted that WTCA members had been

- "using the Mark without formal written licensing." The letter further stated that a "state registration" might protect against other entities that may attempt to trade on the Service Mark.
- 14. Robinson prepared a memorandum, dated June 27, 1985 (the "June 1985 Memorandum"), summarizing a telephone call he had with Port Authority personnel, including in-house counsel, that further discussed how to protect the Service Mark against infringement. Observing that unauthorized third parties were using the Service Mark in several U.S. cities (including Los Angeles, California, Dallas, Texas, and Washington, DC), Robinson recommended further steps to reduce the costs of defending the Service Mark, including registering the Mark in New York and New Jersey, but not federally.
- 15. On November 14, 1985, the Port Authority obtained six registrations associated with the Service Mark in New York State. By this time, it had also obtained two registrations for use of the Mark in Argentina by assignment from a third party.
- 16. On December 19, 1985, Robinson provided in-house counsel at the Port Authority with a formal written opinion (the "December 1985 Opinion") as to who the owner of the Service Mark should be "as among the WTCA, the individual members of the WTCA, or the Port Authority . . ." The Opinion stated that it had been solicited due to "the need to take immediate action to enforce the mark against an infringer in the Washington, D.C. area" and noted other potential infringers in other U.S. cities against which enforcement action might be necessary. The December 1985 Opinion acknowledged that the Port Authority and WTCA each enjoyed "long and continuous use" of the Service Mark and that, unlike WTCA, the Port Authority had successfully litigated an

infringement case. The December 1985 Opinion also stated that "because of the course of dealing between the parties it is reasonable to take the position that the World Trade Centers Association has been operating under an oral license from the Port Authority. . .." Robinson nonetheless concluded that WTCA, not the Port Authority, should be considered the "proper owner" of the Mark and that the Port Authority should execute the Confirmatory Assignment, in large part, to avoid "the political ramifications incident to the Port Authority having to bring an infringement suit in, say, California."

- 17. On February 18, 1986, as advised by Robinson, the Port Authority executed the Confirmatory Assignment, which transferred to WTCA "the entire right, title and interest in and to said service mark WORLD TRADE CENTER," various registrations for the Service Mark, "the good will of PORT AUTHORITY's business in the services in respect of which the mark is used, together with all rights to apply for, obtain and hold registrations of the same and renewals and extensions thereof, and together with all right to bring suit for any past and future infringement of said mark." In exchange, WTCA agreed to pay the Port Authority \$10 and "other consideration" not specified in the Confirmatory Assignment. The Port Authority retained certain rights to use the Service Mark. The corporate secretary for the Port Authority signed the Confirmatory Assignment, which did not require a signatory from WTCA, and her signature was notarized by a Port Authority in-house attorney.
- 18. Robinson advised both WTCA and the Port Authority when they executed a second agreement (the "License Agreement") on March 6, 1986. The License Agreement formally granted the Port Authority a license for its ongoing use of the Service Mark.

- Tozzoli signed the agreement for WTCA, and the Port Authority's executive director endorsed it on behalf of the Port Authority.
- 19. In the years since 1986, WTCA has initiated enforcement action in the U.S. and overseas to prevent unauthorized use of the Service Mark, and WTCA has registered the Service Mark and variations thereof in the U.S. and internationally at its own expense.
- 20. Since 1986, multiple agreements between WTCA, the Port Authority, and other lessees and licensees have referenced and incorporated the Service Mark, the Confirmatory Assignment and License Agreement.
- 21. The Port Authority has not paid, and has never paid, WTCA a fee to use the Service Mark. However, between 1991 and 2011, as a member of WTCA, the Port Authority paid an annual membership fee to WTCA. In total, the Port Authority has paid membership fees to WTCA of approximately \$184,000.
- 22. WTCA represented that, excluding any amounts purportedly due from the Port Authority, it currently receives approximately \$20,000 annually in membership fees and other revenue in connection with the use of the Service Mark in New York and New Jersey.

# The Port Authority Failed to Exercise Adequate Due Diligence or Oversight in Connection with the Confirmatory Assignment

23. In 1986, the Port Authority concluded that the Service Mark was more of a liability, due to the associated legal costs, than an asset—without conducting adequate due diligence or engaging in any serious deliberations concerning the future consequences of relinquishing the Mark to WTCA or any other third party. Available materials

provide no indication that the Port Authority Board deliberated on the transfer of the Service Mark or its potential value. Nor is there any indication from witnesses or in the documentation, apart from the limited analysis of legal costs contained in the June 1985 Memorandum, that any department of the Port Authority conducted a cost-benefit analysis, market research, or other inquiry to ascertain the Service Mark's true potential value.

- 24. In 1985, governmental entities like the Port Authority did not commonly exploit trademarks or service marks commercially, and the Port Authority apparently took the low value of the Service Mark for granted. For example, the June 1985 Memorandum indicated, without analysis, that the Port Authority's corporate secretary would execute the Confirmatory Assignment on behalf of the Port Authority, and she later did. Two former officials of the Port Authority's Contracts Division from that time surmised that the corporate secretary would only sign contracts that did not require Board approval under the Port Authority's rules, specifically where the dollar value of the contract did not achieve a certain threshold. At the time, the threshold was approximately \$10,000. With no discussion, the Port Authority, and more specifically the Contracts Division and its in-house attorneys, apparently concluded that the Service Mark was worth less than \$10,000.
- 25. The failure to closely scrutinize the terms of the Confirmatory Assignment is consistent with a general culture of lax oversight at the Port Authority during that period. More than one Port Authority witness expressed the then-prevailing Port Authority view that

While cooperative, both officials struggled to remember specific details about the Confirmatory Assignment.

- it was "not bound by the same standards as other agencies" with respect to checks and balances.
- 26. The chief of the Contracts Division at the time of the transfer, for example, described her responsibility as hiring honest, capable employees but told OAG that she was "not a believer in oversight." She further stated that she had not been "interested" in copyright and trademark issues, like the transfer of Service Mark, and would not have reviewed the work of her staff who were tasked with those issues. Nor would the General Counsel of the Port Authority at the time, who was too senior to oversee the junior attorneys responsible for intellectual property issues.
- 27. Tozzoli assumed a well-compensated position with WTCA shortly after the Port Authority executed the Confirmatory Assignment, contributing to suspicion about his role in the transfer. Although Tozzoli did not officially retire from the Port Authority until February 14, 1987, he signed an employment contract with WTCA on April 18, 1986, just two months after the Port Authority agreed to the Confirmatory Assignment. The surviving documents and witnesses, however, do not indicate that Tozzoli or any other Port Authority official exerted undue influence on the contracting process through which the Port Authority transferred the Service Mark to WTCA. The surviving Port Authority witnesses most involved with the Confirmatory Assignment, in fact, denied knowing that Tozzoli or his close colleague, the General Counsel of the Port Authority, had any direct relationship to the transaction whatsoever.
- 28. The evidence available to OAG does not establish that Tozzoli, WTCA, or its current or former directors, officers or employees engaged in unlawful conduct in connection with the transfer of Service Mark. Rather, the clearest conclusion is that WTCA benefited

from a failure by the Port Authority to exercise sufficient due diligence or to investigate the value the Service Mark. While these failures do not rise to the level of legal wrongdoing, they raise serious doubts about whether the Port Authority acted in the public interest in 1986, when its rights in the Service Mark were assigned to WTCA for virtually no apparent consideration.

#### The Port Authority's Outside Counsel Had a Clear Conflict of Interest

- 29. As outside counsel, Robinson had a clear conflict of interest that may have affected his legal advice in guiding the Port Authority on steps to take with respect to the Service Mark. Specifically, he was actively representing, or being retained to advise, WTCA and its affiliates at the same time.
- 30. Robinson advised both the assignor/licensee (the Port Authority) and the assignee/licensor (WTCA) of the Service Mark at various points in time in connection with the Mark. For example, minutes of board meetings, dated August 21, 1985 and November 12, 1985, suggest that a WTCA member in Washington, D.C., retained Robinson to address a dispute over the use of the Mark. Yet, in the June 1985 Memorandum and in the December 1985 Opinion, Robinson provided the Port Authority with his professional opinion that the Port Authority should transfer rights associated with the Service Mark to WTCA—without explicitly noting that WTCA was also his client.
- 31. The December 1985 Opinion also noted that WTCA and the Port Authority had each enjoyed "long and continuous use of the Mark"—while neglecting to mention that the Port Authority had registered the Mark and established certain rights to the Mark prior to WTCA. As noted above, Robinson advised the Port Authority to assign the Service

- Mark to WTCA to avoid the unspecified "political ramifications" of bringing an infringement suit in another state, such as California, but he never addressed the potential value of the Service Mark.
- 32. Former Port Authority officials did not know, or could not remember, that WTCA had also retained Robinson in connection with the Service Mark. Nor is there any surviving evidence suggesting whether or not the Port Authority knowingly waived this conflict of interest. Even if it had, it is far from clear whether, as an ethical matter, Robinson could have agreed to advise both parties (or either party) on the wisdom of the transaction.
- 33. When advised of the conflict, several witnesses, including Port Authority officials and counsel to WTCA, maintained that conflicts of interests like Robinson's were commonplace in the 1980s. It is also likely that senior Port Authority officials knew that Robinson also represented WTCA; Robinson maintained close personal ties with the Port Authority's General Counsel, who was a law school roommate, and Tozzoli. As detailed above, Tozzoli, in turn, had close ties to WTCA.
- 34. Whatever the situation was in 1986, the Port Authority and its subsidiaries have referenced and amended the Confirmatory Assignment and licensing agreement on several occasions, at times represented by counsel with no known conflict of interest. The most recent ratification occurred in 2006, when WTCA, subsidiaries of the Port Authority and lessees of the Port Authority executed various license agreements authorizing the use of the Service Mark at the World Trade Center complex in lower Manhattan. Among other reasons, these ratifications of the Confirmatory Assignment

make it unlikely that a court would void the Confirmatory Assignment or subsequent agreements that rely on it.

#### WTCA RESPONSE TO FINDINGS

WTCA neither admits nor denies OAG's findings recited in the foregoing paragraphs and denies any violation of law in this matter. At the same time, WTCA appreciates OAG's conclusion that the available evidence does not suggest that its current or former directors, officers or employees engaged in any unlawful conduct in connection with the transactions that gave rise to this investigation.

### PROSPECTIVE RELIEF

IT IS HEREBY UNDERSTOOD AND AGREED by and among the parties that, in consideration of the making and execution of this Assurance:

#### MONETARY RELIEF

WTCA, in settlement of this Investigation:

- 35. Shall pay the sum of \$184,000 to New York State and will provide documentation of such payment to OAG.
- 36. Shall pay 33% of any revenues received by WTCA from use of the Mark in New York and New Jersey to New York State in each year subsequent to 2014 for the next twenty (20) years, not to exceed \$15,000 per annum. As stated above, WTCA represented that it currently receives approximately \$20,000 in annual revenue from use of the mark in New York and New Jersey, excluding amounts payable from the Port Authority.

- 37. The Parties request that New York State direct the funds paid pursuant to this Assurance to the September 11 Memorial Foundation.
- 38. All payments due under this Assurance shall be made by wire transfer, certified check and/or bank check.

## **ADDITIONAL PROVISIONS**

- 39. The Port Authority shall be granted membership in the WTCA and its membership dues shall be waived *ad infinitum*.
- 40. The term of this Assurance is continuing, unless modified by mutual agreement of the parties, except that the terms of paragraph 36 shall expire 20 years from the date of execution of this Assurance.
- 41. OAG has agreed to the terms of this Assurance based on, among other things, the representations WTCA and its counsel made to OAG. To the extent that any material representations are later found by a court of competent jurisdiction to be inaccurate or misleading, OAG may void this Assurance.
- 42. WTCA agrees not to raise or interpose in any way its state of incorporation or other jurisdictional objections as a defense to any cause of action, claim or argument arising from OAG's enforcement of this Assurance.
- 43. This Assurance constitutes the entire agreement between OAG and WTCA, and it supersedes all prior agreements and understandings, written or oral, among the Parties with respect to the subject matter of this Assurance. No representation, inducement, promise, understanding, condition, or warranty not set forth in this Assurance has been made to or relied upon by any party in agreeing to this Assurance. The headings and

- captions in this Assurance are for convenience only and do not affect or control the meaning or construction of this Assurance.
- 44. No party shall take any action or make any statement denying, directly or indirectly, the propriety of this Assurance. Nothing in this paragraph affects WTCA's (i) testimonial obligations, or (ii) right to take legal or factual positions in litigation to which the OAG is not a party. This Assurance is not intended for use by any third party in any other proceeding, and should not be construed as an admission of liability by WTCA or be admissible in connection with contract negotiations or litigation with the Port Authority or any other entity. Likewise, no third party (including but not limited to the Port Authority) shall be estopped from taking, or bound by, any legal commitment or factual finding described in this Assurance.
- 45. Each party represents and warrants, through the signatures below, that the terms and conditions of this Assurance are duly approved, and execution of this Assurance is duly authorized.
- 46. This Assurance may not be amended, except by an instrument in writing signed on behalf of all of the parties to this Assurance. This Assurance may be executed in one or more counterparts, and shall become effective when such counterparts have been signed by each of the parties and exchanged electronically or in hard copy.
- 47. This Assurance shall be binding on and inure to the benefit of all the parties hereto and their respective successors and assigns, provided that no party other than OAG may assign, delegate, or otherwise transfer any of its rights or obligations under this Assurance without the prior written consent of OAG.

- 48. In the event that any one or more of the provisions in this Assurance shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Assurance.
- 49. WTCA shall, upon request by OAG, provide all documentation and information necessary for OAG to verify compliance with this Assurance without the necessity for a subpoena.
- 50. Acceptance of this Assurance by OAG shall not be deemed approval by OAG of any of the practices or procedures referenced in OAG's findings herein, and WTCA shall make no representation to the contrary.
- 51. Evidence of a violation of this Assurance shall constitute *prima facie* proof of violation of the Executive Law in any action or proceeding thereafter commenced by OAG. If any court of competent jurisdiction determines that WTCA has breached this Assurance, WTCA shall pay to OAG the reasonable cost, if any, of such determination and of enforcing this Assurance, including without limitation legal fees, expenses and court costs.
- 52. All notices, reports, requests and other communications pursuant to this Assurance shall be in writing and shall be directed as follows:

If to OAG, to:

John R. Spagna Criminal Division Office of the Attorney General 120 Broadway – 22nd Floor New York, New York 10271 If to the WTCA, to:

Bruce R. Ewing Dorsey & Whitney, LLP 51 West 52<sup>nd</sup> Street New York, NY 10019

- 53. This Assurance shall be governed by the laws of the State of New York without regard to any conflict of laws principles.
- 54. Nothing contained herein shall be construed as to deprive any person of any private right under the law.

IN WITNESS THEREOF, this Assurance is executed by the parties hereto as of the date set forth below.

Dated: February 2 2015

WORLD TRADE CENTERS ASSOCIATION

Scott A Richie

WTCA General Counsel

ERIC T. SCHNEIDERMAN

Attorney General of the State of New York

Simon G. Brandler

Senior Advisor & Special Counsel



UNITED NATIONS



# NATIONS UNIES

#### THE SECRETARY-GENERAL

## MESSAGE TO THE WORLD TRADE CENTERS ASSOCIATION ON THE OCCASION OF "WTCA DAY" New York, 12 June 2002

Trade is as important to the United Nations as it is to you who have gathered for World Trade Centers Association Day. Peacekeeping operations and our humanitarian work keep the United Nations in the headlines, but by far the largest portion of our budget and personnel are devoted to the less visible work of helping people to raise standards of living and build stable, peaceful societies. Trade is at the core of this effort.

World Trade Centres are already good partners of the United Nations. They are working with various parts of the UN system, including the UN Conference on Trade and Development, to link local businesses with global opportunities and to help developing countries in particular build up their capacity to compete in the global market. I hope we can also count on your support as we continue efforts to achieve the long-held goal of a truly fair and open global trading system – one that is free of protectionism, subsidies, and tariffs. Together, we must seize the opportunity offered by the new round of trade negotiations that the World Trade Organization has set in motion. The UN Global Compact – an initiative aimed at promoting responsible corporate citizenship — is yet another vehicle for deepening the cooperation between the United Nations and the private sector.

Trade is valuable not just for the prosperity it can bring, but for the partnerships it builds. Trade may start as a straightforward relationship between importer and exporter, between countries in a region or between regions, but it can quickly evolve into more wide-ranging contacts that promote mutual understanding. That spirit can in turn help the world to address global challenges such as protecting the environment, promoting democracy, and combating crime, drug trafficking and the international terrorism that destroyed one of your association's most prominent and well-known members. And it is in that spirit of partnership that I send my best wishes for a successful and memorable event.



ROUTING SLIP	FICHE DE TRANSMISSION
To: A: EM/RA	
FROM: DE: KSK	
Room No No de bureau	Extension - Poste Date
S-3840C	3-6821 02/05/02
FOR ACTION	POUR SUITE A DONNER
FOR APPROVAL	POUR APPROBATION
FOR SIGNATURE	POUR SIGNATURE
FOR COMMENTS	POUR OBSERVATIONS
MAY WE DISCUSS?	POURRIONS-NOUS EN PARLER ?
YOUR ATTENTION	VOTRE ATTENTION
AS DISCUSSED	COMME CONVENU
AS REQUESTED	SUITE A VOTRE DEMANDE
NOTE AND RETURN	NOTER ET RETOURNER
FOR INFORMATION	POUR INFORMATION

The "World Trade Centers" in several US cities were participants or partners in the 11 October town hall meetings organized by BWC last year.

The attached request for a message seems reasonable and worthwhile, for a worldwide observance on **12 June**.

Can you follow up? Thanks Criber

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## UNITED NATIONS



## NATIONS UNIES

# EXCUTIVE OFFICE OF THE SECRETARY-GENERAL CABINET DU SECRETAIRE GENERAL

## OUTGOING FACSIMILE

**DATE:** 5 June 2002

TO: Mr. Guy F. Tozzoli President World Trade Centers Association, Inc.		FROM: Edward Mortimer Director of Communications Executive Office of the Secretary-General
TEL NO:		TEL NO: 212 963 9220
FAX NO:	212 488 0064	FAX NO: 212 963 5965
SUBJECT:	Message to the World Trade Cen	ters Association
TOTAL NU	MBER OF TRANSMITTED PAC	GES INCLUDING THIS PAGE 2

Dear Mr. Tozzoli,

Further to your letter to the Secretary-General of 25 April 2002 I have pleasure in sending you the Secretary-General's message to World Trade Centers Association on the occasion of "WTCA Day", along with our best wishes for a successful event.

Yours sincerely,

cc: Mr. Herbert Ouida



World Trade Centers Association, Inc.

http://www.wtca.org

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EXECUTIVE OFFICE
OF THE SECRETARY-GENERAL

For telephone reply, please call: (212) 432-2640

**Guy F. Tozzoli** President

April 25, 2002

Dr. Kofi Anan Secretary-General of the United Nations New York, N.Y.

Re: June 12, 2002 WTCA Day

Dear Secretary General Anan:

We applaud your tireless efforts to help change the world and to replace conflict with understanding and cooperation. It was most gratifying to our Association when your efforts were recognized by the Nobel Committee. The World Trade Centers Association was established some thirty years ago with the mission of using trade as the vehicle for economic development and peace.

We have been busy at work on many fronts including a recent trade show we sponsored in Zagreb, Croatia where companies from countries that had formerly been at war sat down together to develop trade relationships. We want to use the World Trade Centers located in over 91 countries representing over 300 cities to demonstrate that the global village in which we live can be the source of opportunity for all. To that end we have special programs in developing countries. For example, at our Spring Meeting held in Sofia on April 14<sup>th</sup>, we welcomed Tanzania to the family of the WTCA.

As part of our work we have decided to designate the second Wednesday in June of every year as "WTCA Day" as a celebration of our diversity and worldwide presence. This celebration was born in part out of our firm commitment in the light of the tragic events of September 11<sup>th</sup>, when our member in New York was attacked. We have suffered a terrible loss of life and want the world to know that our goal of promoting "Stability through Trade" is stronger than ever. World Trade Centers in every part of the globe will "pass the torch" from time zone to time zone in celebration of WTCA Day. For example, the World Trade Center in Amsterdam will have an event during which they will make a substantial donation to the Peace Park in South Africa. The World Trade Center in Tampa, Florida, will hold a day to honor and recognize diverse cultural heritages. The Sao Paulo World Trade Center is planning a major public ceremony that will last two or three hours, highlighted by speeches and a performance by young dancers. A huge white ribbon will be tied around the building to honor the occasion and tenants and others working in the building will join hands and physically surround the building in an

World Trade Centers Association, Inc.

embrace. At the conclusion, hundreds of white balloons symbolizing peace will be released.

We ask that you join in our worldwide celebration. It is respectfully requested that a letter from you in recognition of your support of our goal of using trade as the vehicle for peace and understanding would be very helpful. We would have it read at every world trade center ceremony on that day.

For your information, I am enclosing a commemorative edition of the WTCA Directory which contains a description of our work as well as a list of members. I would be more than pleased to meet you to address and amplify any aspect of the goals and mission of the WTCA.

Sincerely,

Gyry F. Tozzoli