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Cities within Cities: An Urbanization Approach in the Gulf Countries

A thesis submitted in partial satisfaction

of the requirements for the degree Master of Arts

in Architecture

by

Salim Salah Bamakhrama

2015

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ABSTRACT OF THE THESIS

Cities within Cities: An Urbanization Approach in the Gulf Countries

by

Salim Salah Bamakhrama

Master of Arts in Architecture University of California, Los Angeles, 2015 Professor Dana Cuff, Chair

Within Dubai, nineteen out of the original 112 mega-projects carried the word *city* in their names, a phenomenon that is common in Gulf cities such as Dubai, Riyadh and Abu Dhabi. To further explore this phenomenon, this thesis focuses on three aspects that affect the dynamic relationship between the primary city and the cities within cities (sub-cities) in the Gulf region with special emphasis on Dubai. First, the naming problem of the sub-city illustrates why the tension between competing identities produces a set of effects that could either enforce or confuse the overall urban identity. Secondly, this thesis demonstrates how Dubai utilizes two seemingly opposed growth strategies (sprawl and infill) in order to grow as a primary city and to integrate its sub-cities. The last aspect explores how Dubai's internal governance structure enables the freedom and autonomy of sub-cities. This thesis proposes that the friction between sub-cities and their primary cities, whether conceptual or physical, is what produces and shapes modern Gulf cities.

The thesis of Salim Salah Bamakhrama is approved.

Sylvia Lavin

Diane Favro

Dana Cuff, Committee Chair

University of California, Los Angeles

2015

To Gulf Cities.

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Table of Contents

Title Page	i
Copyright page	i
Abstract	ii
Committee Page	iii
Acknowledgements	v
Table of Contents	vi
List of Figures	vii
Introduction	1
Emerging Gulf Cities	3
Naming problem	13
Urban Growth Models in Dubai	18
Internal Governance Structure	26
Conclusion	29
Figure References	34
Bibliography	35

List of Figures

- Figure 1: Dubai map showing the location of the 19 sub-cities in Dubai that will be the focus of this thesis. Adapted from OpenStreetMaps using ScribbleMaps.com.
- Figure 2: Aramco Dhahran Compound showing typical suburban pitched roof houses. The wall fence is visible in the foreground.
- Figure 3: Google Earth Satellite image showing Aramco Dhahran Camp and the stark contrast with the surrounding area.
- Figure 4: NASA Satellite image showing Dubai's rapid development between 2000 and 2011.
- Figure 5: The map illustrates the 19 child-cities mentioned earlier within two rings around the historic center of Dubai. The lands between the two rings are already being speculated for projects and some are already developed. (see Figure 1 for more details).
- Figure 6: Rendering showing the Waterfront City and the manmade water barriers around the 25 city blocks.
- Figure 7: Perspectival rendering of the Waterfront City by OMA.
- Figure 8: Chart showing power networks in Dubai and how they relate to Dubai Government. Sub-cities are in red boxes at the extremities of the chart.

Introduction

Not knowing that *Dubai International City* is in fact the name of a residential neighborhood and not a *city* in the conventional sense of the word presents a conundrum.¹ It creates a confusion between the psychological and physical experiences of the city. Dubai International City is not the only case where this confusion is present but it repeats itself in Dubai and many other Gulf cities. This thesis focuses on the phenomenon of *cities within cities* and examines a variety of related aspects through several examples and case studies such as Dubai International City, Waterfront City and Jumeirah Garden City.

The first chapter contextualizes the study within emerging Gulf cities and highlights distinctive markers that make the Gulf version of *cities within cities* different from that of the West. It further justifies why more emphasis will be placed on Dubai as a pioneering city in the Gulf region and a clear example where the phenomenon takes place repeatedly. This chapter ends with a literature review of the pliability of certain terminology such as "cities" and "megacities."

Over the following three chapters, this thesis tackles the issues that affect the dynamic relationship between Dubai and the "*cities*" within it in more detail.

The second chapter considers the rhetorical use of the the word *city* and the problems that emerge from naming a mega-project a *city*. It focuses on how the naming practice affects the identity and causes friction between the city and the mega-projects it houses. The third chapter explores the various growth models adopted by Dubai in relation to mega-projects developments. It explores several sprawl and infill cases and seeks an understanding of how the two development strategies are used simultaneously in Dubai.

¹ Cities are commonly regarded as entities that are larger than neighborhoods.

The fourth chapter explores Dubai's organizational structure as a system of governance and economic development that is similar to that of large corporations. In this chapter, the tension between the various entities in the city is discussed as it relates to the autonomy, flexibility and experimental growth of the city. The Strategic Business Unit model, one of many business models adopted by the city, will be discussed in more detail. In the last chapter, a summation of the four chapters would be attempted to paint a picture of how Dubai and its subset entities shape their collective identity through the friction caused by the rhetorical use of terminology, growth strategies, and the internal governance structure.

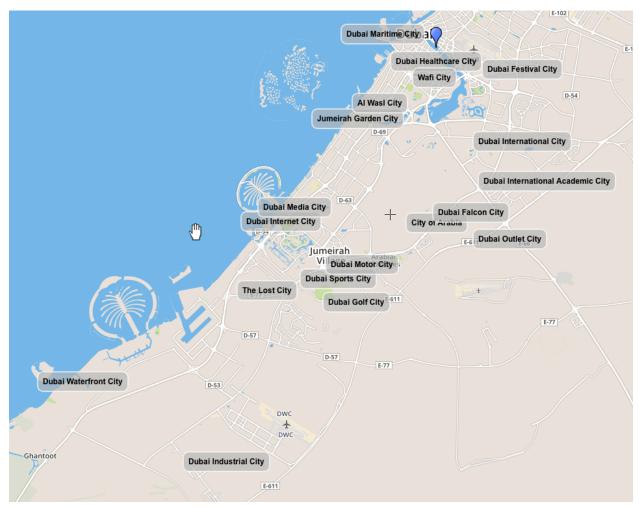


Figure 1: Dubai map showing the location of the 19 sub-cities in Dubai that will be the focus of this thesis. Adapted from OpenStreetMaps using ScribbleMaps.com.

Emerging Gulf Cities

The Arab Gulf region is characterized by the agglomeration of the Gulf Cooperative Council countries (GCC): Saudi Arabia, United Arab of Emirates, Qatar, Oman, Bahrain and Kuwait. Due to the discovery and utilization of oil, the Gulf region witnessed a surge in development and urban growth since the 1970's. Major cities, especially capital cities, were the focus of that growth because of their political importance. A brief overview of these cities can reveal the immense efforts that were made to prepare those cities for a global role. Significance in GCC cities comes from either their political role as capital cities such as Riyadh (6.4m), Abu Dhabi (0.9m), Kuwait City (4.0m) and Doha (2.0m) or from their economical role as sea ports on the Arabian Gulf and the Red Sea as in Dubai (2.3m) and Jeddah (4.1m).² Out of all these cities, Dubai in particular played an important role in propelling the transformation forward for itself and for other neighboring cities by providing examples, lessons, and success stories of their transformation. These cities have developed their order and spatial organization through comprehensive master planing as well as through the development of unique components embodied by mega-projects dotted within the city.

By a significant margin, the fastest growing city in the region is Dubai—with over 112 megaprojects planned within its boundaries.³ A year prior to the the 2008 global financial crisis, which caused the real estate market in Dubai a great deal of distress, *Al-Manakh* book was published by OMA's Rem Koolhaas. It acted as a testimony, and at certain incidents as an applauder, to

² Thomas Brinkhoff, "City Population," Thomas Brinkhoff, http://www.citypopulation.de/world/ Agglomerations.html.

³ Ole Bouman, Mitra Khoubrou, and Rem Koolhaas, Al Manakh (Netherlands: Stichting Archis, 2007). 365.

Dubai's vision at its peak in 2007. The book appendices contained a 13-page table that listed every mega-project that was underway within Dubai. The total area that was to be developed at that time was 875 km² with an expected population increase of 3.8 million inhabitants.⁴ The smallest project in that table was DIP: Dunes Village, a project that contained 19 mid-rise buildings which provided 950 residential apartments for 1,750 inhabitants.⁵ Whereas on the other end of the spectrum, the largest project was Dubailand—a city that was promised to dedicate over 185 million m² for 15 millions tourists annually.⁶ Expectedly, the small project was completed in 2009, while the largest project is on hold until now. These two specific projects are not the focus of this paper. However, they give us a sense of the scale at which Dubai's mega-projects are operating.

Among the 112 mega-projects, there were many projects that contained words such as: city, world, island, town, village or madina as part of the projects' public names. The word *city* was used in the names of nineteen of the projects listed in the table (see table) many of these cities are functional or specialized cities.⁷ For example a mega-project that houses healthcare facilities would be named 'Dubai Healthcare City.' Another example would be naming the hub for media companies 'Dubai Media City' and so on. The idea behind calling these projects 'cities' is not a way to legally incorporate them within a larger county similar to the North American model of

⁴ Ibid.

⁵ Ibid., 366

⁶ Dubailand, "Dubailand: Faqs About Dubailand," Dubailand Marketing Department, http://www.yaverde.com/dubailand/downloads/Dubailand%20FAQ.pdf.

⁷ Koolhaas, et al., *Al Manakh*. 365-369.

incorporating cities within a larger city.⁸ Rather it is a naming practice that carries other cultural and economical weights that are unique to an emerging Middle Eastern city such as Dubai.⁹ This phenomenon and what it represents will be the focus of study in this thesis.

	Project Name	Description	Area (Km ²)	Status
1	International City	Residential Community containing ten country-themed districts. such as India district, France district and so on. attached to Dragon Mart complex (shopping mall).	9.1	Completed
2	The Lost City	Residential development inspired by Arabian history	5.6	On hold
3	Dubai Maritime City	Maritime complex containing full marine services, management and education	2.3	On hold
4	Dubai Industrial City	Industrial Zone development	52	U/ construction
5	Dubai Media City	Tax-free zone for media companies to establish their regional hubs.	-	Completed
6	Dubai Internet City	Economic zone for companies to operate and target the Middle eastern emerging market.	0.14	Completed
7	Dubailand: Falcon City	Touristic, residential and recreational development	3.71	On hold
8	Dubai Sports City	Sporting venues including a variety of stadiums for various sports.	4.64	Completed
9	Dubai Motor City	Business and residential development for motor industry. Includes Ferrari World Theme-park.	3.53	Completed
10	Dubai Outlet City	Factory-outlet mall and recreational facilities.	0.91	Completed
11	City of Arabia	part of Dubailand development of mixed-use towers and retail.	1.86	U/construction
12	Dubai International Academic City	An area for 20 top universities and colleges to come together.	12.0	U/construction
13	Dubai Festival City	Retail and hospitality development	6.47	Completed
14	Dubai Golf City	Hotels, retail, residential and recreational development around 5 themed golf courses.	5.11	On hold
15	Jumeirah Garden City	redevelopment project that aims to cater for 60,000 residents in adjacent to Dubai shore.	9.0	Unknown
16	Wafi City	Mixed-use development	-	Completed
17	Dubai Healthcare City	Healthcare zone development	2.02	Completed
18	Dubai Waterfront City	Mixed-used development between the border of Dubai and Abu Dhabi.	11.00	On hold
19	Al Wasl City	8-tower residential development	0.056	U/construction

⁸ The majority of these sub-cities are co-owned by governmental entities. in: Rem Koolhaas, Archis Stichting, and Forum International Design, *Al Manakh 2 : Gulf Cont'd* (Amsterdam: Stichting Archis, 2010). 97-100.

⁹ Riyadh, Doha and Kuwait City all have mega-projects that are named 'cities.'

The above table demonstrates that only nine out of the nineteen mega-projects were completed, while the rest are either under construction, placed on hold or canceled. *Al-Manakh* contained a number of critical pieces that tackle the rapid transformation in Dubai and the role architecture has played in its development. One of these pieces is *Constructing Fact, Fantasy, and Fiction* by Kevin Mitchell. To Mitchell, these themed mega-projects and their use of architectural styles has 'flattened' the Middle Eastern culture, largely in the hands of developers and 'threatened to reduce architecture to a mere novelty.'¹⁰ However, Mitchell and many other critics, in *Al-Manakh* and elsewhere, have warned against judging Dubai too quickly.¹¹

In 2010, three years later, *Al-Manakh 2* was published and the authors listed thirty four titles from news headlines to chronicle a year of 'Dubai Bashing' between February 2009 and December 2009.¹² These headlines included: 'Dubai, Bling City Dead,' 'Dubai, The End of the World?', 'Dubai Becoming a Ghost Town' and many others.¹³ In this thesis, judgment will be reserved and we will attempt to analyze Dubai from the perspective of the city itself through a reflection on the ambitions of the city and the projects it houses.

In *Al-Manakh 2* book launch lecture, Rem Koolhaas and Todd Riesz, made three points. First, the lack of deeper understanding of the region misled many authors to criticize Dubai and dismiss its

¹⁰ Kevin Mitchell, "Constructing Fact, Fantasy and Fiction," in *Al Manakh*, ed. Ole Bouman, Mitra Khoubrou and Rem Koolhaas (Netherlands: Stichting Archis, 2007). 31-33.

¹¹ Ole Bouman, Mitra Khoubrou, and Rem Koolhaas, Introduction to *Al Manakh* (Netherlands: Stichting Archis, 2007). Kevin Mitchell, "Constructing Fact, Fantasy and Fiction," in *Al Manakh*, ed. Ole Bouman, et al. (Netherlands: Stichting Archis, 2007). 30.

¹² Majdoleen Till, "Branding the Gulf," in *Al Manakh*, ed. Ole Bouman, et al. (Netherlands: Stichting Archis, 2007). 68.

¹³ Rem Koolhaas, Archis Stichting, and Forum International Design, "Dubai Bashing," in *Al Manakh 2 : Gulf Cont'd* (Amsterdam: Stichting Archis, 2010). 68-69

successes as failures too soon.¹⁴ The second point was that Dubai had rarely been referred to as a mega-city when compared to other cities worldwide although it was by all definitions considered a global city.¹⁵ This point will be expanded on later in this thesis when we discuss the naming problem and definitions. The third point they made was that there is a remarkable amount of duplication among Gulf cities.¹⁶ Dubai's mega-projects and growth strategies sat an example for other cities in the region— the learned lessons from Dubai helped inform the development efforts in cities such as Riyadh, Abu Dhabi and Doha.¹⁷ Even though this thesis attempts to understand the phenomenon of cities within cities Gulf wide, it is for that reason Dubai was selected as our primary case study.¹⁸

Dubai is one of the Gulf cities that experienced a boom in the past five decades resulting in exponential growth in the construction industry as well as in the cultural and commercial importance. Dubai, however, is unique in the sense that it has pioneered this transformation and is now the most developed among other gulf cities.¹⁹ Dubai's population multiplied ten folds since 1973, and over 65 million passengers go through Dubai International Airport every year,

¹⁴ Rem Koolhaas, and Todd Reisz. "Al Manakh: The Sequel." YouTube video, 1:14:44. Posted by "Columbia University," October 22, 2010. http://youtu.be/ikLrfWf6zDM.

¹⁵ The book details the global nature of Dubai through its network of developers, labor, clients, and tourists.

¹⁶ Rem Koolhaas, and Todd Reisz, "On Al Manakh 2," <u>http://www.oma.eu/lectures/on-al-manakh-2/</u>.

¹⁷ Todd Reisz pointed out that gulf cities are now seen as "constellations" of cities rather than individual ones. They Dubai model is emerging all over the Gulf countries especially in Saudi Arabia's economic cities. Rem Koolhaas, and Todd Reisz. "Al Manakh: The Sequel."

¹⁸ A time-lapse video showing the rapid urbanization in Dubai between the year 2000 and 2011. NASAEarthObservatory, *Dubai's Rapid Growth*, Youtube Video, NASA, <u>https://www.youtube.com/</u>watch?v=F6d11Q14A5A&feature=youtube_gdata.

¹⁹ The development here refers to the status of the infrastructure and technological readiness.

which places Dubai squarely among top global cities.²⁰ Many Gulf cities such as Riyadh, Abu Dhabi and Jeddah followed suit and held conferences to promote bigger and better versions of themselves.²¹ This aspiration for 'bigger and better' did result in the adoption of somewhat similar strategies to those utilized by existing mega-cities. Five of the top twenty most populated mega-cities in the world have signed twinning agreements with Dubai: Shanghai, New York City, Osaka, Los Angeles, and Moscow.²² This has resulted in an extreme amount of duplication in urban strategies, styles, and even speculative approaches.²³ What all gulf cities hope to achieve through development is to become *global* and even *international* cities. According to Shafeeq Ghabra, this shared goal produced modern Gulf cities that are remarkably similar to modern Western cities.²⁴ Therefore, Gulf cities, Dubai included, strive to differentiate themselves through specialization in one kind of industry such as manufacturing, real estate, financial services or tourism.

The definitions of cities, as we saw earlier, let alone megacities, has been negotiated in the architectural discourse for decades and remains debated today. According to Peter Hall, "megacity" was a term coined by Janice Pearlman in 1987, even though the phenomenon is not a

²⁰ Popular Gulf Tv shows such as Khawater by Ahmad Alshugairy focused on the positive aspects of Dubai and tried to pass their development as a positive example to be followed. The 10 seasons of Khawater are now available on youtube: <u>https://www.youtube.com/user/AhmadAlShugairi/featured</u>

²¹ A brief look at the Cityscape Global Conference venues and you will notice that Dubai, Riyadh, Jeddah, Abu Dhabi, and Doha are among the top repeating hosts for the conference. <u>http://</u><u>www.cityscapeglobal.com</u>

²² Twin cities agreements are meant to encourage mutual prosperity and exchange trade and tourism in both cities. "Sister Cities International." Sister Cities International, http://www.sister-cities.org/about-sister-cities-international. A list of Dubai's latest twinning agreements can be found on: Guide, Dubai City. "Dubai's Sister Cities." <u>http://www.dubaicityguide.com/site/features/index.asp?id=3149</u>.

²³ Rem Koolhaas, and Todd Reisz, "On Al Manakh 2".

²⁴ Shafeeq Ghabra, "Modern Gulf Cities," in *Al Manakh 2 : Gulf Cont'd*, ed. Rem Koolhaas, et al. (Amsterdam: Stichting Archis, 2010). 106.

new one.^{25 26} Today, the Oxford English Dictionary defines a megacity as any city with over 10 million inhabitants.²⁷ However, even that figure has now been exceeded by even larger megacities. For example, Tokyo City has 13 million inhabitants as of 2012 not counting the connected metropolitan area.²⁸ This has prompted a search for other means of defining those cities that transcend the ten million limit through political, cultural, and economical hierarchies.²⁹ The definition of *world city* becomes more quantitative and resists being bound by the mere head count. Patrick Geddes has proposed that for a city to be a *world city*, it must become a center of power, politics, trade, finance, services, professions and/or information.³⁰ However, it is very challenging for any single city to achieve all these qualities at once due to the fierce competition at the global stage. This competition, according to John Friedmann, has led to further articulation of the hierarchical gaps between competing cities, which generated three levels of importance: international, global and regional cities.³¹ Most of the Gulf cities mentioned above fall under the last category with the exception of Dubai and Riyadh. Both cities are considered global through

²⁵ Peter Hall, "Megacities, World Cities, and Global Cities," in *Megacities : Exploring a Sustainable Future*, ed. Steef Buijs, et al. (Rotterdam: Uitgeverij 010, 2010). 35.

²⁶ Ancient megalopolises, such as Athen, with a population of 300,000 in 430BC, and Rome with 1.4 million inhabits were considered mega by all definitions for over seven hundred years. in:Peter Hall, *Cities of Tomorrow : An Intellectual History of Urban Planning and Design since 1880*, Fourth edition. ed. (Chichester, West Sussex: Wiley Blackwell, 2014).

²⁷ "A city is a very large city, typically one with a population of over ten million people." Oxford English Dictionary 3rd ed. Accessed on January 2015.

²⁸ Tokyo Metropolitan Government, "Tokyo's History, Geography, and Population : Population of Tokyo," Tokyo Metropolitan Government, <u>www.metro.tokyo.jp/ENGLISH/ABOUT/HISTORY/history03.htm</u>.

²⁹ Hall, Peter. "Megacities, World Cities, and Global Cities." In Megacities : Exploring a Sustainable Future, edited by Steef Buijs, Wendy Wanyin Tan, Devisari Tunas and George Brugmans, 379. Rotterdam: Uitgeverij 010, 2010. 35. Mark Abrahamson, *Urban Enclaves : Identity and Place in America*, Contemporary Social Issues (New York: St. Martin's Press, 1996). 6.

³⁰ Patrick Geddes, Cities in Evolution, New and rev. ed. (New York: Oxford University Press, 1950). 46.

³¹ John Friedmann, *The Prospect of Cities* (Minneapolis: University of Minnesota Press, 2002). 7.

the level of connections they synthesize and perhaps Riyadh is the only city that is well on its way to becoming a regional megacity.³²

However, before we narrow the focus on the *cities within cities* phenomenon, we need to r look into the reasons that make defining a Gulf city difficult. The pliability of the definition of cities can be attributed to a number of different factors. The first factor is the rapid and continuous growth in urban agglomerations. It poses a challenge because it renders every definition that does not expand with the growing boundaries as dated. As a result, new definitions are called upon frequently to cover the new city boundaries.³³ In *The City Assembled*, Spiro Kostof divided the book into five chapters; each chapter corresponded to an element of city building. The first element was the city edge which Kostof subcategorized into six distinct possibilities—one of these possibilities was the "Soft Edge of Suburbia."³⁴ He attributed the rapid growth to the speculative nature of land value.³⁵ Even though Kostof was specifically referring to the American suburbs in this chapter, he was not far off from what was happening in Dubai as well. The edge condition in Dubai was based largely on land value speculations, which we will touch upon again in the discussion of the organizational structure of Dubai.

The second factor causing the looseness in definitions is the tremendous branding campaigns carried out by projects within these cities. It produces noise around the definition of the larger city which confuses the boundaries between the physical reality and the futuristic imagery. It

³² Population numbers mentioned in previous reference. Dubai (2.3 million) and Riyadh (6.4 million).

³³ Buildings in Dubai are isolated and sometimes gated. you buy a product and you change lifestyle into something you can afford. George Katodrytis, "The Dubai Experiment: Accelerated Urbanism," in *Al Manakh*, ed. Ole Bouman, et al. (Netherlands: Stichting Archis, 2007). 38.

³⁴ Spiro Kostof, *The City Assembled : The Elements of Urban Form through History*, 1st North American ed. (Boston: Little, Brown, 1992). 59.

³⁵ Ibid., 64.

further confuses the aspirations of the larger city with the aspirations of the projects within that city. For example, when a project within a city such as Dubai is labeled as 'The World' or as 'The International City,' it produces a rhetorical and perceptual confusion between the two entities. The primary city and the projects within it compete over titles in the media, which further amplifies the problem.³⁶



Figure 2 (left): Aramco Dhahran Compound showing typical suburban pitched roof houses. The wall fence is visible in the foreground. Figure 3 (Right): Google Earth Satellite image showing Aramco Dhahran Camp and the stark contrast with the surrounding area.

The third factor is the constant negotiation between tradition and modernity in Gulf cities. In the Gulf, modernity is associated with all aspects of the city and urban living while tradition is associated with nomadic cultures and vernacular living. Dhahran city was built to be the headquarter for all oil related activities in Saudi Arabia. Saudi Aramco oil company built a camp in Dhahran in 1937 and subsequently managed to grow from a residential camp into a fully enclosed gated community of 11,000 residents.³⁷ To date, the neighboring cities, such as Dammam and Khubar view Dhahran as the Aramco city. People in the region witnessed the high

³⁶ On Google search engine, searching for "Dubai builds …" the search engine's first suggested search reads: "Dubai builds the world." Tested on February 4, 2015.

³⁷ Hooshang Amirahmadi, and Salah El-Shakhs, *Urban Development in the Muslim World* (New Brunswick, NJ: Transaction Publishers, 2012). 207.

contrast between the life within these residential communities and the life outside (see figure right). Not only were the buildings different, but also the demographics and policies were different from the rest of the region.³⁸ Despite the relatively small size of the community, it managed to acquire a city status because people regarded modernity and city as synonyms.

The last factor is the murky distinction between the uses of the word 'city' and 'madina.' In some cases, they are used as literal translation between English and Arabic, but in other cases they are used to highlight the contrast between modernity and tradition. Calling it a *madina* instills a more modern connotation than the basic nomadic life, whereas labelling it as a *city* implies a Western feel that is even more modern than that of a *madina*.³⁹ More will be demonstrated on this point in the following section when the naming problem is discussed.

To summarize, the past four factors contribute to the pliability in the definition of word *city* in the Middle East: continuous growth, branding confusion, modernity/tradition contrast, and differences between the Arabic and English uses of terminology. The instability in the definitions has not prevented developers from using names to influence urban form and consequently urban growth. The following chapter will shed more light on the importance of naming practices and its conceptual and physical implications in Gulf cities.

³⁸ The buildings resemble a typical suburban development in North America. They were built for the Westerner engineers. The pitched-roof detached houses with lawns and private backyard are enclosed by a high concrete fence around the entire compound. The fence is still enforced even though the project has been there for more than 70 years.

³⁹ The word *madina* is not a new word in the Arabian peninsula. The second holy city in Arabia is called Al Madina AlMunawwarah. It was named Madina after the prophet Mohammed migrated to it and establishing the Islamic civil society. Hence, the word carry association to civil society and stability.

Naming problem

Names have always been regarded highly by Arabs. In the Gulf, delaying the unveiling of the project name has become part of the marketing strategy adopted by developers to increase the anticipation and excitement about the project. In one of the projects discussed in *Al-manakh*, the author as well as the developers referred to a project as the "project with the secret name" throughout the article.⁴⁰ The renaming of Burj Dubai to Burj Khalifa is a another example that reveals the importance of the project name in the Emirati society. The rebranding efforts after the long anticipated Burj Dubai was not a simple task—a task that was worth the 10 billion dollars that Sheikh Khalifa had paid to bailout Dubai from its crisis.⁴¹

Going back to the translation ambiguity we established that the word *Madina* connotes the antithesis of nomadic living. Today, however, the word has acquired multiple meanings. Some of the individual contemporary mega-projects in the Gulf are referred to as *madinas* such as *Madinat AlJumairah* and sometimes without the translation into Arabic such as *Dubai Festival City*. In some cases, even an Arabic speaking person who does not know a word in English would phonetically pronounce the English words as they are in English: "city." In Dubai, there are mega-projects that carry the world *city* in their names which becomes problematic because using the term cities is usually reserved for primary cities such as Dubai, Abu Dhabi, Riyadh, and Doha. To avoid the confusion between the larger cities and their subsets, we will refer to the larger cities as *primary cities* throughout the paper and refer to the *mega-projects* as *sub-cities*.

⁴⁰ X-architects, and SMAQ, "Project with the Secret Name," in *Al Manakh*, ed. Ole Bouman, et al. (Netherlands: Stichting Archis, 2007). 52

⁴¹ Landon Thomas, "Dubai Opens a Tower to Beat All," <u>http://www.nytimes.com/2010/01/05/business/global/05tower.html?_r=0</u>.

As mentioned in the previous chapter, there are nineteen mega-projects in Dubai that were named cities in the past twenty years alone.⁴² Acquiring the "city" designation was not based on after-the-fact conventional criteria such as population, size or density but rather pre-claimed. The sub-cities ranged from low density developments, such as the Dubai Festival City, to highly dense urban agglomeration such as the Dubai International City or the Waterfront City.⁴³ The conventional benchmark places a city at a higher status than that of a town or a village. Regardless of convention, whether agreed upon or not, the term *city* was added before any of these sub-cities had even began construction. This pre-labelling served the purpose of actively engaging an image of the future, even though there was nothing but sand in the locations where these sub-cities were intended to be built. The extensive use of the word city is a phenomenon that signals aspirations to attain a certain status. Aside from the three levels mentioned earlier, international, global and regional, there is another facet to the use of the word city in the Gulf. The term *city* implies modernity and growth, permanence and efficiency. It also explains the unofficial attribution of the word *city* to other mega-projects because of their autonomy and modernity, even though it is not part of their official project name.

A key component of understanding sub-cities is to understand the relationship between sub-cities and the primary city. There are three roles that primary cities play towards their sub-cities: nurture them by providing the infrastructure needed for support, use them to address issues such as housing or economic problems, and lastly connect them to each other and to the primary city to create a seamless whole. In Al-Manakh 2, the authors presented an organizational chart that

⁴² Refer to the table above.

⁴³ Examples from the 112 projects in Dubai were discussed earlier. Largest and Smallest.

showed the power networks in Dubai. The chart revealed that the vast majority of development efforts were shouldered by the government of Dubai.⁴⁴ This organizational structure serves as the legal backbone for the interactions between the government of Dubai and its subset entities. It helps all parts of Dubai to integrate into a fully developed singular entity. We will discuss the concept of integration in more detail when we discuss urban models of growth and integration. A correlation can be observed between how ambitious the chosen name of a sub-city is with the ability to integrate that sub-city under the identity of the primary city. For example, if a project is called a *neighborhood*, it would be easier to integrate it conceptually into a city than calling the same project a *city*. This conflict grows exponentially with the sub-city's growth and goals misalignment. The physical manifestation of this conflict will be discussed in more depth in the following chapter.

To demonstrate the previous point, let us consider the example referred to earlier: *The International City.* The name of this sub-city is problematic for two reasons. First, the title is not specific enough since becoming international is a status that all ambitious global cities are striving to achieve.⁴⁵ Second, it creates a competitive friction between the primary city and the sub-city within it.⁴⁶ Dubai aims to become *the* international city and having a project within it that holds that title reduces the weight of that title. Needless to say, the project was renamed to be Dubai International City.⁴⁷ Most primary cities aim to conform their sub-cities to the boundaries

⁴⁴ Rem Koolhaas, et al., *Al Manakh 2 : Gulf Cont'd*. 97-100.

⁴⁵ Peter Hall, *Cities of Tomorrow.* 35.

⁴⁶ It is important to see this friction as a deliberate strategy as well as an unintended result. Both views will be explored as part of the last chapter when we discuss the governance and power in Dubai's development.

⁴⁷ Referring the *International City* that belongs to Dubai.

and regulations set out by the master plan and the infrastructural capacity of the primary city, current or projected, in order to keep them manageable and facilitate their integration into the primary city when matured.⁴⁸ However, these limitation did not stop mega-projects developers from identifying their projects as *cities*. It is important to note here that despite the top-down approach in decision-making, the friction between the two entities appears to repeat frequently, which is why it is important to see the strategies Dubai government has employed with a critical eye and examine their positive and negative effects.⁴⁹

Aside from the confusion, there is a positive side to this naming practice where the primary city gains grander importance when its sub-cities are perceived as grand as well. As noted above the prefix "Dubai" had not always been present in the names of these sub-cities at their inception but was added later on for clarification. With a widely spread underlying assumption that cities can not be replicated and that can only be one first, the competitive atmosphere to claim firsts in the world intensified.⁵⁰ According to Amer A. Moustafa, Dubai has "more per capita entries in Guinness Book of Records than any other city on Earth."⁵¹ Claiming a name such as *The International City* or *The World* acts like reserving a catchy domain name on the Internet. In this case, it is a race for global presence. Ironically, however, much of what is being built is reminiscent to architectural elements that are unique to somewhere else. FalconCity, for

⁴⁸ This approach can be traced back to The City Beautiful Movement, which has been typically recognized for its top-down planning strategies.

⁴⁹ More on this point in the last chapter.

⁵⁰ Dubai has 139 Guinness World Record to date. "Dubai." Guinness World Record, <u>http://</u><u>www.guinnessworldrecords.com/search?term=Dubai&page=1&max=20</u>.

⁵¹ Amer A. Moustafa, "My Dubai," in *Al Manakh* (Netherlands: 2007). 14.

example, was meant to provide life size "replicas" of the world seven wonders.⁵² Other sub-cities differentiated themselves by thematically aligning with the festive, specialized and in some cases exotic in order to become globally authentic places for escape or spectacle.⁵³

The relationship between the part and whole, raised many questions about the architectural and urban identity of both. For instance, if we examine the identity of one of the sub-cities, such as FalconCity against that of Dubai, we could say that the promoted images and packaged lifestyle compete with or even supersede Dubai's. Or perhaps the implied relationship between the part and the whole grows proportionately to each other. The practical reality suggests that the funding for the media propaganda of sub-cities dries up after the projects have been completed or soon thereafter.⁵⁴ The city as a whole takes over, through absorbing sub-cities into a larger tapestry of identities—which in turn gets shaped and influenced by new additions. However, in other cases, the sub-city actively resists being absorbed by the identity of the primary city.

⁵² "Falcon City of Wonders," The Emirate Network, http://realestate.theemiratesnetwork.com/ developments/dubai/dubailand/falcon_city_of_wonders.php. Salem Almoosa, "Falconcity of Wonders," Falconcity, http://falconcity.com/chairman.asp

⁵³ George Katodrytis, "Tourism and Constructed Leisure-Land," in *Al Manakh*, ed. Ole Bouman, et al. (Netherlands: Stichting Archis, 2007). 40.

⁵⁴ The exception to that trend happens when the properties are still on the market to attract buyers, in which case the marketing efforts continue until the anticipated sale value is achieved.

Urban Growth Models in Dubai

There are many models and theories that attempt to explain how cities grow.⁵⁵ Growth models in Gulf cities are heavily dominated by two common strategies: the creation of urban infills and urban sprawl.⁵⁶ It is true that the influence of colonial architectural practices and the introduction of foreign-controlled land have produced a perfect tabula rasa for architects to conduct fast-paced urban experiments in the gulf.^{57 58} According to Majdoleen Till, up until the 1980s, the "Westerner" was seen as the professional due to the sizable presence of Western engineers working for oil companies in the Gulf since the 1970s.⁵⁹ By the mid 1990s and early 2000, self-awareness was increasing, which resulted in conscious efforts to establish an independent Arabic Global identity.⁶⁰ Dubai set out to become a global city without dismissing proven urban growth approaches such as infill urban enclaves.

Long recognized in the context of large urban conglomerations, enclaves stand distinct from their primary city's identity yet are geographically and economically connected. From a sociological stand point, enclaves bring together a group of people that share a common tie to form a unique community.⁶¹ Many social analysts, including Nicholas Jewell, observed that the UAE and Dubai

⁵⁵ Pedro Gadanho, and Museum of Modern Art (New York N.Y.), *Uneven Growth : Tactical Urbanisms for Expanding Megacities* (New York: The Museum of Modern Art, 2014).

⁵⁶ George Katodrytis, "The Dubai Experiment: Accelerated Urbanism," 38.

⁵⁷ Koolhaas, Rem. Al Manakh. 7.

⁵⁸ "On barren landscape anything goes and anything is new" Katodrytis, George. "The Dubai Experiment: Accelerated Urbanism." In *Al Manakh*. 39.

⁵⁹ Majdoleen Till, "Branding the Gulf," 66.

⁶⁰ Ibid., 67.

⁶¹ Mark Abrahamson, Urban Enclaves : Identity and Place in America. 9-10.

in particular is inhabited by three groups of people: citizens, tourists and expatriates.⁶² They also maintain that the city's population oscillates due to tourism seasons.⁶³ The gap between the citizens and expatriate communities becomes especially visible in ethnic enclaves such as Dubai International City.⁶⁴ *Urban Enclaves: Identity and Place in the World* by Mark Abrahamson provides examples of community formations around similar characteristics such as race, religion, class, language, and/or sexual orientation.⁶⁵ They offer the immigrant population with better chances to thrive as language barriers dissolve which leads to greater job opportunities within the boundaries of these enclaves.

Furthermore, Colin Rowe, in *Collage City*, viewed the modern city as a continuously changing entity, that is composed of fragments—each fragment harbors distinct groups of like-minded people who can connect and still be part of a greater whole.⁶⁶ Developing urban enclaves became a primary architectural and urban development strategy used by cities to vitalize underdeveloped parts of the city and transform them into rich cultural hubs. In some cases, these hubs provide attractive business opportunities for investors because they possess a clear sense of identity which makes them easily imagined and consequently easily marketable. As a result, Dubai has been characterized as a series of isolated enclaves—separated by either natural or manmade boundaries. For examples, the natural creek separates Dubai into two distinct part—Deira and

⁶² Nicholas Jewell, "Shopping Malls in Dubai," in *Architecture and Globalisation in the Persian Gulf Region*, ed. Murray Fraser and Nasser Golzari (Farnham, Surrey: Ashgate Publishing Limited, 2013). 175.

⁶³ Shopping season in February is a good example.

⁶⁴ Dubai International City thematized its districts after other countries to attract people who have similar tastes and interests to form urban ethnic enclaves.

⁶⁵ Nicholas Jewell, "Shopping Malls in Dubai." 176.

⁶⁶ Colin Rowe, and Fred Koetter, *Collage City* (Cambridge, Mass.: MIT Press, 1978). 2.

Bur Dubai. Other mega-projects are separated by manmade barriers such as streets, walls or guarded by security companies.⁶⁷

Dubai International City is a themed architecture of residences, businesses, and tourist attractions covering about 8.2 km² and houses over 60,000 inhabitants. This sub-city is located southeast of the airport inland and it features ten themed districts depicting countries from around the world.⁶⁸ It is important to note that even though these districts are themed after specific countries, it does not mean that the target inhabitants are immigrants from those countries. On the contrary, they are meant to sell the image of other cultures through the architecture and the packaged lifestyles they offer. Even though this mega-project is considered an urban enclave, it is important to note that it was not a result of an urban infill strategy nor it was of urban sprawl. The sub-city here, however, set out to grow the city through a combination of sprawl and infill.⁶⁹ It produced a new edge for Dubai and allowed the area between existing Dubai and the International City to become increasingly more popular for other smaller infill projects to occur.

Examining Dubai's aerial images and master-plans reveals clear edges that prevent organic sprawl from happening while encouraging it in other places. These edges can be physical such as the Emirate Bypass Road and Mohammed bin Zayed Road, and can be economical such as the infeasibility of a development due to land value and capital investment required. This edge

⁶⁷ Ahmed Kanna, *Dubai, the City as Corporation,* (Minneapolis: University of Minnesota Press, 2011).

⁶⁸ The ten country specific districts are of: China, England, France, Persia, Greece, Russia, Spain, Morocco, Italy and Emirates. There are other districts that are not country themed such as the Central District and the Lake District. Nakheel. "International City." Nakheel, http://www.nakheel.com/en/ communities/international-city.

⁶⁹ Nezar Alsayyad, "The Study of Islamic Urbanism: An Historiographic Essay," *Built Environment* (1978-) 22, no. 2 (1996). 256.

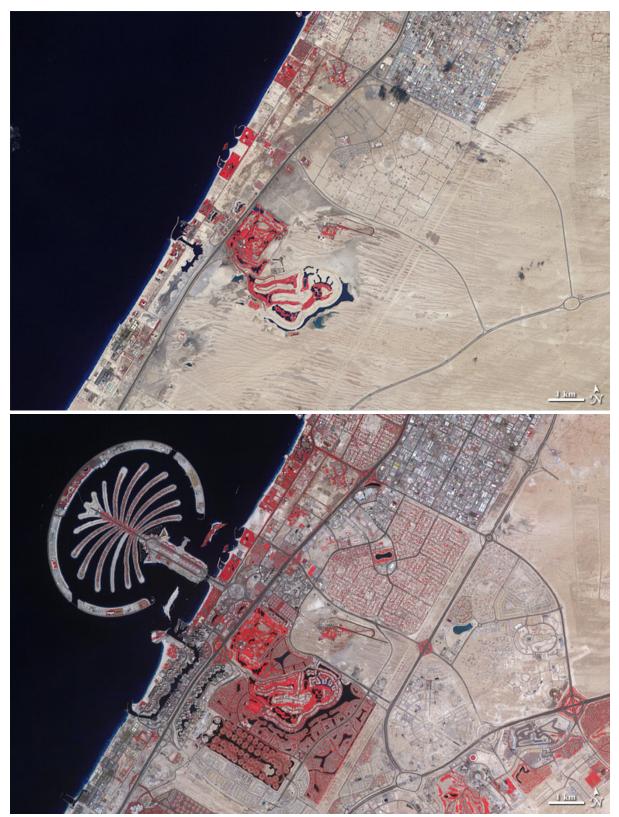


Figure 4: NASA Satellite image showing Dubai's rapid development between 2000 (top) and 2011 (bottom). NASA.

condition, however, is not always a fixed one. Dubai government kept adjusting their boundaries in stages to keep balance between growth and identity maintenance. Throughout the UAE and especially Dubai, it is apparent that most of the development gravitates along the shorelines, which explains Dubai's obsession with building islands to increase its real estate coastline.⁷⁰ Dubai has been utilizing sub-cities as the ideal protagonists for its sprawl-infill strategy.⁷¹ It has become common to hear the announcement of new sub-cities just outside the boundaries of the



Figure 5: The map illustrates the 19 child-cities mentioned earlier within two rings around the historic center of Dubai. The land between the two rings are already being speculated for projects and some of them are already developed.(see Figure 1 for more details).

⁷⁰ The Dubai palms and The World archipelago are mega-projects that can have a similar treatment of sub-cities. They were avoided in this study to focus on sub-cities that have both the naming problem as well as the urban growth strategy being discussed here.

⁷¹ George Katodrytis. "The Dubai Experiment: Accelerated Urbanism." 35.

existing city. The announcement triggers land value speculations, which in some cases provides part of the financing for the project. Then the area around the new development increases in land value which in turn makes it attractive for investors to further infill the gaps in between. This speculative approach to land value brought about false hope and failed projects, especially after the real estate market collapse in 2008.



Figure 6 (left): Rendering showing the Waterfront City and the manmade water barriers around the 25 city blocks. OMA Figure 7 (right): Perspectival rendering of the Waterfront City by OMA.

The Waterfront city, by Rem Koolhaas, a prospective new city for 1.5 million inhabitants on the border of Dubai and Abu Dhabi was conceived as an addition to the already designed Dubai waterfront master plan. It featured a 1,310m x 1,310m island divided into 25 traditional city blocks that permit a "rational, repeatable, and exponential urbanism redolent of Manhattan."⁷² The relationship between the island and the rest of the development is characterized in OMA's website as the following:

The Island connects to the mainland by bridges on each side of its square, fusing with Dubai's imminent public monorail system. Along the southern and eastern periphery of Waterfront City a ring

⁷² OMA, "Waterfront City," OMA, <u>http://www.oma.eu/projects/2008/waterfront-city</u>.

road deflects passing traffic. This road is lined by a protective arc of buildings overlooking the water and enclosing a mixed-use area - the Boulevard - consisting of offices, housing, hotels, mid-rise culture, retail, and civic amenities, and low-rise retail and restaurants.⁷³

The project description indicates the symbolic and physical connection, and disconnection, from Dubai. It uses words such as "fusing" when characterizing the relationship with the primary city. At the same time, it uses words such as "deflects" and protective" when referring to physical qualities of sub-city built form. The extent of the integration is limited to the bridges that lead to the island, which maintains the dramatic effect of arrival to the island. This feeling is further extenuated due to the strip of high rise buildings that shield the island from the east. Manmade islands produce a generic platform where architects can superimpose any form of architecture. In this case, Koolhaas, brings the logic of the Manhattan grid to the Waterfront City and protects it from other forms of growth by creating a water barrier around it. This rejection, or rather control, of integration contradicts the architect original statement.

Waterfront City was proposed to be located about 50-60km southwest from the historic downtown of Dubai.⁷⁴ This sub-city was intended to provide a gravitational node for further growth along the shorelines between Dubai and Abu Dhabi. Even though the Waterfront City project was put on hold, the area in between the promised project and Dubai historical center is already heavily infilled and became integrated into the city's fabric. This is an example that shows how the act of naming, and announcing, a city within a city holds the power to propel development and drive investments to the surrounding region. This strategy was repeatedly used by sub-cities in order to drive land value up.

⁷³ Ibid.

⁷⁴ To compare, Dubai International City was built 10km away from the the centre of the city.

The Waterfront City revealed how architects could embody, within their proposals, a notion of urban growth that rejects sprawl and resists infill within its boundaries while at the same time encourages it everywhere else around its boundaries. This paradoxical strategy catalyzes the growth and intensifies the dynamics between sub-cities and primary cities.

These negotiated dynamics produced two kinds of sub-cities that we can see in Dubai. First, infill sub-cities within the existing primary city boundaries such as Dubai International City or Jumeirah Garden City. The second type is satellite sub-cities where the development takes place outside the city boundaries just like the Waterfront City. These two seemingly opposed strategies come together in Dubai. On a macro level, the primary city as a growing organism operates with a logic of growth and integration-it seeks to both grow itself and integrate its parts. On one hand, the growth process is implied with all forms of development that takes place within the city boundaries or provincial territory. On the other hand, the integration process includes negotiating both boundaries and identities. Matured sub-cities could choose to either welcome the integration and blur the physical boundaries or resist it and uphold those boundaries. As for the integration of identities, the struggle between tradition and modernity resurfaces. A sub-city that identifies as an ultra-modern sub-city may prefer to remain distinct from the rest of the city as a way to differentiate its identity and maintain uniqueness. However, a sub-city may embed itself in the identity of the primary city and by means of association, it becomes meshed into one larger entity.⁷⁵

⁷⁵ Mishaal Al Gergawi, "Abu Dubai: A Forward Tale of Two Cities That Could Only Be One,". 94.

Internal Governance Structure

An important aspect that must be considered is the structure and practices used to enable the above mentioned growth strategies to be successful. With a total of 112 large development projects within Dubai since the year 2000, the competition among these projects, let alone with the rest of the world, has been intense. Therefore, a robust organizational structure was required to ensure the coherence of planing and execution of these projects. In *Dubai: The City as Corporation,* Ahmed Kanna, discussed the political and economical climate in which Dubai operates. Kanna portrays the city as a corporation with multiple layers of interconnected hierarchies of stakeholders between the state, citizens and architects.⁷⁶ This notion was also highlighted in *Al Manakh 2* with an organizational chart that maps the power networks between government entities and their development projects (See figure).⁷⁷ This chart's hierarchy illustrates how the importance of the parts make the whole even more important. The chart also shows the developing companies and how they relate to each other and ultimately to the Government of Dubai.

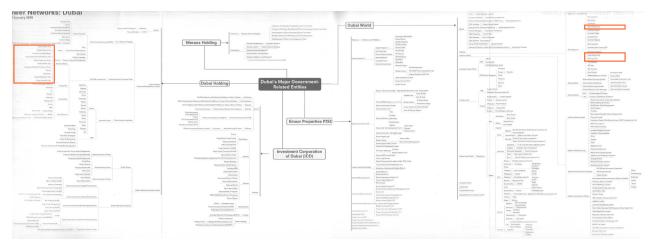


Figure 8: Chart showing power networks in Dubai and how they relate to Dubai Government. Sub-cities are in red boxes at the extremities of the chart.

⁷⁶ Ahmed Kanna, *Dubai, the City as Corporation*. 43.

⁷⁷ Koolhaas, Al Manakh 2 : Gulf Cont'd. 97-100.

Sub-cities play an important role in the overall chart—they form the basic building blocks of the chart, as indicated in the red boxes at the extremities of the chart. Considering them as business units makes our understanding of their economical role and potential completely different from viewing them solely as development projects. Strategic Business Units (SBU) are subsets of large organizations that are given higher autonomy and jurisdictions over their own destiny.⁷⁸ There are three reasons why larger corporations use the SBU model. First, it allows for higher flexibility, where the unit can shift focus and reshape itself to maximize the gain for itself and the larger corporation. The second reason is to reduce the blowback in case the SBU failed and it was decided, subsequently, to be terminated. This was clear when Dubai had to place many projects on hold after the market crash in 2008. These holds only dissolved the project but not the holding companies that initiated the projects. This has also contributed to the higher level of experimentation that occur in Dubai because the extent of risk is limited to the project. The third and last reason, which is most relevant to our conversation here, is that when an SBU becomes successful, it can split from the mother company and grow into an independent entity. This can result in faster decision making and adaptability within the SBU without the bureaucratic baggage of excessively large holding companies. Sub-cities are treated, in part, like SBUs for benefits listed above which grant sub-cities the autonomy to have unique identities. This results in a freedom to create attractive and adventurous designs to attractive foreign investors.

⁷⁸ According to the businessdictionary.com SBU is: "An autonomous division or organizational unit, small enough to be flexible and large enough to exercise control over most of the factors affecting its long-term performance." Read more on : <u>http://www.businessdictionary.com/definition/strategic-business-unit-SBU.html#ixzz3SgbC4Bai</u>

However, the end result in sub-cities is inherently the reverse of what SBUs are meant to become —instead of splitting off into separate independent entities, they invite further urbanization around them and become even more intertwined with the primary city. In the process, they could lose their identity to that of the primary city or add another unique flavor to the collective identity.

Using "cities" to serve a purpose and increase land value could readily lend itself to comparisons with Ebezener Howard's Garden Cities. The above mentioned urban growth strategies go against what Howard has proposed in his *Garden Cities of Tomorrow*. Howard's Garden cities were high density developments far from the "central city", while some of Dubai's sub-cities are located at the middle of the urban core. For example, Jumeirah Garden City (JGC) is an the urban renewal project in downtown Dubai despite the fact that it is called Garden City.⁷⁹ Howard's Garden Cities intended to be far enough from the Victorian city in order to maintain the green belt around the urban center and mix between the benefits of the country and the town.⁸⁰ They were never meant to merge back with the primary city. For Gulf cities, however, the green belt is none existent. What was not seen as urban modernity is seen as desert and reminiscent of nomadic life. Hence, the main intention is to use sub-cities to catalyze growth and fill all the gaps in between.

⁷⁹ The naming here refers to "Garden" as a symbol of sustainable development. It was argued that this project came as a reaction to the criticism Dubai received for their environmental footprint.

⁸⁰ Ebenezer Howard, *To-Morrow : A Peaceful Path to Real Reform* (London: Swan Sonnenschein, 1898). 53.

Conclusion

The *cities within cities* phenomenon in Dubai is multifaceted and remains loosely defined due to the fluidity in two main aspects: the rhetorical use of terminology and the outlining of physical boundaries. In the past four chapters we discussed the emerging gulf cities, naming problems, growth models, and the internal governance structure of *cities within cities*. The first chapter reviewed general trends in emerging key GCC cities and pointed out similarities in visions and methods. This chapter provided an overview of the words used to describe projects in Gulf cities, a literature review of Al-Manakh and Al-Manakh 2 articles, and provided four reasons why the term cities has acquired pliable qualities.

The **naming problem** in the second chapter highlighted the importance of the rhetorical nuances, such as the difference between *madina* and *city*. It demonstrated how naming practices can play a significant role in shaping the identity of both sub-cities and primary cities. The dynamic relationship between the sub-city and the primary city was discussed as an implied relationship between the part and the whole.

The third chapter discussed the **growth models** sub-cities utilize to grow themselves and their primary city. Among the many strategies adopted by Dubai, two stood out: urban sprawl and urban infills.⁸¹ Even though they are two distinct strategies, Dubai managed to use both strategies through projective development and land value speculations. Dubai International City served as an example of projective urban infill while the Waterfront City served as an example of how satellite sub-cities are used to catalyze the primary city growth. It was observed that the mere

announcement of the Waterfront City had a significant effect in propelling economical and urban growth.

Reflecting on the notion of the sub-cities on a larger scale, especially satellite sub-cities, produces a parallel to the Garden City Movement. The key difference is that the Garden City Movement built satellite Garden Cities to prevent the continuous urbanization of the green belt around the central city. In Dubai, however, the purpose is precisely to urbanize the land in between all scattered satellite sub-cities. The "green belt" is not green in the Gulf but rather stretches of sand dunes adjacent to the Gulf. Furthermore, if we expand the notion of primary cities versus sub-cities even further, we get two layers of networks. The first is that of the adjacent cities such as Dubai and Abu Dhabi. The second is a constellation of Gulf cities that acts as a network of 'primary' satellite cities that are connected via a comprehensive railway system and highways. Further reading into the larger picture requires deeper understanding of the political, economical and social dynamic relationships between primary Gulf cities on a regional level.

The last chapter dealt with Dubai's **internal governance structure**. It shed some light on the organizational nature of the relationship between sub-cities and the cities they occupy. The organizational chart in *Al-Manakh 2* illustrated the connectedness and extent of power and governance that Dubai exerts over its subsidiary entities. We argued that sub-cities operate within this organizational network as Strategic Business Units, which gave sub-cities three key advantages: autonomy, flexibility and agility. In turn, it granted Dubai the ability to terminate sub-cities with minimum impact on Dubai's bottom line had these sub-cities failed or run out of funding. The combination of these advantages allowed Dubai and its sub-cities to take higher

risks and make decisions faster, which translated into more experimental architectural and urban forms.

It is important to recognize the role of the head of state in such governance systems. The vision and management style could affect the internal governance structure which in turn could affect the level of conservatism and experimentalism adopted by the primary city. Beyond this chapter's scope of study, a deeper understanding of current financial practices could suggest other business model structures that challenge the SBU business model presented in this thesis. Considering the last three chapters together, it can be concluded that the naming problem influences the identity, urban growth models affect the boundaries and land values, and the internal governance structure affects the agility and experimentalism of Dubai. All three effects put together shape the city and the cities within the city. It is the tension between the city and its respective sub-cities that has the ability to shape Dubai's overall identity and not the isolated individual projects.

Several key questions must be considered when projecting the future of cities within cities. First, it is important to trace Dubai's attitude towards its sub-cities which can either be inclusive or exclusive. A sub-city could choose to lower the conceptual and physical boundaries so that it becomes an integral part of the primary city or it could resist it to maintain its independence and individual identity. In the first case, the primary city would, as a result, become more homogeneous and merge its parts into a seamless whole. In the second case, the primary city would become highly fragmented with constant tension and competition between the cities within the city, which would ultimately produce a poly-nucleated model that is driven by the names and themes of these sub-cities.

Project names surpass the importance of physical form at the early stages of development. The name alone holds the power of development and attracting foreign investments long before any designs or built form takes shape. However, it would be worth exploring the shift from the complete reliance on the name to a combination of physical and psychological presence of a subcity. When sub-cities mature and start to take shape, the public perception and physical experiences take over and redefine the sub-city and its relationship with the primary city.

Mishaal Al Gergawi proposed the term *Abu Dubai* in a key article that envisioned how Abu Dhabi and Dubai would look like if they were to merge into one metropolis. However, Al Gergawi made another important observation that relates to the cities within the city phenomenon more directly. He determined that it was a "psychological victory for the city [Dubai] that many of its projects [sub-cities] lost their names."⁸² For example, Burj Dubai/ Khalifa Downtown became 'Downtown' and Jumeirah Beach Residence and Dubai Marina became just 'Marina.' Even older parts of the city such as "Bastakiya, Karama, Mankhool, and Bur Dubai became collectively 'the old neighborhood."⁸³ The blurring of psychological or physical boundaries forces the city and the cities within the city to be in constant negotiation of their individual and collective identity.

It would be interesting to observe how Dubai would act if a surge of economy resulted in the reactivation of halted projects. Would resuming halted projects spur a second round of renaming? And if so, would this be a result of a restructuring in the internal governance models? In addition, it is of interest to understand the psychology of mega project architects and developers

⁸² Mishaal Al Gergawi, "Abu Dubai: A Forward Tale of Two Cities That Could Only Be One," 94-95
⁸³ Ibid.

whose dream projects got downsized. Would they employ new growth strategies to maintain the original ambitions of their cities?

Figure References

- Figure 1: Dubai map showing the location of the 19 sub-cities in Dubai that will be the focus of this thesis. Adapted from OpenStreetMaps using ScribbleMaps.com. Accessed February 2015. http://www.scribblemaps.com/maps/view/Dubai/NKSaZObB05
- Figure 2: Aramco Dhahran Compound showing typical suburban pitched roof houses. The wall fence is visible in the foreground. Christopher Rose. Accessed February 2015. https:// www.flickr.com/photos/khowaga/2859098195/in/photolist-56xAT5a 1 J L w - 4 P Q f v d - 5 j C r c t - 4 P K Z 2 R - 5 m H S B J - 5 m D C h t -HqYHf-75Tukv-75XoSJ-75Tugi-75Tubk-75TtSX-g97xW9
- Figure 3: Google Earth Satellite image showing Aramco Dhahran Camp and the stark contrast with the surrounding area. Google Earth. Accessed February 2015. Image 2015 © DigitalGlobe.
- Figure 4: NASA Satellite image showing Dubai's rapid development between 2000 and 2011. NASA. Accessed February 2015. http://earthobservatory.nasa.gov/Features/ WorldOfChange/dubai.php?all=y
- Figure 5: The map illustrates the 19 child-cities mentioned earlier within two rings around the historic center of Dubai. The lands between the two rings are already being speculated for projects and some are already developed. (see Figure 1 for more details). Adapted from OpenStreetMaps using ScribbleMaps.com. Accessed February 2015. http://www.scribblemaps.com/maps/view/Dubai/NKSaZObB05
- Figure 6: Rendering showing the Waterfront City and the manmade water barriers around the 25 city blocks. OMA, Accessed February 2015. http://www.oma.eu/projects/2008/ waterfront-city/
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