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I, Shagul M. Shafiq, hereby submit this original work as part of the requirements for the degree of Master of Science in Architecture in Architecture.

It is entitled:

Airports as Portrayers of Regional Character and Culture: A Case Study of Sulaymaniyah Airport

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Committee member: Jeffrey Tilman, Ph.D.

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Airports as Portrayers of Regional Character and Culture:

A Case Study of Sulaymaniyah International Airport

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Abstract

Airports serve as gateways to cities or countries. They are symbolic buildings, the first and last impressions and experiences for visitors. In their early days, airports evoked modernity and impressiveness. Then, during a period of frequent hijacking in the 1960s, they transformed into places of security. Later on, they manifested into "non-places," as Marc Augé observed, as their super-modernity deprived them of those qualities that created and defined the identity of a place or its relation to the city or country it was introducing. Today, airport architecture tries to balance between the global and local character representations in their design features. Airport architecture often leans toward localization when airports are part of a nation-building process, and when they ascribe to regional character and culture, they become city portrayers.

This thesis explores how an airport can architecturally represent its city, region, culture, nation and metropolitan or national character as opposed to imparting a global, generic, non-place image on the arriving passenger. The research comprises two main points. First, it examines, from an architectural point of view, the consequences of the Iraqi government's shutting down of the Kurdistan region airports as a punishment for the Kurdistan referendum. Then reviews representations of regional character in airports by investigating literature and airport design precedents, thus establishing background and criteria to study the case study of Sulaymaniyah International Airport in the Kurdistan region of Iraq. It also analyzes the efficiency of the airport's performance and tackles its architectural design problems.

Chapter 4. Precedents

Global Background

Tempelhof Airport (Germany)

Regional Background

Baghdad Airport (Iraq)

Kuwait Airport (Kuwait)

Analogous Nation Precedent

Changi Airport (Singapore)

Analogous Typological Precedent

Marrakech-Menara Airport (Morocco)

Discussion

Chapter 5. The Case Study of Sulaymaniyah Airport

History of the Airport

Urban Context

Architectural Form and Interior

Discussion

Preface

In September 2017, while I was exploring the architecture of my hometown Sulaymaniyah, located northern Iraq, for a graduate-school thesis on how the quality of its architecture could be improved, the city's Kurdistan region held a referendum to secede from Iraq. People were excited about the event and celebrated it festively (Fig. 1). The Iraqi government, however, rejected the referendum and punished the Kurdistan region, in part by shutting down its airports (Fig. 2).

An architectural perspective on the airport shutdown thus became my research interest. Hence my thesis question expanded to examine airports as portrayers of regional character. Indeed, airports must represent regional character, as gateways to cities and cultural connectors among nations. Thus, the key to an airport's visual success is the lasting impression it leaves on travelers who pass through its terminals daily.


Figure 1: Images from the Kurdistan referendum.

Figure 2: An analytic map of the Kurdistan region of Iraq.

Acknowledgments

I would like to recognize the Fulbright Program for giving me this amazing research opportunity. I also wish to thank Rebecca Williamson, for her steady guidance of me during my research and writing; Jeff Tilman, for his confidence in my paper topic; Kenneth Goode, for his endless support; my parents and siblings, who believed in me throughout the research and writing process; Hanar M. Shafiq, my sister and best friend; and, above all, the Great Almighty…
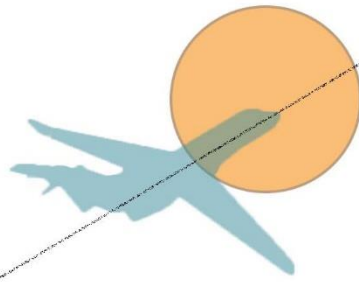
Chapter 1. Introduction

Sulaymaniyah Skyline

Thesis Statement

Airports are gateways to cities. They are the first and last impressions of travelers to a city and "cultural connectors" between people from different backgrounds. Two main features and criteria that participate in establishing airport architecture are global character and local character. The global image of airports focuses on constructing a standard language for connectivity between different destinations and providing an easy wayfinding for people from different background and culture. The local image focuses on demonstrating a language that portrays the regional character, the history, and the culture of a place to travelers. When an airport represents its city's unique character and culture, a secondary function of city portrayer is added to its primary function of a transportation hub. In addition, they become symbolic buildings and power portrayers that makes them a weapon of threat in the hand of politicians and people who are seeking power. This constitutes the thesis of the research. It studies symbolic representation of airports and their significance as regional character portrayers. A significant factor that contributes to lean toward localization is when airports are part of a nation-building process. In that case they become symbols of the city, region and nation, articulating the local culture and character architecturally. Yet all too often they manifested into "non-places," as Marc Augé observed, as their super-modernity deprived them of those qualities that created and defined the identity of a place or its relation to the city or country it was introducing

Background and Problem

Motivating this study was the Kurdistan region's September 2017 referendum to secede from Iraq. The Iraqi government repudiated the results of the referendum and consequently punished the region. Penalties included shutting down its airports, which gave the region an airway isolation from the rest of the world. But the Kurdistan region has not given up on its independent statehood dream; it has the potential to become a country. So, it

must prepare for its independence by designing an airport that reflects and portrays its distinctive culture, as many nations use airports as an element in their nation-building strategies.

The architecture of the airports was not the reason for the utilization of the airports as a weapon against the region. It was an attack to the symbolic representation of airports as power portrayers beside other political and economic intentions. Historically, whoever takes over an airport considers it a victory. Airports resemble prizes and trophies to their owners and demonstrates their achievements. Thus, the architectural design of airports is critical and should meet its symbolic significance. This research investigates the consequences of the shutdown on the image and experience of airports from an architectural point of view. A larger topic of airports as portrayers of the city, a region, and its culture examines the problem of shutting down the airports.

Sulaymaniyah Airport was among those two airports in the region that faced the shutdown. The design of the airport is a classic simple concept layout that resembles a bus terminal or a warehouse (Fig. 3 & 4) more than the concept of airports of nowadays. Today, the signifiers of airport structure are massive scale and complexity. The inside of airports is filled with activities such as eating, sleeping, praying, weeping, hugging, and being a convenient environment that one can survive living in it for many days. Sulaymaniyah Airport does not feature any of these exterior and interior signifiers of airports around the world. Besides, Sulaymaniyah city is the cultural capital of the Kurdistan region of Iraq, however its cultural significance is not portrayed in its airport architecture.

Airports, as symbolic buildings, a city's gateway and 'cultural connector', can play a significant role in representing a city's culture to visitors and locals as well. Sulaymaniyah Airport does not illustrate the city's culture (Figs. 3 & 4). This research raises questions and tackles problems related to the architecture of the Sulaymaniyah Airport for future

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redevelopments of the airport. Similar to Sulaymaniyah Airport, many airports around the globe underrepresent the sense of place and the local culture of their respective cities.

Figure 3: Exterior of Sulaymaniyah Airport.

Figure 4: Interior of Sulaymaniyah Airport.

Research Aims

The primary goal of this research is to understand the role of airports in portraying their respective cities, regions, cultures and nations architecturally. This paper covers four main points: (1) investigating the incident of the Sulaymaniyah Airport shutdown from an architectural perspective; (2) exploring and discussing leading theories of airports and their cultural significance to their cities, regions and nations; (3) examining precedents and case studies of airports that successfully represent their regional characters; (4) analyzing and tackling the problems with Sulaymaniyah International Airport architecturally regarding lack of representing its city, and Ultimately, this research aims to: (1) advance our knowledge of cultural and regional influence on airport architecture; (2) contribute to future studies of airports as symbolic buildings and cultural representations; and, above all, (3) to inspire Sulaymaniyah city officials to redevelop Sulaymaniyah Airport as a visual symbol of regional culture and national identity.

Thesis Outline and Methodology

This study is divided into five chapters.

Chapter (1) outlines the context and motivations underpinning this research and clarifies its aim and objectives, focusing on the background for the thesis. Chapter (2) explores the airport's shutdown from an architectural point of view. Chapter (3) investigates theoretical studies and a brief history of airport development and explores reasons for the need to portray regional character inside airports. Chapter (4) analyzes precedents of airports and evaluates their respective successes at expressing the regional cultures of their locations. Chapter (5) relates the story of Sulaymaniyah and its airport based on the criteria established in its two preceding chapters. It covers the city's history and culture and analyzes Sulaymaniyah Airport's history, urban context, architectural form, and interior design.

This thesis overviews diverse literature to illustrate underrepresentation of regional character and culture in airport design. It draws on theoretical studies and airport precedents, representing Alastair Gordon's seminal studies of airport history. For theoretical background, it draws on theories by Marc Augé, Rafat Ali, Christopher Schaberg and Pico Iyer, as well as travel literature by Italo Calvino (*Invisible Cities*), Alain De Botton (*A Week at the Airport*), and Alice Dalgliesh (*Wings Around South America*). It also references Umberto Eco's theories of representation.

Chapter (5) has study limitations, due to travel restrictions preventing actual site visitation of Sulaymaniyah Airport while conducting the research. Therefore, to tell the story of Sulaymaniyah city, the research incorporates interviews with two notable authorities on the city: historian Ako Ghareb and preservationist Sadiq Salih. To analyze Sulaymaniyah Airport, it depends on information from interviews with Sulaymaniyah Airport officials including airport director Tahir Abdulla, online photographs and data, and the author's previous experiences of traveling through the airport and living in its city. Information on the airport shutdown is culled from newspaper articles and other news sources.
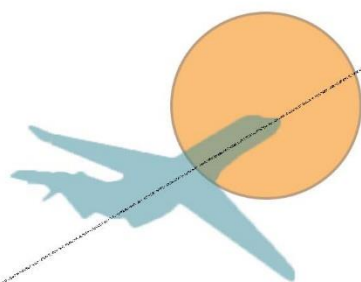
Chapter 2. Shutting Down the Kurdistan Airports

Sulaymaniyah Skyline

Airports as Symbolic Buildings

The incident of shutting down the Kurdistan airports is studied under symbolic representations of airports.

Problem Overview

After a century of dreams of statehood since Kurdistan's attachment to Iraq by the British after World War I on September 25, 2017 the Kurdistan region held a referendum toward independence, although its result was a 93% "yes" vote, Iraq's central government was not satisfied and refused the results. Consequently, Baghdad officials decided to isolate the region[1] to suppress their ability to secede from Iraq. Iraq's central government shut down the airports in the Kurdistan region and ordered a halt to all international flights to and from the autonomous region (Fig. 5). According to *Telegraph* newspaper, the Kurds censured the flight ban as "collective punishment" of the people.[2] According to *The New York Times*, shutting down and taking control over the airports was the Iraqi prime minister's angry reaction against the region's desire for independence.[3] The Iraqi government used the aviation industry as a form of suppressing their desire of independence, similar to what the former Iraqi governments did to the Kurds using other strategies to supress their dream.

Figure 5 images of people rushing into the Kurdistan airports after the announcement of the airport shutdown.

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1. David Zucchino. *"After the Vote, Does the Kurdish Dream of Independence Have a Chance?" The New York Times*, September 30, 2017.

2. The Telegram Staff. "Foreigners rush to leave Iraq's Kurdish territory ahead of flight ban imposed after independence referendum." *The Telegraph*. September 29, 2017.

3. David Zucchino. *"Iraq order Kurdistan to surrender its airports" The New York Times*, September 26, 2017.

Airports as gateways are thus symbols of the place they introduce, which makes airports symbolic buildings. In fact, the symbolism of airports also makes them targets of terrorism attacks. Christopher Schaberg argues: "Airports are preeminent sites of progress, cosmopolitanism, and freedom. So oppressive regimes and their ilk target these spaces to cause symbolic as well as real damage."[4] Accordingly airports symbolize the ideals of freedom, progression, world influence, cultural pride, etc., that their respective cities may embody, so attacking these infrastructures is an attack on those ideals.

This is one example of how involving airports in political issues has become a global trend. In *Slate Magazine*, Henry Graber explains this: "Once an icon of progress, then another stale waiting room of modern life, the airport has now entered a third phase... Now the airport is a temple for a political era built on paranoia."[5] Today, people in power use airports as weapons to threaten societies. In *The End of Airports*, Christopher Schaberg declares the end of the former conceptions of airports: "The end of airports as romantic places; the end of airports as sites of excitement; the end of airports as apexes of travel culture. The end of airports means the end of our ability to appreciate airports, to inhabit them as dynamic, fascinating, forward-looking spaces."[6] Perhaps one cause of this is the involvement of airports in political conflicts. In his other book, *Airportness*, Schaberg waxes more pessimistic: "It is a miserable place—you can see it on everybody's face."[7] This scenario perfectly depicts the airports in Kurdistan when the Iraqi government shut them down. People's faces were covered with misery and fear of not being able to travel back to their homes. Such experiences generate unpleasant images of airports in people's memories and subconscious minds by distorting the former reputation of airports as exciting places. A

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4. Christopher Schaberg, "Why Attack Airports?" *The Atlantic*, July 2, 2016.

5. Henry Grabar. "*How Airports Became the Marble-Floored Temples of Our National, Fear-Fueled Psychosis.*" Slate Magazine. September 07, 2017.

6. Christopher Schaberg. *The End of Airports*. London: Bloomsbury Academic, 2016.

7. Christopher Schaberg. *Airportness: the Nature of Flight*. New York, NY: Bloomsbury Academic, an imprint of Bloomsbury Publishing Inc, 2017.

similar scenario would be the Trump administration's flight bans on seven Middle Eastern countries, from which people rushed into airports to return to the United States. Many arrived at US airports, but security forced them home. Although only a small population experienced such stressful situations at those US airports, others felt in solidarity with them, sympathizing with their helpless, stressful, miserable situations faced at the airports (Fig. 6). These images, covered in the media, are enough to create a miserable impression of airports inside people's minds.

Figure 6: Images of protests in the US airports during the flight ban.

Airports as Critical Infrastructures

Airports as critical infrastructures have great significances to cities and countries, which is one of the reasons why they are targets during governmental conflicts. Airports' significance can be categorized as economic, social, cultural, political and military.[8] Their economic significance lay in their speed of trading, which provides fast transportation of both people and goods.[9] Their social or cultural significance lies in bringing in foreign culture and promoting the local cultures of their cities. [10] They are means of inflow and outflow of information and cultural exchange. They also have political and military importance, especially in wartime. As mentioned, airplanes contributed to victory in the World Wars. In

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8. *"importance of an airport in city/country."* online lecture presentation,
   https://www.fed.cuhk.edu.hk/history/history2003/0315d.pdf
9. Ibid.
10. Ibid.

many other war cases, taking over the airports counts as the winning factor between the two clashing forces. For instance, this happened in the battle between US and Iraq in 2003 at Baghdad International Airport as part of the U.S. invasion of Iraq. People refered to the battle as "The Fall of Baghdad" or the battle of "al-Hawasim," (the finals). This was the last battle before officially announcing the conquest of Iraq by US forces. Their usurpation of the airport paralyzed Iraq and marked the country's defeat, as an example of how airports are cells that can play the role of growth or decay of the entire body of the country. Furthermore, since that battle, people of the city use the phrase of "al-Hawasim" to refer to any criminal, theief or thug in the chaos of life after the fall of Saddam's regime.[11] This signifies that the battle at the airport left an unpleasant image of airports in people's memory.

In addition, Jim Smith, an expert in airport disaster preparedness and resiliency, insists that aviation systems are among those critical infrastructures, similar to electrical generation and transmission, dams and levees, highways and bridges, that are essential for national as well as economic survival.[12] He adds that critical infrastructures, including airports, are the nation's hope during such catastrophes as natural disasters, pandemics, accidents, terrorism, civil disturbances, war, and civil war. During such catastrophes there would be land blockade, and air transit would remain the most dependable form of transportation for fleeing the country or for seeking or receiving outside assistance.

Finally, during wartimes or conflicts, airports can have roles in the nation's survival or collapse and defeat. Since airports are fixed resources, it makes them vulnerable during wartime. They are costly to replace and difficult to repair when damaged. For these reasons, airports most often become targets of war and terrorism.[13] Smith ends his argument with a quote by Walter White: "In a disaster an airport can substitute for almost anything else, but

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11. Hayder Daffar. "Weapons of Mass Bewilderment," Vice, February 28, 2007.
12. Jim Smith. 'aviation critical infrastructure, airports & catastrophes.' (Presentation, American Public University System).
13. Ibid.

nothing can substitute for an airport."[14] Airports are critical for a nation's survival. Perhaps that is one reason why some airports are designed to symbolize a nation's power.

Discussion

Based on the argument of airports as symbolic buildings, city gates, cultural portrayers, and the pride of nations, we can hypothesize that shutting down the airports is an attack on the pride of Kurdistan's cities. Furthermore, airports' concepts are usually connoted with power, especially with Tempelhof Airport, through which Hitler utilized the airport architecture to showcase his power [it is analyzed more in the precedent studies of chapter (4)]. Thus, shutting down the cities' gates may be meant to signify powerlessness of the region.

From an architectural point of view, such incidents do not significantly affect the physical features of airport architecture, but they certainly the image and experience of airports in people's subconscious mind or memory. This causes airports to trigger the image of misery and panic, as opposed to romance, fascination, or cultural distinction.

Airport Architecture Criteria

The two main criteria that establish airport architecture and function are global character, a standard layout for ease of wayfinding, and local character, portrayers of their respective cities, as explained in the introductory chapter.

Global Character (Denotation): Building Type Layout Concepts

. The global image of airports focuses on constructing a standard language for connectivity between different destinations and ease of wayfinding for people from different background and culture. Thus, the design of airport passenger buildings depends on a number of basic concepts or forms that evolved over time based on the airport's increasing size:

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14. Ibid.

simple, linear, open (or transporter), pier, satellite, and hybrid (Figs. 7-11). Each form has its advantages and disadvantages.[15] The simple, linear passenger building type concepts usually take minimalistic forms and shapes, but the open, pier and satellite forms have more monumental potential. (The case study for Sulaymaniyah Airport will focus on simple and linear forms, as they are typologies of the simple-form passenger building, and the terminal building expansion would call for a linear form.)
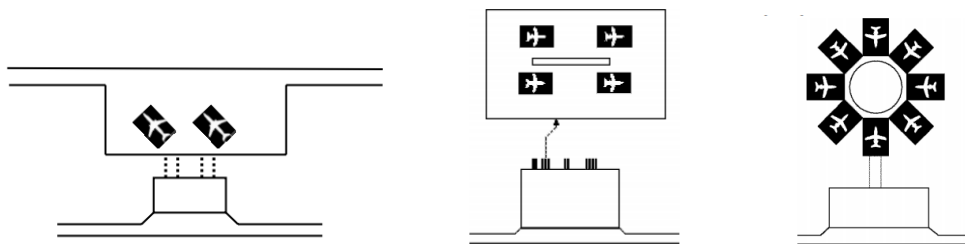

Figure 7: Simple Concept
Figure 8: Open Concept (Transporter)
Figure 1: Satellite Concept
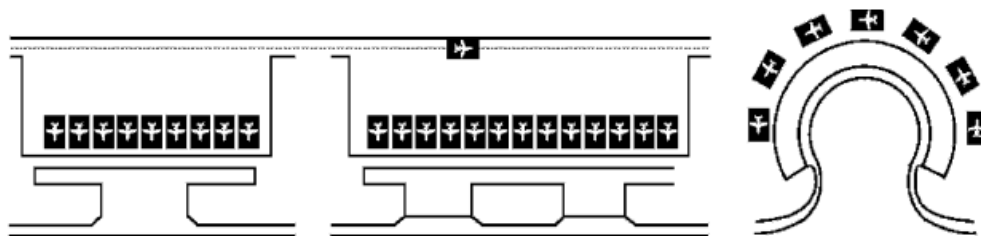(Source: ICAO Doc 157 Part 2)

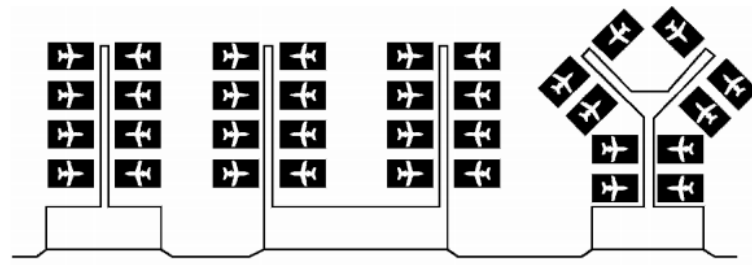**Figure 10:** Linear Concept (Source: ICAO Doc 9157 Part2)

Figure 11: Pier Concept (Source: ICAO Doc 9157 Part 2)

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15. Antonín Kazda and Robert E. Caves, *Airport Design and Operation* (Bingley: Emerald, 2015), 124.

Small airports with a few flights per day usually use the simple-form terminal building, as it gradually shifts to linear form when the terminal is expanded.[16] The transporter type is almost similar but is more suitable for busy airports, because the airplane stands are situated in rows in front of the main building, and mobile lounges or buses transport the passenger. An advantage of the transporter type is: a very short terminal frontage can serve many aircrafts simultaneously.[17]

Local Character (Connotation): City Portrayers

To discuss airports as portrayers of regional character, its respective city should be studied. Therefore, this section studies the history and culture of Sulaymaniyah city to make arguments in the investigation of the case study in chapter (5).

History of Sulaymaniyah City

Sulaymaniyah,[18] a city in the Kurdistan region of Iraq, is surrounded by the Goizha, Azmar and Qaiwan mountains in the northeast, the Tasluja hills in the west, and the Baranan mountains in the south. Its climate is semi-arid with cool, wet winters and hot, dry summers.

Ibrahim Pasha, a young ambitious Kurdish prince, established the city as the new capital of the Kurdish principality of Baban on November 14, 1784, and named it after his father, Suleiman Pasha Baban. He inaugurated the city in a region known as the land of *Zamwa* in the Gilgamesh epic. As a mountainous region, this location was a natural fortress that was a good buffer from invasion. The city grew around a place of worship, *Mzgawte Gawra* (meaning the big mosque), built in 1785. The mosque contained a vast library that

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16. Ibid, 125.
17. Ibid, 126.
18. The city's name has many alternative spelling, like: "Sulaimania, Sulaimaniyya, Suleimaniya, Silêmanî, Sulaymaniyya, Süleymaniye, As Sulaymaniyah, Sulaymaniyah."

made it a hub for knowledge and social interaction. Gradually, the people built everything else around the grand mosque: a marketplace (or a bazaar), grand homes, schools, and hammams.

Sulaymaniyah historian Ako Ghareb tells the story of the city's establishment: "Unlike many of the towns and cities in the region, Sulaimania did not develop or grow to become a city—it was built to be a city. Sulaimania was cosmopolitan in culture from its very founding."[19] Ghareb adds, "It was his [the prince's] 18th century Mesopotamian 'Camelot,' intended to reflect those cities—from Alexandria and St. Petersburg to Baghdad and Istanbul—that had so impressed him during his travels."[20] The prince also spent many years studying in the glamorous cities of Istanbul and Baghdad. When he returned to his hometown, Qalachwalan, near Sulaymaniyah, he brought back the dream of building a Kurdish city like the vibrant cities of the Ottoman and Persian empires.

Ibrahim Pasha was an educated prince who encouraged intellectuals from the surrounding areas join in the establishment of his dream city. Those who occupied it were "settlers [that] came from far and wide—Kurdish philosophers, poets and writers from all sides of the Zagros Mountains, exiled royals from western Persia, tradesmen from southeastern Anatolia and forward-thinking entrepreneurs from nearby villages."[21] The city thus became a hub for intellectuals who strove to preserve Kurdish culture and language.

In the early 1800s, refugees from the fallen Ardalan Empire, northeast Persia, immigrated to the city. Among them were Mastura Ardalan, widow of Khasraw Khani Ardalan, ruler of the Ardalan Empire.[22] A respected historian and poet, Mastura wrote the first account of Kurdish history, in Persian, which is still referenced by many scholars. She

19. Tanya Goudsouzian, "Sulaimania: Saving the dream city of a Kurdish prince," *Al Jazeera*, November 21, 2016.
20. Ibid.
21. Goudsouzian, Tanya. n.d. "Sulaimania: Saving the Dream City of a Kurdish Prince." Accessed May 3, 2018. https://www.aljazeera.com/indepth/features/2016/11/sulaimania-saving-dream-city-kurdish-prince-161120120029235.html.
22. Ibid.

died in 1848 and was buried in Sulaymaniyah. Many skilled craftsmen and masons came to Sulaymaniyah as well, along with the exiled Ardalans from the fallen principality. In the city they formed a neighborhood named Dargazen, which means "golden door" in Persian. By the mid-19th century, the city possessed a certain kind of autonomy from the Safavid Empire, under the rule of the Baban clan dynasty.[23] By the 20th century, after World War I and the collapse of the Ottoman Empire, Sheikh Mahmud Barzinji announced the Kingdom of Kurdistan in Sulaymaniyah between 1922 and 1924. The British disallowed the independence, exiled Sheikh Mahmud Barzinji, and ended the kingdom.

Figure 12 Historical photos of Sulaymaniyah city.

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23. Ibid.

Cultural Capital

The Government of Kurdistan entitled Sulaymaniyah as the region's Cultural Capital in December 2012.[24] (Fig. 13) The Kurdish entitling, *Paitakhty Roshnbiry*, translates roughly into English as *Capital of Intellectuals*. Ghareb comments: "Suleimania was always known as a city of intellectuals, reformists and activists. Its people have always gone on the streets to demonstrate and say whatever they have to say. This is where they have staged uprisings. From the very beginning, it had that culture."[25] That, says Ghareb, is how the city was entitled as the region's Cultural Capital.

Sadiq Saleh, a preservationist from Sulaymaniyah, adds, "The intellectuals of Sulaimania also paid special attention to the preservation of the Kurdish language, evident in the number of newspapers, journals and magazines published in the city from the 1920s onwards, such as Zhianawa, Zhian, Zheen, and Ziban—not to mention the poets who defied convention and composed verses in Kurdish."[26] The intellectuals of the city persisted in conserving the Kurdish language, though other cities of the region considered writing in Kurdish to be backward, possibly due to lack of education or resources in Kurdish; back then, educated people were writing in Arabic, Turkish and Persian and going to Istanbul, Baghdad or Persia to study. However, Sulaymaniyah broke that norm, and writing in Kurdish there initiated with city poets. Nali, a significant and famous Kurdish poet, was the first to write in Kurdish, then the poets Salem and Piramerd followed suit. "In this way, Sulaimania [sic] became a nursery for Kurdish culture," Saleh says.

Writing in Kurdish is a significant initiative of the city. It spread out to all Kurdistan cities. In the other parts of Kurdistan, the ruling governments prohibited writing in Kurdish;

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24. Goudsouzian, Tanya, "Sulaimania: Saving the Dream City of a Kurdish Prince." Accessed May 3, 2018. https://www.aljazeera.com/indepth/features/2016/11/sulaimania-saving-dream-city-kurdish-prince-161120120029235.html.
25. Ibid.
26. Ibid.

that is why their new generation either does not speak in Kurdish or cannot write in it. They speak and write in the official language of the country—either Persian (Kurdistan of Iran), Turkish (Kurdistan of Turkey) or Arabic (Kurdistan of Syria). The situation in the Iraqi Kurdistan is opposite: the people speak and write perfect Kurdish but do not speak and write well in Arabic.
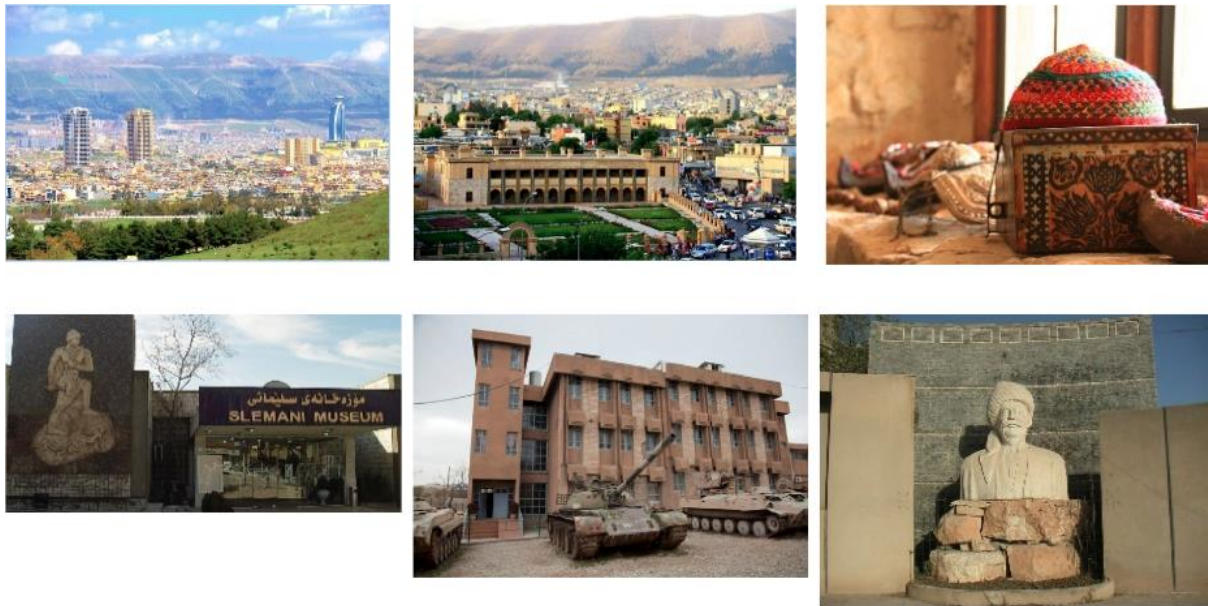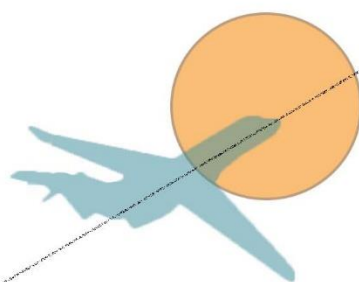

Figure 13: Images of Sulaymaniyah city, the Cultural Capital of the Kurdistan region.

The next two chapters investigate further literature and precedents to articulate data to examine the case study of Sulaymaniyah Airport.

Chapter 3. Theoretical Studies

History: Early Days of Airports

The desire to fly like birds has fascinated the public since the time of the ancient Greek myth of Icarus, for whom his engineer father Daedalus created wings out of feathers and wax, and Scheherazade's story of the flying carpet from *The Arabian Nights*. Men continually experimented with ways to fly until 1903, when Wilbur and Orville Wright took the first powered airplane flight at Kitty Hawk, North Carolina (Fig. 6),[27] chosen for its slope and Atlantic Ocean winds. In 1905, the Wright brothers flew their plane on Huffman Prairie outside Dayton, Ohio, which they chose for its short grass and thermal-driven air currents.[28] In 1909, *La Société d'Encouragement à l'Aviation* built the first operational airfields, or aerodrome, in the vicinity of Paris, named Port-Aviation (Figs. 10-11), but in 1910 Germany created the first commissioned airports for Zeppelin airships (Figs. 7-9). By 1913, many airship sheds were established close to rail hubs in several German cities. These sheds merged airship maintenance with facilities for easier passenger handling. By 1914, these airports had commissioned 1,600 flights serving nearly 34,000 passengers.[29]
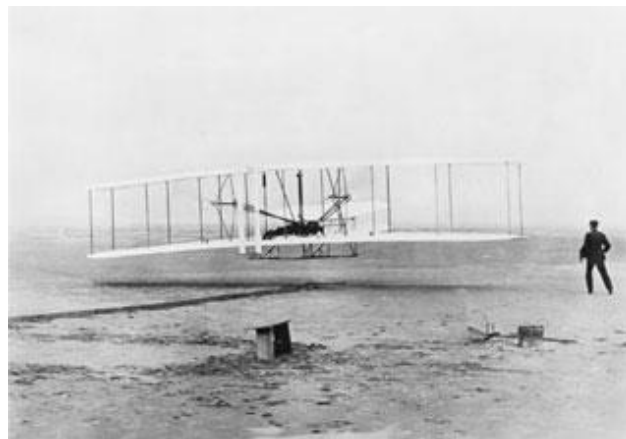
Figure 14: Original Wright Brothers 1903 Aeroplane ('Kitty Hawk') in first flight, December 17, 1903, at Kitty Hawk, North Carolina. Orville Wright at controls.

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27. The Wright Brothers - First Flight, 1903, https://www.archives.gov/historical-docs/todays-doc/index.html?dod-date=1217.
28. Roger Mola, "The earliest airports," *Air and Space Magazine,* https://www.centennialofflight.net/essay/Government_Role/earliest_airports.
29. Ibid.

Figure 15: LZ-7 departed Dusseldorf on its seventh flight, on June 28, 1910.

Figure 16: Mahogany-paneled passenger cabin of LZ-7.

Figure 17: Passengers aboard a luxurious DELAG zeppelin.

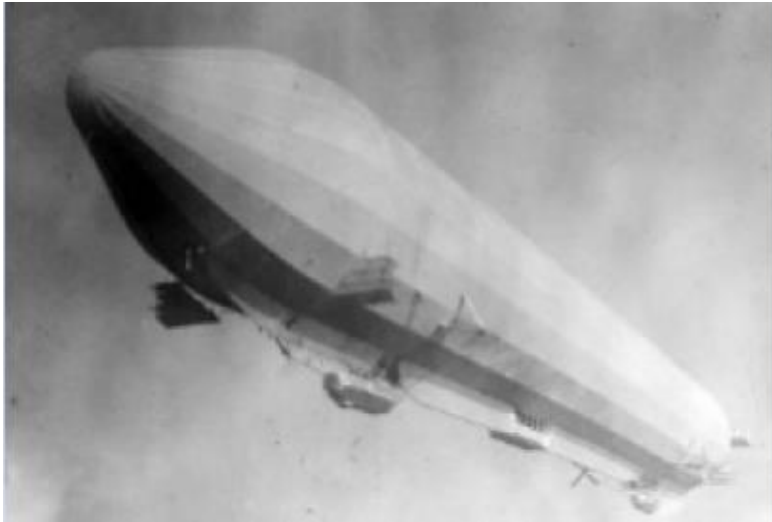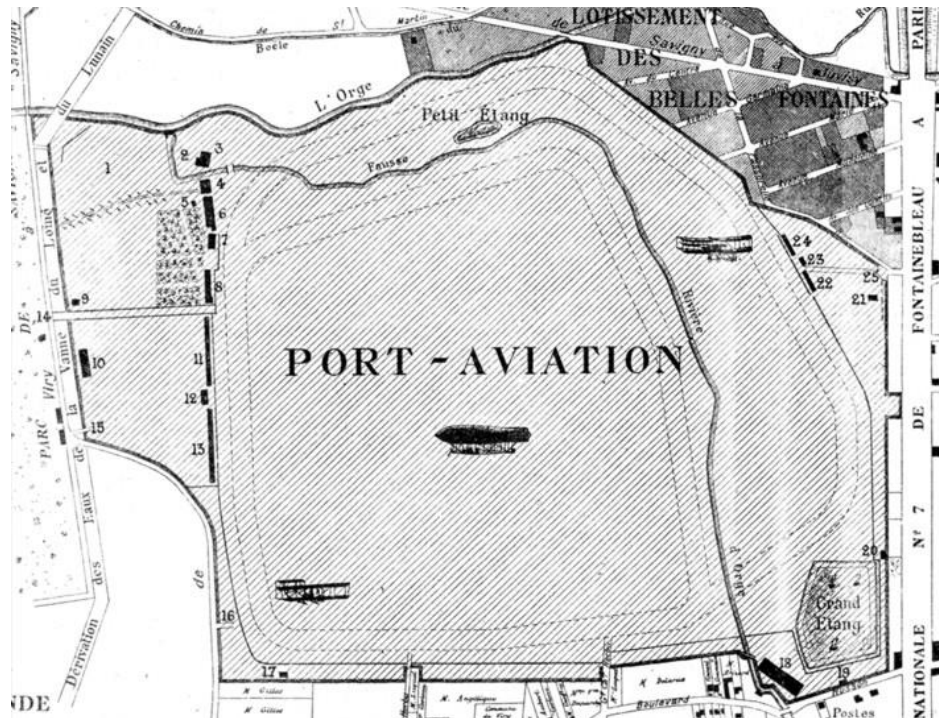**Figure 18:** An early 1909 plan of the Port-Aviation airfield. North is at around two o'clock. 1: Car park. 2: Tennis court. 3, 6: Hangars. 4: Repair workshop. 5: Head mechanic. 7: "Bar Américain." 8: Official tribune. 9: Guards house and telephone. 10: Aeroplane exhibition and sales hall. 11, 24: Covered grandstands. 12, 23: Buffet restaurants. 13, 22: Small grandstands. 14: Main entrance. 15: Entrance to the small grandstands. 16: Entrance to the lawn areas. 17, 20: Bars. 18: Airship hangar. 19-21: Guards houses. 24: Entrance from Route de Fontainebleau.

Figure 19: A later plan, showing the different marked courses and the expansion of the hangars and grandstands.

Air travel became more popular after the victorious use of airplanes during World War I, and passenger terminals began to evolve as designed structures. The first models of airports were a group of sheds scattered around the borders of muddy airfields. Meanwh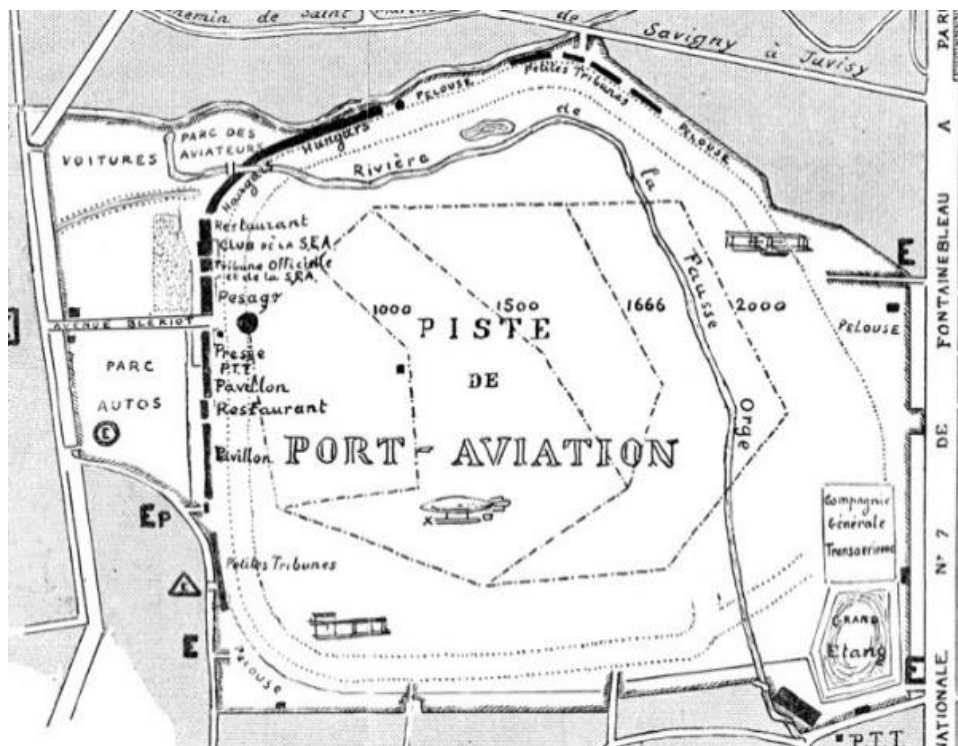ile, first conceptualized the airport terminal as a building with areas for ticketing and passenger waiting.[30] This airport design received special attention as a way to help people overcome their fear of flying; Alastair Gordon argues that Henry Ford focused on airport design at the end of 1920s, to generate confidence in the anxious traveler.[31] A tool for creating such confidence was to design airports as beautiful, impressive places to take off and land.[32] Yet Gordon states that no literature on the style of airport design was available at the time, other than such statements as "buildings should be 'attractive' and 'dignified,' or that terminals have a look of 'permanence' and 'solidity.' "[33] This initiated airport architecture.

Another early inspiration for terminal design was Juan Trippe's insistence that "a terminal, more than just being a waiting room and a ticket counter, should set the stage for the adventure of flight."[34] (Figs. 16 & 17) Until 1929, a Pennsylvania company sponsored a national airport design competition to "crystallize public attention upon the need for well-designed and properly planned airports . . . [with] practical as well as inspirational value."[35] Some of the competition entries were designed in comforting, familiar styles to calm passenger's nerves: some were inspired by railroad stations, and others used overblown monumental buildings to delight the eye, though the competition asked for modestly scaled proposals.[36]

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30. Alastair Gordon, *Naked Airport: A Cultural History of the World's Most Revolutionary Structure* (Chicago: University of Chicago Press, 2004), 13.
31. Ibid, 32.
32. Ibid, 47.
33. Ibid, 41.
34. Ibid, 44.
35. Ibid, 48.
36. Ibid.

Figure 20: Ford Airport, Michigan, "one of the first comprehensively planned airports in America."

Figure 21: Juan Trippe's Pan American Airways terminal, Miami, 1928.

Air travel received another boost after World War II, due to the airplane's role in winning another war. Additionally, family incomes increased, so people substituted flights for long car rides for vacations. Air industry business growth led to higher demand for flight for business purposes.[37] Moreover, airplanes and airports gained more public fascination after appearing in more movies. Thus, during the 1930s and 1940s, airports no longer had the physical capacity to respond to the rapid fluctuation of flights.[38] Therefore, an airport design revolution was necessary. The end of the 1950s and the beginning of the 1960s were the revolutionary era of airport design, due in part to the phenomenal development of jet-plane technology, christening this era the "jet age."[39] The smooth, glossy new look of these jets inspired the era's aesthetic, becoming symbolic of anything modern, mysterious, sexy, and speedy. At this point airport and flight culture infiltrated into movies, books and songs.[40]

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37. Ibid.
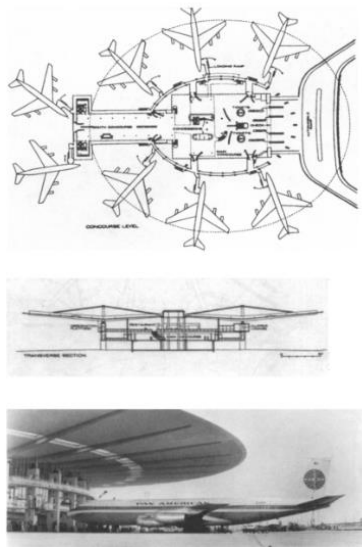38. Ibid, 81.
39. Ibid, 174.
40. Ibid, 175.

Figure 22: Plan, section and image of Pan Am Terminal (Worldport), Idlewild Airport (now John F. Kennedy International Airport), Queens, New York, 1961.
Figure 23: Pan Am Terminal.

Figure 24: "A jet-winged world demanded new forms."
San Francisco International Airport, 1960.

Figure 25: San Francisco International Airport, 1962.

Airports in the Utopian Days

Aviation gave rise to a bird's-eye view of the world, which shifted mental images and concrete perspectives. Different perspectives and angles came into light (Fig. 26). People's imaginations altered. On the first scheduled flight from London to Paris, in 1919, a passenger remarked on how Joseph Paxton's Crystal Palace, a 19th-century icon of glass and cast-iron architecture, resembled a "child's toy" from the sky.[41] This was but one example of how a different angle changed one's perception of a building. While being above everything, in the air, people could now gain a sense of power and feel dominant over architecture and urban planning. Another passenger said, "Everything is new, strange, and delightful."[42] Another was amazed at how London's sprawling suburbs resembled a village from the sky.[43]

On the other hand, French writer and pioneering aviator Antoine de Saint-Exupéry wrote, "The airplane has unveiled for us the true face of the earth."[44] He insisted that the true face of the earth was the one from the sky view. This was how the pilot's view challenged conventional notions of distance and time, giving rise to a new idea of space that distorted traditional forms and scales of buildings[45] and freeing the imprisoned imagination to think outside the box. So, airport buildings were conceived as main stages of city planning by many pioneering architects of the day.

For instance, Le Corbusier "envisaged the airport as a new kind of threshold, around which the city, and the nation, would reshape itself. 'A city made for speed, is made for success.' said Le Corbusier."[46] His vision was therefore to place airports at the cores of cities, thus transforming the entire notion of city core and shaping people's way of living around the

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41. Charles Owen, *The Grand Days of Travel* (New York: Smith mark Publishers, 1980), 120; cited in Gordon, 65.
42. Gordon, 65.
43. Macmillan, the Air-Tourist's Guide to Europe, 35; Thomas, European Skyways, 56-57.
44. Saint-Exupery, *Wind, Sand, and Stars;* cited in; Gordon, 65.
45 Gordon, 65.
46. Ibid, 69.

airport. Thus, he advocated for urban renewal with no clemency for the past. In 1925 he proposed to level entire sections of central Paris and replace them with skyscrapers[47] and a central air station at the city center (Figs. 27 & 28). However, some architects criticized these utopian ideals: "Placing an airport at the city center was a naive and dangerous suggestion, one that would require pilots to maneuver aircraft between high-rise towers and land on a precariously narrow platform. Like most utopian architects of the period, Le Corbusier understood little about aviation: he had never been on an airplane."[48] In reaction, by 1930 Le Corbusier altered his utopian aviation views[49] and no longer advocated for airports inside cities: "The beauty of an airport, is in the splendor of wide open spaces." [50] (Fig. 29)
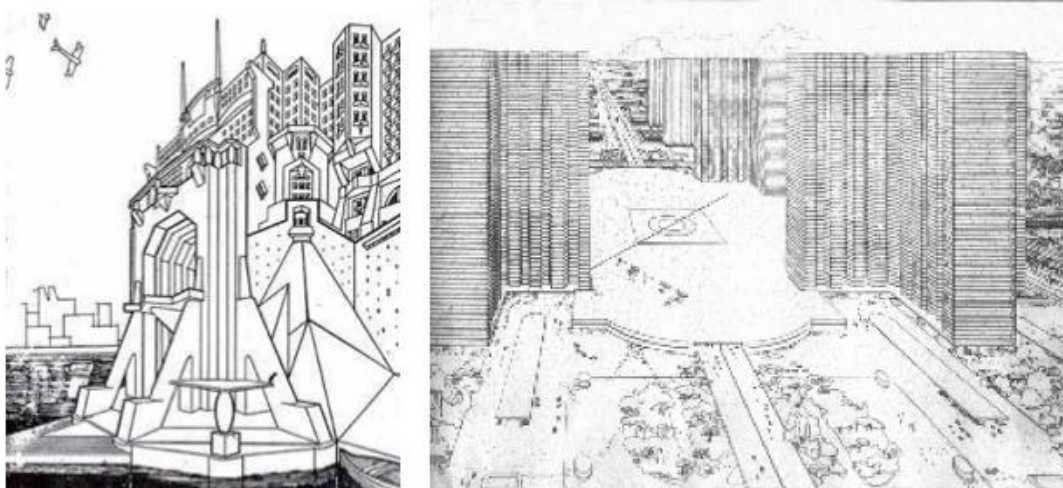

Figure 26: "Futurist building as seen from a passing airplane." Virgilo Marchi, 1924.

Figure 27: "A city made for speed is made for success." The central air station in Le Corbusier's city for 3 million inhabitants is flanked by four skyscrapers. 1922. (Gordon, 68)

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47 Ibid, 68.

48. Ibid, 69.

49. Ibid, 83.

50. Ibid, 84.
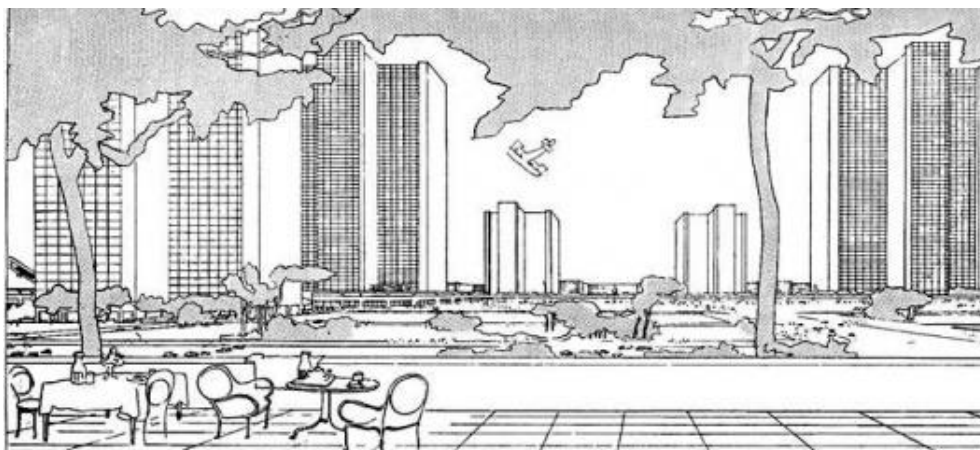
Figure 28: A perspective of Le Corbusier's urban renewal project for central Paris.

Figure 29: "The beauty of an airport is in the splendor of wide open spaces!"
Le Corbusier's sketch for a naked airport, 1946.

London also got its share of utopian futuristic proposals for the airport. In 1931, C. W. Glover, an architect in London, proposed for King's Cross a raised-up airport (Fig. 30) in the shape of a giant wheel held up by roofs of tall buildings. British air minister Viscount Swinton disputed such ideas: "A certain number of rather unintelligent people ask me, 'When are you going to establish an airport in the middle of London?' The answer is, when everybody in London has become so air-minded and unaesthetic as to cut down every tree in Hyde Park and turn it into an aerodrome."[51] Rob Mallet-Stevens believed an airport should

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51. "Airport for London Opened at Gatwick," *New York Times,* 7 June 1936; cited in Gordon, 68.

give a new bold entry spot to Paris: "Tomorrow, travelers and tourists entering the French capital will arrive at the future airport of Paris. Their first sight, before the Eiffel Tower, before Notre Dame, before the Louvre, before Paris' many marvels, will be the airport."[52]

Figure 30: Glover's proposal for a raised airport in London.

Airports as Storytellers

Wings around South America[53]

Telling the story of a nation's culture by means of an airport has a long history. From the early days of airports, people endorsed flying as a convenient way to become acquainted with other nations and their cultures, due to the speed of the transportation. In 1934, American author Alice Dalgliesh and American painter Katherine Milhous took a two-month trip around South America to gather information and images for a book relating the story of

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52. Gordon, 69.

53. Studying Dalgliesh's book is done through Gordon's seminal work on airports. In certain cases, Gordon's comments and interpretations of Dalgliesh's text are also analyzed.

South American cultures, to this end: "The Americas must learn to know each other and stand together… The unity of the Americas is the hope of the universe."[54] Traveling fosters more understanding and unity among diverse cultures, especially air travel, which allows trans-world visitation and communication. Airports are therefore a convenient ground for portraying and introducing the very cultures visitors seek to explore and get to know.

Dalgliesh and Milhous visited numerous South American countries: "Barranquilla; Panama; over the equator to Quito; over the desert to Peru to Arequipa; over a sea of cobalt blue to Chile; over the mountains to Argentina; over forests to Brazil, down to Rio, up the coast to Bahia and Para."[55] Time restrictions impeded them from exploring all cities they landed in, so they visualized a particular city by observing its airport and the surroundings from the sky. The airports provided enough signifiers for them to discern the lifestyles and cultures of the people of the corresponding cities. This leads us to think that airports, in their early days, truly represented their places, perhaps because air travel showcased a large amount of area while in the air before landing, thus giving a strong impression of its characteristics; e.g., its nature (desert, forest, sea, mountain), its urban planning (sprawl or compact), its architecture (traditional or modern, low rise or high-rise), its roads, its types of land transportation, etc. Hence, after landing in the airports, one could get a sense of any element they saw by having the bigger picture already in mind from observation from the air.

Dalgliesh describes the visited places in different ways. Sometimes she tells a story from observing a place while flying over it. For example, she describes the flight to Quito, Ecuador, as "fold after fold of crumpled yellow-green velvet, with patches of darker green dotted with white flowering trees and small Indian villages, here and there a curl of smoke

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54. Cited in a review in *New York Herald Tribune Newspaper*. "Review of Wings around South America." Literature Resource Centre, Gale, 2017.
55. Ibid.

rises from a solitary hut."[56] The image of the hut, village and flowers can tell much about the

character of the place and the culture of its people. In other cases, she gathered information

from the remote fueling stops at the airports and reported her observations: "Here [in Chile],

with nothing but desert and bare mountains around it, is a modern airport building with huge

plate-glass windows and furniture of chromium and red leather."[57] The details and quality of

materials of the airport terminals can also tell much about a place, as the first signifier of its

culture, without requiring a visit to the city itself. In Quito's airport she saw Indians and

described them as "very light gold-colored people who look quite oriental."[58] Since diverse

cultures clash at airports, they give us chances to meet diverse ethnicities.

Alongside Dalgliesh's written depictions of her observations, Milhous sketched the

scenes, often going around the city to expose herself to many of its cultural elements.

However, strict airplane reservations limited her time to explore: "Airplane reservations

cannot be changed, so we must leave the quaint streets and terra-cotta roofs of Quito."[59]

Where time was limited, Dalgliesh told culture stories from her observations of the airport

architecture, environment, and impressions. Thus, as Gordon states, "the means become the

end as the scope of the narrative narrows to immediate airport impressions."[60]

Airports dominate her narrative. Dalgliesh depicts the terminal at one stop as "set

against the background of blue-green mountains... Its roof is the brightest green, and it is

fringed with scarlet poinsettias." [61] She describes another terminal as "a doll's house, white,

covered with climbing geraniums and set here like a tiny oasis in a desert."[62] When the

airplane took off in Asuncion, Paraguay, she merely observed the scenes from the cabin

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56. Gordon, 96.
57. Ibid.
58. Ibid.
59. Ibid.
60. Ibid, 96-97.
61. Ibid, 96.
62. Ibid.

window and saw "native huts, coconut trees, red-clay roads, and a dripping greenness."[63] At

their stop in Rio, at Santos-Dumont Airport, she ran across a cageful of green-and-blue

parrots, but the airport design impressed her the most, having been influenced by Le

Corbusier's naked airport philosophy. Gordon depicts this as follows: "A hanger by Marcelo

and Milton Roberto has a daringly cantilevered roof that appears, in section, like the wings of

a condor. A sleek new seaplane terminal by Attilio Correa Lima is clad in yellow travertine.

Slender columns skewer the structure from floor to roof, while spiral staircases, both inside

and outside, create a sense of movement."[64] Dalgliesh wrote: "Not only are the buildings

handsome, but there are pergolas leading to the seaplane docks; arbors, palms, and flowering

trees. Even the sidewalks outside the building make a lovely pattern, their concrete squares

crisscrossed by ribbons of grass." [65] The architecture of the airports and their environment

thereby governed the narrative of many of her stories.

Dalgliesh and Milhous arrived back in Miami: "The sun is setting, and there, in the

golden light, is the International Airport, we step onto the soil of our own country with pride

and a sense of achievement." [66] Gordon concludes their journey: "It was a sense of

achievement clouded by uncertainty. How was one expected to digest such fleeting

impressions from so many different cultures? As one Latino has scolded her: 'You North

Americans hurry so!' Impressions of the landscape and the indigenous cultures were reduced

to snapshots. Instead of a deepening understanding, Dalgliesh was left with a sense of

imminent departure."[67] Gordon does not seem to be satisfied with Dalgliesh's efforts to

perceive other cultures through the lens of snapshot observations of their airports.

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63. Ibid, 97.
64. Ibid.
65. Ibid, 97.
66. Ibid.
67. Ibid, 98.

This story, however teaches us about the significance of airport architecture in cultural communication. First, it shows us how much the design of terminals can reveal about their cultural context and background through the first impression it imparts on the traveler. Second, the story emphasizes the importance of the sky view of the cities one experiences before landing at the airports. Before landing, people perceive the area from the aerial "big picture" perspective: the nature, the architecture, the urban planning, the transportation system. These elements participate in the formation of the culture of cities. Thus, they need to be considered in the airport design, because, after landing, people will be more engaged with the airport environment with the bigger image from the sky fresh in their minds.

Airports Today

Abundant literature investigates airport design. In *The End of Airports*, Christopher Schaberg[68] writes about the role and character of airports today, based on his experience as a former airport employee. From his perspective, airport design has transformed from magical and entertaining to tedious and dull, as his book's title denotes: "The title of this book refers to the end of airports as romantic places; the end of airports as the site of excitement; the end of airports as apexes of travel culture. The end of airports means the end of our ability to appreciate airports, to inhabit them as dynamic, fascinating, forward-looking spaces."[69]

Pico Iyer,[70] in his essay *Where Worlds Collide*, investigates the particular airport culture that is impacting people's lives and customs outside of the airport. Based on his observations of Los Angeles International Airport (LAX), his theories are applicable to many airports worldwide. He begins by describing the experience of a foreigner when first entering

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68. Christopher Schaberg is specialized in twentieth-century American literature and critical theory. He is also the author of three books on airports: T*he Textual Life of Airports: Reading the Culture of Flight* (2012), *The End of Airports* (2015), and Airportness: The Nature of Flight (2017).

69. Schaberg, 3.

70. "Pico Iyer is a British-born journalist, novelist, and travel writer of Indian descent who grew up in Britain and California. Unlike typical travel writing, Iyer's works explore unusual or unexpected aspects of the places he visits." Source: https://www.academia.edu/12854396/Iyer_Pico_Where_Worlds_Collide_essay_1995.

Los Angeles Airport: people expect to see beautiful sea and palm trees upon arriving in Los Angeles, but instead they face a jumble of signs and billboards after leaving the airport. Iyer also comments on his initial impressions of Los Angeles Airport upon arriving in the U.S. as an immigrant: the poor way he was treated in the airport impacted his life. So, he argues that an airport should be a welcoming place to people of different backgrounds and cultures, to soothe the anxiety of travelers and ease their transition to a new culture.

Art installations, ethnic imagery and sociocultural activities reflecting the city's cultural heritage is one way to do this. For example, this is done at Auckland Airport in New Zealand through a partnership between the airport and the Museum of New Zealand, Te Papa Tongarewa: "The Marae is the cultural heart of the airport—a place to enhance cultural understanding and share Maori history with all visitors, both local and international. One of our Marae's most important purposes is to provide a culturally sensitive venue for the collection of tupapaku (deceased) on their return to New Zealand (Fig. 27). It hosts official functions including welcoming and firewalling visiting dignitaries. It is also used for other cultural and social activities and educational programmes."[71] This is how airports can be transformed cultural as well as transportation hubs by giving visitors friendly, informative introductions to the cultures they are about to experience in the city and to facilitate their transitions to them, so they do not experience as much "culture shock."

Figure 31: The waharoa (gateway) and wharenui (meeting house) of Te Manukanuka o Hoturoa marae.

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71. AIA Corporate. "Supporting Diversity." AIA Corporate. Accessed May 29, 2018.
   https://corporate.aucklandairport.co.nz/corporate-responsibility/culture-and-heritage.

Airports as Regional Character Showcases

The reasons why airports should be designed to portray cultural characteristics of their respective regions are many. Below are a few.

Airports as Portals to Cities, Regions, and Countries

In the early days of airports, Europe deemed them gateways, as Gordon states: "First generation airports in Europe were designed to function as national gateways. Historical themes were alluded to, such as a Palladian manor for Croydon, the Petit Palais for Bourget, and a Renaissance palazzo for Littorio airport in Rome."[72] Early airports also tried "to evoke a ceremonial sense of entry and departure." In addition, gateways need to provide a sense of individuality to its region, as Kam Jandu, Budapest Airport's Chief Commercial Officer, argues: "The first impression is vital in shaping the opinion of a city on arrival. The airport is the first, and last, impression a traveler experiences, and that should be a heart-warming experience."[73] Creating a unique arrival and departure experience is crucial in representing the local region and its community, in part because it piques the traveler's curiosity about what the surrounding region can offer.[74] Airports also make travelers feel welcome to the region by creating a smooth transition from airplane to concourse to terminal and to region with a regional message, which also gives the region an economic boost.[75] Consequently, airports become the first criteria by which visitors judge cities, in addition to the initial answerers of their questions about what lies beyond, as Marco Polo expresses in Italo Calvino's *Invisible Cities:* "The man who is traveling and does not yet know the city awaiting him along his route wonders what the place will be like, the barracks, the mill, the

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72 Gordon, 47.

73. Lisa Fitzpatrick and Alexandra Bluell, "Creating Sense of Place in Today's Airports*" Aviation Thought Leadership*, no. 2 (2015): 2.

74. Ibid, 2.

75. Ibid, 6.

theatre, the bazaar."[76] Since today's airports initiate routes to a city, they must impart an intriguing sensation of how the city will appear to visitors and stimulate their excitement about what the rest of the city will offer them.

Gateways represent the culture and character of their cities and regions also because such gateways are frontiers. Frontiers were originally known as the lands that separated nations, states, cities, etc., from each other. As such, frontiers are crossed through land (desert, mountain), water (oceans, rivers), or sky (airports as the gate). Augé defines a frontier as "not a wall, but a threshold."[77] For him, anything that differentiates people is a frontier, including a language: when one learns another's language, one crosses a border and joins the other person culturally. Augé adds, "So our ideal ought not to be a world without frontiers, but one where all frontiers are recognized, respected and permeable."[78] He embraces differences among nations while encouraging them to cross each other's frontiers and learn about each other's cultures. Based on his argument, we can hypothesize that culture is also a frontier, hence must be "recognized, respected and permeable." That is why airports are ideal places for portraying the cultures of their cities, to let people know what to expect upon entering the city so they can permeate it more comfortably. Therefore, the city's unique character and local flavor must be reflected within the airport architecture. Helsinki Vanna Airport is an example of portraying the regional character in the interior (Figs. 32-34).

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76. Calvino, 41.
77 Augé, XIV.
78 Augé, XV.

Figure 2: Inside Helsinki Vantaa Airport: "Relaxation Area includes sleeping tubes, pods and silence chairs, while its ambience is designed to reflect Finnish nature, with ice and snow-inspired features."

Figure 3: Inside Helsinki Vantaa Airport, "The decoration of the Relaxation Area reflects elements of Finnish nature, such as ice and snow."

Figure 4: Inside Helsinki Vantaa Airport

Making an Airport a Place

This would be an antidote to airports becoming non-places, as Augé observed. Rafat Ali, CEO of the travel news site *Skift*, argues: "The future of airports, not as an antiseptic non-place, [is to be] rooted in the local culture and integral part of the urban life."[79] Inscribing airports with local culture rids them of non-place status.[80] Augé called these non-places "spaces of circulation, consumption, and communication"[81] that lacked the qualities concerned with identity of a place, as the result of super-modernity.[82] When regional character integrates into airport architecture, however, it no longer assumes the qualities of non-places, as it transforms the airport into a true destination rather than a pass-through corridor. By emphasizing connecting people with culture and place as a storyteller or 'cultural connector,' airports also assume an authentic identity.[83] Ali also argues that inscribing regional character and culture into airports is a reaction to the evolving lifestyles in which people incorporate culture, shopping and leisure into their search for meaning. By contrast, local cultural traditions, symbols and lifestyles are becoming an inspiration for airport designing concepts and commercial initiatives, particularly when combined with technology-driven design.[84]

Tallinn Airport and Copenhagen Airport are examples of making an airport a place through marketing and activities. (Figs. 35-38)

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79. Rafat Ali, "Adding a Sense of Place and Culture to Airports." *Skift,* December 5, 2012. Accessed May 3, 2018. https://skift.com/2012/12/05/adding-a-sense-of-place-and-culture-to-airports/.
80. Ibid.
81. Augé, VIII.
82. Augé, 63.
83. Ibid.
84. Rafat Ali, "Adding a Sense of Place and Culture to Airports." *Skift,* December 5, 2012. Accessed May 3, 2018. https://skift.com/2012/12/05/adding-a-sense-of-place-and-culture-to-airports/.

Figure 35: Inside Copenhagen International Airport: Food market deli.

Figure 36: Copenhagen Airport: "Gastronomy has always been one of the strongest trademarks of Denmark. Nordic Dining concept giving travelers a taste of the very best of what Copenhagen and Denmark have to offer."

Figure 37: Inside Tallinn Airport: "The objective of the airport is to be an example for Estonian companies in terms of good management, corporate social responsibility and outstanding business culture."

Figure 5: Inside Tallinn Airport: Business Card Exchange wall.

Airports as 'Spend Time' Spaces

Since the attacks of September 11, 2001, time spent in airports has increased dramatically as security checks have become more stringent, hence longer. Accordingly, airports shifted from being a 'pass through' space into a 'spend time' space, so therefore the time in transit must be more worthwhile. Exhibiting the city's unique characteristics to travelers is one way to make this happen, to entertain passengers and give meaning and value to their time spent at the airport.[85] Consequently, we see the emergence of cultural hubs, and even museums, in airports to enhance passenger satisfaction and deter boredom. Hunter Clayton, technical director in Gensler's aviation and transportation studio, argues, "Many airports lack a distinct sense of place. They fail to reflect the culture of their host cities, preventing travelers from experiencing their terminals as unique spaces. By not establishing a sense of character within their walls, these airports miss out on an opportunity to elevate passengers' travel experience."[86]

Since uniformity among airports often causes passenger boredom, each airport must offer a unique environment that celebrates the place's distinguishable culture, including its sense of place, history, hospitality, cultural offerings, art traditions, natural environment, etc. In his criticism of places that suffer from uniformity and lack sense of place, Marco Polo depicts the city of Trude as follows: "If on arriving at Trude I had not read the city's name written in big letters, I would have thought I was landing at the same airport from which I had taken off. The downtown streets displayed the same goods, packages, signs that had not changed at all. I already knew the hotel where I happened to be lodged . . . The world is covered by a sole Trude, which does not begin and does not end. Only the name of the airport

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85. Matt Honegger, "Culture and function: Airports have transformed from transportation hubs into shopping malls," Airport World Magazine, 2013.

86. (Hunter Clayton, 2011, p. 4)

changes."[87] The problem described here is the lack of distinction specific to a place. Without regional influences, cities would turn into a similar case of uniformly branded places. Integrating the city culture into its airport is a way to create distinction among different airports around the world. Polo continues: "Why come to Trude? I asked myself. And I already wanted to leave."[88] Repetition creates tourist boredom, leading to losing interest in a place.

Uniformity and repetitiveness in airports was prominent in mid-20th-century modernist-inspired airports, which were straightforward white box-like structures lacking ornament and decoration.[89] Airports began to lack identity specific to their location, due in large part to the "international style" uniformity of modernism. Perhaps, since the birth of airports were concurrent with the beginnings of modernism, the applications of the modern movement logically influenced airport design. Consequently, airports stuck with the white box form for a longer time, which expunged the excitement over new, impressive airports the public experienced in their infancy.

In addition, Tuomas Silvennoinen, chief architect of Helsinki Airport's new terminal expansion, advances another reason for uniformity in airport design: "The main reason probably has to do with the processes that regulate and dictate the aviation industry. These regulations often emphasize security measures. Another reason would be the international nature of airports, which inherently results in the commercial services being very similar in each location. Passengers will invariably associate both features with airports."[90] Thus uniformity is required to some extent, since it creates a standard language among different

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87. Italo Calvino, *Invisible Cities*. Translated by William Weaver. (San Diego: Harcourt Brace, 1972), 128.

88. Ibid, 128.

89. Stephen Cousins, "Character Building," *Passenger Terminal World* (2014 January), Dorking, Surrey, UK: UKIP Media and Events, 33-36; Lisa Fitzpatrick, "Creating a Sense of Place in the Airport Terminal: The Dynamics of Connecting the Terminal to the Airport and Its Region." (master's thesis, Marymount University, 2014), 10.

90. "Why Do All Airports Tend to Look the Same? Read What an Architect Has to Say." Finavia. Accessed June 22, 2018. https://www.finavia.fi/en/newsroom/2017/why-do-all-airports-tend-look-same-read-what-architect-has-say.

destinations that helps passengers with wayfinding. Yet engaging more local influences into terminal design can counter that uniformity aesthetically and introduce passengers to the culture of the city they are about to enter. And the clean lines and planes of the modernist style certainly provide the "clean slate" necessary for such cultural enrichment.

Figure 39: San Francisco International Airport: "A serene and secluded yoga room is in sync with the city's early embrace of yoga."
Figure 40: Long Beach Airport: "evoking Southern California lifestyle right up until the boarding call sitting under a palm tree beside a fire pit "

Figure 41: Vancouver International Airport: "There are wolf eels, sea stars, sea urchins, and more than 20 different species of fish in the aquarium, underscoring the coastal city's eco-friendly ways."
Figure 6: Brussels Airport: "Belgian icons, both historical and cultural, decorate the terminal. Tintin's whimsical red rocket shows pride of place at the heart of the airport's new terminal connector."

Airports as Elements in the Nation-Building Process

Many argue that airports are essential to nation-building and kindling pride in one's nation. Richard Gammon, HOK's global director of aviation and transportation, states: "As big civic buildings, [airports are] often used as a way of expressing pride in a state or nation

or city, and we see that throughout the world. In the Middle East and Asia right now…from Dubai and Doha to Shanghai and Beijing…every major airport is a status symbol trying to demonstrate the wealth and power of its state."[91] This is how nations use airports to introduce themselves to the world. In addition, Rafat Ali stresses the significance of airports for smaller nations: "Especially for smaller countries, a classy, modern airport is a sign of the country's emergence to the world stage, a form of 'soft power' that impresses foreign visitors."[92] Airports can thus identify a newly emerging or third-world country as well, to provide better opportunities for that nation's future. In light of this, Ali comments on U.S. airports lagging behind newly forming countries in responsible airport design: "The U.S. is a mature market with built infrastructure that makes it nearly impossible to aim for ambitious master-planned airport cities. Unlike emerging countries with plenty of land to build, it is much more expensive to expand [in the U.S.]. A century of outdated planning means that airports are often very far from the urban core, surrounded by unattractive businesses such as warehouses and undesirable housing.[93]

Newly emerging countries thus have a better opportunity to harness the symbolic qualities airports can offer to their nation and make airports convenient starting points for the nation-building process. (This is discussed more in the next chapter, when analyzing the precedent of Changi Airport.)

Regional character Portrayal to Enhance Sense of Place

This combines both physical characteristics of a space and the emotions and feelings the unique location or its environment generates in the traveler.[94] Sense of place brings the

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91. Bonnie Tsui, "The next generation airport is a destination in its own right," *City Lab*, Aug 26, 2014.
92. Rafat Ali, "Why do American Airports Lag Every Other Region in the World," *Skift*, Oct 28, 2013.
93. Ibid.
94. D. M. Hummon, *Community Attachment: Local sentiment and sense of place* (New York: Plenum Press, 1992), 253-278; Lisa H. Fitzpatrick, Alexandra Bluell, "Creating "Sense of Place" in Today's Airports," *Aviation Thought Leadership*, Volume 2. (2015): 3.

traveler into contact with the airport while connecting it to the geographic location's distinctive culture, lifestyle and features. Elements that create sense of place include culture, architecture, interior design, technology, sound, aromas, cleanliness, light, touch, temperature, safety and access.[95] This means sense of place goes beyond the place's physical attributes and visual features to integrate other senses. The combination of all of these elements generates a culturally relevant setting and an overall holistic environment that reflects the regional character in many of its dimensions and characteristic properties. A unique sense of place, specific to a certain location, offers travelers a desirable experience, a local flavor, and an intimate feel that boosts the emotional and passionate connection today's travelers seek.[96] A distinct environment unique to a place creates a warm experience that leaves travellers with strong first and last impressions of a place, hence a more memorable experience in that city, region or country.

Objective and external influences on an environment contribute greatly to the concept of sense of place. Yet so do people's subjective experiences of the environment, because human emotions and senses are heavily involved, as Hashem Heshemnejad[97] maintains: "Sense of place encapsulates the complex relationship, associations and interplay between man's subjective experiences of people (memories, traditions, history, culture, and society) and the objective influences of the external environment (landscape, smell, sound, etc.). Thus, sense of place is not predetermined but created from people-places interactions."[98] That is, physical attributes alone do not create a desired sense of place. People's subjective reactions to it round out the final, total experience of the place.

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95. Ibid, 3.

96. Ibid, 3.

97. Professor of architecture at IUST (Iran University of Science and Technology) & IAU (International American University)

98. Hashem Hashemnezhad, "Between sense and attachment: Comparing the concepts of place in architectural studies," *Malaysia Journal of Society and Space* 9 (2013): 98.

Therefore, the stimulation of senses and the formation of culturally relevant spaces greatly enhance the traveler's experience at an airport by merging the traveler's experience with the airport's architectural form, interior space and other functioning elements. Since airports are fundamentally designed to accommodate people from many different backgrounds, creating a singular space that effectively serves people from diverse contexts is a challenge. Therefore, a balance between global and local language of sense of place is a *sine qua non* in responsible airport design.

Figure 9: Nassau Airport in Bahamas: "the airport's undulating roof line"

Figure 9: Nassau Airport in Bahamas: "a riotously colourful pair of bronzed figures, dancing in full Junkanoo costume, the dazzling traditional street performance art of The Bahamas."

Figure 9: Nassau Airport in Bahamas: "a large-scale installation featuring The Bahamas' pink feathered ambassadors, West Indian flamingos"

Chapter 4. Precedents

Sulaymaniyah Skyline
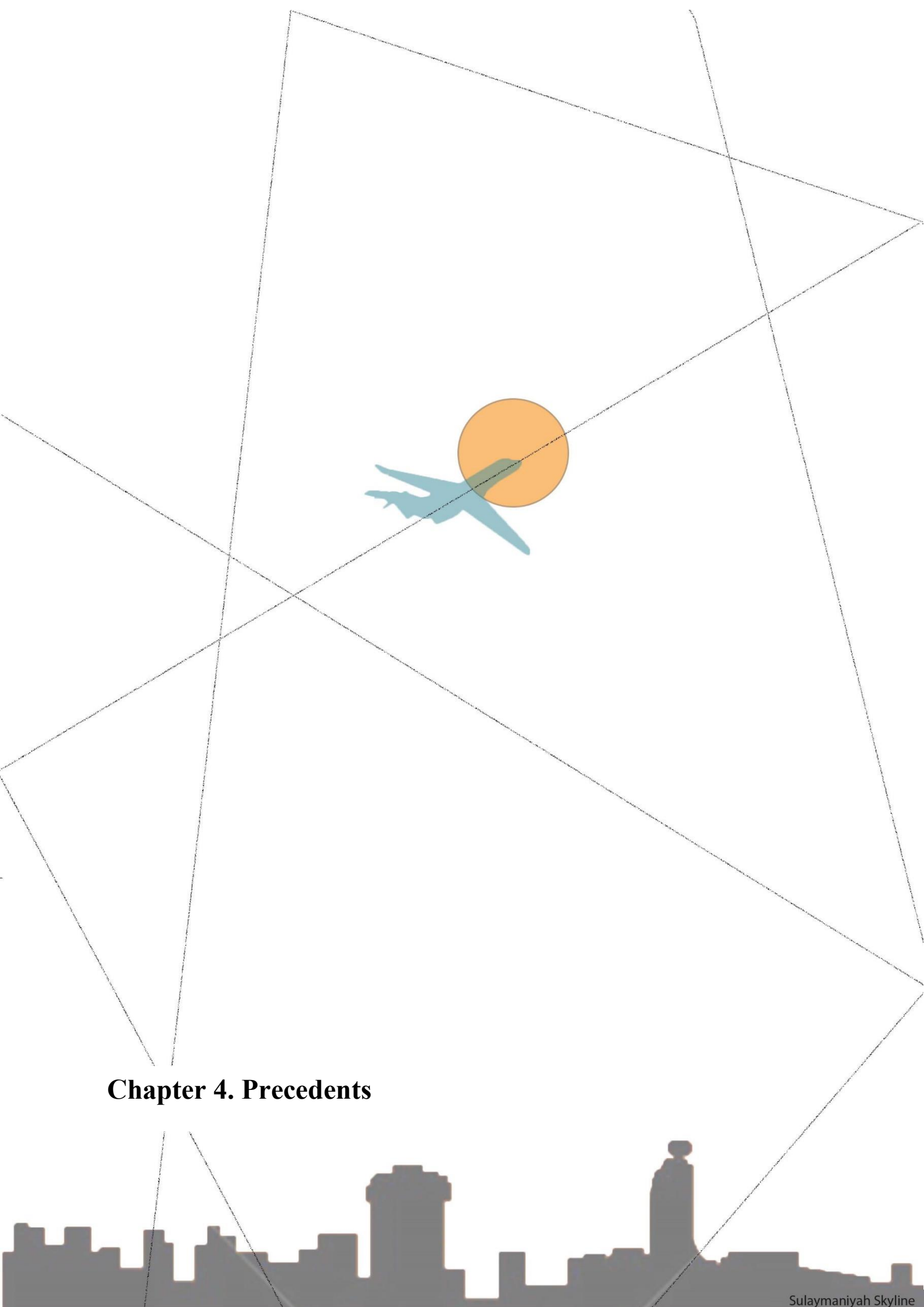
Introduction

This chapter explores precedents according to four themes: (1) the global background of Tempelhof Airport in Germany, named the "mother of all modern airports" by Norman, Lord Foster; (2) the regional background of airports surrounding the Kurdistan region, namely Baghdad Airport in Iraq and Kuwait Airport: (3) Changi Airport in Singapore as an analogous nation precedent; and (4) Marrakech Airport in Morocco as an analogous typological precedent.

These airports are studied through the following lenses: (1) the cultures of the airports' cities; (2) the airports' architecture; (3) the semantic system, or the representation of the design concepts, architectural forms, exterior elements and interior spaces of the airports. Thus, this chapter focuses on theory of representation before analysis of the precedents.

Representation

Since representation in architecture is conducted through signs, we need to scrutinize semiotic theories to understand its applications. For Umberto Eco, architecture is a challenging field in its application of semiotic theory, since architecture is expected to be functional for its users rather than communicative to them. This leads Eco to distinguish between "the primary function—architecture as functional object—and the secondary function—architecture as symbolic object."[171] In other words, semiotics in architecture lay in the secondary function of the architectural objects. A semiotic system conveys its message through the denotation and connotation of the elements in architecture.

The denotation of an architectural object depends on its function.[172] The mission of architecture is to provide a specific function to meet a human need, and a building's primary function is to be inhabitable. In other words, an architectural object connotes 'a form of

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171. Neil Leach, *Rethinking Architecture: A Reader in Cultural Theory*. (London: Psychology Press, 1997), 173.
172. Ibid, 176.

inhabitation,' and each architectural object functions toward fulfilling that goal of inhabitation. Eco gives an example of the function of a window and its denotation when alone or when put in a composition. When a window is observed as part of the overall composition of windows in a façade, that window's denoted function can fade away and become a mere element of the façade's architectural (visual) rhythm. This is analogous to reading a poem: the meanings of the individual words may recede in the background so one can enjoy the formal play of the "contextual juxtaposition" of the sign vehicle. That is why architects may occasionally put in false windows, so the denoted function of those windows is only to create an illusion. Yet they are still considered and enjoyed as windows. Moreover, the shape of the window plays a role in the object's symbolic function and meaning. The connotation lays in the window's form and shape, which can be a rounded, ogee or pointed arch, or part of a curtain wall, etc. The reason for selecting such shapes determines the ideology and the connotation behind the proper role or existence of the window in the overall façade composition.

An architectural object can connote to a certain ideology beyond simply denoting its function. Eco gives the example of a cave, the hypothetical model of how architecture began, to explain architectural connotation. The cave denoted a shelter function. However, it could have connoted 'group' or 'family,' 'familiar surroundings,' 'security,' etc.[173] Sometimes the architectural connotation depends on the background and past experiences of the individual; other times it may have a unified interpretation. Eco also doubts that the symbolic function and connotative nature of such architectural objects are less functional than their primary functions. He questions whether the connoted function of the cave, as a symbol for closeness and familiarity, is less useful than its primary denoted function as a shelter; from a semiotic perspective, the connotation is dependent on the denoted object, but that doesn't make the

173. Eco, Rethinking Architecture: a reader in cultural theory. *Function and Sign: The Semiotics of Architecture*, 178.

connotation less valuable than the primary function. Symbolic capacities regarding life in society are not less useful than functional capacities. Therefore, the title of *function* should be extended to the object's other uses; that is, its communicative nature should be considered a function besides its main denoted function. Eco considers the denotation of the object to be the *primary function,* and its connotation to be its *secondary function.* Thus the aforementioned airport precedents are analysed using this theory.

<div align="center">

Global Precedent

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Tempelhof Airport

Tempelhof Airport, located approximately 2.5 miles (4 kilometres) south of Berlin's city centre, dates back to 1935 when the Nazi regime commissioned architect Ernest Sagebiel to design it. When the Nazis came to power, they immediately decided to replace the existing 1923 airport with a larger one to better showcase their power. Tempelhof was Europe's largest airport for a long time. Sagebiel used many innovative ideas that were later copied in airports worldwide, which is one reason why Lord Foster deemed it "the mother of all modern airports." The airport's innovative organizational tactics and modernity influenced airport experts at the time. It gained more fame from its use during the Berlin Blockade.[174] The airport design tries to convey Nazi power and ideology instead of the character or culture of the place and its people.

Germany was called the Weimar Republic in the interwar period (1919-1933) between Germany's defeat in World War I and Hitler's rise to power in 1933. During this period, Berlin was Europe's creative and intellectual hub, a leader in the arts, literature, theatre, science, sociology and psychoanalysis. Though its political and economic affairs suffered during this period, the city flourished culturally and intellectually as the decade of

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174. International School of Toulouse, *"How has politics influenced Berlin's architecture over the 20th century?"* Accessed April 22, 2018. *https://www.activehistory.co.uk/ib-history/extended-essay-history-samples/berlin.pdf*

Isherwood, Brecht, and the Bauhaus movement.[175] Berlin also bustled with numerous

youthful activities, including night partying, drug use, and sexual freedom. Freedom of

thought and expression was another attribute of the city culture, until the rise of Hitler and

the Nazis.[176] Nazi ideology represented more than a political movement. The Nazis strove for

a change in people's mindsets and ways of living in their attempt to return the country to

traditional German values. They wanted to circumscribe or excise Jewish and foreign

influences, consequently shaping a racial community that aligned with Nazi ideology. Nazi

cultural principles emphasized race, family and *Volk* (people*)* as the top representations of

German values. The cultural values of Nazis also stressed German's harmony with nature

and with their *Heimat* (native soil) and focused on elevating *Volk* and the nation above its

individual members.[177] The Nazis used monumental architecture, designed in a simplified

neoclassical style by such architects as Albert Speer and Ernst Sagebiel, as a way to impose

their ideologies on the general public.

Figure 41: "Crowds gather at Tempelhof in July 1931 to greet the Graf Zeppelin after its research tour of the Arctic regions."

Figure 42: "Nazi officials examine a model of Tempelhof airport in 1937"

Figure 48: "More than a million people gather at Tempelhof to hear Hitler speak on 10 May 1933"

Source: Pictorial Press, https://www.theguardian.com/cities/gallery/2015/mar/05/tempelhof-airport-berlin-history-nazis-candy-drops-in-pictures

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175. Ibid.

176. Ibid.

177. "Culture in the Third Reich: Disseminating the Nazi Worldview," United States Holocaust Memorial Museum, accessed April 19, 2018, https://www.ushmm.org/wlc/en/article.php?ModuleId=10007519.

Tempelhof Airport was designed by Sagebiel in the shape of an eagle, a symbol of the Nazi regime, to celebrate the glory of a new Germany. The scale of the infrastructure outraged the required mass. At its dedication it was the world's largest building, covering 3.2 million square feet and including 9,000 rooms. It sits on a massive 877-acre site that is larger than Central Park in New York and nearly twice the size of Monaco.[178] The building's scale is so huge and monumental it makes one feel small and overwhelmed, an apt communication of the regime's domination over people and incoming travelers. Moreover, the Nazis intended the airport building complex to be Europe's future aviation hub. "Within the Nazis' way of reasoning, the issue of the size of a site and its ability to withstand any comparison, suggested their strength and showed their use of architecture as a way to demonstrate their demand for power."[179]

The terminal building's exterior is composed of vertical elements, primarily large tall windows surmounted by cornices, in a simplified classicism that was common in Europe during the mid-thirties and a characteristic of Nazi architecture in Germany.[180] Vertical lines usually connote strength, power, rigor, rigidity, stability, and dignity, due to its tallness and formality. Sagebiel intended Tempelhof to represent magnificence, in the interior as well, which gives the traveller an impression of a high culture.

The airport's symbolism predominates over its functionality, in its shift from being a mere transportation hub to a portrayer of power. In this way the airport met the era's "world airport" standards (main function: denotation) while serving as a propagandistic self-portrayal of the Nazi regime (secondary function: connotation).

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178. German, Kent. "Tempelhof Airport in Berlin." *cnet*, 15 Sept. 2017, www.cnet.com/news/tempelhof-airport-berlin-airlift/.

179. Christine Heeb "A multifaceted monument - the complex heritage of Tempelhof Central Airport," Schäche 1996, p. 11932, translation by the author

180. International School of Toulouse, "How has politics influenced Berlin's architecture over the 20th century?" https://www.activehistory.co.uk/ib-history/extended-essay-history-samples/berlin.pdf

Figure 49: (a) Plan of Tempelhof Airport in the shape of an eagle. (b) Tempelhof Airport covering a massive area.

Figure 49: Elevation of Tempelhof Airport, dominated with vertical elements.
Figure 50: Interior of the airport, imitating grandness.

Figure 51: Tempelhof Airport: sculpture of an eagle.
Figure 52: Ariel view of Tempelhof Airport

Regional Precedent

Baghdad International Airport

Located about 16 km (10 miles) west of the downtown Baghdad Governorate in Iraq, Baghdad International Airport operates for both civilian and military purposes. The civilian terminal comprises three main concourses—terminals A, B, and C—that serve civilian operations. The other terminal serves military purposes.[181] The construction started under Iraq's then-president Saddam Hussein in 1979, but the opening was delayed until 1987 due to regional conflicts. The airport was initially named Saddam International Airport but was changed to Baghdad International Airport after the US invasion of Iraq in 2003.[182] It is also the main hub for Iraqi Airways, Iraq's national airline.

Iraqi Airways has undergone impressive growth since 1977. The government spent a considerable amount of money building new domestic and international airports, so they sponsored a competition for airport design studies. The winner, Pacific Consultants of Japan, studied airport design specific to Iraq between 1976 and 1978. During these years, Iraq was actively developing manpower for its aviation section. Men and women trained as pilots at the Takrit Air force Academy. The government focused on intensifying training activities. In 1981, British Airways International won a $1.3 million contract with the Iraqi government to train 400 Iraqis in the United Kingdom. Another training contract, worth $1.4 million, was awarded to the West German firm *Flughaven Frankfort am Main* in 1982 for Iraqi aviation training.[183]

Airport design was critical for the government. In 1979, a French company named *Spie-Batignolles and Fougerolle* won the construction contract to build Baghdad

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181. "Baghdad International Airport - Baghdad Airport (BGW)." Baghdad Airport. Accessed April 28, 2018. https://www.baghdad-airport.com/.

182. "Growth and Development for Baghdad." n.d. International Airport Review. Accessed April 28, 2018. https://www.internationalairportreview.com/article/25037/growth-development-baghdad-international-airport/.

183. Technology Transfer to the Middle East (Washington, D. C.: U.S. Congress, Office of Technology Assessment, OTA-l SC-173, September 1984), 272-273.

International Airport[184] on a 35-acre site for both military and civil aviation operations. The passenger terminal includes four gate areas: Terminals A, B, C and D. The first three were named Babylon, Samarra and Nineveh, which correspond to ancient cities of Iraq that are still preserved.

The airport's architectural concept integrates the date palm tree form into the design, as the ceiling of the main terminal shows.[185] The date palm tree is a significant symbol in Iraq, which is this tree's domestication centre and has been the world's largest producer of dates for years.[186] Iraq is also considered the birthplace of this crop. Moreover, dates are significant in Islamic culture: people break their fast during Ramadan with dates and milk. This conjoining of religious, historical, and cultural elements is the airport's main design feature.

Figure 54: Interior of Baghdad Airport imitating the shape of date palm tree.

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184. Ibid, 272-273.

185. "Baghdad Airport Terminals." n.d. Accessed April 28, 2018. https://www.baghdad-airport.com/terminals.php.

186. "Date Palm Status and Perspective in Iraq." n.d. ResearchGate. Accessed April 28, 2018.
    https://www.researchgate.net/publication/283439229_Date_Palm_Status_and_Perspective_in_Iraq.

Figure 55: Images of Baghdad Airport

Figure 56: Ariel view of Baghdad Airport

Kuwait International Airport

Kuwait has a 90-year history in the aviation industry. In 1928, the United Kingdom's Handley Page aircraft was the first to land at Dasmah Airport, the airport's former name.[187] The airport was originally built as a refuelling stop for British planes on their path to British India. The airport's oldest building, designed by the Japanese architect Kenzo Tange in 1979, was described by British architect and critic Stephen Gardiner as "the most beautiful airport in the world…breath-taking simplicity of colour and shape…white sculptured space as cool as an ice-cube, as enormous as a vast intake of pure air, as light as a tent, as canvas hung from cables and sails." [188]

The current airport will be replaced by a new facility, which the Kuwaiti government commissioned Foster + Partners of London to design in a three-winged form to symbolize the hospitality practice in Kuwaiti culture and integrate it into the infrastructure. The entry's elegant arrival portal will express this hospitality tradition. Cascading pools of water border the portal, surrounded by an oasis-shaped landscape of native plants. A continuous single roof canopy covers the entire structure. The roof contains a glazed opening which provides natural daylight to help with wayfinding. The continuous roof canopy, recalling the area's traditional dhow sailing boats, extends to shade the entrance as a further gesture of Kuwaiti hospitality.[189]

187. "KUNA: Aviation in Kuwait... 90 Years of History - Communications - 19/01/2018." n.d. Accessed April 29, 2018. https://www.kuna.net.kw/ArticleDetails.aspx?id=2684724&language=en.

188. Thorsten Botz-Bornstein, "Kuwait Before-After," Botzbornstein, accessed June 03, 2018, https://www.botzbornstein.org/kuwait-before-after.

189. Foster and Partners, "Kuwait International Airport." Accessed June 03, 2018. https://www.fosterandpartners.com/projects/kuwait-international-airport/.

Figure 57:57 (a) Skyview of Kuwait Airport, (b) Interior view of Kuwait Airport, (c) Site plan of Kuwait Airport
Source: Foster Partners /. "Kuwait International Airport." Foster Partners. Accessed June 03, 2018. *https://www.fosterandpartners.com/projects/kuwait-international-airport/*.

Analogous Nation Precedent

Singapore Changi Airport

Singapore gained its independence after the Malaysian Parliament expelled it from the federation in 1965, and this forced independence became the fuel for its successful nation-building strategies.[190] Although the country faced many challenges, including lack of natural resources and inexperience running an independent nation,[191] the Singaporeans compensated for these shortfalls by capitalizing on the area's potential for transhipment between east and west.[192] Thus Changi Airport became an element of their nation-building strategy, aiming to become the world's best airport.[193]

The company that runs Changi Airport has a mission: "to be the world's leading airport company, growing a safe, secure and vibrant air hub in Singapore and enhancing the communities we serve worldwide."[194] The airport design integrates elements of Singaporean culture and regional character "to surprise, delight, educate, celebrate and engage."[195] A giant screen named 'Peranakan Love Story' displays images of Singaporean culture. The orchid, Singapore's national flower, also inspired the design: the terminal features almost 400 orchid petal motifs, both internally and externally.[196] The design also integrates motifs from Singapore's tropical climate and gardens, including the Singapore Botanic Gardens the

190. The Economist. 2015. "How Singapore Gained Its Independence," March 22, 2015. https://www.economist.com/blogs/economist-explains/2015/03/economist-explains-22.

191. "The Singapore Story: Nation Building through an Entrepreneurial Mindset | EntreCity – City of Entrepreneurial Learning and Sharing." Accessed May 1, 2018. http://www.entrecity.com/the-singapore-story-nation-building-through-an-entrepreneurial-mindset/.

192. Ibid.

193. Ibid.

194. Singapore Changi Airport, Annual Report, 2016/17 Edition, 12.

195. Cristina Rowe, "Raising the Bar on Sustainable Airport Design." P*assajero*. Accessed May 1, 2018. https://www.passajero.com/en-benoy-changi-t4.

196. Ibid.

world's only tropical garden recognized as a UNESCO World Heritage Site.[197] These

indigenous tropical garden features distinguish Changi Airport from all others.
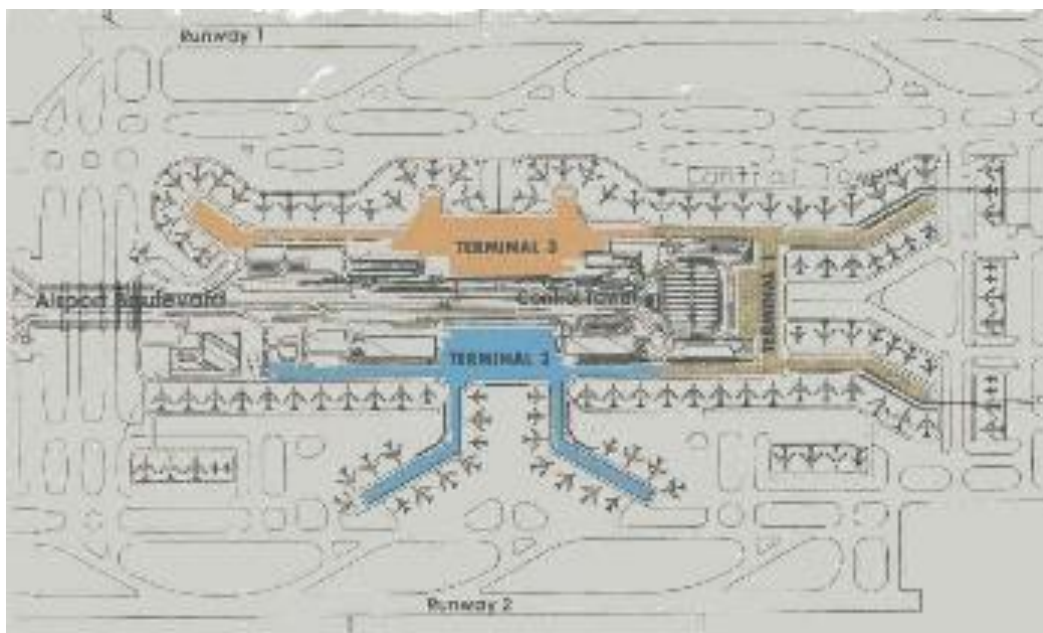

Figure 58:59 Plan of Changi
Airport.

197. Shee Zhi Qiang, "The Singapore Botanic Gardens Is Now A UNESCO World Heritage Site!" Accessed May 1, 2018.
http://nparks.cwp/mygreenspace/issue-27-vol-4-2015/main-feature/the-singapore-botanic-gardens-is-now-a-unesco-
world-heritage-site.

Figure 59: "Terminal 4, departure transit hall, inspired by Peranakan shophouses nestled around Singapore, this zone houses familiar traditional brands Bee Cheng Hiang, Bengawan Solo, Curry Times, Eu Yan Sang and Heavenly Wang, with heritage-themed facades, interior design and furnishings to invoke a sense of nostalgia."

Figure 60: "Terminal 4, departure transit hall, Steel in Bloom explores the interactions of humans with Nature. The garden's 6m-high centrepiece features intricate botanical motifs modelled in steel. This structure is juxtaposed with plants that have inspired its design, creating a sense of contrast in harmony. Enhanced by bright, multi-coloured lighting, this display is perfect for photographs and selfies."

Figure 61: "Terminal 4, Fitting with the heritage theme, Peranakan Love Story is a tale of two young adults set in Singapore in the 1930s. The production is done in collaboration with Singapore's local talents and artistes including Dick Lee, Adrian Pang, Benjamin Kheng and Koh Cheng Mun."

Source: http://www.changiairport.com/en/airport-experience/attractions-and-services.

<center>**Analogous Typological Precedent**</center>

Marrakech-Menara Airport

This airport is located 5 kilometers southwest of downtown Marrakech in Morocco.[202] It originally had two terminals and serves 3.7 million passengers per year. In response to increased tourism to the area, the airport expanded in the 2000s with a third terminal.[203] E2A Architecture of Casablanca designed the new terminal as a large space providing much more light than the original terminals. The new terminal's structural skeleton has a geometric framework of diamond and triangular openings filtered by traditional arabesques, creating a powerful communion between outside and inside. This concept portrays traditional Moroccan architecture in a modern way by combining historical and contemporary techniques, materials and motifs.

From this precedent, we can hypothesize that an airport of simpler design can convey a regional message through the structure of its terminal. Though it is not gestural or monumental in size, the semantics of its skeleton leaves a strong cultural impression on travelers.
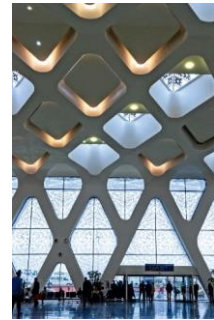

Figure *62:* Marrakech Airport: the old terminal of the airport
Figure *63:* Marrakech Airport: the exterior of the new terminal
Figure *64:* Marrakech Airport: the interior of the new terminal

202. "Marrakesh Airport (RAK)," Marrakesh Airport, accessed July 02, 2018, https://www.marrakesh-airport.com/.

203. The Guardian, "Marrakech Menara Airport," November 30, 2016, , accessed July 02, 2018, https://www.theguardian.com/travel/gallery/2016/nov/30.
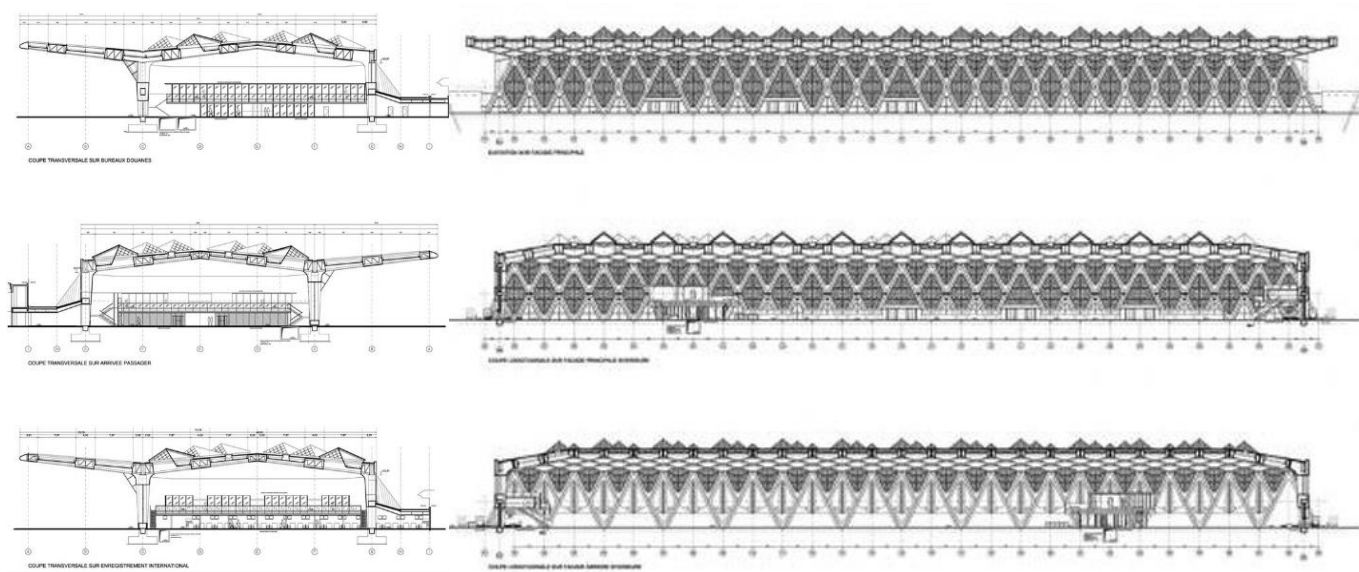
Figure 65: Elevation and sections of Marrakech Airport

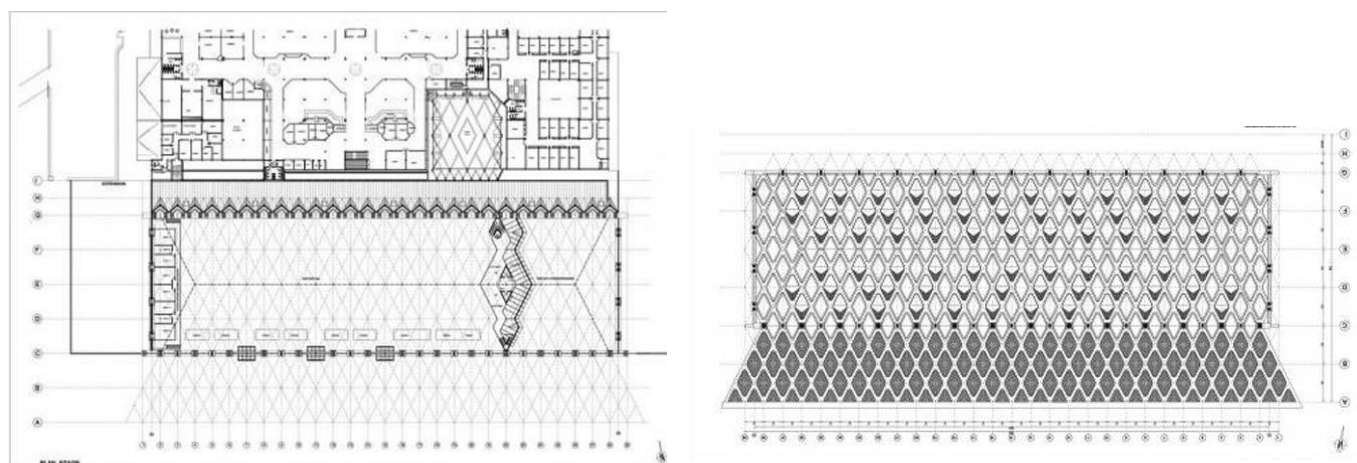**Figure 66:** Sections of Marrakech Airport

Figure 67: Plan of Marrakech Airport

Figure 68: Top view of Marrakech Airport

Discussion

The above precedents exemplify different strategies of culture portrayal in airport architecture. In some cases, the region's physical or natural characteristics are symbolized, e.g., the concept of the palm trees in Baghdad Airport, the tropical sense of regional character in Changi Airport, and the use of Moroccan architectural elements in Marrakech-Menara Airport. In some cases, non-physical characteristics are used: hospitality in Kuwait Airport, contrasted with expression of the Nazi ideology of absolute power in Tempelhof Airport. The airport designs represent cultural characteristics in the landscape, the architectural form, the interior, or even the amenities, which can include cultural exhibitions, entertainment, education, retail/shopping, dining, personal business services, well-being and/or health.

In most of the examples the airport architecture illustrates the natural characteristics of the place, which participate in the formation of the place's character and culture, shaping way of life to some extent. For example, palm trees, in places near oceans, signify yearlong sunshine weather, hence outdoor activities, liveliness, and culture of a more outgoing, optimistic people. These airport designs are thus models for the use of natural characteristics to define the way of life of the people the traveller will meet in the city.

Chapter 5. The Case Study of Sulaymaniyah Airport

Sulaymaniyah Skyline
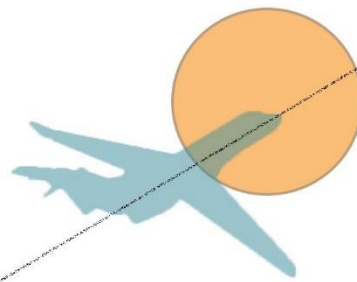
History of the Airport

Sulaymaniyah International Airport is located west of Sulaymaniyah at 15 kilometers distance from the city center. In December 2003 the city officials commissioned a Turkish architectural firm to design the project according to ICAO specifications.[218] Tahir Abdulla, general director of Sulaymaniyah Airport, said in a phone conversation that the city had the opportunity to build an airport after the collapse of Saddam Hussein's regime, both for military purposes and for helping the region to flourish. After being neglected by the Baath regime for many years, the Kurdistan cities finally received a financial share from the Iraqi government, so they announced many investment projects. Investors and contractors from many different countries, especially Turkey, started to flow into the Kurdistan cities to make projects, because the cities lacked enough contractors for so many projects at once. Additionally, during that time Iraq lacked expertise in airport design and aviation system, until 2006, when Iraq established the national aviation system that made Sulaymaniyah and three other airports in Baghdad, Basra, and Erbil national airports.[219]

Sulaymaniyah Airport opened for operations to all types of aircraft and all flights on July 20, 2005. A comparatively small airport, it has three terminals: departure, arrival, and VIPs. The terminals have a total capacity of 1.5 million passengers per year, but the airport is under expansion, and its capacity will be increased to 3 million passengers per year. The airport's overall area is 13.5 square kilometers.[220]

218. Sulaymaniyah International Airport, "Airport Overview." Accessed May 10, 2018. http://www.sul-airport.com/overview.php.

219. Raquim Nihad Zehawi, "Regression Sharing Model Development to Estimate the Iraqi Local Airports Future Demand," *Diyala Journal of Engineering Sciences*, December. 2015, pp.20-28. https://www.iasj.net/iasj?func=fulltext&aId=108657

220. Sulaymaniyah International Airport, "Airport Overview." Accessed May 10, 2018. http://www.sul-airport.com/overview.php.

Urban Context/Location

The airport is located on Sulaymaniyah's southwest side. The city's mountainous nature makes it hard to find a large track of level land on its north, south and east side, hence its site selection. The airport is on a main road connected to the loop surrounding the city, which goes directly to the city center. Once the airport was at the far edges; now it is merging with the city. The airport overlooks Sulaymaniyah's two main universities, University of Sulaimania and American University of Iraq/Sulaimania. Both campuses are newly built and modern in design. The airport's position in relation to educational institutions corresponds with the city's title as cultural capital as a first impression when departing from the airport.

The airport's surroundings were vacant during its initial construction due to lack of citizen and investor interest, but over time the airport's presence raised the area's land value, and investors built many residential, commercial and educational developments around the airport. The airport thus made area one of the city's most desired locations.

Architectural Form and Function

According to Tahir Abdulla, the airport's functional plan is a copy of a prior project the Turkish firm commissioned for an airport in the Kurdish city of Diyarbakir, Turkey. However, they made some changes to the form of the building to include a curved roof that evokes the city's mountainous nature. A curved canopy creates shade for the entry.

The entry is humbler than those complex grand experiences you would face in other airports. A curved roof is used to signify or impress from outside. However, people face only the side view of the roof from the entry; curved roofs are more expressive and evocative from the front.

The airport lacks drop-off and pick-up facilities. People drop off at a faraway security checkpoint, and a shuttle transfers them to the terminal. The process is the same for picking

up travelers. Thus, travelers cannot experience those moments of welcoming or saying goodbye to a loved one in front of a terminal. Security is cited as the main reason for this arrangement, but the airport may not have the capacity to receive people's personal vehicles at the terminal doors. The problem could lie in the site planning, because security is an issue in any airport around the world.

Figure 69: Exterior image of Sulaymaniyah Airport

Interior

The interior has a normal-height ceiling, and the curved structure is exposed and visible. It is finished with aluminum panels and painted walls. Gold-color aluminum panels dominate the ceiling, perhaps to signify a luxury space.

A security check is the first thing one faces before stepping into the terminal hall. One may go to the counter and check in for the flight only after a comprehensive luggage and body scan. Then the travelers face one more security check while moving to the gates. Many checkpoints inside the airport create the anxiety of missing a flight, hence the airport provokes an experience of fear and apprehension rather than excitement. The last experience of leaving the city is dominated by security checks, rather than experiencing a last heart-warming impression of the city.

Furthermore, the inside of the airport lacks the qualities and the amenities of other airports, which Pico Iyer describes as follows: "We eat and sleep and shower in airports; we pray and weep and kiss there. Some people stay for days at a time in these perfectly convenient, hermetically sealed, climate-controlled, duty-free zones, which offer a kind of caesura from the obligations of daily life."[221] Since Sulaymaniyah Airport does not fit this description at all, demanding city character and culture representation from it makes no sense until it meets Iyer's criteria for airport comfort.

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221. Pico Iyer, "Where Worlds Collide," letter 51.

Figure 70: Interior perspectives of Sulaymaniyah Airport

Discussion

This study of Sulaymaniyah Airport does not propose solutions to its architectural problems but raises discussions about the lack of regional character and cultural representation in its architectural design. Since a Turkish company is in charge of the design, it can originate those discussions. To make matters worse, the Turkish government does not support Kurdish ethnicity, having denied its existence for years, to the extent that a tension

can be felt between Turks and Kurds to this day. Therefore, the city officials who commissioned such a symbolic building to a Turkish Company must address the question of Kurdish ethnicity, how it can be represented at Sulaymaniyah's indigenous airport, and who would design and implement such a project to make it authentic to the unique tenets of Kurdish culture and identity.

The discussion of the architectural design can start with the building's scale and form, which does not signify an airport building typology. Airport architecture is usually characterized with exaggeration, massive scale, and complexity. In his depiction of Heathrow Airport's Terminal 5, Alain De Botton writes, "The undulating glass and steel structure was the largest building in the land, forty meters tall and 400 long, the size of four football pitches, and yet the whole conveyed a sense of continuous lightness and ease, like an intelligent mind engaging effortlessly with complexity."[222] Therefore, size, scale and complexity signify impressive airports. Lacking those qualities, Sulaymaniyah Airport's architectural form suggests a warehouse, bus terminal or factory more than an airport. Minimal areas and mass do not create a grand, symbolic building that represents the city with cultural dignity. Sulaymaniyah Airport's comparatively small size is no reason for it to resemble a warehouse or a bus terminal. For example, Marrakech Airport is compatible in scale, but it has a splendid structure that characterizes the essence and architecture of the city and creates a grand entry to it and departure from it.

Regional character and culture are a lacking consideration in the airport's design features. As discussed, poets are an important part of the city's heritage. Installations and sculptures of Sulaymaniyah's revered poets and intellectuals dominate its public spaces but are nowhere to be seen within the airport. The terminal's large, open forecourt could be an

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222. Alain De Botton, *A Week at the Airport: A Heathrow Diary*. London: Profile Books, 2009, 12.

appropriate ground for exhibiting such artwork, just as Kuwait Airport's front grounds creates a hospitable impression of the nation's culture. Instead, Sulaymaniyah Airport is fronted with small, undistinguished pine trees and a parking lot.

Security checkpoints dominate the interior—a far cry from portrayal of regional culture and character. Anxiety, rather than joyfulness, is what travelers experience while moving inside the airport. Instead, answers to the question: what does distinguish the city a cultural capital? should dominate the visual and social scene of such a symbolic building. Since the city had many contributors to the Kurdish language and played a major role in conserving it, Kurdish scripts and poems could be considered in the interior to remind the people of the region's linguistic significance and cultural distinction.

Furthermore, Sulaymaniyah Airport typifies Augé's definition of the airport as a non-place. For its sole purpose is a pass-through medium (and often not even that, given the level of security) that fits Marco Polo's depiction of some cities: "For those who pass it without entering it, the city is one thing; it is another for those who are trapped by it and never leave."[223] That is what Sulaymaniyah Airport is—a non-place you pass without ever entering, fulfilling its function only as a corridor for getting from Point A to Point B. By contrast, Changi Airport exemplifies the airport as a destination rather than a pass-through non-place, being an accessible, engaging portrayer of Singaporean culture.

The culture and regional character of Sulaymaniyah city is accumulated throughout history under different colonizers as mentioned in the history of the city. The city character has influences of Persian empire, Ottoman, Empire, British colonials, and the different Iraqi regimes since the attachment of the Kurdistan region to Iraq After WWI. In addition, the city is part of the Kurdistan region on one hand. Its airport is the national airport of Iraq on the other hand. Here a question raises: do we have to blame the lack of a regional character

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223. Calvino, 132.

representation at this point? Since the Iraqi government now runs the airport, the question of what character it will portray in the future remains. To answer this question, we need further research on the inquiries of an authentic Kurdish culture and character of the city.

Let us conclude the discussion with Kublai Khan's dream of a city, as depicted in *The Invisible Cities*. In his dream, he sees people lined up by a harbor, all crying silently far away from the ships that are preparing to leave the city. When Kublai Khan wakes up, he asks Marco Polo to find out if such a city exists. Marco Polo says: "Forgive me, my lord, there is no doubt that sooner or later I shall set sail from that dock, but I shall not come back to tell you about it. The city exists, and it has a simple secret: it knows only departures, not returns."[224] The harbor in Khan's dream is a place of departure but we want the airport to become a place of arrival instead.

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224. Calvino, 63.

Bibliography

Ashford, Norman, Saleh A. Mumayiz, Paul H. Wright, and Inc ebrary. *Airport engineering: Planning, design, and development of 21st century airports*. New Jersey: Wiley, 2011.

Augé, Marc. *Non-places: introduction to an anthropology of super modernity.* London: Verso, 2006.

Avruch, Kevin. *Culture & Conflict Resolution*. Washington, D.C.: United States Institute of Peace Press, 2006.

Blason, Jo, and Basia Cummings. "Nazis and Candy Drops: Tempelhof Airport through History – in Pictures." The Guardian. March 05, 2015. Accessed June 03, 2018. https://www.theguardian.com/cities/gallery/2015/mar/05/tempelhof-airport-berlin-history.

Bluell, Alexandra and Fitzpatrick Lisa, "Creating Sense of Place in Today's Airports*" Aviation Thought Leadership*, no. 2, 2015.

Botz-Bornstein, Thorsten. "Kuwait Before-After." Botzbornstein. Accessed June 03, 2018. https://www.botzbornstein.org/kuwait-before-after.

Calvino, Italo. *Invisible Cities*. Translated by William Weaver. San Diego: Harcourt Brace &, 1972.

Daffar, Hayder. "Weapons of Mass Bewilderment." Vice. February 28, 2007. Accessed December 07, 2017. https://www.vice.com/en_us/article/xdv8jd/weapon-v14n3.

De Botton, Alain. *A Week at the Airport: A Heathrow Diary*. London: Profile Books, 2009.

Eggebeen, Janna. Airport age: Architecture and modernity in America. ProQuest: Dissertations Publishing, 2007.

Florida, Richard. "Airports and the Wealth of Cities." *City Lab*. May 23, 2012. Accessed

    December 07, 2017. https://www.citylab.com/transportation/2012/05/airports-and-

    wealth-cities/855/.

Gordon, Alastair. *Naked airport: a cultural history of the world's most revolutionary*

    structure. Chicago, Ill.: Univ. of Chicago Press, 2008.

Goudsouzian, Tanya. "Sulaimania: Saving the dream city of a Kurdish prince." *Al Jazeera*.

    November 21, 2016. Accessed January 02, 2018.

    http://www.aljazeera.com/indepth/features/2016/11/sulaimania-saving-dream-city-

    kurdish-prince.

Grabar, Henry. "How Airports Became the Marble-Floored Temples of Our National, Fear-

    Fuelled Psychosis." *Slate Magazine*. September 07, 2017.

Guillemette, Lucie and Cossette, Josiane. "The Semiotic Process and the Classification of

    Signs," 2006. http://www.signosemio.com/eco/semiotic-process-and-classification-

    of-signs.asp.

Honegger, Matt. "Culture and function: 'Airports have transformed from transportation hubs

    into shopping malls," *Airport World Magazine*, 2013. Accessed May 7, 2018:

    http://www.airport-world.com/item/2182-culture-and-function

Hunjan, Charishma Kaur. "Convergence: The Airport Terminal as the Global Main Street."

    Order No. 10012674, University of Maryland, College Park, 2015. https://search-

    proquest-com.proxy.libraries.uc.edu/DocView.

Iyer, Pico. "Where Worlds Collide: In Los Angeles International Airport, the future touches

    down"

Kramer, Hal. Terminals or galleries? an exploratory study of museum operations in airports.

    Pro Quest Dissertations Publishing, 2013.

Leach, Neil. *Rethinking Architecture: A Reader in Cultural Theory.* London: Psychology

> Press, 1997.

Lippard, Lucy. *The Lure of the Local: Senses of Place in a Multicentred Society.* New York:

> The New Press, 1998.

Owen, Charles. *The Grand Days of Travel.* New York: Smith mark Publishers, 1980.

Rafat Ali, "Why do American Airports Lag Every Other Region in the World," *Skift*, Oct 28,

> 2013. Accessed May 7, 2018. https://skift.com/2013/10/28/why-do-american-

> airports-lag-every-other-region-in-the-world/

Sassen, Saskin. "Why Cities Matter," in: Cities. Architecture and Society, exhibition

> catalogue of the 10. Architecture Biennale Venice, Marsilio, Venice 2006.

Schaberg, Christopher Stratton. "Airport Reading. "ProQuest Dissertations Publishing, 2009.

Schaberg, Christopher. "Why Attack Airports?" *The Atlantic*, July 2, 2016. Accessed May 7,

> 2018, https://www.theatlantic.com/author/christopher-schaberg/

Schaberg, Christopher. *Airportness: the nature of flight*. New York, NY: Bloomsbury

> Academic, an imprint of Bloomsbury Publishing Inc, 2017.

Schaberg, Christopher. *The end of airports*. London: Bloomsbury Academic, 2016.

Smith, Jim. 'aviation critical infrastructure, airports & catastrophes.' Presentation, American

> Public University System.

Spencer-Oatey, H. What is culture? A compilation of quotations. *Global PAD Core*

> *Concepts.* Available at Global PAD Open House, 2012.

Technology Transfer to the Middle East (Washington, D. C.: U.S. Congress, Office of

> Technology Assessment, OTA-l SC-173, September 1984), 272-273.

The Telegraph Staff. "Foreigners rush to leave Iraq's Kurdish territory ahead of flight ban

> imposed after independence referendum." *The Telegraph*. September 29, 2017.

Tsui, Bonnie. "The next generation airport is a destination in its own right," *City Lab*, Aug

    26, 2014. Accessed May 7, 2018, https://www.citylab.com/design/2014/08/the-next-

    generation-airport-is-a-destination-in-its-own-right/379043/

Williams, Raymond. *Keywords: A Vocabulary of Culture & Society*. New York: Oxford

    University Press, 1985.

Zucchino, David. "Iraq Orders Kurdistan to Surrender Its Airports." *The New York Times*.

    September 26, 2017.

Kazda, Antonín, and Robert E. Caves. *Airport Design and Operation.* Bingley: Emerald,

    2015.

"Marrakesh Airport (RAK)." Marrakesh Airport. Accessed July 02, 2018.

    https://www.marrakesh-airport.com/.