

REFUNCTIONING PROPOSALS OF AIRPORTS AND AVIATION
BUILDINGS FROM THE PERSPECTIVE OF INDUSTRIAL HERITAGE:
CASE OF ISTANBUL ATATURK AIRPORT

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BUILDINGS FROM THE PERSPECTIVE OF INDUSTRIAL HERITAGE:
CASE OF ISTANBUL ATATURK AIRPORT**

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ABSTRACT

REFUNCTIONING PROPOSALS OF AIRPORTS AND AVIATION BUILDINGS FROM THE PERSPECTIVE OF INDUSTRIAL HERITAGE: CASE OF ISTANBUL ATATURK AIRPORT

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Master of Architecture, Architecture
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Progress and expansion on the aviation industry in the recent times force airports and aviation buildings to either be improved or be abandoned. Considering the latest statistics of vacant airports and different effects emerging lately all over the world, it can be predicted that the pressure on the physical spaces of aviation will increasingly continue. However, since “*airport*” as a new typology appearing from the early 20th century could satisfy the expectations of the industry up to recent past, abandonment of aviation facilities had not been common. On the other hand, airports and aviation buildings come to the forefront as significant research topics in terms of conservation and re-use potentials when all their values taken into account. The aim of this thesis is to increase the awareness about the abandoned airport facilities while describing them as industrial heritage and to assess *Istanbul Atatürk Airport*, which was abandoned recently, from this perspective. Within this framework, substantial refunctioned airports with different features, which are *Berlin Tempelhof Airport*, *Paris Le-Bourget Airport*, *Hong Kong Kai Tak Airport* and *Athens Ellinikon Airport* are examined for their particular refunctioning

scenarios and abandonment processes. In the light of this comparative research, potential refunctioning scenarios for the Atatürk Airport are discussed.

Keywords: Istanbul Atatürk Airport, Industrial Heritage, Airport Refunctioning, Museum, Event Space, Urban Park

ÖZ

HAVALİMANLARININ VE HAVACILIK YAPILARININ ENDÜSTRİYEL MİRAS AÇISINDAN YENİDEN İŞLEVLENDİRME ÖNERİLERİ: İSTANBUL ATATÜRK HAVALİMANI ÖRNEĞİ

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Havacılık sektöründeki son dönemlerdeki gelişim ve büyüme havalimanlarını ve havacılık yapılarını ya büyümeye ya da terk edilmeye zorluyor. Terkedilmiş havalimanı sayılarının son istatistikleri ve ortaya çıkan yeni nedenler düşünüldüğünde, havacılığın fiziksel mekanlarının üzerindeki baskının artarak devam edeceği tahmin edilebilir. Bununla birlikte, 20. yüzyılın erken dönemlerinde ortaya çıkan bir tipoloji olan “*havalimanı*” yakın geçmişe kadar endüstrinin beklentilerini karşıladığından, havacılık tesislerinin terkedilmesi yaygın olarak görülmemiştir. Diğer taraftan ise, havalimanları ve havacılık yapıları tüm değerleri dikkate alındığında koruma ve yeniden işlevlendirme potansiyelleri bakımından kayda değer birer araştırma konusu olarak öne çıkmaktadır. Bu tez, havacılık yapılarını endüstriyel miras olarak tanımlayıp, terkedilmesi hakkında farkındalığı arttırarak, yakın geçmişte terkedilen İstanbul Atatürk Havalimanı’nı bu açıdan incelemeyi amaçlamaktadır. Bu kapsamda *Berlin Tempelhof*, *Paris Le-Bourget*, *Hong Kong Kai Tak* ve *Athens Ellinikon Havalimanları* gibi farklı özelliklerdeki önemli yeniden işlevlendirilmiş havalimanlarının terk edilme süreçleri ve yeniden

işlevlendirme senaryoları araştırılmıştır. Bu karşılaştırmalı araştırmanın ışığında, Atatürk havalimanı için potansiyel yeniden işlevlendirme senaryoları ele alınmıştır.

Anahtar Kelimeler: İstanbul Atatürk Havalimanı, Endüstriyel Miras, Havalimanı Yeniden İşlevlendirmesi, Müze, Etkinlik Alanı, Kent Parkı

To My Beloved Family

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I wish to thank foremost to my family, my mother and my father for their endless love, patience and tolerance. I always feel their support in every chapter of my life.

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LIST OF ABBREVIATIONS

ABBREVIATIONS

ICOMOS : International Council on Monuments and Sites

TICCIH : The International Committee for the Conservation of the Industrial Heritage

ERIH : European Route of Industrial Heritage

DOCOMOMO: Document and Conservation of Buildings, Sites and Neighborhood of the Modern Movement

CIDNA : Compagnie Internationale de Navigation Aérienne (The International Air Navigation Company)

CFRNA : Compagnie Franco-Roumaine de Navigation Aérienne (The French-Romanian Company for Air Transport)

AEI : Aero Espresso Italiana (The Italian Company For Air Transport)

CHAPTER 1

INTRODUCTION

1.1 Problem Definition

Time is considered as the most important value in today's world and day by day economy of its usage has gained importance. As well as in every field, time has also become the major measure for the all transportation systems. Considering transportations of both passengers and cargo from this perspective, with the advantage of time economy, aviation came to the forefront as a medium of transportation against its counterparts such as railway, highway, etc. since the World War II. As the aviation technology advance the capacity of the planes increased and the flights became also more safe. With all of these advantages, growing air transportation networks around the globe becomes a major factor behind the rise of mass tourism as the fares become affordable. Consequently, passenger numbers and growth rates in air traffic are the highest comparing to the other modes.¹ According to European Commission, the number of airway passengers has multiplied by 7 times in the last forty years in the world (Figure 1).²

In company with the global boost, this trend on aviation has also affected the aviation's statistics in Turkey and unlike other transportation systems, from 2013 to

¹ John Whitelegg, *AVIATION: the social, economic and environmental impact of flying* (Ashden Trust, London, 2000) p.2

² European Commission, *Annual Analyses of the EU Air Transport Market 2016* (Final Report, Mott MacDonald, 2017) p.8

2019, the number of passengers in aviation has multiplied almost 1.4 times in 7 years (Table 1).³

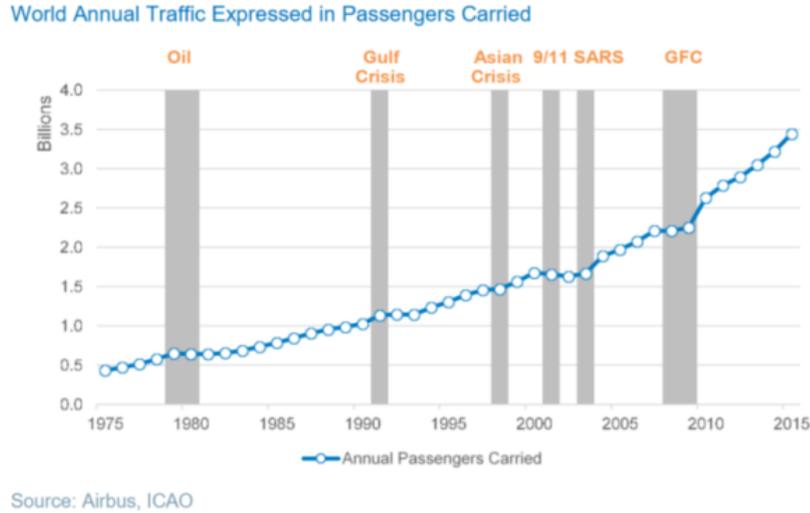


Figure 1: *World Annual Traffic Expressed in Passengers Carried*

Retrieved from *Annual Analyses of the EU Air Transport Market 2016 – Final Report* written by European Commission

Table 1: *Aviation Passengers Statistics in Turkey between 2013-2020*

Retrieved from *DHMI (Air Navigation Service Provider and State Airports Authority of Turkey) Annual Report 2020, p.18*

	2013	2014	2015	2016	2017	2018	2019	2020
Total Passengers Traffic (incl. direct transit passengers)	149.995.868	166.181.339	181.437.004	174.153.146	193.576.844	210.947.639	208.911.338	81.703.685
Total Passengers Traffic	149.430.421	165.720.234	181.074.531	173.743.537	193.045.343	210.498.164	208.373.696	81.616.140
Domestic Passengers	76.148.526	85.416.166	97.041.210	102.499.358	109.511.390	112.911.108	99.946.572	49.740.303
International Passengers	73.281.895	80.304.068	84.033.321	71.244.179	83.533.953	97.587.056	108.427.124	31.875.837
Direct Transit Passengers	565.447	461.105	362.473	409.609	531.501	449.475	537.642	87.545

³ DHMI, *Annual Report 2020* (2021), p.18

This tangible expansion on the number of the aviation passengers brings about also a pressure on airports and aviation buildings as physical spaces of aviation.⁴ To be more clearly, different countries and airline companies all around the world compete to receive a larger share from the industry which is growing gradually. In accordance with the purpose, they either develop and upgrade their airports or abandon the existing ones and decide to build totally new facilities. To give an example, while China has one of the most powerful economies in the world, at the same time it has been the most aggressive country in the world from the perspective of expansion on air transportation with 13 brand-new airports and 37 upgraded ones between 1986 and 1995.⁵ As a result of these constructions and renewals, China has become the second from the perspective of aviation economy in 2005.⁶ Furthermore, it is forecasted to become the first by the mid-2020's with the constructions of 40 new commercial airports.⁷ In addition to China, there are many countries that invest in aviation industry to develop their economies. For instance, New Quito International Airport in Ecuador, which was inaugurated in 2013, has provided economical, employment and technological development in the country with creating 1 billion dollars and 6,000 numbers of employments.⁸ Brueckner's study shows a strong correlation between the passenger numbers in aviation and regional employment growth in general.⁹ His findings reveal that every ten percent increase in air passengers brings about a one percent boost on

⁴ Two words are used in Turkish daily language for the “airport”; “havalimani” and “havaalani”. Although DHMI omitted the word “havaalani” in February 24, 2012, there is a difference between these two definitions. While “havalimani” stands for international airports consisting of customs and passport department, “havaalani” is used for domestic airport. (Abdullah Nergiz, Havalimani ve Havaalani Arasındaki Fark Nedir? , Havayolu101, December 6, 2011)

⁵ Yves Boquet, *From airports to airport territories: expansions, potentials, conflicts* (Human Geographies – Journal of Studies and Research in Human Geography Vol. 12, No. 2, 2018) p.142

⁶ Xiaoxia Dong, Megan S. Ryerson, *Increasing Civil Aviation Capacity in China Requires Harmonizing the Physical and Human Components of Capacity: A Review And Investigation* (Transportation Research Interdisciplinary Perspectives, Vol. 1, 2019) p.1

⁷ Ibid, p.3

⁸ Aviation Benefits Beyond Borders, *Airports are Catalysts to Economic Growth*

⁹ Jan K. Brueckner, *Airline Traffic and Urban Economic Development* (Urban Studies, 40(8), 2003)

employment in the city.¹⁰ In short, all these different cases and related studies present that there is a mutual connection between the air traffic and the countries' economic developments and for this reason, in order to improve aviation industry; countries have competed against each other with building new airports.¹¹ In consequence of this competition, existing airports are affected by this change and, one way or another; they are modified to satisfy the expectations of the industry. As new facilities are built around the world, many earlier airports are considered as unfeasible economically, or short of answering the current needs and eventually abandoned. This thesis focuses on these vacant and desolated airports from the point of refunctioning. Moreover, as the aviation industry is growing on this trend, more and more airports will be faced with the possibility of becoming non-functional and abandonment. According to Favargiotti, who is an Italian landscape architect and urbanist (2018), there are already 750 abandoned, on-hold or underutilized airports out of total 2,000 airports in Europe, and in the immediate future, more than half of the regional airports will be on the verge of abandonment worldwide.¹² This forecast is supported by a different research conducted by Deutsche Bank (2015) which underlines that while the number of passengers in major airports of Germany is increasing gradually, their number is decreasing in regional airports excessively especially since 2010 (Figure 2).¹³ As a matter of fact, Deutsche Bank's research shows wider global trend on airports in recent years. The word of "*aerotropolis*" has come into literature by John Kasarda who is an airport business consultant. According to him (2006), like a traditional metropolis, aerotropolis includes an airport city (central city) and extensive outlying areas of aviation-oriented businesses and their associated residential developments (its

¹⁰ Ibid

¹¹ Cyrus Freidheim, B. Thomas Hansson, *Airports as Engines of Economic Development: Great Airports Are Critical for a Region* (strategy+business, Issue 16 /1999)

¹² Sara Favargiotti, *Renewed Landscapes: Obsolete airfields as landscape reserves for adaptive reuse* (Journal of Landscape Architecture, 2018) p.90

¹³ Eric Heymann, *Germany's regional airports under political and economic pressure* (Current Issues, Sector Research, 2015) p.6

commuter-linked suburbs).¹⁴ In this respect, when the airport is perceived as an instrument to develop a country's economy, to build an aerotropolis implies a fast-paced business, globally networked economy and becomes an attractive point for corporate headquarters, conference centers and different adjunct facilities.¹⁵

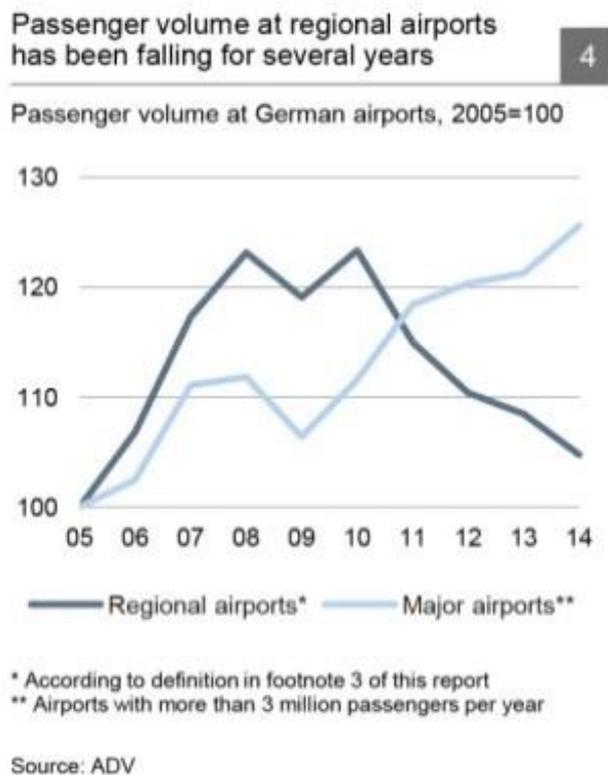


Figure 2: Comparison of passengers between the major and regional airports
 Retrieved from *Deutsche Bank Research, 2015, Germany's regional airports under political and economic pressure*

Nowadays, *Amsterdam Schiphol Airport, Dallas/Fort Worth Airport, Singapore Changi Airport, Dubai International Airport and new Istanbul Airport* can be

¹⁴ John D. Kasarda, *The Evolution of Airport Cities and the Aerotropolis, Airport Cities; The Evolution* (Chapter 1, Insight Media, London, 2008) p.13

¹⁵ *Ibid*, p.15

regarded as the most convenient examples for aerotropolis (Figure 3).¹⁶ Researchers suggest that aerotropolis type of airports started to substitute other small counterparts more and more in recent years, and therefore in the future, the regional airports will be dysfunctional and vacant.



Figure 3: *Amsterdam Schiphol Airport as an Aerotropolis*

Retrieved from <https://airport-world.com/aerotropolis-engines-beyond-asia/>

In contrast to aerotropolises, there is also the concept of multi-airport systems emerging from 1990s.¹⁷ Multi-Airport Systems are perceived as another solution to the problem of high demand in aviation industry.¹⁸ The cities such as New-York – having 7 airports- , London -6 - , Los Angeles – 5- and Paris -4- can be considered

¹⁶ Elif Bolat, Vildan Durmaz, *Havalimanlarında Yeni Dönem Aerotropolis Yapılar: İstanbul Havalimanı Örneği* (Journal of Awareness, 2020) p.378-380

¹⁷ Farouk Abdelnabi Hassanein Attaalla, *Multi-Airport Systems as a Global Tourism Phenomenon: A Critical Review and a New Concept* (International Journal of Tourism & Hospitality Reviews, 2019, Vol 6, No 1, p.01-11) p.2

¹⁸ Philippe A. Bonnefoy, Richard de Neufville, LM ASCE, R. John Hansman, *Evolution and Development of Multi-Airport Systems: A Worldwide Perspective* (Journal of Transportation Engineering, 2010) p.1

most significant cities having Multi-Airport Systems.¹⁹ It is clear that different countries are adopting one of these two contrary solutions trying to be a remedy for pressure of the aviation industry.

In addition to these incoming airport trends, in the recent years, two different factors that are considered to affect the future of airports in global and national scale have come into the picture. First factor is the health risks, including contagious diseases which are exemplified in the case of Covid-19. This pandemic spreads globally since December 2019 transformed many patterns of life including transportation. It is indisputable that one of the most affected businesses from this pandemic is aviation industry which consists of airway companies, aircraft manufacturers and airports. Due to huge decrease on the demand of the air transportation in last two years, the economies of these companies will be destabilized in a short span of time and many of them will be terminated. This hypothesis is supported by the latest research of International Civil Aviation Organization. According to ICAO (2021), the number of total passengers in aviation has declined by 60% in 2020 and it is expected that the total airlines' economical loss will be USD 371 Billion (Figure 4).²⁰

The average of the total loss in the world hits 66% with USD 124 Billion and it is forecasted to be 50% in 2021 (Table 2).²¹ Moreover, in some regions, such as Europe and Middle East, the total loss of airport revenue hits 70% with in 2020.²² These outcomes bring into open that in the years ahead, the aviation industry will be in a profound economic depression that has never been experienced before and it is inevitable that certain components of the industry such as airline companies and airports will become difficult in the economical perspective or be obliged to be terminated.

¹⁹ Farouk Abdelnabi Hassanein Attaalla, p.8

²⁰ ICAO, *Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis* (2021) p.5

²¹ Ibid, p.113

²² Ibid, p.113

World passenger traffic evolution 1945 – 2021*

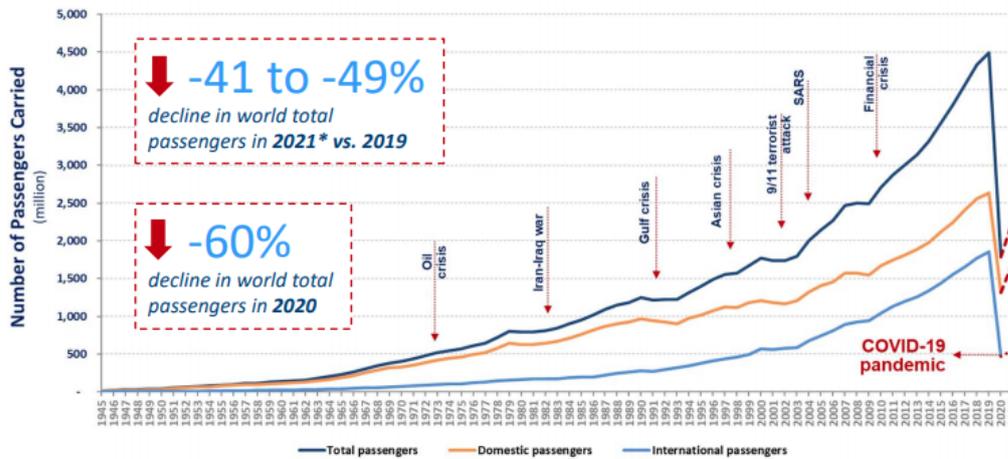


Figure 4: World Passenger Traffic Evolution between 1945-2021

ICAO, 18 May 2021, *Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis*, Retrieved from https://www.icao.int/sustainability/Documents/Covid-19/ICAO_coronavirus_Econ_Impact.pdf

Table 2: Passenger Numbers and Airport Revenue in Six Regions

ICAO, 18 May 2021, *Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis*, Retrieved from https://www.icao.int/sustainability/Documents/Covid-19/ICAO_coronavirus_Econ_Impact.pdf

Region	Passenger number - interntional and domestic				Airport revenue - aeronautical and non-aeronautical			
	million and % change from "business as usual" baseline scenario				USD billion and % change from "business as usual" baseline scenario			
	2020		2021		2020		2021	
Africa	-165	-67.6%	-147	-55.8%	-2.670	-67.6%	-2.378	-55.8%
Asia/Pacific	-2,148	-61.3%	-1,474	-40.3%	-36.206	-61.3%	-24.837	-40.3%
Europe	-1,764	-70.5%	-1,490	-58.1%	-44.368	-70.5%	-37.486	-58.1%
Latin America/Caribbean	-433	-61.1%	-360	-48.8%	-7.090	-61.1%	-5.889	-48.8%
Middle East	-304	-70.5%	-267	-58.9%	-10.762	-70.5%	-9.444	-58.9%
North America	-1,307	-62.5%	-936	-43.5%	-23.723	-67.0%	-14.071	-47.2%
Total	-6,121	-64.6%	-4,673	-47.5%	-124.820	-66.3%	-94.106	-50.0%

The second factor is inefficient regional airports at national scale. In Turkey, with build-operate-transfer model with a guaranty on the number of passengers, a

certain number of regional airports such as Zafer Airport in Kütahya and Çukurova Airport in Mersin were built in recent years (Figure 5).²³



Figure 5: *Zafer Regional Airport in Kütahya*

Retrieved from <http://www.icholding.com.tr/TR/altyapi/ProjeDetay/17>

However, these regional airports cannot reach the projections on passenger numbers for many years. For instance, while the number of passengers in Zafer Airport was predicted as 1.3 million for 2021, the realized number was only 61.²⁴ Although there are ten airports which were built with “build-operate-transfer model” including Dalaman Airport and Adnan Menderes Airport in Turkey, it is exposed that these regional airports are unsustainable from the economical perspectives. Even the management of these are subsidized by the country’s economic resources, in the near future -when the operations of these airport are transferred to the government- it can be easily predicted that the lifetime of these airports will not be long. In short, considering all these inefficient regional airports, in foreseeable future, there will be a certain number of vacant airports in Turkey requiring the reuse and transformation projects.

²³ Devlet Hava Meydanları İşletmesi Genel Müdürlüğü, *2020 Havayolu Sektör Raporu* (Strateji Geliştirme Başkanlığı, 2021) p.41

²⁴ Deniz Ayhan, *61 Yolcu Gelen Havaalanında ZAFER müteahhitin oldu* (Sözcü Newspaper, 16/05/2021)

1.2 Aim of the Thesis

Airports have been affected by the increase on the number of airway passengers, the expansion on the aviation industry and the alterations of related trends. Consequently, they are rather determined to be upgraded or to be abandoned at all. It is forecasted that in the near future, there will be much more vacant airports in addition to existing abandoned ones. Although many of these airports deserves to be conserved and brought to the future, the transformation of these airports is not investigated comprehensively up to the present time. This thesis first aims to develop the criteria to legitimize keeping certain features of these airports. Defining vacant and abandoned airports as industrial heritage provides a framework for these criteria. Investigating definitions of industrial heritage by related institutions such as ICOMOS, TICCIH etc., to look into the prominent examples from the world and ultimately Istanbul Atatürk Airport, is the first step to discuss refunctioning themes for the facility. In this regard, it is intended to raise an awareness on both abandoned airports in general and Istanbul Atatürk Airport in the first place and to bring reuse strategies up for following discussions.

1.3 Significance and Boundary of the Thesis

This thesis is assisted with the personal observations of Berlin Tempelhof Airport, Tegel Airport and Istanbul Atatürk Airport, while comments on other examples are made on the basis of readings and research due to the limitations emanated from the Corona pandemic. Considering that the airports have become a part of the daily life in the recent years, it is regarded personal experiences as significant especially for Atatürk Airport. Although it appears in the news perpetually with different topics, this thesis claims to be a consistent source for its transformation process. The resources are limited to news and statements of officials based upon that the transformation process is not shared with public.

Although the interventions are being implemented in the site of Istanbul Atatürk Airport, termination of the airport is discussed widely. While this thesis proposes various refunctioning themes for the site, it does also argue that the aviation activity should exist in the future of the airport, such as a secondary small airport in the city with Multi-Airport Systems. Considering that the transformation of Istanbul Atatürk Airport is still progressed in late 2021, this study can establish a basis for decision makers and professionals working for the transformation project.

Since this thesis aims to increase the awareness about the abandoned airport facilities while describing them as industrial heritage and to assess *Istanbul Atatürk Airport*, it can be comprehended that the main objective is to suggest new refunctioning themes for Atatürk Airport. In order to propose reuses harmonizing with the abandoned site, while the context and the history of the airport are researched in detail, with the instrumentalisation of industrial heritage definition, the values of an airport are also mentioned in the thesis. Moreover, the counterparts in the world for comparative analysis are examined in the perspective of reuse strategies, abandonment and design processes.

1.4 Methodology and Structure of the Thesis

One of the main objectives of this study is to put forward refunctioning themes for the abandoned site of Istanbul Atatürk Airport. Therefore, the comparative analysis of selected case studies around the world is considered as an appropriate method for the study. The reviews of case studies not only contain a brief summary of their abandonment processes or reuse strategies, but also a critical review to correlate them with Istanbul Atatürk Airport.

Focusing on the structure of the thesis, the **first chapter** begins with the problem definition, aim, boundary and structure of this thesis. The second chapter includes three subchapters. The first subchapter gives the foundational information about the industrial revolution itself. Then, in the **second chapter**, academic interest on the

industrial heritage and its definition are aimed to be revealed. In addition, in the third subchapter, theoretical framework between the airports and industrial heritage is constituted with mentioning the values that the airports and aviation buildings have. The **third chapter** consists of four case studies with different characteristics all over the world. *Berlin Tempelhof Airport*, *Paris Le Bourget Airport*, *Hong-Kong Kai-Tak Airport* and *Athens Ellinikon Airport* are researched respectively with interpretations and inferences for each case. The **fourth chapter** reviews Istanbul Atatürk Airport with general information and its history. Moreover, the refunctioning themes that this thesis suggests are also covered in this chapter. Finally, the **fifth chapter** includes a brief summary and the concluding remarks of the discussions in the previous chapters.

CHAPTER 2

ABANDONED AIRPORTS AS INDUSTRIAL HERITAGE

This thesis studies vacant airports as examples of the industrial heritage. Therefore, meaning of the term and stance of airports and aviation buildings within this context needs to be elaborated. There are common features amongst the industrial buildings and industrial sites as the literature on conservation indicate, however airports have unique qualities which needs further analysis.

In order to identify abandoned aviation buildings and airports, in this chapter, the process of industrial revolution will be focused in the first place. It is important to reveal how the awareness on the industrial spaces arose and the definition of industrial heritage was established. After the brief review of industrial revolution and the term of industrial heritage on the academia, abandoned airports are discussed with their values as industrial heritage.

2.1 Industrial Revolution and Emergence of “Industrial Heritage”

Industrial Revolution refers to the transformation processes in the economic and social structure of Europe by the help of new energy sources such as coal and steam.²⁵ Although its name contains “revolution”, industrial revolution indicates a long continuum, not a single occurrence.

Industrial Revolution occurred first in England in the second half of the eighteenth century. Before industrialization, agriculture was the main economic activity and

²⁵ Jackson, J. Spielvogel, *Western Civilization: A Brief History* (Chapter 20: The Industrial Revolution and Its Impact on European Society, Cengage Learning, 2011) p. 582

people lived small towns and farms in England.²⁶ The connection between the towns was very poor and the small amounts of transportation were provided only by horse and walking.²⁷ As the first foreshadow of the industrial revolution, the cotton industry, in order to produce much more effectively, had used the machines for the first time in the 1770s and 1780s.²⁸ Since the production with machines were rapid and cheap in contrast to traditional methods, in a short span of time, different manufacturing fields had adopted them. Thus, human and animal labor was transformed into machinery manufacturing. Moreover, industrial revolution enabled production of goods on a large scale with a large number of workers and specialized machineries which can be called as factory system.²⁹

It is apparent that the change did not remain limited to method of production; but also spaces of production and cities had also been transformed. When the way of production was altered, the individual unit of production had moved from shop and home workrooms to factories.³⁰ Furthermore, settlements of the laborers working in the factories were gathered around those factories. These progressions had instigated major expansion of population in cities. By 1800, London, the heart of the industrialization, had one million citizens and just after six years, the population jumped to 2,636,000.³¹ In this respect, in a short time, industrialization had changed the cities both demographically and physically.

London being in the first place, other European major cities were also expanded with the effects of industrialization and urbanization processes. In addition, in a progress of time, current industrial spaces could not satisfy the expectation of modern industry and were relocated to the outskirts of the urban texture. Therefore, dysfunctional industrial buildings popped-out in the heart of the cities and

²⁶ Mark Easton, Geraldine Carrodus, Tim Delaney, Kate McArthur, Richard Smith, *Oxford Big Ideas Geography/History 9 – Chapter 5* (Oxford University Press, 2013), p.272

²⁷ Ibid, p.272

²⁸ Jackson, J. Spielvogel, p. 585

²⁹ Mark Easton, Geraldine Carrodus, Tim Delaney, Kate McArthur, Richard Smith, p.278

³⁰ Jackson, J. Spielvogel, p. 582

³¹ Ibid, p.597

generally, had become the first target in urban renewal projects due to its land values. In brief, these spaces of industrialization, in a progress of time, they had remained under the pressure of economic, social, political and technological changes.³²

While examining the process of industrial revolution and its effects on the history shortly, the significant relationship between the cities and the industrial spaces is revealed. Rather than just a space of manufacturing, those factories and production spaces become a reminiscent of industrialization which has altered the world completely like French Revolution or the two World Wars. On the other hand, the workers of the factories were the ones who noticed the significance of these industrial buildings for the first time.³³

2.2 Academic Interest on the Industrial Heritage and Institutionalization

In this respect, with the public awareness on the industrial spaces, it did not take a long time to show up in the academic literature. Although, *Da Sousa Viterbo*, Portuguese historian and archaeologist, used the term “*arqueologia industria – industrial archeology*” first in the Portuguese journal named as “*O Archeologo Portugues*” in 1896, definition of the term by *Michael Rix* in 1967 has brought into prominence in English language.³⁴ He defined industrial archeology as “*recording, preserving in selected cases and interpreting the sites and structures of early industrial activity, particularly the monuments of the Industrial Revolution.*”³⁵

Austrian art historian *Alois Riegl*, who is a precursor and one of the most known and cited authors in this research field, should be mentioned before continuing to

³² Ayşem Kılınç, *Value Assessment for Industrial Heritage in Zonguldak* (Middle East Technical University, 2009) p.10

³³ Ibid, p.2

³⁴ Sophia Labadi, *Industrial Archaeology as Historical Archaeology and Cultural Anthropology* (Institute of Archaeology, 12(77), UCL, 2001) p.77

³⁵ Marilyn Palmer, *Industrial archaeology: a thematic or a period discipline?* (Cambridge University Press, 2015) p. 275

modern definitions of “industrial heritage” by institutions. Conservation of architecture and industrial works owes a great deal to his pioneering studies. Value systems, created for the monuments by Riegl, provides a theoretical framework for the industrial buildings and monuments in terms of their understanding, assessments and reuses.³⁶ Long before term of industrial heritage, in 1903, he mentioned the meaning of monument and the values that belong to it for the first time in his publication named as “*Modern Cult of Monuments*”.³⁷ While distinguishing monuments into two as “*intentional*” and “*unintentional*”, Riegl states that unintentional monuments gain qualification in time as a result of sophisticated cultural progress without aimed for being monuments.³⁸ Furthermore, according to him, with creating different relationship between memory and time, unintentional monuments has comprised of accredited values by historians and users since the day it was built.³⁹ Although Riegl’s study only focused on art and architecture, from the perspective of forming the term industrial heritage and value assessment of the past, they have become the prominent reference. More specifically, according to Cengizkan (2002) “*relative art value*”, “*development value*” and “*use value*”, which are introduced by Riegl, can open a road for the assessment and reuses of industrial buildings as a new concept.⁴⁰ In general, *relative art value*, associated with machine aesthetics, becomes prominent in the conservation of industrial heritage from the perspective of Riegl’s value system.⁴¹

Today, on the other hand, international institutions such as ICOMOS (*International Council on Monuments and Sites*), DOCOMOMO (*Document and Conservation of*

³⁶ Müge Cengizkan, *Endüstri Arkeolojisiinde Mimarlığın Yeri: Sanayinin Terkettiği Alanlarda Yeniden Mimari*, Mimarlık (308), p.40-41

³⁷ Alois Riegl, *The Modern Cult of Monuments: Its Character and Origin* (1903)

³⁸ Filiz Atay, *Alois Riegl’in Tarihi Anıtlar Kuramı ve Modern Kült Olarak* (Restorasyon ve Konservasyon Çalışmaları Dergisi, 16, 21-26, 2016) p.21

³⁹ Ibid, p.23

⁴⁰ Müge Cengizkan, p.40

⁴¹ Atıf Emre Bayındır, *Integration of Industrial Heritage Areas into the City Through Urban Design: The Case of Sümerbank Nazilli Textile Factory Campus* (Middle East Technical University, 2019) p.33

Buildings, Sites and Neighborhood of the Modern Movement) and ERIH (*European Route of Industrial Heritage*) are formed to set standards for studies in industrial heritage. As a subsidiary foundation of ICOMOS, TICCIH (The International Committee for the Conservation of the Industrial Heritage) (2003) defines industrial revolution as

*“From the Middle Ages, innovations in Europe in the use of energy and in trade and commerce led to a change towards the end of the 18th ..., with developments in the social, technical and economic circumstances of manufacturing sufficiently rapid and profound to be called a revolution. The Industrial Revolution was the beginning of a historical phenomenon that has affected an ever-greater part of the human population, as well as all the other forms of life on our planet, and that continues to the present day.”*⁴²

Moreover, contemporary definition of industrial heritage was also formed by TICCIH in “*The Nizhny Tagil Charter for the Industrial Heritage*” in 2003, as follows;

*“Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education.”*⁴³

Although TICCIH and related institutions emphasize “*What deserves to be conserved?*” in their definitions of industrial heritage, the question of “*Why does it deserve to be conserved?*” is also significant while discussing industrial heritage. As one of the most direct answers to related question, “*if it affects the history of cities and people’s lives, it deserves to be conserved*”.⁴⁴ When considering the profound influences of industrial revolution to the world in the last two centuries,

⁴² TICCIH, *The Nizhny Tagil Charter for the Industrial Heritage* (Moscow, 2003)

⁴³ Ibid

⁴⁴ Hikmet Eldek, *Value Assessment for Defining the Conservation Principles for Kayseri Sumerbank Bez Fabrikası* (Middle East Technical University, 2007) p.97

as their physical remains, industrial heritage is also perceived as an indicator for local, national and international history for future generations with its scientific and technological improvements.⁴⁵

2.3 Airport as Industrial Heritage

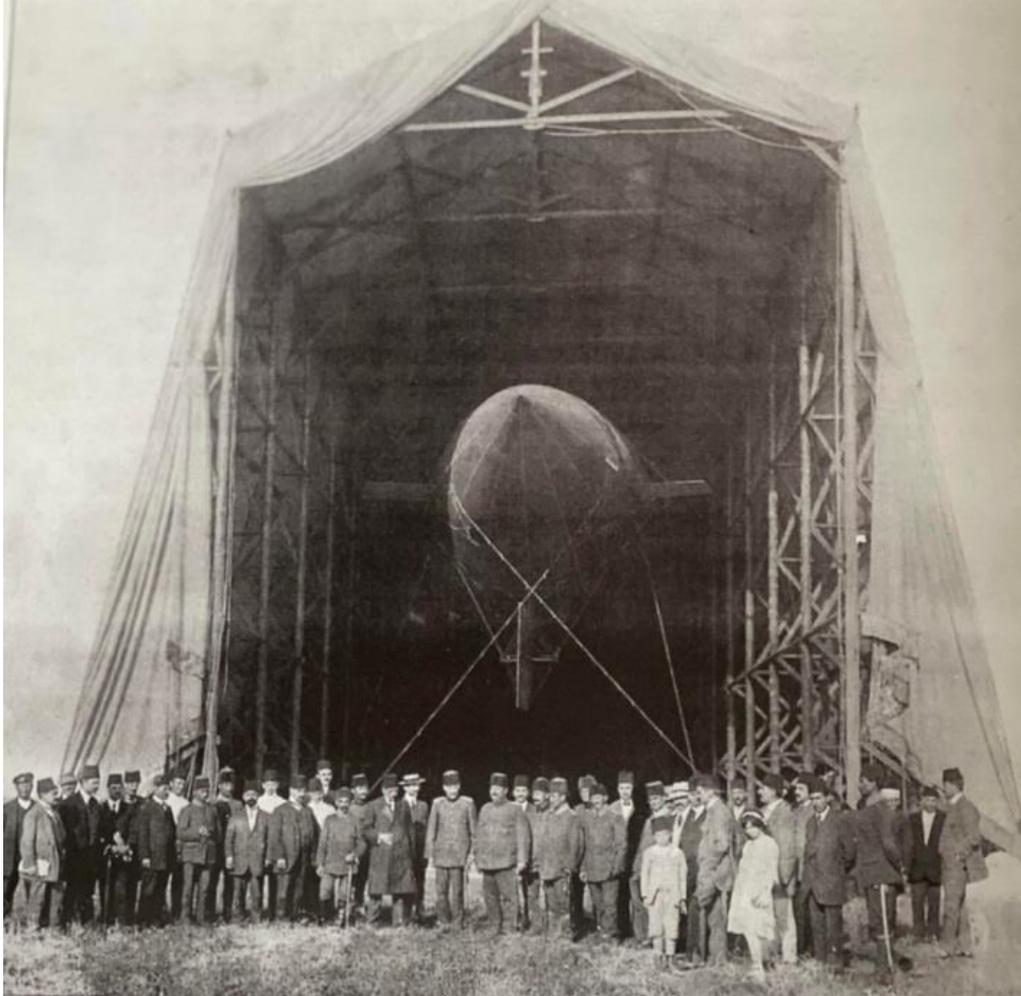


Figure 6: Baloon PL-9 is parked in its hangar at St. Stefano (Yeşilköy) Field
5 August 1913, Retrieved from Kline,S. (2002) *Türk Havacılık Kronolojisi / A Chronicle of Turkish Aviation*, Havaş Yay., İstanbul, p.74

⁴⁵ Joint ICOMOS-TICCIH, *Principles for the Conservation of Industrial Heritage, Sites, Structures, Areas and Landscapes* (Dublin, 2011)

Industrial age is illustrated on the changing means of transportation as well. Starting with the motor vehicles on the sea and land, particularly trains and steamships, transportation had been totally transformed in terms of speed, distance and number of passengers during the 19th century. Not only the vehicles themselves but new building typologies train stations, seaports became indispensable items of the modern life. By the end of the century more recent vehicles, automobiles, buses, zeppelins and airplanes entered the scene with their particular complementing buildings and sites. While many of these transportation buildings are still in use, the abandoned ones are mostly regarded as valuable heritage buildings deserved to be conserved and adaptively re-used. To exemplify, one can count Gare d'Orsay in Paris serving as a Fine Arts Museum, Cincinnati Union Terminal which is a Museum and Cultural Center, or train repair workshops which are converted to a modern art museum (CerModern) in Ankara are amongst the train facilities. CPR Steamship Terminal in Victoria/Canada is a similar example related with the historical naval transportation facilities. One can also count La Guardia Marine Airport Terminal which still functions but has been listed in the National Register of Historic Places since 1982.⁴⁶

Since the “airport” as an architectural typology appeared in the 20th century - more than hundred years after the Industrial Revolution -, awareness on conservation of airport facilities is arising gradually in the recent years. The reason is that a number of airports started to share the same fate with the earlier industrial spaces which resulted in abandonment. While considering the strong connection between the airport typology and the aviation industry which evolves continuously with new technologies and transportation habits, in the upcoming years, it can be easily predicted that the number of vacant and dysfunctional airport facilities will be multiplied. As different from most of the singular industrial spaces, airports with its airfield, warehouses, terminal buildings and large open spaces constitute a campus

⁴⁶ National Register of Historic Places, *State Listings* (n.d.)

which establishes multi-directional relations with the city. Therefore, conservation and refunctioning of the airport sites appear as a significant subject also for the city itself. In order to take vacant and abandoned airports under protection, methodical knowledge on industrial heritage of the related institutions such as ICOMOS and DOCOMOMO should be implemented for them. Moreover, with the intention of remarking airports facilities as industrial heritage, at the first place, the persuasive references such as potential values of an airport are examined. However, it is considered necessary to emphasize that although the theoretical framework of this thesis uses definitions and concepts developed in the field of “Conservation of Cultural Heritage”, it does not look into the legislative or bureaucratic aspects (registration etc.) or attempt to document the buildings through drawings. Indeed, with the instrumentalisation of definitions and concepts, the aim of this thesis is to define airports and aviation buildings as industrial heritage and to study refunctioning themes for their futures.

In order to define airports and aviation buildings as industrial heritage, the starting point should be manifesting the values that they have. In addition to intentional and unintentional monuments in *The Modern Cult of Monuments: Its Character and Origin'* (1903), Riegl mentions certain values that monuments may have, such as *age value, historical value, use value, newness value* etc. Categorizing values with different characteristics lends assistance to describe typology of values.⁴⁷ Furthermore, it is important to put forward values of the monuments because only the ones that are valued are going to be protected.⁴⁸

Considering airport as industrial heritage, the definitions of *historical value* and *use value* by Riegl may serve to constitute these values for aviation facilities.

⁴⁷ Harveen Bhandari, Prabhjot Kaur, Aruna Ramani Grover, *Assessment of Significance of Cultural Heritage - A Value Based Approach* (The SPA Journal of Planning and Architecture, Vol.20, No: 3-4, 2016) p.41-56

⁴⁸ Azadeh Vafadari, *A Short Introduction to Values and Significance* (CPF Advanced Online Training, 2020)

Historical value, according to Alois Riegl, refers the continuity on a historical process of humankind.⁴⁹ As distinct from age value, what significant is an original state of monument without any interventions. Moreover, the monument should be protected as it is, in order to transfer to future generations for better conservation. When it is taken into account that airports and airfields became centers for milestones of humankind such as wars, experimentations and tragedies, historical value of the most airports and aviation facilities cannot be ignored. Most of the modern airports in today are the historical sites of the pioneer airfields and aviation facilities at the same time. This means that what we see as cutting-edge terminal buildings contain also a national aviation history in the first place and therefore the historical values of these sites should be firstly identified and then protected.

Different than historical value, one of the values that Riegl mentions in its processor article is *use value*. In terms of his study, the physical and psychic lives are compared and former one is highlighted as prerequisite for the latter one.⁵⁰ As a consequence, in order to protect all the values that a monument has, first of all, use value should be secured. The use value of an airport, on the other hand, suggests aircrafts and traffic of humans and goods. In brief, in order to protect the use value of an airport, first, the functionality of the airport should be continued properly. To be a more precise, the most preferred mechanism for conserving an airport site may be considered as the prolongation of that site as operational. Besides any other function, only the aviation activities are able to preserve the original memory of the site. Although it may not be possible to continue mass and commercial aviation activities in every case, secondary aviation services such as flying school or private jet terminal can be suggested during the design process of airport conservation. Moreover, from a different point of view, use value of airports is still significant. Airport as an architectural typology can be regarded as one of the most uneconomic ones from the both financial and physical size perspectives. Despite the fact that

⁴⁹ Alois Riegl, *The Modern Cult of Monuments: Its Essence and Its Development* (1903) p.75

⁵⁰ *Ibid*, p.79

there are a vast number of vacant airports all around the world, with its all infrastructure and specific land conditions, abandonment of an airport equals to waste of all financial, technological and ecological resources. In short, use value of an airport also represents as a framework of efficiency from different perspectives at the same time.

One of the other key features of the airports in general is their capacity to represent the aesthetic and technological advancements in the era when they were built. Due to the magnitude of both the size and cost, aviation facilities and airports are generally perceived as a symbol for country's prestige and development by the governments. Therefore, most of the airports belonging the capitals and metropolises reflect the aesthetic cognizance and technological evolvments of their periods. The aesthetic expression of an airport can have references to the particular ideologies of the regimes as well as to the internationally acclaimed building styles gaining extra credit for its celebrity architects. As one of the most significant examples for the airports emphasizing their aesthetic value is TWA Flight Center designed by Eero Saarinen located in the John F. Kennedy Airport in New York (Figure 7).⁵¹ The building resembles a monument of aviation more than a functional terminal and it was designed with the intent to advocate of air transportation after the World War II.⁵² Therefore, this passenger terminal exceeds its function and has been highlighted with its aesthetic and technological values by many architectural historians. Now, the building was transformed as a hotel lobby and opened in 2019 after Trans World Airlines (TWA) was terminated in 2001 (Figure 8).⁵³

On the other side, technological significance of an airport can also stem from different contexts. The structural engineering techniques such as steel structure with glass façade or unique structural systems for large spans can be the

⁵¹ Luke Fiederer, *AD Classics: TWA Flight Center/ Eero Saarinen* (June 16, 2016)

⁵² Ibid

⁵³ Andrew Yin, *TWA Hotel: Back to the Future*, University of Toronto Art Journals, 3, 76-85, p.76

technological value for an airport such as the cable roof structure of the Dulles Airport in Washington, USA (Figure 9). The technological value can also be connected with the aviation equipment that the airport has such as radio equipment or luggage systems (Figure 10, 11). In either case, the aesthetic and technological values of an airport are linked with the historical period when it was built, and to this respect the airport and aviation facilities should be comprehended as industrial heritage.



Figure 7: *TWA Flight Center*

Retrieved from <https://www.abandonedspaces.com/public/the-famous-twa-flight-center-terminal-of-jfks-airport.html?chrome=1>



Figure 8: *TWA Flight Center as a Hotel Lobby*

Retrieved from <https://www.twahotel.com/photos>



Figure 9: *Dulles Airport in Washington, USA, designed by Eero Saarinen*
Retrieved from <https://www.dullesmetro.com/project-status/project-timeline-history/>



Figure 10: *The Interior of New Orleans International Airport*
Retrieved from <https://edition.cnn.com/travel/article/new-orleans-old-msy-abandoned-terminal/index.html>

Besides the physical creation of space, airports have been also inspirational for architects and academicians with respect to perception of aesthetics. For example, one of the most important aspects in the airport site is the voidness and it was discussed in the academic literature as well. According to Le Corbusier, the act of

flying is so impressive that there is no airport architecture that rivals with it unless it is invisible one, or “a naked airport” in his words (Figure 12).⁵⁴



Figure 11: *Passenger Lounge of Istanbul Atatürk Airport*

Prospectus of Yeşilköy Airport new terminal building, 1983, Hayati Tabanlıoğlu, Retrieved from <https://archives.saltresearch.org/handle/123456789/92613>

Thus, Le Corbusier highlighted the landscape of the airport site rather than architecture of the airport such as terminal buildings, warehouses, etc.⁵⁵ Considering his quotation, the preservation and refunctioning of an airport can be also conceptualized with its airfield and landscape from the perspective of industrial heritage. The re-use of an airport should not be limited to its constructed buildings since the transformation should include the wide-open spaces of the

⁵⁴ Patricia van Ulzen, Book Review of *Naked Airport: A cultural history of the world’s most revolutionary structure* (Journal of Tourism and Cultural Change, 2012) p.1

⁵⁵ The term “naked airport” would be an inspiration for Alastair Gordon’s book named as “*Naked Airport: A Cultural History of the World’s Most Revolutionary Structure*”.

airport site. With this unique context of the airport, it is separated from the singular industrial buildings. In this regard, the airport sites can be associated with the regional industrial sites such as Ruhr, Germany or Zonguldak, Turkey in terms of industrial sites (Figure 13, 14).



Figure 12: *Le Corbusier's Sketch for a Naked Airport, 1946*

Retrieved from https://www.researchgate.net/figure/The-beauty-of-an-airport-is-in-the-splendor-of-wide-open-spaces-Le-Corbusiers-sketch_fig14_333661596



Figure 13: *Industrial Region of Ruhr, Germany*

Retrieved from <https://ourworld.unu.edu/en/essens-award-winning-blueprint-for-greening-the-postindustrial-city>

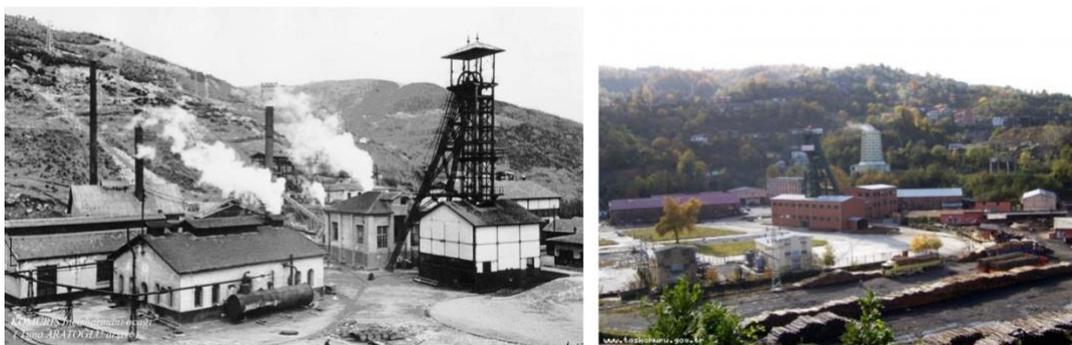


Figure 14: *Industrial Region of Zonguldak, Turkey*

Retrieved from *Ayşem Kılınc (2009) Value Assessment for Industrial Heritage in Zonguldak (Middle East Technical University) p.121*

Besides the potential values of an airport, a common question that comes to mind is “*Why airports should be perceived as industrial heritage?*”. To find an answer to this question, various industrial heritage depictions from related institutions can be addressed. According to one of these institutions, World Heritage List (2002) defines industrial heritage as follows; “*an outstanding example of a type of building or architectural ensemble or landscape which illustrates (a) significant stage(s) in human history*”.⁵⁶ In this respect, aviation, as both a military force and a transformation system, has not only changed the world for last hundred years with affecting wars and in company with world policies, it also re-formalized globalization with minimizing distances.

In the upcoming case studies section, it will be emphasized detailed that airfields and pioneer airports had determined the course of events in particular World War I. and II. Within this context, airports are not mentioned as just a space of warfare, but also a place of hope such as *Air Bridge in Berlin Tempelhof Airport* or a place of success such as *Paris Le Bourget Airport* as the final destination of *Charles Lindbergh*’s first transatlantic flight.

⁵⁶ Arthur Pedersen, *World Heritage manuals: Managing Tourism at World Heritage Sites: a Practical Manual for World Heritage Site Managers* (UNESCO World Heritage Centre, France) p.16

In addition, airport sites were complex structures that not only consist of terminal buildings and airfield, but also warehouses, machine shops and even sky schools in the first half of the 20th century. Most of the time, these different facilities from different time periods have merged in progress of time and formed today's modern airport sites. For this reason, in the present, the modern terminal buildings with cutting edge technologies hide both national aviation and city's history at the same time. In other words, airports can be comprehended as living museums that remind of those times.

Besides, air transportation has also affected today's world from a different viewpoint. If it is assumed that the main driving force of globalization is liberalization of world trade, then its counterpart becomes cost-effective transport and communication.⁵⁷ During the recent years, the improvements on the aviation industry have popularized distanced transportation. As a consequence, with connecting distinct economies and cultures, aviation brings about also both cultural and social cross-fertilization, economic boost, and consequently diversity in global environment.⁵⁸ In brief, in a globalized world nowadays, aviation has become a generative role from economic, social and cultural aspects, just as the internet affects the world radically. From this viewpoint, airports and related aviation buildings, on the other hand, can be perceived as physical places of these alterations on human-kind and witnesses of success with technological achievements defining the 20th century.

⁵⁷ Tom Erik Julsrud, Anne Gjerdåker, Harald Thune-Larsen, *The significance of aviation in a globalised World* (Institute of Transport Economics Norwegian Centre for Transport Research, TØI Report 1158/2011, 2011) p.1

⁵⁸ P. Stephen Dempsey, *Airport Planning & Development Handbook: A Global Survey* (New York, McGraw-Hill, 2000)

CHAPTER 3

A COMPARATIVE REVIEW OF MAJOR ABANDONED AIRPORTS

Influence of the trend on aviation industry has been more and more visible, while several pioneer airport examples in the world have been already abandoned and re-functioned differently. Although there is diversity of the re-functioning scenarios depending on the scales of airports, in order to compare with the Istanbul Atatürk Airport to provide a guideline for its transformation, the examples are limited by taking into consideration of their location, size and the connection with the cities, their decision mechanisms during their transformation processes, and their reuse scenarios. The ones that are not selected for detailed research are listed in order to inform for further studies (Table 3). In general manner, these unlisted examples are small scaled ones when compared to Istanbul Atatürk Airport.

While some examples can attract attentions with their inspired reuse functions, in the cases of others, the debates on balancing between public interest and economic priorities can be significant. In parallel with this purpose, in this section, *Berlin Tempelhof Airport*, *Paris Le Bourget Airport*, *Hong-Kong Kai-Tak Airport* and *Athens Ellinikon Airport* are researched respectively, before elaborating on the proposals about the future of Istanbul Atatürk Airport. The basic information related to the selection criteria of these airports is summarized in the following table (Table 4).

Table 3: A Table Showing Various Case Studies Not Examined in Detail

Retrieved from *Gülşen Aytaç, Melike Akkaya, 2019, Airport Transformation in Greenfield Production, A Comparison Study of Atatürk Airport, International Journal of Architecture and Urban Studies, and updated by the author*

Airport	Location	Situation	Method	Result
Reykjavik	Iceland	Project Level	Debate/Competition	-
Riem	Munich	Completed	Municipal	Multiple Usage
Taichung	Taiwan	Completed	Competition	Multiple Usage
Stapleton	Denver	In Progress	Foundation	-
Downsview	Toronto	Completed	Competition	Public Park
Caracas	Venezuela	In Progress	Competition	Public Park
Casablanca	Morocco	Project Level	Competition	-
Oldenburg	Oldenburg	Completed	Government	Photovoltaic Plants
Johannisthal Airfield	Berlin	Completed / Partly Abandoned	Government	Public Park / Aerodynamic University
Gdańsk- Wrzeszcz	Gdańsk	Completed	Government	Housing / Shopping Mall
Kraków- Rakowice	Kraków	Completed	Government	Museum
Croydon	London	Completed	Government	Museum
Maurice Rose Airfield	Frankfurt	Completed	Government	Public Park

Table 4: *A Table showing different characteristics of the case studies created by the author*

	Size	Location	Decision Method	Reuse Status	Current Situation (2021)
Berlin Tempelhof Airport	386 ha	City Center	Referendum	Public Park / Refugee Center	Completed
Paris Le Bourget Airport	553 ha	Outskirts	Government	Museum / Fair	Completed
Hong Kong Kai – Tak Airport	300 ha	City Center (Harbor)	Government	Cruise Terminal / Under Development	In Progress
Athens Ellinikon Airport	530 ha	Coastline	Government	Olympic Complex / Under Development	In Progress
<i>Istanbul Atatürk Airport</i>	<i>854 ha</i>	<i>Coastline/ City Center</i>	<i>Government</i>	Public Park / Pandemic Hospital / Fair	In Progress

2.4 Berlin Tempelhof Airport

Tempelhof Field is one of the most controversial sites in Berlin since the beginning of the 20th Century. Its history has been parallel with the city in addition to being the center of Berlin's both political and cultural grounds. To understand the importance of *Tempelhof* in the urban memory, Berlin's unique history in the twentieth century should be considered.



Figure 15: *Aerial Photograph of Tempelhof Field*

Retrieved from <https://sfuurban.files.wordpress.com/2012/06/tempelhof-aerial.jpg>

Berlin became the capital of the most notorious political constitution - Nazi regime - and affected from the destructiveness of the World War II. Soon after, it has become the center of the Cold War and it was isolated and divided by a more than 140 km. long wall for almost half a century. Nowadays, on the other hand, Berlin is noticed as the city of freedom, art, culture and underground. These intensive political and cultural changes have reflected the city physically and thus the components of the city such as *Tempelhof* Field have been affected from these alterations.

2.4.1 History

The characteristic of the *Tempelhof* field is just as Berlin; continuously changing. While its historical journey began with a document from 1247 which indicates Tempelhof as a unit of the Knights Templar, destiny of the land is changed on 8th October 1923 when the Tempelhof was established as an airport.⁵⁹ Until that date, Tempelhof had hosted significant air experiments by Wright Brothers and Armand Zipfel in the 1920s.⁶⁰ After the establishment of Deutsche Luft Hansa Company in 1926, the first terminal was built in Tempelhof in 1927 and it was accepted as one of the most significant airports in Europe with Paris Le Bourget and London Croydon Airport.⁶¹ In the beginning, the simple but innovative terminal building located in the northern part of Tempelhof, was sufficient for flights to certain cities across the continent and beyond. However, when Adolf Hitler came into power in 1933, the fate of the airport began to change. As a manifestation of becoming a “world capital” and National Socialist power, Berlin’s Tempelhof Airport was planned to be converted into a hub for international flights.⁶² In this respect, with Albert Speer’s plan, existing terminal building was replaced with an eagle shaped huge sized terminal building. While the terminal building directly refers to the Hitler’s National-Socialist plans with both its scale and its style, it also contains architectural duality, like its historical duality. Although the front façade of the building represents rigid symmetry, stone-cladding and over-sized proportions, the terminal building stands for modern building with its glass facades and long span structures.⁶³ This enormous terminal building contains also cutting-edge

⁵⁹ Anna Bijak, Kinga Racon-Leja, *Political Aspects of Tempelhof Field* (Technical Transactions, 2/2018, 2018) p.28

⁶⁰ Clare Copley, *Curating Tempelhof: negotiating the multiple histories of Berlin’s ‘symbol of freedom’* (Urban History, Vol.44, Issue 4, 2016) p. 702

⁶¹ Dagmar Zadrazilova, *The British Berlin Airlift Association* (2015) p.1

⁶² Clare Copley, p.702

⁶³ Ibid, p.702

technologies of that time such as separate levels for baggage and people.⁶⁴ In this respect, Norman Foster calls Tempelhof “mother of all airports”.⁶⁵

Tempelhof has always been in the limelight for more social and political circumstances than its buildings. On May 1, 1934, Tempelhof Airport hosted the celebration of “Day of National Work” with a massive crowd.⁶⁶ Hitler’s speech with the large Nazi Party swastika flags manifested that Tempelhof was not only an airport; it was also propaganda tool for Nazi regime both national and international scale (Figure 16).



Figure 16: *Hitler’s Speech at Tempelhof Field on May 1, 1934*

Retrieved from <https://reichsfoto.wordpress.com/2019/05/09/adolf-hitler-speaks-at-tempelhof-field-in-berlin-01-05-1934/>

⁶⁴ Anna Bijak, Kinga Racon-Leja, p.29

⁶⁵ New York Times, *Seven Leading Architects Defend the World’s Most Hated Buildings* (5 June, 2015)

⁶⁶ Dagmar Zadrazilova, p.1

It was not the only way of using Tempelhof by the regime. What is generally overlooked in the history of Tempelhof is that it was used as an experimental concentration camp named as “*Columbia*”.⁶⁷ This concentration camp, which imprisoned 8,000 intellectuals, communists, homosexuals and politicians, later became a pioneer for other concentration camps and chiefs of other notorious camps had been initially trained in here.⁶⁸ Finally it was closed in 1936 and the building of concentration camp was demolished in 1938 in order to make room for the construction of the terminal building.⁶⁹

During the World War II, Tempelhof was neither bombed nor damaged owing to the fact that there was a re-use potential by the Allied Forces after the war.⁷⁰ At the end of the war, the importance of the airport was escalated at another level. With the beginning of Berlin blockade between 1948 and 1949, Tempelhof was transformed into a gateway to freedom by West Berliners.⁷¹ The only way that connects West Berliners to the rest of the world is the air supply operation called “Airlift” which was organized from this Airport.⁷² Therefore Tempelhof become a symbol of freedom in the cultural memory of Berlin by the help of “Airlift” period.

Tempelhof Airport opened its doors to civil aviation in 1951 and both the American forces and civil transportation had used the airport concurrently until 1994.⁷³ Within this period, *Berlin Tegel Airport*, located on the north-west Berlin, was inaugurated in 1948 with the intention of breaking the blockade and most of the air traffic was gradually transferred and concentrated on there.⁷⁴ As a result, Tempelhof started to be used mostly for VIP flights, which decreased its

⁶⁷ Ibid, p.2

⁶⁸ Anna Bijak, Kinga Racon-Leja, p.29

⁶⁹ Clare Copley, p.700

⁷⁰ Anna Bijak, Kinga Racon-Leja, p.29

⁷¹ Clare Copley, p.703

⁷² Anna Bijak, Kinga Racon-Leja, p.30

⁷³ Ibid, p.31

⁷⁴ Berlin Brandenburg Airport GmbH, *Berlin Tegel Airport* (n.d.)

importance.⁷⁵ In the end, Tempelhof Airport was closed in 2008 by the decision of making Berlin Schönefeld as the main airport.⁷⁶ However, it was not the end of Tempelhof Field.

2.4.2 After the Abandonment / Citizens vs. the Government

After its closure, a competition was held in order to develop strategies for the reuse Tempelhof Field in 2009. This green space over 300 hectares in the heart of Berlin attracted architects' attention and wide range of proposals were submitted. The winning project, which was designed by consortium of three different architecture offices (GROSS.MAX, Sutherland Hussey Architects and Chora), proposes development housing blocks located on the outer circle of the field, circular paths on the recreational space with claiming the field become a living room of the city (Figure 17).⁷⁷

Besides, other proposals, which emphasize the significance of the field in the urban memory, were also discussed publicly and academically (Figure 18).⁷⁸ Even after the winner was made public, alternative proposals were continued to be produced by both architects and students. In this respect, Tempelhof Field with its untouched green space and the physical and historical relationship with the city becomes an appetizer for professionals. The common point of these proposals is offering new functions in the field while leaving alone the terminal building without intervention.

In contrast to eagerness of architects to design and transform Tempelhof Field, the residents of Berlin did not want redevelopment plans by the authority. For

⁷⁵ Dagmar Zadrazilova, p.3

⁷⁶ Anna Bijak, Kinga Racon-Leja, p.31

⁷⁷ Damian Holmes, *GROSS.MAX with Sutherland Hussey win Parklandschaft Tempelhof* (World Landscape Architect, May 23, 2011)

⁷⁸ One of the most interesting proposals should be mentioned; The Berg by Jacob Tigges. He proposes 1,000 metres high mountain in the abandoned airport field with aiming not to construct but manifest the significance of the site.

Berliners, redevelopment project means both environmental loss and risk of gentrification. Despite the insistence of Berlin’s Senate on the redevelopment project, Berliners rejected the project on a referendum with 64.3% negative votes.⁷⁹ Local citizens’ initiative, *100% Tempelhof Field*, was a major organization which coordinated the reactions of the public.



Figure 17: *Winner of the Tempelhof Field Competition*
 by GROSS.MAX, Sutherland Hussey Architects and Chora, Retrieved from Bijak, A., Racon-Leja, K. (2018) *Political Aspects of Tempelhof Field*, *Technical Transactions* 2/2018



Studio SPTA’s Competition Entry

The Berg by Jacob Tigges

Figure 18: *Other Proposals of the Tempelhof Field Competition*⁸⁰
 Retrieved from Bijak, A., Racon-Leja, K. (2018) *Political Aspects of Tempelhof Field*, *Technical Transactions* 2/2018

⁷⁹ Dagmar Zadrazilova, p.3

⁸⁰ The proposal by Studio SPTA consists of two levels. While the lower level is reserved for various activities, the upper level serves as a park.

In May 2010, Tempelhof Field, as known as Tempelhof Freiheit (Freedom), was opened as the largest park in the city.⁸¹ From that time, for Berliners, Tempelhof is a large green space that can accommodate cyclers, joggers, walkers, flying kites, etc. Apart from the park, by the end of the 2015, Tempelhof Field has had another function; refugee camp (Figure 19).⁸² Since the refugee population has reached 80,000 in Berlin, where the housing problem has become maximized over the last years, a shelter for refugees was required.⁸³ Thus, the hangars and terminal building of the Tempelhof Airport have been transformed into one of the largest refugee centers in Europe.⁸⁴ However, once more, Tempelhof has been centered in the political ground of Berlin. It is apparent that Tempelhof Airport and Berlin cannot be dissociated from each other in terms of the political, historical and social perspectives.



Figure 19: *Tempelhof Terminal Building as a Shelter for Refugees*

Retrieved from <https://www.dw.com/en/berlin-to-stop-housing-refugees-in-tempelhof-hangars-in-theory/a-19415068>

⁸¹ Dagmar Zadrazilova, p.3

⁸² Marcus Alan Owens, *Geopolitical Ecologies: Tracing the Shift From Citizen to User at Tempelhof and the Presidio* (University of California, Berkeley, 2018) p.81

⁸³ Ibid, p.81

⁸⁴ Ibid, p.81

Besides Tempelhof Field, Berlin has started to face totally new question in recent years; What will happen to *Berlin Tegel Airport* which replaced Tempelhof in 1948. After new Berlin Brandenburg Airport was opened in 2020, the lifespan of *Tegel Airport* was also terminated as an airport.⁸⁵ The reuse developments of the airport, designed by *Tegel Projekt GmbH*, consisted of a research and industrial park for urban technologies, a new residential district and 200 hectares of landscape zone (Figure 20).⁸⁶



Figure 20: *Masterplan of Tegel Projekt*

Retrieved from <https://www.dfki.de/en/web/news/detail/News/smart-city-tegel-projekt0/>

Although it is reported that the restoration work will be mostly completed in early 2027, it appears that once more an abandoned airport in Berlin will be ground for conflicts between the government and Berliners.⁸⁷

⁸⁵ Berlin Brandenburg Airport GmbH, *The history of BER at a glance* (n.d.)

⁸⁶ Tegel Projekt GmbH, *WE ARE THE TEGEL PROJEKT GMBH* (n.d.)

⁸⁷ Tegel Projekt GmbH, *Berlin TXL – The Urban Tech Republic* (2020)

2.4.3 Interpretations and Inferences

Berlin Tempelhof Airport is a substantial case for the transformation process itself. The history backgrounds of the airport and its significance on the urban memory have resulted in citizens to raise resistance against privatization of the airport with housing and commercial functions. The airport site, which is the one of the centers during World War II once, now becomes a battlefield between the citizens and the government suddenly. Thus, more than its new life cycle, Berlin Tempelhof Airport case comes to the forefront with its decision process. Although, the field was under the threat of neoliberal policies in the first place, with the opposition of the public, the government was forced to retract the project. In this respect, it is important to note that the transformation process is to be organized with the help of non-governmental organizations in a democratic manner as much as possible. However, in order to achieve a successful transformation, the project phase should be open to public and the citizens who are the actual users of the site should participate in the design process.⁸⁸ Considering Istanbul Atatürk Airport's refunctioning progress on the other hand, public participation and impacts of non-governmental organizations and related institutions cannot be mentioned yet.

Besides the conflict between the public interest and neoliberal policies, there is also another circumstance resulted in the process; uncertainty of new functions in the Tempelhof Field. Although there is a possibility of becoming the site as empty and desolated, it brings about flexibility and multi-functionality to the site with citizens' initiatives (Figure 21). Introduction of new functions into the site encourages the connection between the citizens and the airport site and the users start to embrace the transformation of the airport. This circumstance can be

⁸⁸ Gülsen Aytaç, Melike Akkaya, 2019, *Airport Transformation in Greenfield Production, a Comparison Study of Atatürk Airport* (International Journal of Architecture and Urban Studies, 4(2), 41-52, 2019) p.43

beneficial for also Istanbul Atatürk Airport case. When it is considered that there is a lack of public spaces where the citizens express themselves in a variety in Istanbul, flexibility of the site may be an opportunity for compensating this deficiency and adoption of site transformed with new functions.



Figure 21: *Land Surfing on the Airfield of Tempelhof*

Retrieved from <https://www.berliner-kiteschule.de/2016/07/02/windskaten/>

2.5 Paris Le Bourget Airport

Paris Le Bourget Airport is located in the village of Le Bourget - 10 km from Paris – where French aviation history started. It is not only the oldest airport in France but also the most important one with the historical scenes such as Charles Lindbergh’s transatlantic flight or Hitler’s arrival to Paris in 1940. Although the airport has become invisible in recent years, with its new functions such as private jet terminal and fair organizations, it still exists in the urban memory of Paris.

Owing to its extensive plain land, in the upcoming years, Paris Le Bourget Airport is planned to be enriched with new additions and will be included in daily lives of the citizens.



Figure 22: *The 51st International Paris Air Show at Paris Le Bourget Airport*
Retrieved from <https://blog.flyvictor.com/2015/06/21/the-51st-international-paris-air-show/>

2.5.1 History

Le Bourget Airport's rich history began with the World War I as a military airfield. At the beginning of the war, Désiré Lucca, who was lieutenant in French aviation, was charged to designate a site in order to fight against the German Air Force.⁸⁹ On October 9, 1914, he landed on an airfield, located in the north of the capital between Dugny and Le Bourget and thus the required site was found.⁹⁰ Within a

⁸⁹ Seine-Saint-Denis Tourisme, *Le Bourget "aerial port"*(n.d.)

⁹⁰ Ibid

month, Paris Le Bourget Airport was ready for flights with its buildings and hangars.

After the war, it was transformed into a civil airport and officially opened in 1919.⁹¹ In a short span of time, it became one of the most significant airports in Europe with Tempelhof of Berlin and Croydon of London. It hosted business flights from Paris to London and Brussels. During its expansion, Le Bourget Airport witnessed both successful and unsuccessful flight experiments. On May 21, 1927, Charles Lindbergh was able to complete the first transatlantic flight and landed on Le Bourget Airport where two thousand people gathered to welcome him.⁹² However, every flight experiment could not succeed as Lindbergh's. Le Brix, Doret, and Mesmin, who were all reputable pilots, had decided to fly from Paris to Tokyo. On September 11, 1931, they departed from Le Bourget Airport, however, the plane crashed in the Ural Mountains and Le Brix and Mesmin died in the crash.⁹³ Like other pioneer airports all around the world, the memories of Paris Le Bourget Airport include achievements and failures, tragedies and victories at the same time. In this respect, Le Bourget Airport has become a significant place not only for French aviation history but also history of humanity.

In the late 1930s, after flight experiments, civil aviation had expanded considerably with the technological advancements. Moreover, establishment of the Air France Company and radical increase on the number of flights, Paris Le Bourget Airport could not be sufficient and new additions were planned. A competition was held by the Ministry of Aviation for more prestigious terminal building in 1935.⁹⁴ French architect, Georges Labro won the design competition a complex rectangular

⁹¹ Seine-Saint-Denis Tourisme, *The Air and Space Museum in Paris Le Bourget* (n.d.)

⁹² Raymond H. Fredette, *The Making of a Hero: What Really Happened Seventy-five Years Ago, After Lindbergh Landed at Le Bourget* (Air Power History, Vol.49, Issue:2, Air Force Historical Foundation, 2002) p.6

⁹³ Seine-Saint-Denis Tourisme, *Le Bourget "aerial port"*(n.d.)

⁹⁴ Ibid

terminal building characterized by its functionalism and modernist aesthetics (Figure 23).⁹⁵



Figure 23: *Terminal Building of Paris Le Bourget Airport (12 November 1937)*

Retrieved from <https://www.franceinter.fr/histoire/le-musee-de-l-air-et-de-l-espace-du-bourget-fete-son-centenaire-en-rouvrant-son-aerogare-historique-de-1937>

With this prestigious, contemporary and functional airport facility hosted 21,000 flights and 138,000 passengers in 1939.⁹⁶ Consequently, Le Bourget Airport became Europe's second largest airport after Berlin Tempelhof Airport with these numbers. With the World War II, the atmosphere of Europe had changed and Le Bourget Airport played a significant role. During the war, the airport was firstly

⁹⁵ Clémence Raynaud, *A Technical Museum, a History Museum and a Social Museum, the iconographical collections of the Air and Space Museum* (In Situ, 35/2018, 2018)

⁹⁶ Invisible Paris, *A Flight Back In Time* (2009)

bombed and then occupied by the German Air Force (Luftwaffe).⁹⁷ After the defeat of the French army, Adolf Hitler came to Paris for the first time on June 23, 1940 and his plane landed Le Bourget Airport as a triumphant tour. Thus, after flight experiments and short civil aviation period, Le Bourget Airport became one of the important nodes of the war. Furthermore, during liberation of Paris, Allied forces bombed and destroyed the terminal building. After the war, architect of the original building, Georges Labro was commissioned again to design the facility identically and Le Bourget Airport was opened to civil aviation once more. The number of the passengers had increased gradually over the years until 1952 when Air France decided to transfer from Le Bourget to Orly Airport as its hub.⁹⁸ Finally, in 1977, Charles De Gaulle Airport was introduced and the duty of Paris-Le Bourget Airport had been terminated as a civil airport.

2.5.2 Old Airport as a New Museum

Although Le Bourget Airport is not a civilian airport anymore, its connection with aviation continues and at the present time, still, it is used for business and VIP flights. Besides business flights, Le Bourget Airport represents its deep-rooted history with Air and Space Museum. Located at the terminal of the Paris-Le Bourget Airport and inaugurated in 1987, the museum consists of both civil and military aviation collections (Figure 24).⁹⁹

Today's Le Bourget Air and Space Museum carries out its significant role from two different perspectives; first, as a museum, it aims conserving, enhancing and exhibiting its rich collections and second, it also stands for the cultural memory of the Le Bourget Airport. It can be interpreted that Paris-Le Bourget Air and Space

⁹⁷ Agnieszka Faustyna Szuta, *Abandoned Heritage – The First European Airports* (Technical Transactions, 116, 105-117, 2019)

⁹⁸ Paris Aeroport, *The History of Paris-Le Bourget* (n.d.)

⁹⁹ Jean-Paul Siffre, *The Paris—Le Bourget Air and Space Museum : An Embarrassment of Riches* (Museum International, 49:3, 32-39, 1997) p.32

Museum represents the French aviation history with its collection in a terminal building bearing witness to this history. The collection consisted of 50 aircrafts, 77 engines, 160 scale models, a large amount of aerial photographic equipment, a dozen or more nacelles of balloons and airships, and some parachutes and kites most of which were used once in the airfield or the terminal of Le Bourget Airport.¹⁰⁰ Thus, the museum building functions not only as a shelter for the collection, but also a context of it. In order to be comprehensive aviation center, Le Bourget Air and Space Museum accommodates several events such as Annual Aviation and Space Industry Job Fair and children-oriented night event on July 21 the anniversary of landing of Apollo 11 on the moon.¹⁰¹



Figure 24: *Paris-Le Bourget Air and Space Museum*

Retrieved from <https://www.parisdigest.com/museums/air-and-space-museum.html>

¹⁰⁰ Ibid

¹⁰¹ Yu Zhang, *A renewed museum in the heart of the new “Grand Paris”* (ICOM Kyoto 2019 – MPR Conference Presentation, 2019)

On the other hand, its airfield is not accessible to public use except that former Le Bourget International business terminal, where rockets and military war aircrafts are exhibited. However, in the near future, it is planned to be a real public square like Berlin-Tempelhof Airport. In addition, for the 2024 Paris Olympic Games, the museum is going to be planned as a welcoming press space (Figure 25).¹⁰²



Figure 25: *Le Bourget Airport in Paris Olympics 2024*

Retrieved from *A renewed museum in the heart of the new "Grand Paris"*, ICOM Kyoto 2019 –
MPR Conference Presentation

Apart from the museum function, Paris Le Bourget Airport has also hosted Paris Air Show, which was held every second year, since 1953 (Figure 26).¹⁰³ As the largest international air and space show, Paris Air show lasts ten days with numerous activities, including the demonstration of new military and civilian aircraft, and people, in front of the museum building. By this way, Le Bourget Airport is not just a historical site or a museum; but a complete aviation hub with its connections to both the history and the future.

¹⁰² Ibid

¹⁰³ Ian C. Mills, *Le Bourget Airport, Travel Center* (1999)



Figure 26: *International Paris Air Show in 2019*

Retrieved from <https://www.siae.fr>

2.5.3 Interpretations and Inferences

What puts forward Paris Le Bourget Airport comparing with other cases is the continuation of the connection between aviation activities and the site. Refunctions which are related with aviation industry, can be regarded as one of the most efficient ways for the transformation of the abandoned airports. Considering the existing infrastructure, the reuses of airfields and other equipment is a rational approach without major interventions to the site. Besides economical perspective, there is much more important outcome; keeping alive site's memory. While the airport is maintained active site with private jet flights and aviation fair, Le Bourget Air and Space Museum represents the airport and the French aviation histories at the same time. It is important to provide the continuity of the airport history in such cases whose lifespan has merged with the aviation history.

When considered from these and the rich aviation history of Istanbul Atatürk Airport at the same time, transformation of Paris Le Bourget Airport may be a guide from the perspective of conserving active aviation activities. Le Bourget Airport is the complete example of combining the museum function without elimination of flights totally. During the design process of the counterpart from Istanbul, these secondary aviation activities such as private flight terminal, aviation school or aviation fairs can be considered. While, as mentioned before, it is both rational and practical from the economic aspects as well in regard to infrastructure of Istanbul Atatürk Airport with its runways and aviation equipment. Furthermore, combining these secondary aviation functions with other refunctioning scenarios is also possible for bigger aviation sites in terms of sizes.

2.6 Hong Kong- Kai Tak Airport



Figure 27: *Abandoned Hong-Kong Kai-Tak Airport*

Retrieved from '*Urban Regeneration and Heritage Preservation with Public Participation: The Case of the Kai Tak Runway in Hong Kong*', Claudio O. Delang, Yan, 2009, *The Open Geography Journal*

The location of Hong Kong – Kai-Tak Airport can be assumed as the heart of the Hong-Kong, known as a very dense city. The airport was built on the reclamation site of Victoria Harbor in South East Kowloon. Although Victoria Harbor is one of the key elements that define Hong-Kong, due to the increase of the citizen population and unique land characteristics of Hong-Kong, harbor size has decreased more than 50% with reclamations over the years. One of the biggest reclamation projects in the area was Kai-Tak Airport, which was major airport in Hong Kong until its closure in 1998, when new Chek Lap Kok Airport was opened. These limitations and the unique location of the site made Kai-Tak Airport one of the most unprecedented airports in the world.

2.6.1 History

The reclamation site of the airport, at first, was used by British Royal Air Force until 1936 when the first commercial flight by Imperial Airways was landed on the airport.¹⁰⁴ The land of Kai-Tak Airport has an intensive connection with the aviation history. Between 1925 and 1936, Royal Air Force had used the site as a flying school and a British military unit.¹⁰⁵ Prior to the transformation to civilian airport, first control tower and a hangar were built in 1935.¹⁰⁶ Kai Tak was opened as an airport for civilian aviation with the first commercial flight of Imperial Airways on March 24, 1936.¹⁰⁷ During the World War II, administration of the airport was overtaken by Japanese.¹⁰⁸ Although the second runway was built, the airport was bombed continuously. After the war, the airport site was demilitarized and the Civil Aviation Department was established in 1946 in order to operate the

¹⁰⁴ Civil Aviation Department, *Kai Tak Airport 1925-1998* (The Government of the Hong Kong Special Administrative Region, 2013)

¹⁰⁵ Justin Chapman, Andreas Georgoulis, *Sustainable Financing For the Hong Kong International Airport* (Harvard Graduate School of Design, 2010) p.3

¹⁰⁶ Civil Aviation Department, *Kai Tak Airport 1925-1998*

¹⁰⁷ Ibid

¹⁰⁸ Civil Engineering and Development Department, *The Story of Kai Tak* (The Government of the Hong Kong Special Administrative Region, n.d.)

air traffic of the site. Therefore, development on the site had accelerated and a new passenger terminal building was completed in 1962 (Figure 28).¹⁰⁹



Figure 28: *The new Terminal Building of Hong-Kong Kai Tak Airport*

Retrieved from <https://industrialhistoryhk.org/pathe-film-kai-tak-airport-terminal-building-opening-1962/>

In order to correspond to radical expansion on the population of Hong Kong after the 1960's, Hong Kong-Kai Tak Airport had to be expanded perpetually.¹¹⁰ Therefore, several development projects had been actualized and in 1996, Hong Kong – Kai-Tak Airport had become the third busiest airport for international passengers with 29.5 million people and first for international cargo in the world with 1.56 million tons.¹¹¹ Nevertheless, this effort on the expansion could not be sufficient for decision makers and consequently, to build a new airport for Hong Kong in a different location has been decided. On July 6, 1998, with the first flight landing on the new airport on Chep Lap Kok (current Hong Kong International Airport), Kai-Tak Airport has finished its mission as an airport.¹¹²

¹⁰⁹ Civil Aviation Department, *Kai Tak Airport 1925-1998*

¹¹⁰ The World Bank, *Population, total – Hong Kong SAR, China* (2019)

¹¹¹ Civil Aviation Department, *Kai Tak Airport 1925-1998*

¹¹² Hong Kong Memory, *The Naming of 'Kai-Tak'* (n.d.)

2.6.2 Under Pressure of Redevelopment Projects

After the closure of Kai-Tak Airport, at the very heart of the Hong Kong, this large abandoned area started to be considered as a significant opportunity for new urban projects and economic development. From the perspective of the government, the location and the size of the area was attractive for new housing developments with some industrial and utilities usages in a very high-dense city.¹¹³ Although, the government insisted on the plan with reasoning future population predictions, the project was rejected by the legislative council.¹¹⁴ Thus, government has noticed the importance of public opinion during a complex regeneration process located in the center of the city with different interest groups. In order to maintain the planning phase transparent, the government made a way to establishment of *'The Kai-Tak Planning Review'* in 2004.¹¹⁵ Several development projects were revealed to public via this institution and discussed by the general public. While many of the projects emphasized the housing developments dominantly in the site, there were few proposals which suggest public parks or aviation center without any housing additions.¹¹⁶ Moreover, one of the projects proposed a cruise terminal located on the former runway, which was accepted widely in the conflicting stakeholders and as a consequence, the government decided to open a tender for constructing new cruise terminal in 2007.¹¹⁷ Architectural design of Foster and Partners had been selected and the construction was completed in 2013 (Figure 29).¹¹⁸ Located at the

¹¹³ Wai-Mun Leung, Michael Miller, Michael Pierce, Irene Tsai, *Urban Planning and Development of Kai Tak Area* (Worcester Polytechnic Institute, 2004) p.5

¹¹⁴ Ibid, p.5

¹¹⁵ Claudio O. Delang, Yan Ng, *Urban Regeneration and Heritage Preservation with Public Participation: The Case of the Kai Tak Runway in Hong Kong* (The Open Geography Journal,2009) p.60

¹¹⁶ Ibid, p.60

¹¹⁷ Yui-yip Lau, Ka-chai Tam, Adolf K.Y. Ng, Athanasios A. Pallis, *Cruise terminals site selection process: An institutional analysis of the Kai Tak Cruise Terminal in Hong Kong* (Research in Transportation Business & Management 13(2014), 16-23, 2014) p.2

¹¹⁸ Foster and Partners, *Kai Tak Cruise Terminal* (n.d.)

tip of the old runway of Kai-Tak Airport, this clear rectangular prism with dynamic roof can host two large vessels consisting of 4,000 passengers at the same time.¹¹⁹



Figure 29: *Hong-Kong The Kai-Tak Cruise Terminal by Foster and Partners*

Retrieved from <https://www.fosterandpartners.com/projects/kai-tak-cruise-terminal/#gallery>

Within this period, associated with *The Kai-Tak Planning Review*, a new masterplan for the abandoned airport site was formulated for the first time in 2007 and updated several times until 2018 (Figure 30).¹²⁰

¹¹⁹ Ibid



Figure 30: *Masterplan of Hong-Kong The Kai-Tak Redevelopment Project*

Retrieved from <https://www.ktd.gov.hk/eng/overview.html>

When analyzing areas of different functions in the masterplan, it is concluded that the most occupant function on the site is housing with 40% (combination of Residential Group A and Residential Group B) of the total site (Figure 31). While residential function of the masterplan is dominant by far, green space which is the most required and asked function by the citizens of Hong Kong occupies just 23% of the vacant site. As a consequence of all negotiations between the government and different parts of the society, the future of Kai-Tak Airport was projected as the way that the government desires at the first place.

¹²⁰ Civil Engineering and Development Department, *Overview of Kai Tak Development* (The Government of the Hong Kong Special Administrative Region, n.d.)

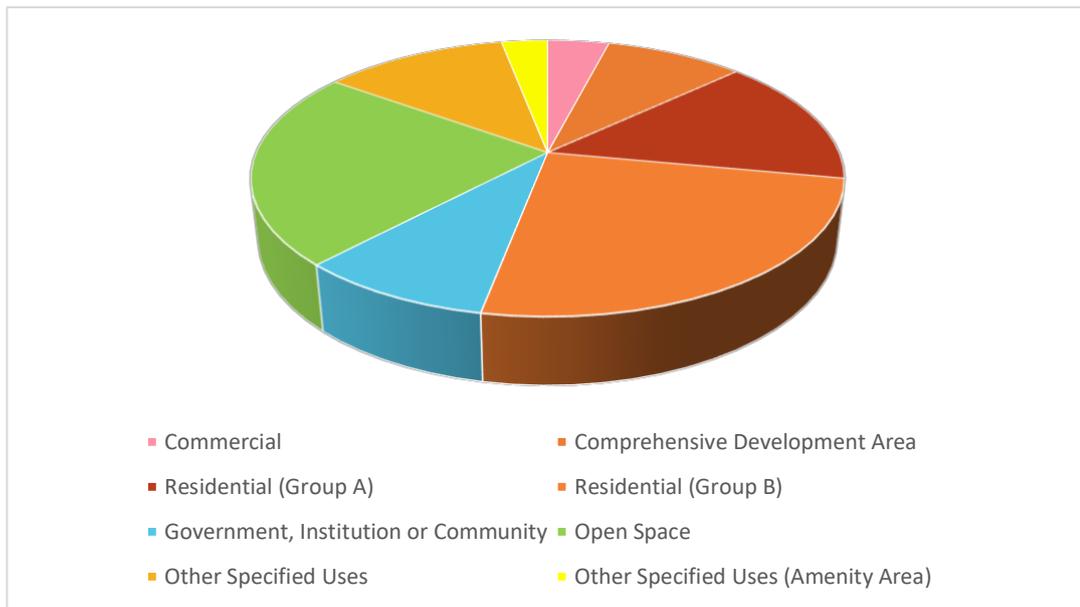


Figure 31: *Distribution of functions at The Kai-Tak Redevelopment Project converted into pie chart by the author*¹²¹, Retrieved from <https://www.ktd.gov.hk/eng/overview.html>

Today, while the edge of former airport site is used by the new terminal building, still the rest of the area is abandoned. Kai-Tak Airport is a chance for Hong-Kong, which is one of the most densely populated cities in the world, to increase public and green space bringing citizens and harbor together. Unlike conventional airports located at the peripheries of the cities, the vacant site of the Kai-Tak Airport is at the center of both the metropolis and the coastal front. Therefore, at this very unique site, conflict of interests between public and neoliberal policies has been performed.

¹²¹ This pie chart is based upon the footprint of the functions indicated in the masterplan of redevelopment project.

2.6.3 Interpretations and Inferences

The redevelopment process of Hong Kong – Kai-Tak Airport reveals the conflict between the public interest and neoliberal policies of both the government and private investors explicitly. Due to the location of the site and the demographical and geographic condition of the Hong-Kong, the abandoned airport becomes a tempting site, seen as a way to easy earning money. On the other hand, Hong-Kong falls short of offering open and green spaces to its citizens. In this respect, the abandonment of Kai-Tak Airport represents as a chance of creating public and open spaces for people of Hong-Kong. Taken both together, the site of Kai-Tak Airport becomes the center of conflicting interests under spotlights. Like in the Tempelhof case, the importance of public opinion emerges once more and construction of cruise terminal can be considered as a midway between the government and the citizens. Although the cruise terminal can be regarded as a sound starting point to transformation of the site, the site itself and its design process are far away from the complement. In the current condition of the site, the cruise terminal gives the impression of acontextual building. Existing state of the vacant field implies the significance of masterplan that is designed comprehensively and as a prior condition of extensive transformation projects. Besides small scaled interventions, extensive masterplan decisions should be implemented. In consideration of the location and the size of the Istanbul Atatürk Airport, the conflict between the public interest and the government can be expected as the process of Kai-Tak Airport. The participation of non-governmental organizations, related institutions and most importantly the citizens should be provided during the project phase of the transformation. Another outcome can be obtained from Hong Kong – Kai-Tak Airport is the implementation of the masterplan. It is revealed in case of Kai-Tak Airport that there is no perpetual and functional design solution unless a proper masterplan is applied. Therefore, during the design process of Istanbul Atatürk Airport, implementation of the masterplan should be taken seriously.

2.7 Athens Ellinikon Airport



Figure 32: *Panoramic View of Athens Ellinikon Airport*

Retrieved from <https://www.cntraveler.com/stories/2016-07-28/abandoned-greek-airport-may-become-countrys-largest-coastal-resort>

Athens Ellinikon Airport - the first civil airport in Athens – has remained abandoned since its closure in 2001.¹²² Located in Hassani on the Saronic Gulf coast, southeast of central city, Athens Ellinikon Airport not only hosted Greek civil aviation history by itself, but also become a symbol of modernization of Greece.¹²³ Although, this airport represents the cultural memory and the advancement of Greece, the site has become a target of urban development projects with the relocation of international airport. The site's unique characteristics such as size, proximity to the city center, adjacency to the sea and favorable natural environment bring about these gentrification policies by governments and

¹²² George Papakis, *The Elliniko Airport: Contested Politics and the Production of Urban Space in Athens, 1938-2014* (University of Wisconsin-Milwaukee, 2014) p.3

¹²³ Alexis Politakis, *Land Use and Property Market Impacts of the Relocation of Athens International Airport* (European Regional Science Association, 2005) p.16

multinational corporations. On the other hand, besides its cultural and historical value, the site has also a significant potential to citizens of Athens from the perspective of urban place, bringing it together with the coast and ecology. But first, in order to comprehend the importance of the Athens Ellinikon Airport, its history should be referred.

2.7.1 History

1930 was the year that the Greek government established an Air Force Ministry in order to compete with other countries' air forces.¹²⁴ The main aim of the ministry was to control both civil and military aviation and to provide modernization of Greek aviation infrastructure. Moreover, aviation era was presented as a tool for to catch first-world countries and to establish a new future for young Greek nation by articles.¹²⁵ Despite the government's significant interest on aviation, after eight years, in 1938, Athens Ellinikon Airport, the first civilian airport, was inaugurated.¹²⁶ The new airport was launched as a gateway to be integrated with advanced countries with the potential of political and financial benefits. Athens Ellinikon Airport provided service for 8,500 passengers and a ton of cargo in the first year and numbers had improved by the years until the World War II.¹²⁷

Greece got involved in the World War II on the side of the Allies and, on April 6, 1941, Germany invaded strategic sites of the country, including Athens.¹²⁸ As one of the most critical locations in Greece, Athens Ellinikon Airport was conquered by Nazis and immediately they improved facilities and airfield in order to use as strategic point during the war. By the end of the war, Ellinikon Airport was transformed from an airport with insufficient airfield and infrastructure to an

¹²⁴ George Papakis, p.69

¹²⁵ Ibid,p.69

¹²⁶ Ibid, p.77

¹²⁷ Ibid, p.77

¹²⁸ Ibid, p.85

airport which satisfies modern operations and 5,900 feet runway.¹²⁹ On the other hand, Ellinikon Airport which was also bombed at least twelve times during the World War II by the Allied forces, was damaged during the subsequent civil war.¹³⁰ Although the airport was upgraded by the Nazis during the invasion, it was not sufficient for international civil flights for post-war period. After a reconstruction, Athens Ellinikon Airport procured two airstrips with modern facilities in 1950.¹³¹ After the World War II, the population of Athens had increased rapidly and at the beginning of the 1960s, it reached to 1.8 million.¹³² High population growth and increasing popularity of aviation over the years has revealed that the location of Athens Ellinikon Airport was problematic. The main difficulty of the airport's location is the proximity to the city center. The surroundings of the site consist of very dense housing and the expansion of the airport is not possible without any demolition. In addition, from the perspective of these housing's residents, the airport has become a source for inconvenience such as noise problems causing decrease on life quality. Furthermore, such a wide open space located on the coastal front near the city center is an unfulfilled potential for Athens which is a highly-dense city with insufficient public space. After the years of indecision on expansion projects, in the 1990's, the government decided to construct a new airport in Spata and on March 28, 2001, Athens Ellinikon Airport was closed.¹³³

2.7.2 Abandonment Period

Not long after the abandonment, it was decided that main facilities of Olympics 2004 would be located on the site of the former airport. Hellenikon Olympics

¹²⁹ Ibid, p.85

¹³⁰ Ibid, p.93

¹³¹ Ibid, p.115

¹³² Ibid, p.119

¹³³ Aristodimos Komninos, *Hellinikon: Tactics of Capital Urbanization and the Collective Superstructure* (Globalizing Architecture – Flows and Distruptions, 2016) p.139

Complex, which was the second sports complex of Athens 2004 Games, would consist of the Fencing Hall, Canoe Slalom Center, the Olympic Hockey Center, the Olympic Baseball Center, the Olympic Softball Stadium and the Hellenikon Indoor Area for basketball and handball games.¹³⁴ Thus, the first re-use practice of the site was taken place without any public negotiations. Olympics infrastructure, which settled in a 1:3 of the airport's site, still exists today even it was initially declared as temporary (Figure 33).¹³⁵



Figure 33: *Olympic Facilities on the site of the former Hellenikon Airport*

Retrieved from <https://www.kathimerini.gr/economy/real-estate/757225/krinetai-i-tychi-tis-ektasis-toy-ellinikoy/>

Apart from the Olympics 2004, Ellinikon Airport has become in the limelight for investors and construction companies as a new development site due to its unique location and size, since the declaration of a new airport. The government also intended to transform the Ellinikon site to business and entertainment center in

¹³⁴ George Papakis, p.204

¹³⁵ Polina Prentou, *More Athenian sociospatial injustice in the works? Creating a metropolitan park at the former Hellenikon International Airport of Athens* (AESOP 26th Annual Congress, Ankara, 2012) p.4

order to develop tourism and real estate. However, on the other hand, local communities were against the redevelopment projects, arguing that the site should be transformed into a metropolitan park. Considering the lack of green and open spaces in Athens, grassroots organizations indicated the legitimate option is transforming Ellinikon Airport into a green park, which is both a feasible and inexpensive alternative.¹³⁶ Although the site has not been opened to public - except during the Olympics in 2004 -, there are few local attempts for reusing the former airport such as self-managed urban farm, metropolitan community clinic, civil aviation museum, voluntary tree planting.¹³⁷ While these local interventions can be considered as valuable efforts independently, none of them can design the future of the site by itself. In other words, they have been accepted as substantial objections to the ongoing redevelopment projects. The government, on the contrary, introduced privatization plans of the Athens Ellinikon Airport in September 2010.¹³⁸ The reason of government's persistence on the redevelopment plans is to overcome the economic crisis while transforming Athens into an attraction point for tourism and investments. However such privatization plans show the insensibility of the government to the unique history of the site, Athens' environmental problems and the expectations of the residents.

Afterall, Athens Ellinikon Airport is still a vacant site. Although, the privatization process has continued since 2010, due to instability in politics, deep economic crisis and opposition by public, planned redevelopment project on the former airport has not been materialized fully yet. Instead, Athens Ellinikon Airport has become the biggest political battleground of Greece during recent years.

¹³⁶ Ibid, p.13-14

¹³⁷ Aristodimos Komninos, p.142

¹³⁸ Polina Prentou, p.4

2.7.3 Interpretations and Inferences

Present condition of Athens Ellinikon Airport site reflects the political and social agenda of modern Greece. Transformation of the airport has not been designed or structured since the closure and the site is fragmented into different independent functions today (Figure 34). While the government insists on the redevelopment project on the former airport with aiming to recover economic depression in recent years, the citizens of Athens try to make themselves heard and claim the vacant site for their interests. As distinct from Tempelhof case, the redevelopment process of Ellinikon Airport is still progressing and not finished in ten years as a consequence of the public oppositions. Despite this, the government does not renounce its projection and thus the site has become more desolated day by day.

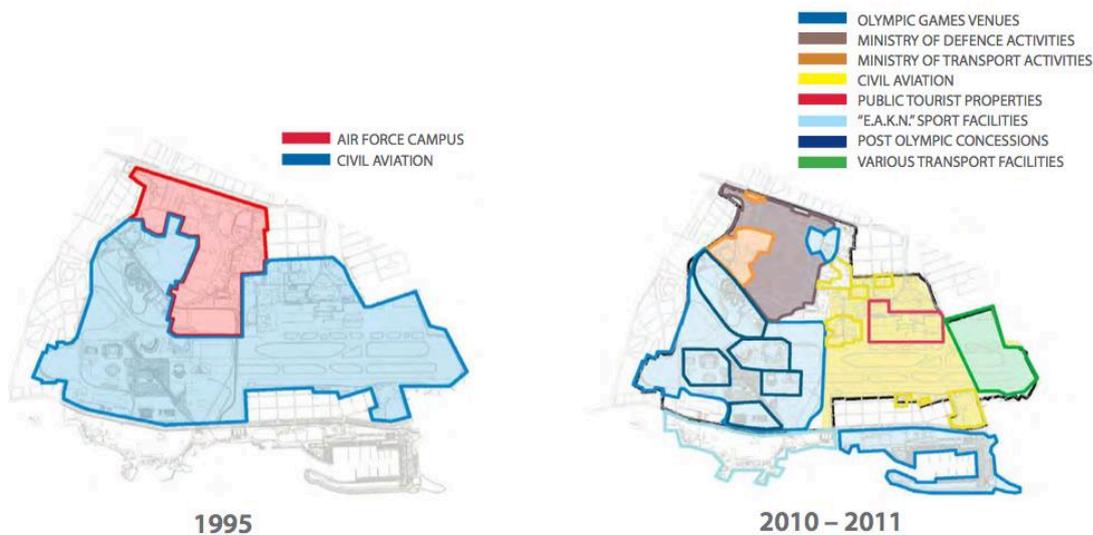


Figure 34: *Site Segmentation of Ellinikon Airport in 1995 and 2010-2011*

Retrieved from *Hellinikon Urban Development Model Former Athens Airport–Agios Kosmas Sea Front*

Athens Ellinikon Airport case resembles Istanbul Atatürk Airport in different ways. Both former airports are located in the center of the city and at sea shore. Consequently, their contexts and their effects on the sites are similar for both cases.

On the other hand, the point where two airports are dissimilar is the public opposition to the ongoing projects. In other words, while the local communities in Greece were able to affect the transformation process of Ellinikon site, in Turkey, the public opinion cannot be represented widely and for this reason it cannot contribute to the future of Istanbul Atatürk Airport. Still, considering these two abandoned airports facing each other geographically and uniting in the perspective of all context, size and redevelopment mechanism, the transformation potentials can be concluded collectively and serve as a model for both cases.

CHAPTER 4

ISTANBUL ATATÜRK AIRPORT



Figure 35: *Istanbul Atatürk Airport Aerial View*

TAV Construction, Retrieved from temavrasya.com/assets/katalog/images/katalog-haziran.pdf

Istanbul has been always both a notable destination and a transition point when considering its specific geopolitical position for many centuries. Throughout its long history, it has hosted many cultures and civilizations as both capital town and

metropolis. Today, Istanbul is still the biggest metropolis with its more than 15 million citizens as well as being the most extroverted city in Turkey.¹³⁹



Figure 36: *Istanbul Atatürk Airport Aerial View*

by Ercan Karakaş, 20.04.2008, Retrieved from <https://www.jetphotos.com/photo/6225683>

As the main airport in the metropolis and located between the Europe and Asia continents, it is not surprising that Istanbul Atatürk Airport was one of the busiest airports in the world with more than 70 million annual passengers until its closure.¹⁴⁰

¹³⁹ Turkey Statistics Institution (TUIK), *Adrese Dayalı Nüfus Kayıt Sistemi Sonuçları* (2020)

¹⁴⁰ TAV, *Istanbul International Airport* (2017)

3.1 General Information

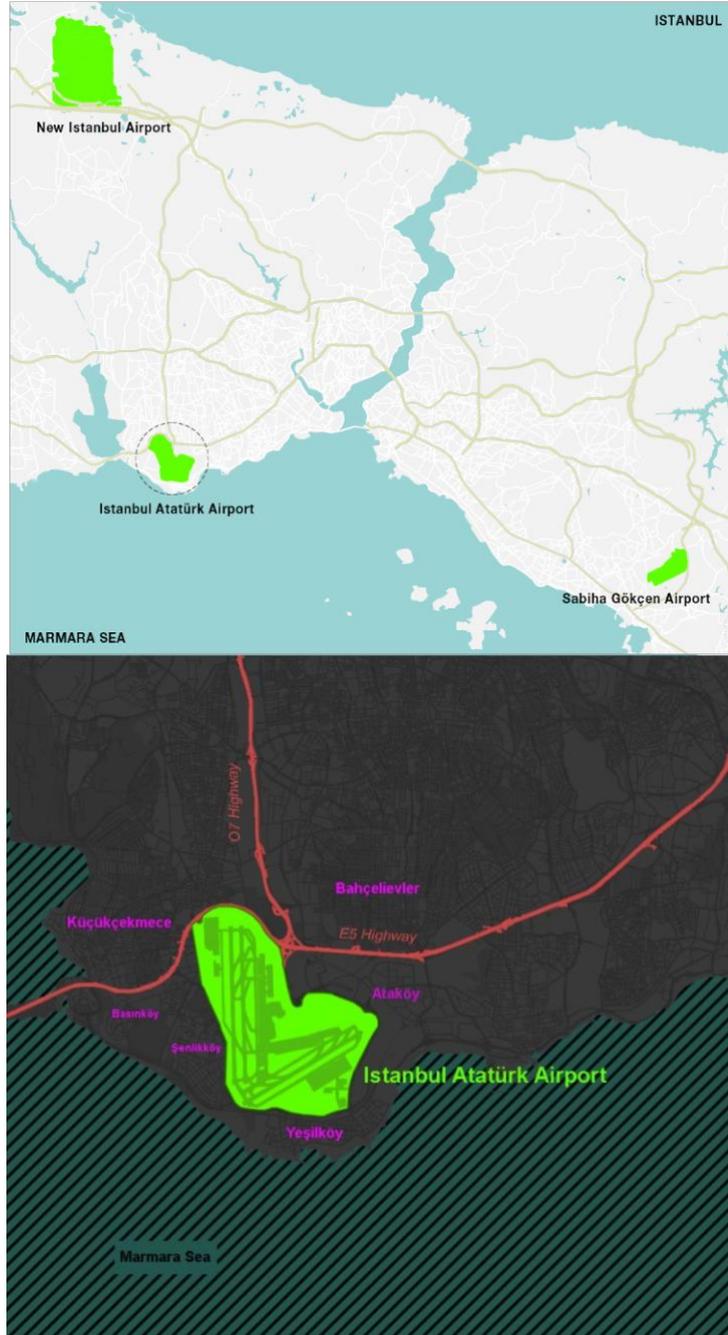


Figure 37: Location of Istanbul Atatürk Airport
created by the author

Istanbul Ataturk Airport is located at Bakırköy, which is one of the biggest districts in Istanbul, and Yeşilköy coastal neighbor in the western-part of the city (Figure 37). The site is surrounded by E5 Highway to the north, Marmara Sea to the south, Florya Atatürk Forest to the west and Ayamama Stream to the east. In terms of sizes, Istanbul Atatürk Airport occupies biggest space with 854 ha in comparison with Berlin Tempelhof Airport's 386 ha, Paris Le Bourget Airport's 553 ha, Hong-Kong Kai-Tak Airport's 300 ha and Athens Ellenikon Airport's 530 ha (Figure 38).

Owing to its location, on the other hand, this massive site is also accessible from different points. Istanbul Atatürk Airport, distanced 24km from the city center, can be reached by E5 highway, which is parallel to Marmara Sea shoreline, O7 highway, connecting the north and the south of the city, coastal road – old airport street (*Eski Havaalanı Caddesi*), and railway system network. In addition to these transportation systems, being on the Yeşilköy coast, Istanbul Atatürk Airport has a potential of integration to the marine traffic.

When focusing more on the site of the Istanbul Atatürk Airport, it is clear that current situation of the field consists of expansions and additions from different time periods. Although the extensions will be explained in detail in the next section, in order to reveal the actual value of the site, existing structures and infrastructures should be listed and supported by a map for further comprehensive interpretations (Figure 39).

According to the local authority of Istanbul Atatürk Airport (Atatürk Havalimanı Mülki İdare Amirliği), the airport contains three airstrips which are named as 05/23 (2600m x 60m) 17L/35R (3000m x 45m), and 17R/35L (3000m x 45m).¹⁴¹ Other than these airstrips, the airport has also an 369,200 m² apron where 90 medium and large sized aircrafts can be parked and a terminal building, which is 189,000 m² in total, a parking space for 7076 cars, a cargo terminal having capacity of 200,000 tons per year, an airport traffic control tower, a fire station, an unit for first-aid,

¹⁴¹ Local Authority of Istanbul Atatürk Airport, *Tarihçe* (n.d.)

hangars for aircraft maintenance, catering service buildings, operation buildings, police and security buildings.¹⁴²

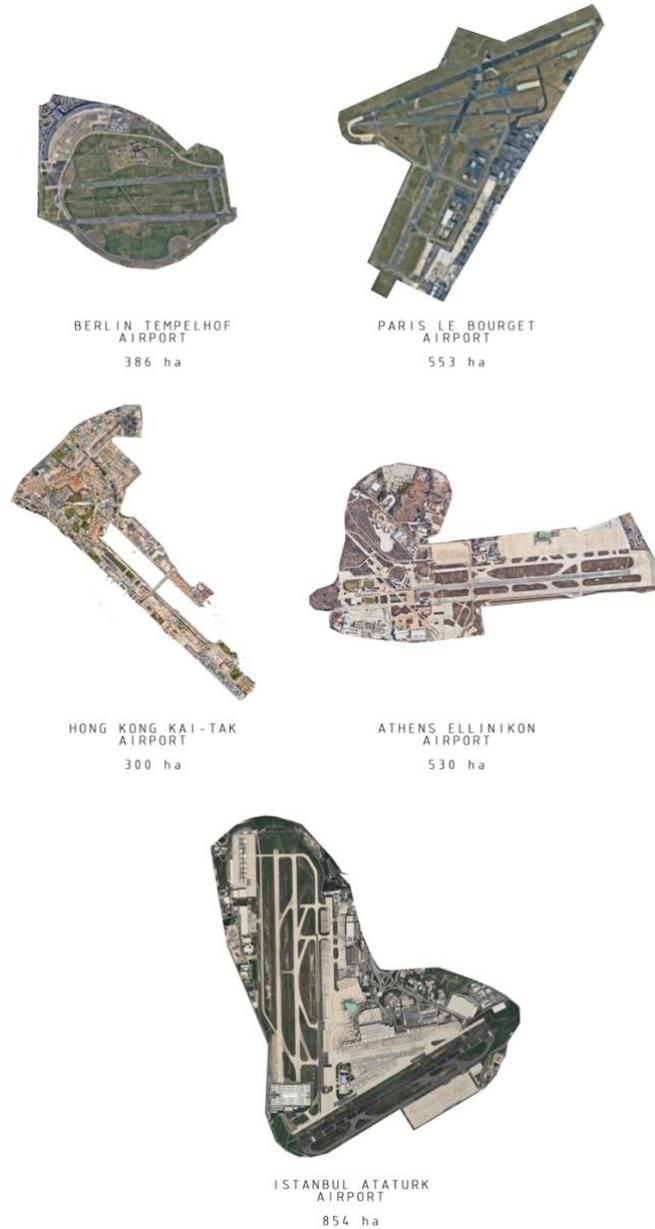


Figure 38: *Comparison of Field Areas between Case Studies created by the author*

¹⁴² Ibid

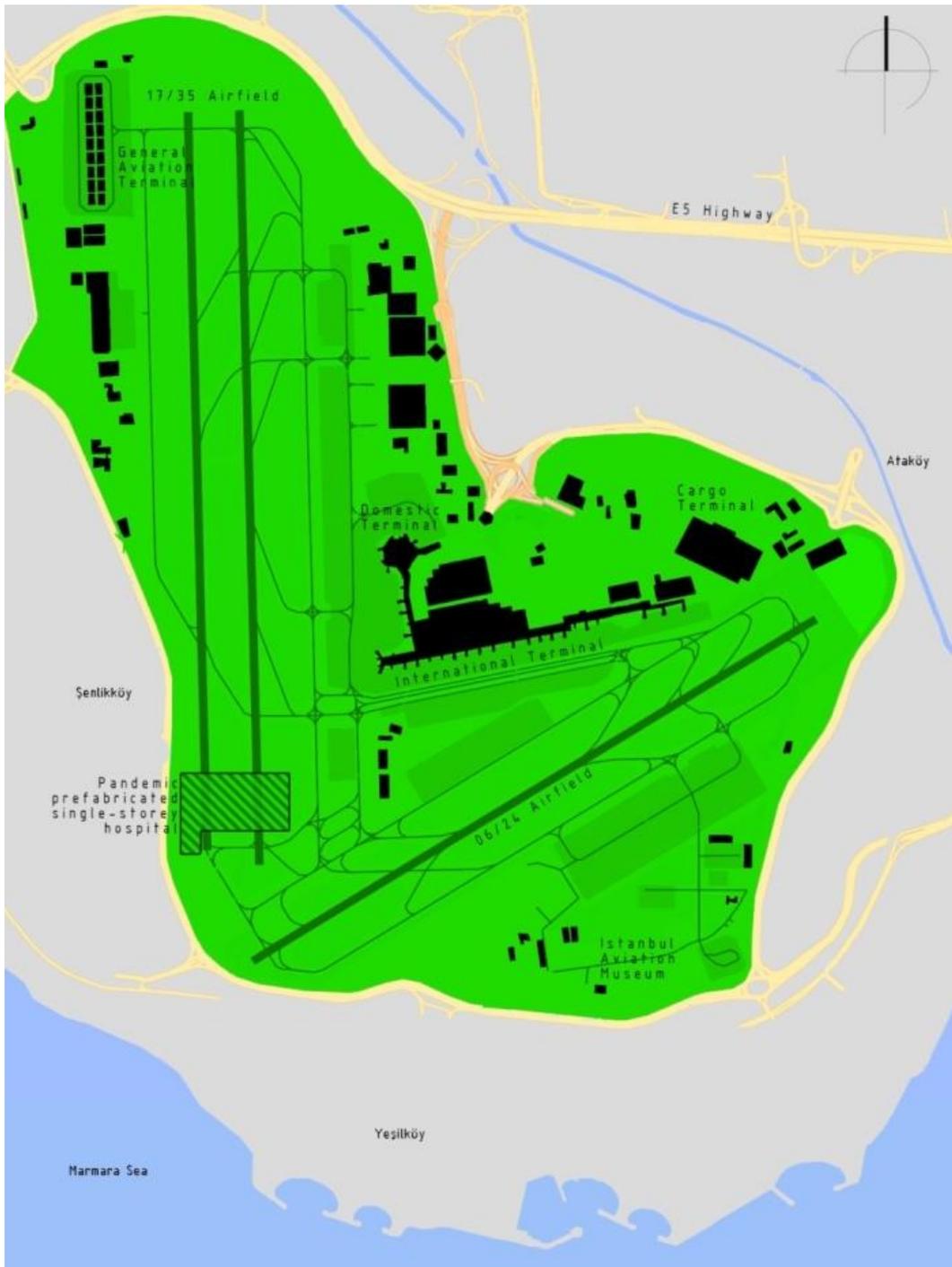


Figure 39: *Siteplan of Istanbul Atatürk Airport*
created by the author

Physical size and accessibility are not the only features that define the significance of Istanbul Atatürk Airport. From the perspectives of the number of passengers and

cargo traffic, Istanbul Atatürk Airport was the busiest airport in Turkey until its closure. In comparison with other cities' airports in Turkey, it can be also seen that it had carried most of the air traffic by far, especially for international flights (Table 5).¹⁴³ In this respect, Istanbul Atatürk Airport can be also regarded as the gateway of Turkey to the rest of the world.

Table 5: Comparison of the Top 10 Airports in Terms of Air Traffics

Retrieved from DHMI Annual Report 2020

AIRCRAFT TRAFFICS (2016 - 2020)															
AIRPORTS	2016			2017			2018			2019			2020		
	Domestic	International	Total	Domestic	International	Total	Domestic	International	Total	Domestic	International	Total	Domestic	International	Total
Istanbul Atatürk	141.361	325.035	466.396	142.451	318.334	460.785	136.005	328.641	464.646	38.604	99.675	138.279	10.248	27.220	37.468
Istanbul							544	231		82.433	247.467	329.900	59.752	125.672	185.424
Istanbul Sabiha Gökçen	147.053	84.874	231.927	139.267	80.904	220.171	145.234	87.041	232.275	135.203	100.514	235.717	83.521	42.789	126.310
Ankara Esenboğa	89.458	16.152	105.610	99.384	18.453	117.837	100.258	19.513	119.771	78.871	20.371	99.242	41.321	9.073	50.394
Izmir Adnan Menderes	69.037	17.211	86.248	72.073	17.834	89.907	71.466	19.981	91.447	59.669	23.916	83.585	36.236	9.765	46.001
Antalya	50.872	76.486	127.358	51.703	107.632	159.335	53.112	138.448	191.560	51.515	161.003	212.518	29.919	41.261	71.180
Gazipaşa Alanya	3.586	2.489	6.075	3.888	2.504	6.392	4.540	3.967	8.507	4.131	3.802	7.933	2.118	512	2.630
Muğla Dalaman	13.942	12.212	26.154	14.399	13.858	28.257	17.251	18.220	35.471	22.477	20.236	42.713	16.593	7.307	23.900
Milas-Bodrum	23.348	8.169	31.517	20.565	7.955	28.520	21.272	11.873	33.145	21.137	13.847	34.984	12.349	5.788	18.137
Adana	39.958	8.600	48.558	38.528	6.407	44.935	35.359	5.808	41.167	34.147	6.511	40.658	25.268	2.271	27.539

Atatürk Airport was also significant in the global scale in respect to the number of passengers. According to Airports Council International (ACI), it had become the third busiest airport in the Europe after London-Heathrow and Paris-Charles de Gaulle Airports in 2016.¹⁴⁴ Furthermore, in 2018, with more than 68 million passengers Istanbul Atatürk Airport was ranked 15th place in the world by the same organization.¹⁴⁵

When comparing the passenger numbers of the Istanbul Atatürk Airport over the years, the advancement of the airport can be perceived more clearly. Correlated with the expansion on the aviation industry, both passenger numbers and air traffic movements of Istanbul Atatürk Airport have been multiplied since 2000 (Figure

¹⁴³ DHMI, *Annual Report 2018* (2019)

¹⁴⁴ Airports Council International (ACI), *Europe's Airports Welcomed a Recordbreaking 2 billion Passengers in 2016* (2017)

¹⁴⁵ Airports Council International (ACI), *Total Passenger Traffic 2018 (preliminary)*(March 13, 2019)

40).¹⁴⁶ As a result, pressure of these passenger numbers and air traffic on Istanbul Atatürk Airport has risen especially in the last decades. However, by the help of continuous extension projects, the airport was able to overcome these remarkable increases. As a matter of fact, according to Airport Service Quality (ASQ), Istanbul Atatürk Airport was selected as the airport whose service quality had risen most in 2016.

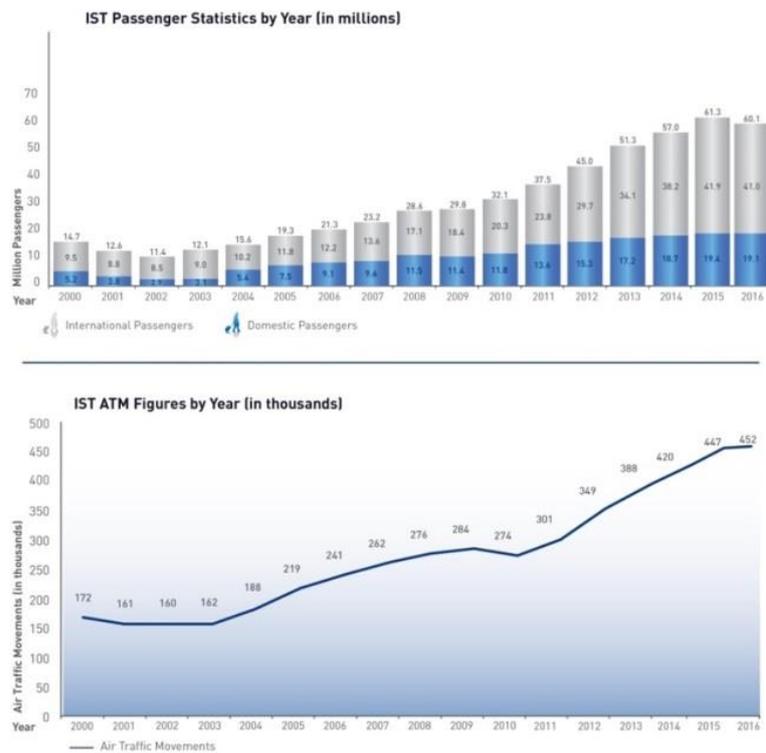


Figure 40: *Istanbul Ataturk Airport Passenger Statistics and Air Traffics*
Retrieved from TAV, *Istanbul International Airport, 2017*

The most significant factors for this succession can be regarded as its location and the experience on the service by the operation of the airport. According to a study, conducted in 2009, “transportation to the terminal”, “parking lot capabilities and services” and “terminal size and cleanliness” are the top capabilities and facilities

¹⁴⁶ TAV, *Istanbul International Airport* (2017)

of the airport which satisfies the Istanbul Atatürk Airport passengers the most (Table 6).¹⁴⁷ These findings and international qualifications have revealed explicitly that Istanbul Atatürk Airport had met the expectations of both passengers and aviation standards till its closure.

Table 6: *Perceived Satisfaction Levels for the Customers on the Istanbul Atatürk Airport's Capabilities and Facilities*

Retrieved from Özlem Atalık, June 2009, *Voice of Turkish Customer: Importance of Expectations and Level of Satisfaction at Airport Facilities, Review of European Studies*

Airport Capabilities and Facilities	Mean Expectation	Mean Satisfaction
Transportation to the terminal	4,4929	2,6143
Parking lot capabilities and services	4,1429	3,8429
Terminal size	4,1357	4,0000
Terminal cleanliness	4,6071	4,2000
Toilet facilities	4,5857	4,1357
Walking area	4,4857	3,8857
Directions & signage	4,4571	3,6286
Flight Information screens	4,4643	3,5929
Announcements	4,4643	2,5857
Variety and number of cafes and restaurants	3,8714	3,6714
Choice of bars & cafes / food & drink prices	4,1786	2,5143
Telephone / Fax services	3,2929	3,1786
ATM Cash machines	4,0786	3,5429
Internet/wifi availability	3,4643	2,6857
Smoking lounges / segregation	3,2286	2,9786
Airport information services	4,4357	3,9643
Check-in waiting time	4,7429	2,3143
Behavior of check-in attendant	4,5429	3,8500
Waiting duration for security check	4,7286	2,1000
Behavior of security personnel	4,4929	3,8214
Shopping facilities within the terminal	3,5286	3,4643
Behavior of duty-free attendant	4,0500	3,7857
Duty-free options	3,2500	3,4500
Variety and number of products in duty-free	3,3714	3,4500
Lounges of the cooperative banks	3,0643	3,1357
Baggage claim speed	4,8143	2,4357
Baggage trolley availability	4,6286	4,0071

1= Exactly not important 5 =Exactly important

1= Exactly not satisfaction 5 =Exactly satisfaction

¹⁴⁷ Özlem Atalık, *Voice of Turkish Customer: Importance of Expectations and Level of Satisfaction at Airport Facilities* (Review of European Studies, 2009)

Before examining the process of Istanbul Atatürk Airport's abandonment, a fact about airports should also be mentioned; airplane accidents and terrorist incidents, which occurred during the lifetime of the facility. These events are a part of the memories and abandonment creates an amnesia not of the positive memories but also of such tragic events. One of the most tragic aviation accidents in Turkey was occurred in the Yeşilköy Airport. A THY airplane, travelling from Bursa to Istanbul, crashed and all 41 passengers died on January 30, 1975.¹⁴⁸ Furthermore, airports have also become a target of terrorist organizations around the world due to huge impact on international level. In Europe, Istanbul Atatürk Airport and Brussels Airport were the two airports attacked latterly.¹⁴⁹ As a consequence, these airports have settled in the memories as a trauma led by the attacks.¹⁵⁰

While Istanbul Atatürk Airport had enlarged its capacity with the high demand on aviation industry, the government, on the other hand, had decided to build a new airport in the northern part of the European Istanbul in 2012.¹⁵¹ As a local election promise in 2019, Istanbul Atatürk Airport was declared to be converted into a public park after its closure.¹⁵² Moreover, immediately, the public park's master-plan had been disseminated via newspapers and news (Figure 41).¹⁵³ During the preparations of this master-plan, opinions of public or non-governmental

¹⁴⁸ Anadolu Agency, *1954'ten 2009'a Uçak Kazaları* (February 25, 2009)

¹⁴⁹ 2015 and 2016 are the years when the ISIS, which is a radical Islamic terrorist group, increased its strength with terrorism activities. One of these attacks had been aimed to Istanbul Atatürk Airport on the night of June 28, 2016. While 46 people were killed, 238 people were wounded by three suicide bombers with long barreled weapons. in Brussels Airport, on the other hand, the terrorist attack caused 32 deaths and 320 wounded (140 Journos, *yıl dönümünde atatürk havalimanı saldırısı*, June 28, 2017) (Charlotte Mcdonald-Gibson, *Fear and Frustration Continue One Year After Belgium's Worst Terror Attack*, Time, March 21, 2017)

¹⁵⁰ One of the significant historical scenes was coup attempt on July 15, 2016 in Istanbul Atatürk Airport. The airfield and traffic control tower became a center of armed conflict and two citizens were died. (Hüseyin Günay, *15 Temmuz'da Atatürk Havalimanı'nda neler yaşandı?*, July 13, 2021, TRT Haber)

¹⁵¹ Tuba Toru Delibaşı, *Mega Istanbul Airport* (Network Industries Quarterly | Vol. 21 | N°2, 2019)

¹⁵² CNNTürk, *Cumhurbaşkanı Erdoğan: Millet Bahçesi, Central Park'ın 4 katı büyüklüğünde olacak* (June 8, 2018)

¹⁵³ Arkitera, *Atatürk Havalimanı Yerine Yapılacak "Millet Bahçesi"nin İlk Görüntüleri Yayınlandı* (June 4, 2018)

organizations did not play a part. According to this hasty, impromptu master-plan, the park was going to consist of a convention center, a botanical garden, a pond, an observing tower, playgrounds for children, terraces, green fields, and organic farms. However, after the election, this plan was outside of agenda without any comprehensive public discussions.



Figure 41: *Initial Master-plan of Istanbul Atatürk Airport 2019*

Retrieved from <https://www.arkitera.com/haber/ataturk-havalimani-yerine-yapilacak-millet-bahcesinin-ilk-goruntuleri-yayinlandi/>

Right after one year from this first plan, a second master-plan of the public park in Istanbul Atatürk Airport was announced. Unlike the previous one, in this instance, the plan was more detailed with sizes of the functions and prepared by a semi-private foundation - Real Estate Investment Company (*Emlak Konut Gayrimenkul Yatırım Ortaklığı*) -. According to a newspaper, while the public park would be planned to occupy 60% of the total 854 ha area, general aviation activities would take place in the 30% of the airport and 9% of the field would continue to serve as

a military field.¹⁵⁴ One of the significant features in this plan was the 855m long bridge, which establishes a connection between the airport and the Marmara Sea (Figure 42).¹⁵⁵ While the distribution of functions in the first draft was kept, information about densities was added to project in square meters (Figure 43). The main entrance to the public park was located at the south of the site, in Yeşilköy Neighbor in order not to be affected by the traffic on D-100 Highway.¹⁵⁶ Furthermore, terminals of domestic and international flights and parking garage were re-functioned as a center for science and fair (Figure 44, 45).¹⁵⁷



Figure 42: *The Bridge Connecting the Airport and the Marmara Sea*

Retrieved from <https://www.hurriyet.com.tr/ekonomi/en-havali-millet-bahcesi-41379676>

When focusing on the distribution of functions, there were two new different facilities that did not take place in the first draft. These are “accommodation” and “life center” and 410,000 m² spaces in total would be reserved for these two functions. These vaguely defined functions on the plans may be associated with the exploitation of the site. To make it clear, the function named as “accommodation”

¹⁵⁴ Fatma Aksu, *En 'hava'lı millet bahçesi*, *Hürriyet Newspaper* (November 22, 2019)

¹⁵⁵ Ibid

¹⁵⁶ Ibid

¹⁵⁷ Ibid

in the list can refer to a full-fledged hotel and the function named as “life center” can imply a shopping mall in the new project. Still, the major problem is not the functions one by one but that transformation of 854 ha of abandoned open space without a democratic planning process. When examining afore mentioned airports in the previous sections, for the most part, either citizens or non-governmental organizations took part in the transformation processes or they were transparent to public opinion. In this respect, the re-use projects of the former airport sites were obtained with the international competitions and were open to criticism by all citizens, non-governmental organizations and professional institutions.

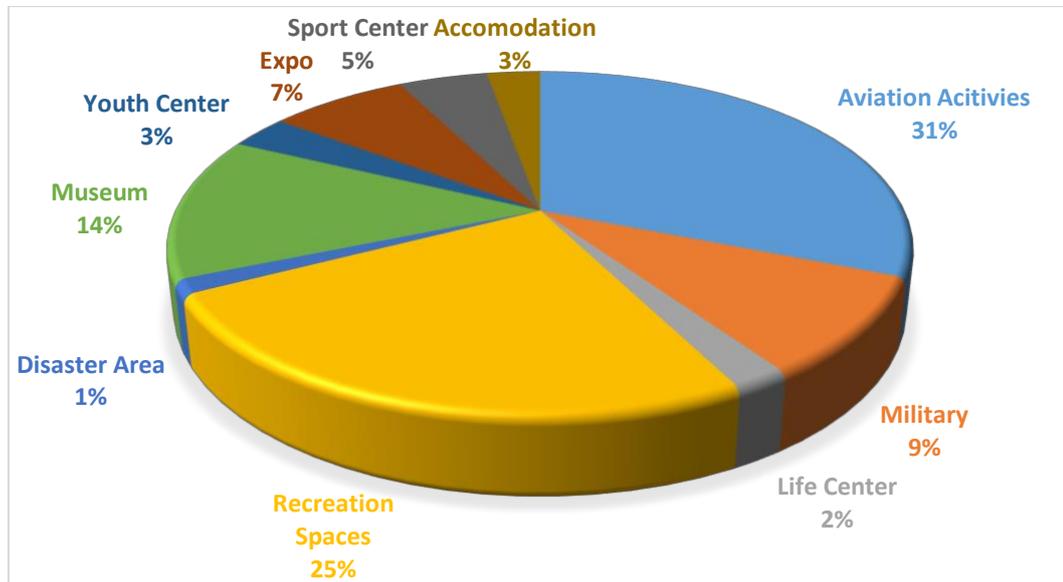


Figure 43: Contribution of New Functions in Istanbul Atatürk Airport converted into pie chart by the author

Retrieved from <https://www.hurriyet.com.tr/ekonomi/en-havali-millet-bahcesi-41379676>

On the other hand, for Istanbul Atatürk Airport, administration of the process is opposite to these cases. The information about the re-use project was made public via only newspapers and interviews. Moreover, the Chamber of Architects (Ankara Department) called a boycott of architectural competition for public parks (*millet bahçeleri*) from its members and architecture industry, declaring that the

government instrumentalizes the public park projects in order to implement neo-liberal policies and ideological interventions to the cities.¹⁵⁸



Figure 44: New Functions on the site of Istanbul Atatürk Airport

Retrieved from <https://www.hurriyet.com.tr/ekonomi/en-havali-millet-bahcesi-41379676>

However, after a long silence, in November 2019, demolition of the buildings on the site started in order to implement the new project.¹⁵⁹ In the first place, the cargo terminal located on the south-eastern of the airport site was demolished (Figure 46). Although it is planned to implement the new project after the demolition, pandemic of Coronavirus (Covid-19) emerging in first quarter of 2020 in Europe have affected Turkey in March 2020 and the project was suspended. Due to the increase in the number of Covid-19 cases, on April 6, 2020, it was announced that a pandemic hospital would be built in the site of the

¹⁵⁸ TMMOB Mimarlar Odası Ankara Şubesi, *Kamusal Alanın İdeolojik ve Rantsal Dönüşüm Projeleri Karşısında Üyelerimizi ve Meslek Ortamımızı Yarışma Adı Altında Millet Bahçelerinin Meşrulaştırılmasının Aracı Olmamaya Davet Ediyoruz* (June 21, 2021)

¹⁵⁹ Cumhuriyet Newspaper, *Atatürk Havalimanı'nda yıkım başladı* (November 18, 2019)

airport.¹⁶⁰ However, apart from the necessity of a pandemic hospital in Istanbul Atatürk Airport, its particular location in the site had been discussed comprehensively by public. Furthermore, the Chamber of Architects (İstanbul Büyükşehir Department) made an allegation to construction of pandemic hospital in May 2020.¹⁶¹ The reason was that the hospital building would ruin the 17/35 airstrips on the axis of north-south (Figure 47, 48).



Figure 45: A visualization of Public Park in Istanbul Atatürk Airport

Retrieved from <http://www.diken.com.tr/ataturk-havalimanina-kulliye-konseptinde-millet-bahcesi-2021de-tamamlanacak/>

There already exists diversified number of buildings, terminals, hangars that can be converted into a health facility easily. The Chamber of Civil Engineers (İstanbul Department) expressed that transformation of the existing buildings into pandemic health units would have been economical and practical in comparison to build a totally new prefabricated single-storey hospital on two valuable airstrips, claiming

¹⁶⁰ BBC News, *Türkçe Sahra hastanesi nedir, İstanbul'da nerelere kurulacak?* (April 14, 2020)

¹⁶¹ TMMOB Mimarlar Odası İstanbul Büyükşehir Şubesi, *Mimarlar Odasından Şuç Duyurusu: AHL'de İki Pistin Tahrip Edilerek İnşaat Yapılması Suç Niteliğindedir* (May 27 2020)

that the construction of the pandemic hospital is exploitation of the site.¹⁶² In addition to this confusion on public opinion, one of the accusations claims that the aim was to make these two airstrips, which are on the same axis with the airstrips of new Istanbul Airport, unusable permanently.



Figure 46: *Demolition of Cargo Terminal of Istanbul Atatürk Airport*

Retrieved from <https://www.cumhuriyet.com.tr/haber/aturk-havalimaninda-yikim-basladi-1702724>

Despite the latest construction in the site, there are still few flights in the Istanbul Atatürk Airport. Presidential flights in the first place, this facility still serves a small group of aircrafts of other officials, businessmen, celebrities etc. as well as military, cargo planes.^{163,164} As a matter of fact, aircrafts of various football players transferred recently to the Turkish football teams were landed to the airport, with

¹⁶² TMMOB İnşaat Mühendisleri Odası İstanbul Şube, *Pandemi ile Mücadele Rant Fırsatı Olarak Görülemez* (April 12, 2020)

¹⁶³ Cumhuriyet Newspaper, *Putin İstanbul'a geldi* (January 7, 2020)

¹⁶⁴ Berk Özkan, *Cumhurbaşkanı Erdoğan yurda döndü* (Anadolu Ajansı, September 23, 2021)

the expectation of the fans greeting the celebrity at such a central location in the city.^{165,166} While private flights will continue in the future, it was planned that the cargo terminal would be transferred to New Istanbul Airport in the second half of 2021.¹⁶⁷



Figure 47: *Pandemic Hospital in the Site of Istanbul Atatürk Airport*

Retrieved from <https://haber.aero/sivil-havacilik/dhmiden-ataturk-havalimani-pist-aciklamasi/>

To sum up, taking into account all of these statics, numbers and events, Istanbul Atatürk Airport has become a significant place in the cultural memory not only for Istanbul, but also for Turkey and the world. The decision about its abandonment and re-use process despite this significance, insinuates that daily basis politics such as an upcoming election promise or an interim solution to the pandemic are more influential than comprehensive and democratic planning procedures. However, considering all its values, the future of Istanbul Atatürk Airport should be envisioned comprehensively by the participation of different groups of the society

¹⁶⁵ Cumhuriyet Newspaper, *Beşiktaş'ın yeni transferi Michy Batschuayi, İstanbul'a geldi* (August 17, 2021)

¹⁶⁶ TRT Spor, *Havalimanında Falcao İzdihamı* (September 1, 2019)

¹⁶⁷ Haber.Aero, *THY Atatürk'teki teknik ve kargoyu 2021'de taşıyacak!* (May 23, 2020)

such as the government, non-governmental institutions, academicians and citizens. Apart from this type of approach, what is certain is that top-down decisions on the site will fail. To make it clear, the abandoned site of Istanbul Atatürk Airport regards whole society from different aspects such as its history, its landscape and its place in the cultural memory. Furthermore, the transformation of the site indicates collaboration of diversified professions with the technical, sociological and ecological perspectives. Derived from top-down decision making, the transformation project would miss the potential of the abandoned site.



Figure 48: *Construction of the Pandemic Hospital in Istanbul Atatürk Airport*

Retrieved from <https://www.sozcu.com.tr/2020/gundem/2-milyarlik-piste-hastane-kondu-5789580/>

3.2 History of Istanbul Atatürk Airport

Most of the technological advancements have been established in collaboration with military and war technologies. Aviation industry in Turkey is not an exception. Turkey's aviation history is long-established than the Republic of Turkey and today's settlement of Istanbul Atatürk Airport played a key role in the story.

Aviation and its impact on military power was noticed by the modernizing Ottoman State for the first time during the Tripoli War in 1911, when the airplanes were used for the first time by the Italians.¹⁶⁸ In order to use that fierce military power in Balkan Wars (1912-1913), Yeşilköy Aircraft School/Station - *Yeşilköy(Ayastefanos) Tayyare Mektebi/İstasyonu* - (1912-1919) was planned to have three hangars, an institution for officers, management building, a residence for night shifts, a barrack, a hospital, a bathhouse, a maintenance and manufacture atelier, a storage for spare parts, an underground gas tank and a small aircraft factory.¹⁶⁹ This aircraft complex was determined to settle in a plain, which is 250 m. x 1500 m, in Safraköy, Yeşilköy – today's northern part of Istanbul Atatürk Airport- (Figure 49).¹⁷⁰

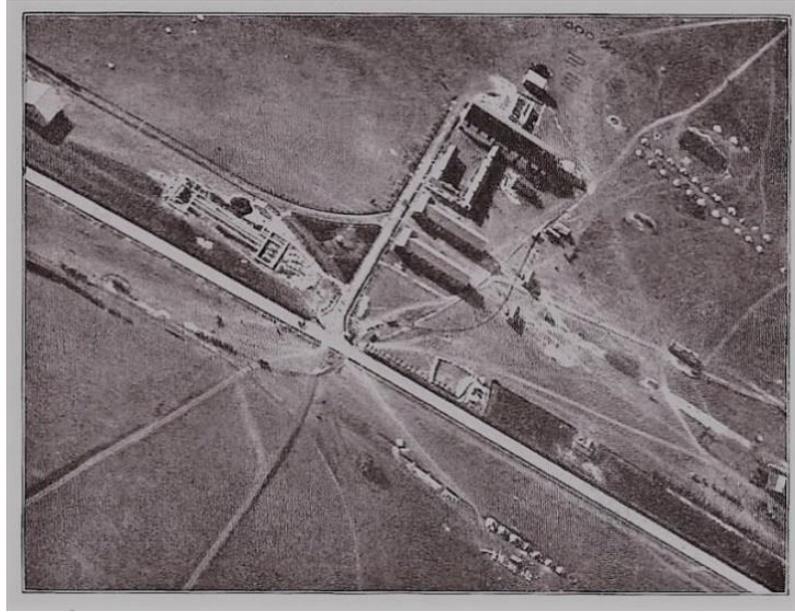


Figure 49: Aerial Photograph of Yeşilköy School/Station

Retrieved from <https://pulveposta.com/2017/01/15/yesilkoy-ucus-okulu-ayastefanos-tayyare-mektebi/>

¹⁶⁸ Stuart Kline, *Türk Havacılık Kronolojisi / A Chronicle of Turkish Aviation* (Havaş Yay., İstanbul, 2002) p.56

¹⁶⁹ Zeynep Gülten, *Havacılık Tarihinde Yeşilköy* (Hava Basımevi ve Neşriyat Müdürlüğü, Etimesgut, Ankara, 2010) p.20

¹⁷⁰ Stuart Kline, p.58

Although there were several options considered for the airfield location such as *Çırpıcı* (near today's Zeytinburnu), *Vidos* (Güngören), *Safraköy* (Sefaköy), *Dudullu* and *Sarıgazi* districts in the beginning, Yeşilköy district was designated later with the advantages of clear wide-open plain, convenient weather conditions and closeness to railway line between Istanbul and Edirne (Figure 50).¹⁷¹

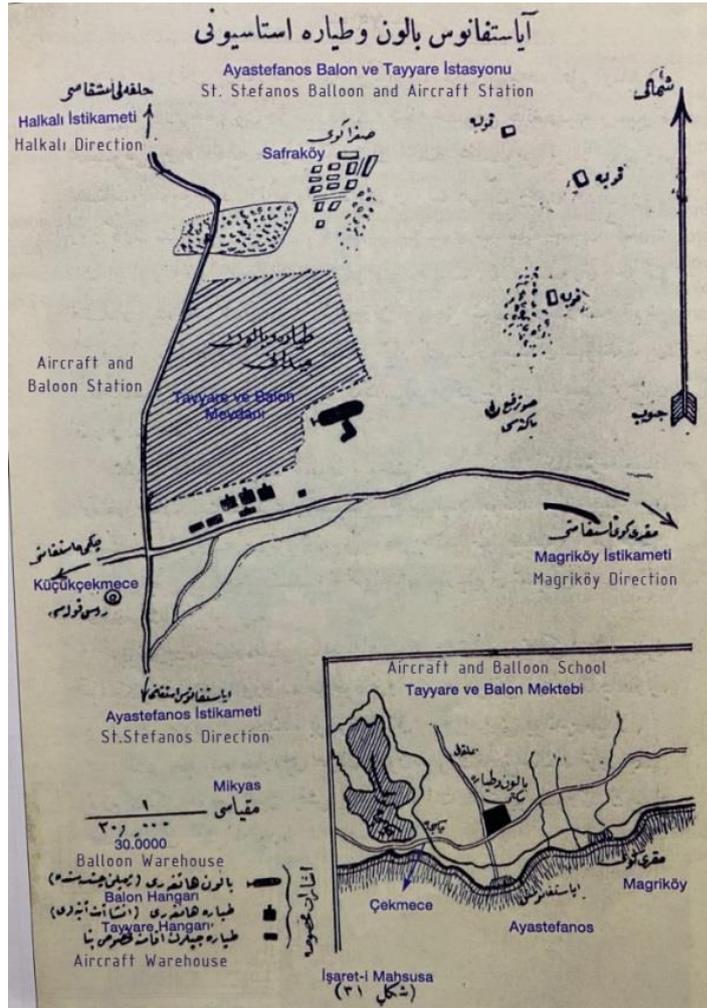


Figure 50: Sketch Plan of Yeşilköy School/Station

“Vasita-I Tayyare” by Tayyareci Mithat (Tuncel) and Nuri Bey

Retrieved from Zeynep Gülten, 2010, *Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü, Etimesgut, Ankara, p.19*

¹⁷¹ Zeynep Gülten, p.18

In 1912, finally the project was completed and it became both an air school and the center of aviation for Ottomans during the Balkan Wars.¹⁷²



Figure 51: Location of Yeşilköy School/Station in 1982

Retrieved from Zeynep Gülten, 2010, *Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü*, Etimesgut, Ankara, p.21

Moreover, in order to control and defend sealines, it was also decided to establish a Seaplane School (Deniz Tayyare Mektebi).¹⁷³ Due to lack of pilot and seaplanes, in the beginning, it would cooperate with Yeşilköy Aircraft School and therefore, it was built near Yeşilköy Aircraft School (today's Air Force Academy).¹⁷⁴ Until

¹⁷² Ibid, p.24

¹⁷³ Deniz Kuvvetleri Komutanlığı, *Türk Deniz Havacılığı İlk Olarak Ne Zaman Başlamıştır, Günümüze Kadar Gelişimi Nasıl Olmuştur?* (n.d.)

¹⁷⁴ Ahmet Çelik, *II. Meşrutiyet Döneminde Türk Hava Kuvvetleri* (2004) p.73

World War I, Seaplane School was one of the most significant extensions to the Air School. Nevertheless, after Armistice of Mudros (Mondros) in consequence of World War I, its duty had been terminated and it was going to be transformed into Yeşilköy Aircraft Mechanician School (Yeşilköy Tayyare Makinist Mektebi) in 1926.¹⁷⁵

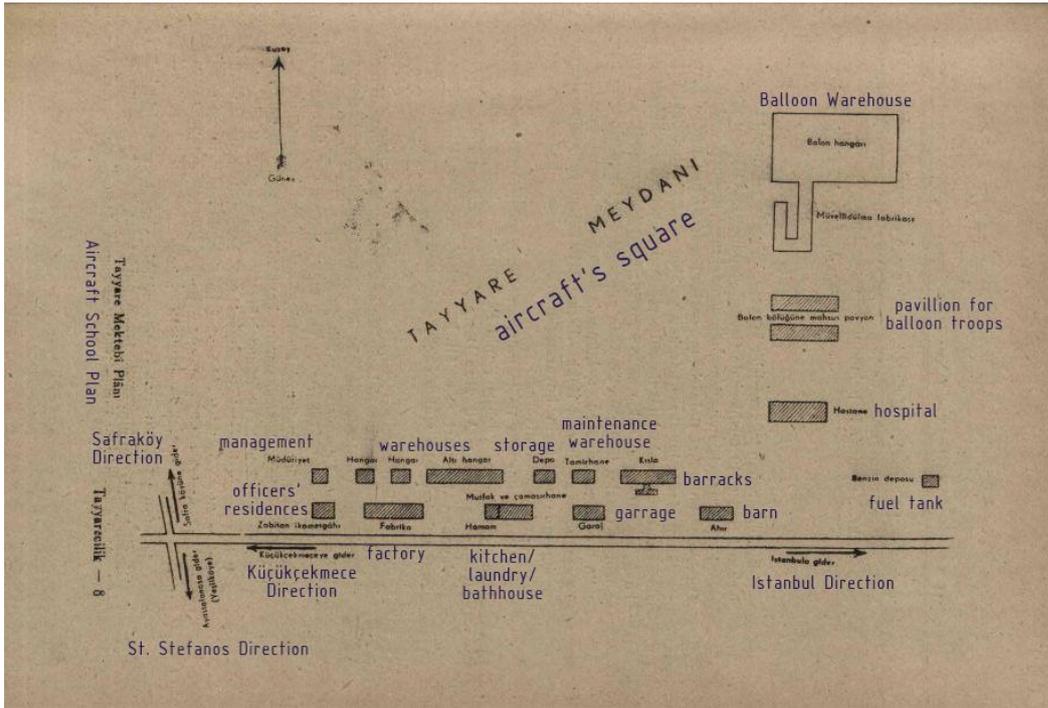


Figure 52: Aircraft School Masterplan

Retrieved from <https://www.havayolu101.com/2018/04/15/kitap-notlari-turkiyede-tayyarecilik-ve-balonculuk-tarihi>

Thus the seaplane station in Büyükdere, built by Italian AEI, had become the center of seaplane transportation.¹⁷⁶ Yeşilköy Aircraft School/Station had become a delivering center for battlefield to transport equipment and supplies during the

¹⁷⁵ Zeynep Gülten, p.34

¹⁷⁶ Tuba Yusufoglu, *Türkiye'de Havacılık ve Uçak Sanayii Yapıları 1923-1940* (Yıldız Technical University, 2017)

World War I.¹⁷⁷ However, with the occupation of Istanbul as a consequence of the war, English and French aviation units had taken over the *Yeşilköy Aircraft School/Station* and Turkish units were proscribed from the complex.¹⁷⁸ The aircrafts and equipment were transferred to Maltepe Station via seaway between 1 and 13 March 1919.¹⁷⁹ After the War of Independence and Treaty of Lausanne (24 July 1923), territorial integrity of the new Turkish Republic was accepted worldwide and therefore, authority of Yeşilköy Station was obtained by the new regime.



Figure 53: *Aerial Photograph of Yeşilköy Airfield in 1925*

Retrieved from Zeynep Gülten, 2010, *Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü*, Etimesgut, Ankara, p.42

¹⁷⁷ Cengiz Tatar, *Türk Havacılık Tarihi (1909-1954) Milli Mücadele Dönemi Öncesi ve Sonrası Türk Havacılığı* (Afyon Kocatepe University, 2018)

¹⁷⁸ Ibid

¹⁷⁹ Ibid

When the war ended, with the intention of reaching the Middle East, European airlines companies considered Istanbul as a connection point.¹⁸⁰ At the same time, for mail and shipping service, foreign companies such as *Junkers Turkische Flugzeug Und Motoren AG (Junkers Zentrale-Angora-Ankara)*, *CFRNA (Compagnie Franco-Roumaine de Navigation Aérienne)* and *Italian AEI (Aero Espresso Italiana)* intended to establish aircraft facilities.¹⁸¹ In fact, Turkish government did not lean towards those demands by foreign companies, because *Yeşilköy Aircraft School/Station* was a military airfield at the first place.¹⁸² However, at the end, these attempts would start a transformation of *Yeşilköy Aircraft School/Station* from military airfield to civil airport. The process had begun in September 1925 with an agreement between *CIDNA* (its name changed from *CFRNA*) and Turkish government.¹⁸³ According to the agreement, northern region of *Sirkeci-Halkalı* railway, today's military airfield, was assigned to *CIDNA* to build necessary aircraft facilities. In return for it, *CIDNA* was guaranteeing that there would be three round-trips in a week between Istanbul and Bucharest (Figure 54).¹⁸⁴

Italian *AEI*, on the other hand, also contacted to officials to obtain permission in order to operate civil purposed seaplane flights.¹⁸⁵ However, the company decided to *Büyükdere* district for station location with social, political and also geographical advantages.¹⁸⁶ In the following years, there were also a couple of attempts to integrate seaplanes to *Yeşilköy* facilities. *Henri Prost* who is a French architect and urban planner of Istanbul projected to strengthen conventional air

¹⁸⁰ Tuba Yusufoglu, *Istanbul'un İlk Sivil Uluslararası Havalimanı: Fransız Havayolu CFRNA/CIDNA Şirketinin Rolü* (Turkish Studies (Electronic), 13(1), 137-162, 2018)

¹⁸¹ Ibid

¹⁸² Ibid

¹⁸³ Ercan Haytoğlu, *Cumhuriyetin İlk Yıllarında Ticari Havayolu Taşımacılığında İmtiyazlı İlk Şirket: Aero Espresso Italiana (1924-1935)* (Cumhuriyet Tarihi Araştırmaları Dergisi, 14(28), 2018)

¹⁸⁴ Tuba Yusufoglu, *Istanbul'un İlk Sivil Uluslararası Havalimanı: Fransız Havayolu CFRNA/CIDNA Şirketinin Rolü*

¹⁸⁵ Haluk Zelef, *Impacts of Seaplanes and Seaports on the Perception and Conception of the Modern City: The Case of Istanbul* (Journal of Urban History Vol. 40(6) 1028 –1053, 2014)

¹⁸⁶ Ibid

transportation with seaplanes.¹⁸⁷ As an addition to his masterplan of Istanbul dated 1937, he proposed a centralized seaplane station near Yeşilköy facilities in his notes in 1940 (Figure 55).¹⁸⁸

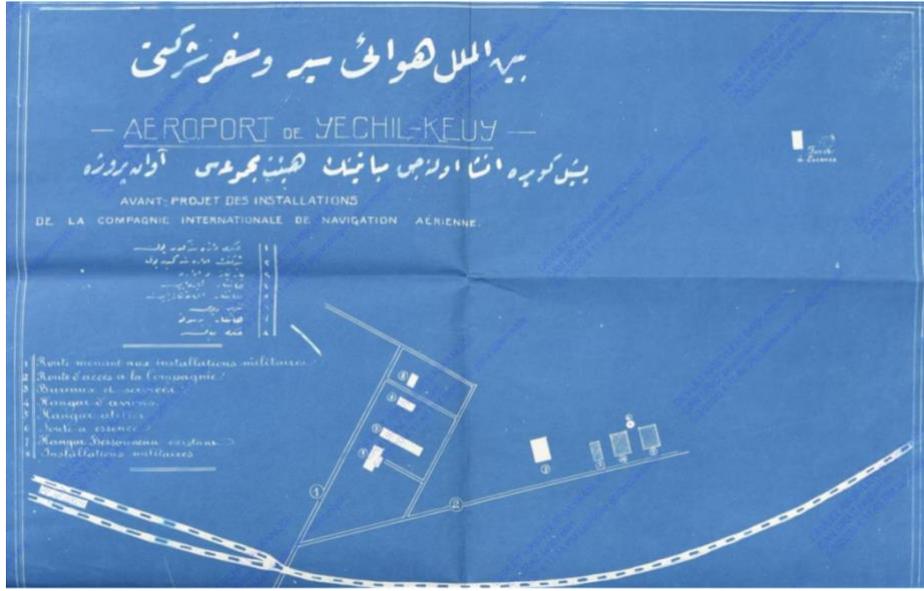


Figure 54: Masterplan of Yeşilköy Airport built by CIDNA

1926, Cumhurbaşkanlığı Devlet Arşivleri, 230-0-0-0, 60-22-1, Retrieved from Tuba Yusufoglu, 2017, Türkiye’de Havacılık ve Uçak Sanayii Yapıları 1923-1940, Yıldız Technical University

However, due to southerly winds to Yeşilköy from the sea, he abandoned his former proposal and highlighted Büyükdere region as a seaplane base. Furthermore, insisting on the integration of air transportation and seaplanes, he introduced a highway connecting two aviation stations.¹⁸⁹ The idea of inserting seaplanes to transportation systems was not limited to Prost’s notes. One of his projects seen in International Exposition in 1953 includes a new design of Yenikapı coast including a perpendicular axis to sea and seaplanes (Figure 56).¹⁹⁰ Nevertheless, these proposals have never been realized due to disfavor of seaplanes

¹⁸⁷ Ibid, p.1043

¹⁸⁸ Ibid,p.1043

¹⁸⁹ Ibid, p.1044

¹⁹⁰ Ibid, p.1044

after the World War II and thus Yeşilköy airport has been destitute of an alternative air transportation.¹⁹¹



Figure 55: Yeşilköy Masterplan in "Istanbul Muntakası Planı" by Henri Prost

Retrieved from Bilsel, C., Zelef, H. (2011) *Mega Events in Istanbul from Henri Prost's master plan of 1937 to the twenty-first-century Olympic bids*

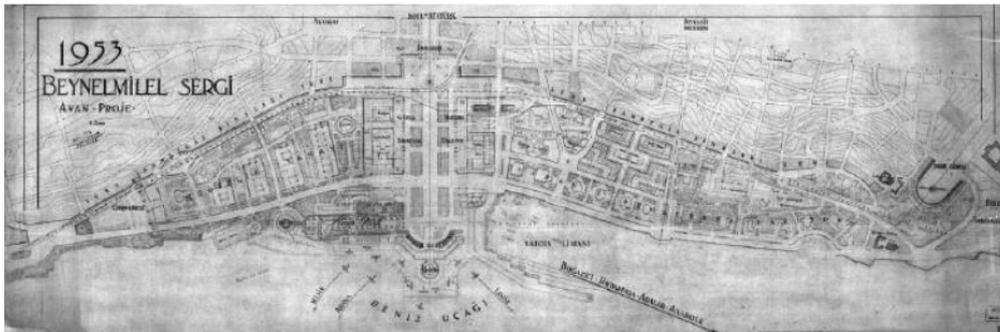


Figure 56: Prost's Yenikapı Plan for International Fair in 1933

Retrieved from Zelef, H. (2014) *Impacts of Seaplanes and Seaports on the Perception and Conception of the Modern City: The Case of Istanbul*

¹⁹¹ Ibid, p. 1045

After the agreement of CIDNA with the Turkish authorities, the company built essential facilities such as two aircraft hangar, maintenance ateliers, their warehouses, and an underground fuel tank in Yeşilköy.¹⁹² First flight from the new airport was to Bucharest in March 15, 1926 and until 1937, besides a few KLM and Lufthansa flights, the new airport had been used exclusively by CIDNA.¹⁹³ In 1932, in order to compete better in Europe, French government had decided to merge five French airline companies in a single company, named as Air France.¹⁹⁴ As a consequence, the company had also withdrawn from the agreement and sold facilities to Turkish government in 1937.¹⁹⁵

Apart from the foreign companies, there were also national figures who contribute to Yeşilköy district. One of the most important figures was the entrepreneur *Nuri Demirağ (1886-1957)* (Figure 57). He did not only develop Yeşilköy facilities but also played a significant role during advancement of Turkish aviation industry.



Figure 57: *Nuri Demirağ (1886-1957)*

Retrieved from <http://www.sivas.gov.tr/nuri-demirag>

¹⁹² Tuba Yusufoglu, *İstanbul'un İlk Sivil Uluslararası Havalimanı: Fransız Havayolu CFRNA/CIDNA Şirketinin Rolü* (Turkish Studies (Electronic), 13(1), 137-162, 2018) p.148

¹⁹³ Ibid

¹⁹⁴ Ibid

¹⁹⁵ Ibid

Besides the Beşiktaş Aircraft Factory (Beşiktaş Tayyare Fabrikası) - located in today's Deniz Müzesi (Naval Museum) in Beşiktaş, Demirağ also established Yeşilköy Facilities and Sky School (Gök Okulu) in front of the airfield, which was abandoned in the Ottoman era.¹⁹⁶ The aim was to develop and extend his aviation industry from Beşiktaş to Yeşilköy with a facility consisting of an airfield (1000m. x 1300m.), a sky school, an aircraft repair workshop and warehouses in 1941.¹⁹⁷ Yeşilköy district fit well to Nuri Demirağ's purpose with its geographic advantages, closeness both to railway line and CIDNA's facilities.¹⁹⁸ Until 1943, 16,000 hours of flight experience was accomplished and 290 pilots were graduated from the sky school (Figure 58).¹⁹⁹



Figure 58: *Ceremonies at the Nuri Demirağ Flight School*

Retrieved from Kline,S. (2002) *Türk Havacılık Kronolojisi / A Chronicle of Turkish Aviation*, Havaş Yay., İstanbul, p.266

¹⁹⁶ N. Tuba Yusufoglu, *Aviation Facilities of Nuri Demirağ in Beşiktaş and Yeşilköy* (GRID - Architecture Planning and Design Journal, 1 (1) , 101-138, 2018) p.116

¹⁹⁷ Zeynep Gülten, p.91

¹⁹⁸ N. Tuba Yusufoglu, *Aviation Facilities of Nuri Demirağ in Beşiktaş and Yeşilköy*, p.116

¹⁹⁹ Stuart Kline, p.262

During this period (between 1937 and 1938), the government had given its support to Nuri Demirağ with generous aircraft orders-10 training planes and 65 gliders- via THK (Turkish Air Association).²⁰⁰ While Demirağ had exerted an effort to deliver the orders, he launched out a totally new model named as Nu.D. 38.²⁰¹ Nu.D.38, which was produced in his factory succeeded its first flight test in Yeşilköy facilities in January 10, 1944 (Figure 59).²⁰²



Figure 59: Nu.D. 38 in Yeşilköy Field, 1944

Retrieved from Kline,S. (2002) *Türk Havacılık Kronolojisi / A Chronicle of Turkish Aviation*, Havaş Yay., İstanbul, p.281

Unfortunately, one of the Nu.D.'s 38 aircrafts had a crash while landing in Yeşilköy Airfield and the pilot died.²⁰³ As a result, THK cancelled its aircraft orders and Nuri Demirağ's company would be in financial difficulties.²⁰⁴ In 1944,

²⁰⁰ N. Tuba Yusufoglu, *Aviation Facilities of Nuri Demirağ in Beşiktaş and Yeşilköy*, p.129

²⁰¹ Zeynep Gülten, p.90

²⁰² Stuart Kline, p.281

²⁰³ N. Tuba Yusufoglu, *Aviation Facilities of Nuri Demirağ in Beşiktaş and Yeşilköy*, p.133

²⁰⁴ Ibid, p.133

Yeşilköy airplane facility was expropriated and thus, short but important era for national aviation history has come to end. ²⁰⁵ The story of Nuri Demirağ also indicates that Yeşilköy was more than a terminal building; it was also a place where the Turkish aviation industry was born.



Figure 60: *Yeşilköy Airfield in the 1950's*

1. *Military Airfield* / 2. *Agricultural School* / 3. *Nuri Demirağ Sky School*
2. / 4. *Old Yeşilköy Aircraft School* / 5. *State Airway Facilities and Airfield (formerly CIDNA's airfield)*

Retrieved from *Gülten, Z. (200) Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü, Etimesgut, Ankara, p.4*

²⁰⁵ Zeynep Gülten, p.92

In point of fact, the main reason was the change in the order of the world by the end of the World War II. The alliances and political position of the countries had been altered, policies on independent aviation industry in Turkey set aside and airplanes and required equipment began to be imported from abroad.²⁰⁶ With the Marshall Plan, which was prepared by a chairman of American Aircraft Manufacturers Union –Mr.Todd-, Turkey would purchase aircraft from the United States instead of producing here own.²⁰⁷ Moreover, THK had been developing training jet coded “*THK-16*” and named as “*Mehmetçik*” while jets from American Lockheed Company were taken inventory.²⁰⁸

After CIDNA’s withdrawal in 1937, the administration of Yeşilköy Airport had been taken over by State Airways (Devlet Hava Yolları) (Figure 61-62).^{209,210} In order to improve its service standard, State Airways decided to modernize on various airports, including Yeşilköy Airport in 1939 (Figure 63).²¹¹ Within this framework, underground electrical installation had been completed and broadcast transmitter stations in Yedikule and Silivri had been built.²¹² Thus, State Airway started to collect fees for the landing and accommodation of the planes. In 1942, first concrete airfield (60x2300m. in the south-west direction), which still exists, a new passenger terminal with 500,000 passengers’ capacity per year, THY warehouses and various air traffic devices were constructed.²¹³ With these

²⁰⁶ Ismail Yavuz, *THK Etimesgut Uçak Fabrikası 1939-1950* (Mühendis ve Makina Dergisi Cilt:54 Sayı:636, 2014)

²⁰⁷ N. Tuba Yusufoglu, *Aviation Facilities of Nuri Demirağ in Beşiktaş and Yeşilköy*, p.133

²⁰⁸ Bilge İmamoğlu, *Cumhuriyet Dönemi Endüstri Mirası: Havacılık Sanayi Yapıları* (TMMOB Mimarlar Odası Ankara Şubesi dosya 03, Bülten 45, 53-59, 2006), p.57

²⁰⁹ Zeynep Gülten, p.84

²¹⁰ The name of State Airways (Devlet Hava Yolları) were changed as Turkish Airlines (Türk Hava Yolları) in 1953. (Uğur Aslanhan, 19.05.2021, Türkiye’nin küresel markası THY 88 yaşında, Anadolu Agency)

²¹¹ Nadir Yurtoğlu, *Sivil Havacılık Sektörü İçerisinde Yer Alan Türk Hava Yollarının Tarihi Gelişimi (1933-1960)* (CTAD, Yıl 12, Sayı 23 (Bahar 2016),s. 303-336, 2016)

²¹² Zeynep Gülten, p.84

²¹³ Ahmet Sami Erdoğan, *Atatürk Havalimanı’nın Tarihsel Gelişimi ve Dış Hatlar Terminalinin İncelenmesi* (Istanbul Teknik Üniversitesi, 2005) p.108

additions, finally Yeşilköy Airport had become a full functioned airport enabling night landings.²¹⁴



Figure 61: *Maintenance Warehouses in Yeşilköy Airport in 1937*

Retrieved from *Zeynep Gülten, 2010, Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü, Etimesgut, Ankara, p.84*



Figure 62: *Maintenance Warehouses in Yeşilköy Military Airport in 2010*²¹⁵

Retrieved from *Zeynep Gülten, 2010, Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü, Etimesgut, Ankara, p.84*

As a consequence of new developments on the field, international flights were multiplied and in 1946, second modernization process had begun. In this direction, contract for new terminal building located in the northern part of the existed airport

²¹⁴ Zeynep Gülten, p.85

²¹⁵ These warehouses in the photograph are the same in the Figure 61.

and aprons (parking areas for aircrafts) were commissioned to the Westinghouse Electric Corp. and J.G. White Corp. Extension project involved a steel structured modern passenger terminal having 100,000 m² enclosed space in three-storey, an airport traffic control tower, warehouses for maintenance and supporting functions (Figure 64).²¹⁶

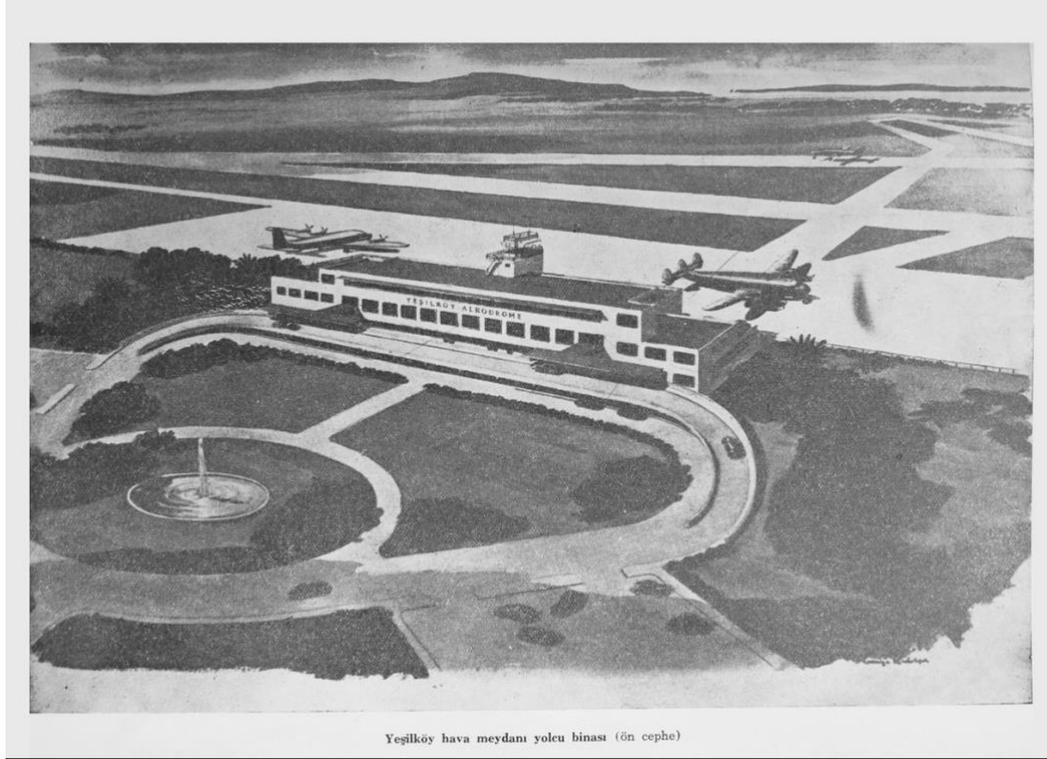


Figure 63: *Terminal Building of Yeşilköy Airport*

Retrieved from *Journal of Public Works (Bayındırlık Dergisi)* (December, 1949)

However, this project that is in the scope of Marshall plan was a domestic terminal without any customs, transit passengers section or police station and therefore, a national competition was held named as Yeşilköy Terminal Building Modification-Repertition Decoration Competition (*Yeşilköy Terminal Binası Tadil Tevzi*

²¹⁶ Tuba Yusifoğlu, *Türkiye'de Havacılık ve Uçak Sanayii Yapıları 1923-1940* (Yıldız Technical University, 2017) p.423

Dekorasyon Yarışması).^{217,218} On August 1, 1953, new Yeşilköy International Airport was inaugurated as the first international and the biggest airport of Turkey.^{219,220}

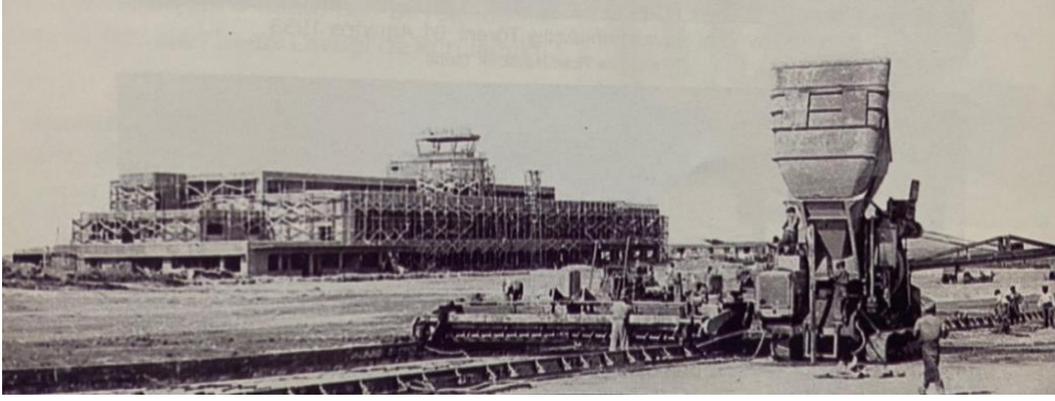


Figure 64: Construction of new terminal building in Yeşilköy Airport in 1949

Retrieved from Zeynep Gülten, 2010, *Havacılık Tarihinde Yeşilköy, Hava Basımevi ve Neşriyat Müdürlüğü*, Etimesgut, Ankara, p.87

In the opening ceremony, a flying unit consisting of seven aircrafts and one glider - named as Türk Kuşu- performed while the new terminal was decorated with the national flags of airlines companies, servicing in Yeşilköy (Figure 65).²²¹ Although the new airport contained 06/24 airstrip with new facilities in contract, due to improvement on aviation industry, 06/24 airstrip had become insufficient in a short

²¹⁷ Selda Bancı, Mimar Nejat Ersin (Mimarlar Derneği 1927, 2021) p.246

²¹⁸ Although Nejat Ersin, Sedat Çağlar and Ekrem Bahtoğlu won the competition, the project was not implemented. Nejat Ersin, on the other hand, was invited to the Ministry of Public Works – Airports and Gas Stations Construction Department (Bayındırlık Bakanlığı Hava Meydanları ve Akaryakıt Tesisleri İnşaat Reisliği) in 1953 as a head architect in order to construct various airports in Turkey.

²¹⁹ Stuart Kline, p.321

²²⁰ Former assistant general manager of Construction of Railways, Ports and Airfields, Nurtan Ürünay reveals the fine craftsmanship with precision in the construction of Yeşilköy Airport on an interview with Nejat Ersin. According to her, technical specification required the precision of 3mm in every 3 meters in the airfield. (Özge Göncü, Demiryolları, Limanlar, Hava Meydanları İnşaatları TMMOB Mimarlar Odası Ankara Şubesi, 2012)

²²¹ Stuart Kline, p.321

span of time and a new airstrip was decided to be constructed.²²² 18/36 airstrip, which is 3,000m. x 45m., had been constructed between 1968 and 1972 (Figure 66,67).^{223,224}

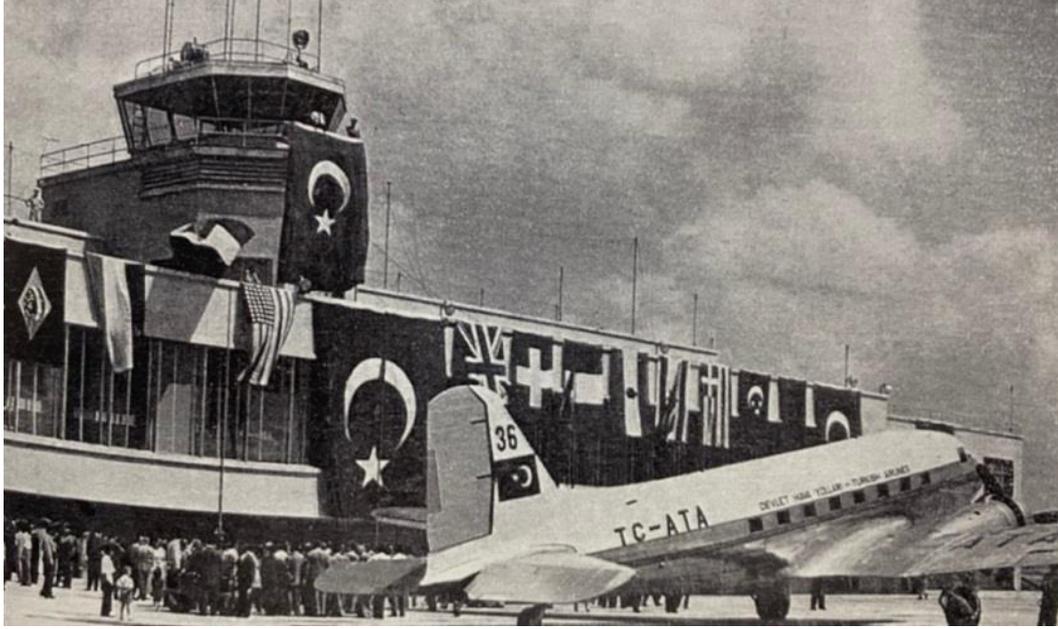


Figure 65: Inauguration of Yeşilköy International Airport in 1953

Retrieved from Kline,S. (2002) *Türk Havacılık Kronolojisi / A Chronicle of Turkish Aviation*, Havaş Yay., İstanbul, p.321

After continuous developments, a new masterplan for Yeşilköy International Airport was started to be implemented in 1971 (Figure 68).²²⁵ Prepared by architect Hayati Tabanlıoğlu, new masterplan included four terminal buildings with five million passenger capacity per year, Turkish Airlines warehouses, cargo facilities, an airport traffic control tower, a technical building, lighting system, electric

²²² Tuba Yusufoglu, *Türkiye'de Havacılık ve Uçak Sanayii Yapıları 1923-1940*, p.426

²²³ Ibid, p.426

²²⁴ The airstrips are named with the directions and after 2010, while the name of 06/24 airstrip was altered as 05/23, 18/36 airstrip was changed as 17/35

²²⁵ Tuba Yusufoglu, *Türkiye'de Havacılık ve Uçak Sanayii Yapıları 1923-1940*, p.426

distribution system, reconstruction of existing 06/24 airstrip, fuel supply and other facilities (Figure 69).²²⁶



Figure 66: 18/36 Airstrips of Yeşilköy Airport

Retrieved from Göncü, Ö. (2012) *Demiryolları, Limanlar, Hava Meydanları İnşaatları*, TMMOB Mimarlar Odası Ankara Şubesi

International terminal was opened on the 60th anniversary of the founding of the Republic. In 1985 the new masterplan was completed and the name of the airport was changed as Istanbul Atatürk Airport.²²⁷ Principles of the new masterplan were maximizing land potentials, possibility of expansion on the facility capacities, balance on capacities of different facilities, and providing qualification of international standards.²²⁸

²²⁶ Ibid, p.426

²²⁷ Ibid, p.426

²²⁸ Ahmet Sami Erdoğan, p.111

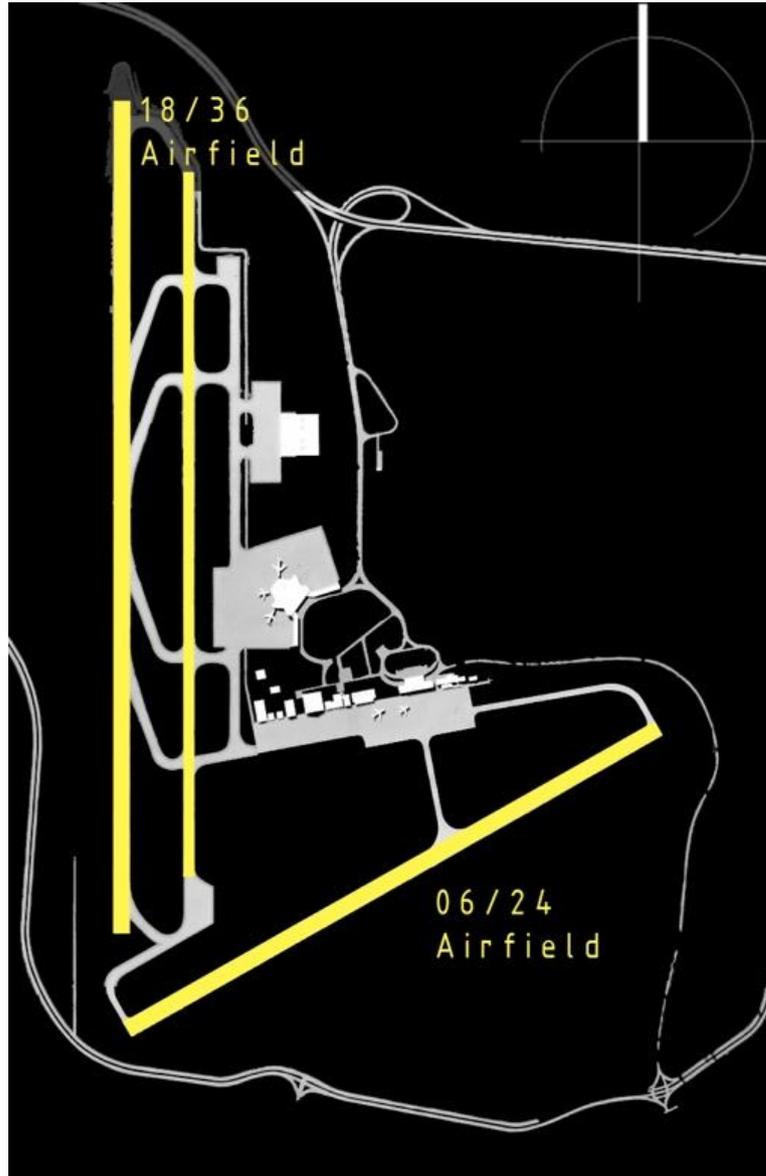


Figure 67: *Two airfields in the Istanbul Atatürk Airport
created by the author*

When examining a specific component of an airport, air traffic control tower, having symbolic characteristics, becomes a landmark which can be perceived from distance (Figure 70). Thus, they can be considered significant in terms of revealing the importance and the function of the place to the further generations. An air traffic control tower is also interesting architectural component which consists cutting-edge communication technologies and exposes the magic of the flying

activity. Furthermore, due to be used by minority of professionals, it attracts attention comparing to other departments.



Figure 68: *Photo of Yeşilköy Airport's (Istanbul) 1/2000 scale model*
Model maker: Yusuf Z. Ergüleç, Retrieved from
<https://archives.saltresearch.org/handle/123456789/195462>



Figure 69: *Istanbul Atatürk Airport*
Prospectus of Yeşilköy Airport new terminal building 1983, Hayati Tabanlıoğlu, Retrieved from
<https://archives.saltresearch.org/handle/123456789/92613>

Focusing on the design of H. Tabanlıoğlu, new terminal's architecture was polygon generated by a grid of equilateral triangles, in order to increase the number of airbridges between the terminal and aircrafts.²²⁹ While the center of the polygon was allotted for common passenger services, one side of the polygon was reserved for highway access (Figure 71, 72).²³⁰



Figure 70: *Traffic Control Tower of Istanbul Atatürk Airport*

Retrieved from <https://archives.saltresearch.org/handle/123456789/80225>

Although in the first predictions, the new developments would satisfy the requirements of the aviation industry at least for twenty years, with the increase on aviation transportation since the beginning of the 1990s, international terminal became insufficient in a short while. Thus, a new international passenger terminal and multi-storey car park was decided to be built.²³¹ Designed by GMW

²²⁹ Hayati Tabanlıoğlu, *Prospectus of Yeşilköy Airport new terminal building* (1983) p.12

²³⁰ *Ibid*, p.12

²³¹ Ahmet Sami Erdoğan, p.112

architecture and Architect Ebru Kantaşı, new international passenger terminal having a modular linear form was placed next to 06/24 airstrip in 2002 (Figure 73).^{232 233}

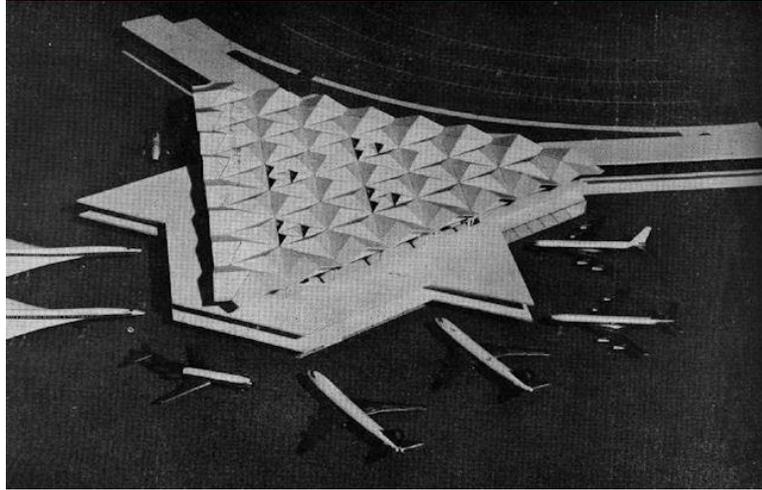


Figure 71: *Model of Istanbul Atatürk Airport by Hayati Tabanlıoğlu*

Retrieved from <https://www.arkitera.com/haber/gecmisin-modern-mimarisi-5-bakirkoy/>



Figure 72: *Model of Istanbul Atatürk Airport by Hayati Tabanlıoğlu*

Retrieved from <https://www.imar.istanbul/tr/proje/ataturk-havalimani>

²³² GMW Architecture, *Istanbul Atatürk Airport* (n.d.)

²³³ Tender of International Terminal, which was sued by the Chamber of Architects, was discussed publicly before construction.



Figure 73: *New International Passenger Terminal of Istanbul Atatürk Airport*

Retrieved from <https://divisare.com/projects/340092-gmw-mimarlik-istanbul-ataturk-airport-international-terminal#lg=1&slide=0>

Thus, new terminal had been capable of future expansion projects owing to its modular linear form. While in the first place, terminal had a capacity of 14 Million passengers per year; multi-storey car park provides 7,000 parking lots.²³⁴ In the upcoming years, the capacity was increased to 20 million in 2004 and to 30 million in 2012.²³⁵ Apart from the international terminal and multi-storey car park, the extension project contained also, a concourse which connects international terminal, domestic terminal, metro station and car park, a metro station, a sewage plant, a solid waste disposal facility, apron, roads, viaduct and landscaping.²³⁶ In

²³⁴ Divisare, *GMW Mimarlık Istanbul Ataturk Airport International Terminal* (March 17, 2017)

²³⁵ GMW Architecture, *Istanbul Atatürk Airport* (n.d.)

²³⁶ Yüksel Bekir Hoş, *Atatürk Havalimanı* (Istanbul University, 2003) p.36

the late-2002, metro-line was also integrated with the new terminal building and in this way; the Istanbul Atatürk Airport has become more accessible.²³⁷

Airport can be considered as one of the most evolutive typologies for the last century. As other major airports in the world, Istanbul Atatürk Airport and its site had been advanced constantly since the first aircraft landed till its closure. Although, it is perceived as a singular structure today, when focusing on the history, the current site of the Istanbul Atatürk Airport carries the traces of different histories and patterns at the same time. For this reason, the future of the site should consider the long history as well as the expectations and necessities of the citizens.

3.3 Three Refunctioning Themes

Istanbul Atatürk Airport has signified a milestone from the perspective of both the national aviation history and the contemporary city. While, on the one hand, the site reserves overlapped histories from different periods, the airport, at the same time, had served as a modern transportation space and a gateway to the world. Therefore, its significance stems from the combination of the past and the present. Considering these connections, Istanbul Atatürk Airport becomes vital for the aviation history and the city. This time, the main question shows itself; how should existing facilities and 854 hectares of space with intense connections to the city and the aviation history be exposed? As it is understood from the question, such a major and complex site cannot be brought into citizens' routines with particular interventions. Moreover, new functions and relations should be introduced in order to urge citizens to include the site in their lives. While considering refunctioning scenarios, the potential of the site such as its size, location, historical background should be regarded. Since therefore, new future of Istanbul Atatürk Airport will be integrated with the city and the citizens.

²³⁷ Yüksel Bekir Hoş, p.26

Just as having different layers from different time periods, Atatürk Airport should include various refunctioning themes which are relevant to site. Contrary to the ones which were abandoned long before and relatively small airport sites in the case studies, it has several refunctioning potentials at the same time in order to keep alive its heritage. Sharing same purpose, these different functions are going to contribute to each other and constitute a multi-layered structure in the site. These selected different refunctioning scenarios are to be considered in a balance and in harmony with the physical and historical potentials of the site.

Projected new functions of Istanbul Atatürk Airport are *museum*, *event space*, and *recreational green space of the city*. It can be comprehended that these three different refunctioning themes refer to particular potentials of the site. In spite of the fact that mentioned scenarios are independent from each other, implementation of these in a harmony and in an inclusive manner will augment their contributions to the site of Istanbul Atatürk Airport. Hybridization of these themes in the single site creates mutual connections between the new functions and strengthen their social potentials.

3.3.1 As Museum

Discussions about the reuse potentials in the media include the term “museum” nowadays, however these suggestions are referring to various collections rather than a particular institution for the display of aviation technologies and its history in Turkey.²³⁸

Istanbul Atatürk Airport is not only a modern international airport, but also a site containing diverse national aviation histories. As mentioned before, the progress

²³⁸ In May 2021, it is announced that the monuments in the storages of Istanbul Archeology Museum will be transported to Istanbul Atatürk Airport due to lack of space. It is planned that “storehouse museums” with approximately 200 monuments will be located in the airport. (Hazal Ocak, May 22, 2021, Cumhuriyet Newspaper)

had started with the first aviation experimentations in the 1900s and over the years, improvements on aviation industry had occurred in the same location. Nonetheless, today's Istanbul Atatürk Airport site reflects as a fully-functioned contemporary airport facilities rather than its historical background. As a consequence, traces of more than hundred years of aviation history have eroded and become invisible. However, in respect of the abandonment, hidden aviation history on the site should be highlighted.



Figure 74: *Istanbul Air Force Museum*

Hava Kuvvetleri Müzesi Komutanlığı Retrieved from

http://www.hho.edu.tr/Documents/TanitimKitapcigi/09_HavaKuvvetleriMuzesi.pdf

When considering the site as a whole, the southern part of the site belongs to the military with Air Force Academy and Istanbul Air Force Museum. While the museum is next to the 06/24 airfield, academy is located at the seashore (Figure 75). In this respect, it can be considered that these two military facilities disconnect the airport site from both Marmara Sea and the Yeşilköy district.

When the new refunctioning scenarios of the Istanbul Ataturk Airport are taken into consideration, the location of the Istanbul Air Force Museum becomes substantial, if the airport site is aimed to be public. Appearing in between the

airport site and the Yeşilköy district, the museum's site has a potential to become an access point to Istanbul Ataturk Airport. In contrast to other borders of airport site, the museum faces the Marmara Sea and allows highway, railway and seaway accesses at the same time. When viewed from this aspect, this gateway to the airport site becomes even more important in such a congested city.

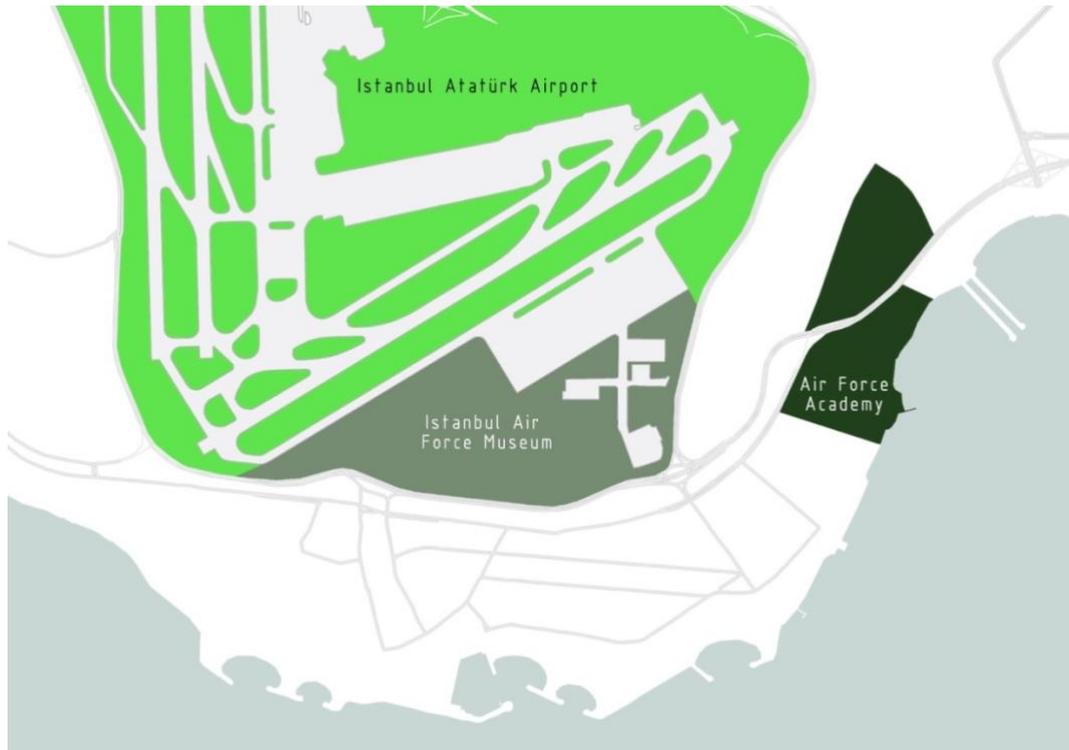


Figure 75: *Ataturk Airport, Air Force Academy and Air Force Museum*
created by the author

Apart from the location, Istanbul Air Force Museum is significant from the perspective of site memory. The museum was introduced in 1985 with its indoor and outdoor exhibition spaces more than 14,000 square meters in total.²³⁹ The collection offers aircrafts, airborne equipment, weapons, engines, military uniforms, written documents, and medals in order to emphasize the significance of

²³⁹ Istanbul Hava Kuvvetleri Müzesi, *Hava Kuvvetleri Müzesi Komutanlığı Tarihçesi* (August 26, 2019)

Yeşilköy field in the national aviation history.²⁴⁰ In addition to the collection, a Plastic Model Aircraft Contest has been organized in Istanbul Air Force Museum annually since 1985.²⁴¹

Despite the fact that the museum is juxtaposed to airport site, until the closure of Istanbul Ataturk Airport, they have been detached from each other in consequence of airport regulations. On the other hand, now, since the life of Istanbul Ataturk Airport was terminated as an airport, the connection between the museum and the airport site should be strengthened. By intensifying the bond, not only required historical background is provided to field, but also the accessibility of the Istanbul Ataturk Airport is increased.

Although reuniting the museum to airport site is a major criterion, scale of the intervention should not remain at that level. Considering the massiveness of the site with both physical and historical perspectives, the museum as its present condition cannot satisfy the expectations and should be updated to its new assignment in the larger site of Istanbul Ataturk Airport. From this point of view, new assignment corresponds to comprehensive museum that embodies the prosperous history of the site with its widened new collection.²⁴² While expanding its collection, the physical boundaries of the museum should be also extended to the field of Istanbul Ataturk Airport, especially on the 06/24 Airfield (Figure 76).

This extension may refer to an increase on the outer exhibition spaces which contribute to promote open field usage of Istanbul Ataturk Airport by the citizens. In addition, as one of the major welcoming spaces in the site, that expansion to the airfield will encourage visitors to explore the rest of the airport site. In this respect,

²⁴⁰ Hava Kuvvetleri Müzesi Komutanlığı, *Tanıtım Kitapçığı* (n.d.)

²⁴¹ Ibid

²⁴² Comparing to the Paris Le Bourget Space and Air Museum with more than 18,000m² of indoor exhibition space, it is clear that the content and the size of the museum of Istanbul Atatürk Airport should be developed.

the enlargement of the museum function can be regarded as necessary involvement to the site of Istanbul Ataturk Airport.



Figure 76: *Istanbul Air Force Museum as a gateway to Istanbul Ataturk Airport*
created by the author

Physical expansion of the museum will also underline the unique history of the site with different layers. Being as a military aviation museum, Istanbul Air Force Museum may overlook the present specific historical periods such as CIDNA/

CFRNA and Nuri Demirağ Aircraft School. However, Yeşilköy has overlapped and rich histories at the same time and the extended museum should mention and emphasize the civil aviation history of the site along with the military one.

3.3.2 As Event Space

In company with the pressure on public spaces policies in the last twenty years, the city of Istanbul with more than 15 million residents has been deprived of event spaces for cultural and political activities. While the cultural events are limited in private establishments, the political ones such as protests or marches either are forbidden or thrown away from heart of the city such as Yenikapı filling area. Although citizens use the public and open spaces including Bosphorus seashore in Istanbul with its temperate climate resulting in a substantial potential for open-air usage, there is a lack of main public green spaces that is designed or planned.²⁴³ Despite the land reclamations in many locations such as Maltepe and Yenikapı coasts in the recent years, the increasing demand cannot be satisfied. Examining all these present conditions, with the combination of hard and soft ground, the site of Istanbul Atatürk Airport can become a space where the citizens of Istanbul express themselves with various activities. Considering the losses of public spaces in Istanbul in recent years, Istanbul Atatürk Airport has a potential to reverse this circumstance. The events that will recreate the vacant airport site can be forecasted as expositions, concerts and political ground of Istanbul.

Infrastructure and accessibility of the site make Istanbul Atatürk Airport as an ideal space for expositions. Although one of the major neighbors of the site is Istanbul Expo Center, Istanbul Atatürk Airport offers wide plain exterior spaces that are available for specific types of fairs. *Teknofest* fits as a suitable example of these type of fairs. It is an aviation, technology and space technologies festival which

²⁴³ İpek Yürekli, Arda İnceoğlu, *Urban Characteristics of Istanbul: Problem or potential?* (ITU A-Z, Vol.8, No.1, 208-218, 2010)

was held for the first time on 17-22 September 2019 in Istanbul Atatürk Airport (Figure 77). Dedicated for the aviation industry, *Teknofest* consists of an airshow, a science congress, World Drone Cup, technology competitions and exhibitions.²⁴⁴ It was already announced that *Teknofest* 2021 is going to be held on 21-26 September 2021 in Istanbul Atatürk Airport and it is expected to continue in the same place within the next years.



Figure 77: *Teknofest* in Istanbul Atatürk Airport

Retrieved from <https://www.teknofest.org/galeri-102.html>

Taking the context of *Teknofest* into account, continuation of the relationship between the aviation technologies and Istanbul Atatürk Airport is significant. While aviation fair takes advantage of the infrastructure of the space, an abandoned airport keeps alive its memory with these types of fairs. In addition to annual fair, in company with the extended museum function, certain aviation activities in the

²⁴⁴ Teknofest, *Aktiviteler* (n.d.)

fair can be spread to multiple months of the year especially to spring and summer. In this respect, rather than compressed event calendar, while public will show more interest in these activities, the usage of Istanbul Atatürk Airport's site is going to be more homogeneous from the perspective of time periods.

Cultural activities such as concerts, festivals, etc. have become limited to particular spaces without variety during recent years in Turkey. Although there are many different factors for this present condition, one of the main reasons of that can be regarded as the deficiency of event spaces in the city. Although the population of Istanbul has jumped from 8.7 million to 15.5 million in the last twenty years, there has been no attempt to multiply public and event spaces in response to that increase.²⁴⁵ Nevertheless, within this period, existing event and public spaces have been demolished. As the most obvious examples, demolition of Turkcell Kuruçeşme Arena and Ali Sami Yen Stadium, reduction of Maçka Park due to construction of highway tunnel. Furthermore, Gezi Park protests were related to the pressure on the public spaces in the city. As one of the biggest protests in the Turkey in recent years, it started as an opposition to transformation of Gezi Park in Taksim to a reconstruction of barracks functioned as shopping mall in May 28, 2013. In consequence of this period, now, it is obvious that there is a lack of public spaces that can accommodate large events in Istanbul.

When viewed from this aspect, extensive vacant land of Istanbul Atatürk Airport with the well-integrated public transportation is able to fill the deficiency of event space in the city. With the balance between its hard and soft ground and technological infrastructure of the site, large scaled festivals and concerts can be held in this abandoned airport. Moreover, an annual music festival that is specific to the site of the airport can be established. In this respect, such periodical events will provide a different cultural milieu to Istanbul Atatürk Airport in addition to its other functions. Similar to other cities such as Ostrava, hosting popular festivals in

²⁴⁵ World Population Review, *Istanbul Population 2021* (n.d.)

the world (Figure 78), Istanbul as a city will be reputable from the perspective of cultural tourism with its utilization of industrial heritage settings. In this way, it will be guaranteed to maintain the future of the abandoned site properly.



Figure 78: *Colors of Ostrava Festival in the Settings of Disused Factories*

Retrieved from <https://www.festivalsunited.com/festivals.php?op=showf&colours-of-ostrava-2021&fid=8354>

Instead of introduction of a totally new annual music festival, Istanbul had already had a significant music festival named as Rock'n Coke.²⁴⁶ It had been the biggest open rock festival held biennially at the Hezarfen Airfield which is used as a private flight school at the northern shore of the Lake Büyükçekmece (Figure 79).²⁴⁷ While the festival had a rising popularity since its inception in 2003 to 2013, it was terminated that year. Considering the Istanbul Atatürk Airport's wide plain land with the easily accessible location, it can easily house Rock'n Coke festival in terms of size, infrastructure, location and reachability.

²⁴⁶ Being a Tourist in Turkey, *It is the biggest music festival in Turkey; Rock'n Coke* (July 1, 2017)

²⁴⁷ Ayjet, *Who Are We* (August 2, 2021)

Last but not least, Istanbul Atatürk Airport can fulfill a need of political ground in Istanbul. To the accompaniment of public space policies in last twenty years, expressions of citizens on public sphere have been prevented intentionally. In turn, it leads society to be more tensioned in the long term and social dynamics are started to be ruined. Destruction of public spaces has been used as a means of limitation on pluralistic democracy and effects of these policies are experienced in the physical ground of the city as well.



Figure 79: *Rock'n Coke Festival 2013*
held at Hezarfen Airfield in Istanbul

Retrieved from <http://mimarcasanat.com/wp-content/uploads/2013/09/rockncoke.jpg>

Despite all, the re-functioning the abandoned site of Istanbul Atatürk Airport can be a potential for repairing the political ground of the city. While the site serves as a fully functional event space for major organizations, at the same time, for the citizens of the city, it provides an opportunity to make protests and political demonstrations.

3.3.3 As Recreational Green Space of the City

With the implementation of neoliberal policies all around the world, in order to participate in the social life in the city, one should be a part of the economic system. In other words, a person cannot be socialized until he/she tempts to spend money. The outcomes of this strategy have come in view in the physical spaces of the cities day by day and it is attempted to be implemented continuously worldwide. As distinct from the most of the cities, in Istanbul, these policies are applied insensibly and in contrast to rise in the population of the city, the number of public spaces does not increase.

In addition to neoliberal policies, decline on the green spaces of the Istanbul has become a significant challenge for the future of the city. With the impact of immigrations to the city in the recent years, Istanbul has lost its green space excessively. In comparison with 40 major cities from the world, the percentage of public green spaces such as parks and gardens is the lowest by 2.2% for Istanbul.²⁴⁸ Even this statistic by itself already reveals the danger on public space and green field policies of the city. Within this context, the transformation of the abandoned Istanbul Atatürk Airport's site, presenting 854 hectares of mostly plain space, to the urban park may become an extensive solution.²⁴⁹ Considering the transportation opportunities to site such as metro line, highway and seaway, for not only its neighborhoods but also for the entire city, Istanbul Atatürk Airport has a potential to transform the city's biggest green space by far. As Tempelhof Park in Berlin, without intense interventions, privilege of the large field in abandoned Istanbul Atatürk Airport's site may be transferred to citizens of Istanbul.

²⁴⁸ World Cities Culture Forum, *% of public green space (parks and gardens)* (n.d.)

²⁴⁹ Comparing with the Central Park in New York (340 ha) and Hyde Park in London (140 hac) Istanbul Atatürk Airport would be one of the biggest metropolitan park in the world with 854 ha.

By this way, rather than predetermined refunctioning scenarios, the future of the site will be defined by its users, the society. Like in Tempelhof Field, anyone can include identification to the site having ability to adaptations (Figure 80-81).²⁵⁰



Figure 80: *Different Activities Formed by the Users in Tempelhof Park Berlin*
Dilek Özhan Koçak, 2020, *An 'Empty' Space Among Plans, Borders and Utopias: The Tempelhof Field*, Retrieved from <https://dergipark.org.tr/en/download/article-file/1163956>



Figure 81: *Berlin Tempelhof Park*

Retrieved from <https://apenoni.com/best-berlin-park-visit-summer/>

While it brings about the undesignated and ever-changing functions to the site, at the same time, the relationship between the users creates intense and unique connection to the physical space.

²⁵⁰ Dilek Özhan Koçak, *An 'Empty' Space Among Plans, Borders and Utopias: The Tempelhof Field* (Hacettepe University Faculty of Communication Journal of Cultural Studies, 7(1), 88-106, 2020)

In order to provide this profound relationship between the site and its users, there are still certain required alterations that multiply the green area of the site. Considering both the history and the infrastructure of the airport, the most appropriate zone for green space is north of the airport site (Figure 82). The area between the airport boundaries and terminal buildings on north with dense green field can also become a buffer zone between the city and the airport site. This section may prevent noise and air pollution originated especially from E5 highway. This intervention to the site of Istanbul Atatürk Airport takes into consideration of airstrips having potential usage for the future. In this way, while the area around the airstrips presents the combination of hard and soft ground, the north frontier promotes ecosystem of the site and offers more shading zone. From another perspective, the design decision can be considered as facing toward Yeşilköy and Marmara Sea and creating buffer zone with greenbelt between the site and the E5 highway. As a result, the site of Istanbul Atatürk Airport can establish relaxed and isolated green space for citizens like Tempelhof Field.

In addition to main masterplan design, in the upcoming years it can be forecasted that prefabricated single-storey pandemic hospital will be removed and due to destruction on the 17/35 Airstrips, free field, which will be stem from the pandemic hospital, can be utilized as greenery zone with concentrated trees. This potential may also assist as camping area during annual music festival since the current hospital zone has the edge on the access from the city and location in the site.

While taking into consideration of all, Istanbul Atatürk Airport can fill the gap of green space in the city with its size, location and transformation opportunities. In order to stand as the urban park, certain interventions should be implemented to the abandoned site. While such minor interventions, keeping the major spatial characteristics of the site exhibit a high regard to the history and the potential of the airport, they are feasible and cost-effective at the same time. Moreover, without predetermined functions, a common, flexible field for citizens will be created with the intent of being themselves.



Figure 82: *Proposed Green Spaces of Istanbul Atatürk Airport
created by the author*

CHAPTER 5

CONCLUSION



Figure 83: *Abandoned Aircrafts in the site of Istanbul Atatürk Airport*
Retrieved from <https://www.ntv.com.tr/galeri/turkiye/ataturk-havalimanindaki-hayalet-ucaklar-sahiplerini-beklemeye-devam-ediyor,yrR-FPgBckGSE11CFwSwWA/PYvJ3Qx2P0uUaRfVAXE9sw>

With the developments on the aviation technology and the globalization, airways have become the most preferred transportation system and continue to advance at a great pace. In order to meet the expectation of this industry, the countries and the companies put the pressure on the airports and aviation buildings. Within this process, some of these facilities fell short of satisfying the current needs and ultimately neglected. Although there are great numbers of industrial buildings that are abandoned and refunctioned, the abandonment of an airport and its adaptation for new functions are not an accustomed case until recently. Therefore, the words of “airport” and “reuse” do not come side by side. However, the number of vacant airports and aviation buildings is increasing day by day due to fierce development

on the aviation industry. In order to raise awareness towards these aviation buildings and research reuse potentials, they should be defined as industrial heritage in the first place.

Defining spaces of aviation as industrial heritage enabled this thesis to develop a more comprehensive approach to understand the values related to the airports and ultimately Atatürk Airport. Firstly, by the help of heritage, social and cultural identity can be also built up. In this respect, former industrial buildings and their landscapes which include the memories of historical events with symbolical, cultural and political background is similar to the airports. Focused on the last century which includes World War I. and II., it is clear that the heritage and evolution of technology have been merged and spaces of aviation have become its evidence. Although different transportation spaces have been studied widely from the perspective of industrial heritage such as railway stations, harbors, ports and etc., airports and aviation buildings are ignored in general due to being new typology relative to its counterparts. Therefore, there is a limited number of academic studies focusing on the protection and refunctioning of aviation spaces. However, such a recognition will enable people to understand the complexity of the aviation and its rich history. Although airports have become also production and training spaces of aviation alongside the terminal in the past, in today's world, this multilayered nature is ignored and these spaces are perceived only as terminal buildings in general. However, as the thesis displays, when the histories of these facilities are examined individually, each one contains memories of wars, experimentations, successes and tragedies all at once. Moreover, especially in the first years of aviation, the industry and its physical spaces had evolved mutually. The airport sites are developed in line with the requirements and the advancement of aviation technologies over the years. These overlapped histories in a single site bring about variety in values such as use, aesthetic, historical and technological from different time periods, to be conveyed to the future generations. In the light of these values that the site encloses, potential reuses of the abandoned airport and its

facilities should be investigated. Due to being derived from the characteristics of the site, these refunctioning scenarios will guarantee the future of the facilities.

Apart from their historical significance, as the second contribution of considering airports as a part of the industrial heritage, physical features of airports such as size, location and infrastructures are also valuable for today's cities in terms of transformation and refunctioning. These abandoned sites can be regarded as potential reserves of green and public spaces in the cities becoming dense by degrees.



Figure 84: *Abandoned Istanbul Atatürk Airport*

Retrieved from <https://www.turizmgunlugu.com/2019/03/30/ataturk-havalimaninin-tarihcesi/>

At this point it is meaningful to refer to the discussions about the airport as generic and context free buildings. For example, Marc Auge (1995) notes that “*If a place can be defined as relational, historical and concerned with identity, then a space which cannot be defined as relational, historical, or concerned with identity will be a non-place.*” in his publication of “Introduction to an Anthropology of

Supermodernity”.²⁵¹ To concretize his argument, Auge describes airports as a non-place and he claims that it becomes the most obvious example as the globalization of space all around the world.²⁵² He further mentions a contract between non-places and their users which arranges the behaviors of the users in the non-places while exemplifying the schema of an usual passenger in an airport. Although Auge renders airports as non-place and forms a critical frame for them, this thesis questioned this assertion and brought forward the unique qualities about the airports and their individual but comparable values and capacities.

In correlation to abandoned airports all over the world, transformation and reuse projects increase noticeably. Although there are many reuse projects with different characteristics, transformations of the main airports are limited in number. When comparing with the Istanbul Atatürk Airport, relevant cases in terms of size and context are chosen. Furthermore, this thesis also focuses on the transformation processes including conflict of interests between the government and the citizens, examining the reused airports with specific refunctioning themes. Although each case reflects its own unique processes, the only constant observed in general is that the abandoned sites of all the selected airports become a target of neoliberal policies by the hand of the government. *Berlin Tempelhof Airport* is the most appropriate example with respect to effects of public and non-governmental organizations. Despite the transformation project prepared by the government, in the end of the long period and referendum, the site of the airport remained as a public park. This thesis traces such public reactions to these commercial motivations in the transformation projects in the world and suggested a similar framework for Atatürk Airport.

²⁵¹ Marc Auge, *Non-Places: Introduction to an Anthropology of Supermodernity* (1995), p.77

²⁵² *Ibid*, p.34



Figure 85: *Destruction of Cargo Terminal in Istanbul Atatürk Airport*
Retrieved from <https://www.haberturk.com/ataturk-havalimani-kargo-bolumunde-yikim-tamamlandi-2558411>

Apart from *Tempelhof Field*, the cases of *Hong Kong Kai-Tak Airport* and *Athens Ellinikon Airport* are also significant from the point of these conflicts. Although, citizens and non-governmental organizations in those cases have reacted similar to the Berliners, the outcomes differ from *Tempelhof Park*. Instead of involving their citizens into design processes directly, the governments of both Hong Kong and Greece decided to revise their transformation projects without public consensus. Further common ground of these two cases from different geographies is the significance of each abandoned site in the city. In brief, both old airports are the last available sites in the cities that have a direct access to seashore. Therefore, the transformations of these two airports are critical for the future of these cities and their citizens. In this regard, they are very similar to Istanbul Atatürk Airport when the potential of access to the Marmara Sea from its site is considered.

Each of the examined case in this thesis exhibits rich aviation contexts in both national and global scales. These airports are reminders of all histories, accidents and triumphs of aviation. However, as discussed in detail, this has been overlooked

in almost all cases, except *Paris Le Bourget Airport*. Like Space and Air Museum, it is possible to represent the historical value of the site to its visitors with new educational functions, while highlighting the original function of the place. Therefore, it provides an awareness on the aviation history besides cultural identity of the citizens. The reason why it appears in this thesis is to put forward the aviation facilities in its new form of life and Le Bourget Airport is the only example which still retains flight activities such as VIP airport or aviation centered events. Supporting with this type of events, Air and Space Museum does not become a passive exhibition space, on the other hand, the awareness on the aviation heritage is improved continuously. Considering that Paris Le Bourget Airport is located at the outskirts of Paris, it is important to create an interest point of aviation in the site in different times of the year.

However, in order to conserve the memory of the abandoned airport and use its infrastructure such as airfield and aviation technologies, one of the most feasible refunctioning methods is to maintain aviation activities in harmony with accompanying new functions. Therefore, while airfields and infrastructure of the airport still perform service, the abandoned site of airport hold onto its aviation roots. Moreover, the only transformation case which does not involve any contradiction between the public interest and the government is also Paris Le Bourget Airport.

As for Istanbul Atatürk Airport, it is still abandoned and vacant since the last flight in 2019. Although it appears in news from time to time as a part of political agenda, it is certain that the future of the airport and the transformation project cannot be foreseen. However, Istanbul Atatürk Airport reserves both the national aviation history and a large open space at the same time. Considering that there is not an example of vacant land with that scale and the city of Istanbul needs much more public and green space together, abandoned site of the airport becomes a potential with its size, location and transportation opportunities. Nonetheless, this potential does not emerge with a single intervention to the site. Different refunctioning scenarios should be combined in the site. The harmony of new and

various functions provides the continuity of the site usage and since therefore the citizens of Istanbul embrace the new life of Atatürk Airport. One of these functions should be museum presenting the rich history of the site, while the others should make use of the potentials of the large open landscape such as a green recreational public park with cultural activities that transform the airport site into a cultural and social center. The physical space of the airport has the makings of possess these different and extensive functions in company.

While examining all these refunctioning themes, continuation of the airport facilities in the site should be also discussed as an alternative. The location, accessibility and also the history of the airport indicate the significance of the site in terms of aviation. Proposing new functions in the site does not refer the total termination of aviation activities. In a Multi-Airport Systems, Istanbul Atatürk Airport can serve as a secondary small airport. Furthermore, refunctioning themes can be also implemented in this scenario.

In order to integrate mentioned possible functions in the site, the first condition should be that all fractions of the society, who are non-governmental organizations, citizens, professional institutions, government, municipality, even investors, are to participate in the transformation process. This is the only way to establish the future of Istanbul Atatürk Airport. Moreover, incomprehensive and local interventions render the site non-usable and desolated. Therefore, in the first place, present interventions to the site such as prefabricated single-storey hospital and destruction of cargo terminal, should be suspended and then with the extensive consensus and the light of masterplan, the refunctioning scenarios are designed and put into practice in the near future. On the other hand, Istanbul Atatürk Airport disappears in the urban memory day by day and it is not what this more than 100 years old aviation facility deserves.

From the bigger perspective, the transformation process of Istanbul Atatürk Airport can be a pioneer for both international and national scale. As mentioned before, in the near future there will be much more abandoned airports and aviation facilities

despite the limited number of refunctioned airports. In this respect, Istanbul Atatürk Airport has a potential of being one of the most important examples in the world in terms of size and context. Furthermore, success on the transformation process of Atatürk Airport opens a road to discussions of refunctioning abandoned airports publicly and thus the number of transformation projects will increase in the near future. Although there are certain realized projects in the international level, none of them can be highlighted as a model. With its specific characteristics such as history, size, location and context, Istanbul Atatürk Airport stands for this role.

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