CONTEMPORARY ISLAMIC GARDENS AND CULTURAL IDENTITY: THREE CASE STUDIES FROM NORTH AMERICA AND EUROPE

BY

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DISSERTATION

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ABSTRACT

This dissertation explores the development of Islamic gardens as a global phenomenon in the contemporary world. I argue that Islamic gardens are not restricted to particular locations, cultures, or environments; instead, they can be adapted in different parts of the world, including in places that are not primarily Muslim. To demonstrate this expansion, three contemporary Islamic gardens located in Europe and North America are examined through site observation, interviews, and a review of primary and secondary sources. These cases are the Mughal Garden in Bradford, UK; the Bakewell Ottoman Garden in St. Louis, US; and the Aga Khan Park in Toronto, Canada. In particular, the case studies are intended to demonstrate the role of the designers and patrons in constructing the identity of Islamic gardens in North America and Europe.

An in-depth examination of the case studies shows the effect of globalization, tourism, and the flow of people in the creation of Islamic parks and gardens in the Western context. In forming this identity, the designers deliberately connected their design, both physically and conceptually, to the past by using various interpretation techniques. However, the transposition of the Islamic garden to a global context has required certain negotiations with local cultural, geographical, and climatic conditions to produce a meaningful experience and prevent cultural alienation. These adaptations reveal the flexibility of Islamic gardens as forms and concepts.

Most previous literature on Islamic gardens has focused on the pre-modern period, with limited attention devoted to the nineteenth century or beyond. However, this dissertation extends this historical framework of Islamic gardens to the contemporary period and its defined Islamic geographical boundaries into a global context, while also addressing critical questions about their meaning and identity up to the twenty-first century.

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CHAPTER 1: INTRODUCTION

The practice of designing and building gardens and landscapes preceded the formation of Islamic civilization in the Arabian Peninsula around 622 CE. Yet, the specific forms of the Islamic garden emerged from the significant innovations that were necessary to adapt the desert land for human habitation. Many important Islamic gardens were subsequently built from the eighth to the eighteenth century. The most spectacular surviving gardens from the pre-modern Islamic world are the royal gardens commissioned by and for a Muslim ruler (typically called either amir, meaning "prince," or sultan, equivalent to "king") and the gardens associated with religious facilities, such as mosques and mausoleums that often symbolized the paradise promised to the faithful in the Qur'an. Some of these gardens still exist today very close to their original form, as for example the garden courtyard at the Great Mosque of Cordoba, Spain, built in the late eighth century, and to a certain degree the courtyard gardens of the fifteenth century Alhambra in Granada, Spain. Other Islamic gardens were rehabilitated and primarily rebuilt, such as the sixteenth-century Bagh-e-Babur in Kabul, Afghanistan, which was restored by the Aga Khan Trust for Culture (AKTC) in 2003-2007. While many historic Islamic gardens have vanished without a material trace, some are known through written documents or visual representations, such as the sixteenth-century Karabali Garden in Istanbul, Turkey.

Today, Muslims comprise a majority population in the Middle East and parts of Asia and Africa, and as minority or diasporic communities in other parts of the world, including Europe and North America. Interestingly, and perhaps as a result of cultural globalization, the demand for Islamic gardens and landscapes from both Muslim and non-Muslim clients, both inside and outside of the "Islamic world" (which I define as Muslim-majority countries), has grown significantly

throughout the late twentieth and twenty-first centuries. For example, in 2019, the Qur'anic Park was built in Dubai, UAE, and the Aga Khan Garden was completed in Edmonton, Canada. This new expansion of "Islamic gardens" from a local and regional phenomenon within the Islamic world to a global phenomenon that extends beyond to the non-Islamic world (meaning, not predominantly Muslim) and to unexpected cultures and environments demonstrates a remarkable shift in the trajectory of Islamic gardens.

In the twenty-first century, Islamic gardens continue to be a part of residential and religious architecture such as in mosques and Islamic centers, but now also form part of various types of architecture projects including cultural, commercial, and institutional—such as museums, hospitals, university campuses, and hotels. In addition, Islamic gardens now may contribute to the urban landscape, in the form of public parks and plazas, of modern cities. In this urban context, Islamic gardens and landscape projects such as Al-Azhar Park in Cairo (2007) must engage with various contemporary environmental, social, economic, and cultural issues. Moreover, historic preservation and the rehabilitation of historic Islamic gardens, as for example the restoration of the sixteenth century Humayun's garden tomb in India, completed in 2013 by the AKTC, and also environmental restoration projects such as the Wadi Hanifa Wetlands (2007) in Saudi Arabia have emerged as an important practice in the twenty-first century.

However, designating these gardens and landscape projects as "Islamic" reveals an immediate problem: what defines an Islamic garden in the twentieth and twenty-first century? Is such an identification made through a reference to the historical tradition of Islamic civilization, and if so, how is the connection made? Does this identity rely on aesthetic visual signs, cultural expressions, religious affiliation, regional identity, and/or some combination of these factors? Does it matter whether the design context is within a predominantly Muslim or non-Muslim

country? Finally, is identity conveyed through human agents, such as patrons and architects, or through the forms themselves? These are some of the questions about identity and meaning that challenge designers and scholars today that we have yet to answer.[1] For the purpose of this research, I will use the term "contemporary Islamic garden" to define designed landscape built in the twentieth and twenty-first century that have directly, and with clear intentions, been inspired by Muslim history, culture, tradition, and geography. I argue that Islamic gardens today are not limited to specific locations, cultures, or environments but instead can be adapted in various parts of the world—including in places that are not majority Muslim, such as the United Kingdom, the United States, and Canada.

IDENTITY AND MEANING: LANDSCAPE NARRATIVES

In the context of the designed landscape, the concept of identity can offer the means of answering the complex question of whether or not a garden can be named "Islamic." Identity is an abstract idea with many layers, and it can be applied in different contexts and can have its own unique set of principles that characterize its meaning.[2] In his chapter "The Question of Cultural Identity," the British cultural theorist Stuart Hall discusses how the concept of identity has changed throughout time using three concepts of identity: the Enlightenment, the sociological, and the contemporary subject.[3] Hall states that the Enlightenment subject believed that identity was part of human biology, or their inner core, which stayed the same throughout a human's life. The sociological subject, according to Hall, believed that their inner core defined their real self, but

[1] These were also the questions that Professor D. Fairchild Ruggles and I posed at the symposium that we organized at the University of Illinois, Urbana-Champaign in September 2019, "What is an Islamic Garden in the 21st Century?"
[2] Dana Pop, "Aspects of Identity in Contemporary Architecture Space," *Philobiblon* 18, no. 2 (2013): 415.
[3] Stuart Hall, "The Question of Cultural Identity," in *Modernity: An Introduction to Modern Societies*, edited by Stuart Hall, David Held, Don Hubert, and Kenneth Thompson (London: Blackwell, 1996), 595-634. Note: I replaced Hall's "post-modern subject" with "contemporary subject."

they also realized that identity was not independent and that instead, it formed as a result of continuous interactions between the self and the cultural world. For the contemporary subject, identity is not fixed or biologically defined. Instead, it could change according to a cultural system. In this pluralistic sense of identity, a person could have "hybrid" identities at the same time and perhaps those identities could even change or evolve over time. The term "hybrid," according to Nezar Alsayyad, is "anything derived from heterogeneous sources or composed of different or incongruous elements."[4] Therefore, for Alsayyad, identity and hybridity are two contrary terms that are both socially constructed; however, when examined from a contemporary perspective (such as Hall's third concept), they become less dissimilar. In this sense, hybridity may refer to a concept of "multiple identities," meaning a person or an object can embody a merger of various identities.

For the Spanish sociologist Manuel Castells, identity is pluralistic, constructed by social actors, and is the source of meaning that reflects the cultural attributes of society.[5] He argues that social construction of identity always takes place in a context marked by power relationships.[6] Castells points out that in order to know and to understand how and by whom these types of identities are constructed, they must be examined within particular historical contexts. This means that it is essential to position the subject. In case of the gardens discussed in this dissertation, this means studying them within a particular place, time, and cultural situation.

The Turkish architects Meltem Yilmaz and Meltem Maz define identity as a cultural system that emerges from the interaction between individuals and their environment. Culture, according

[4] Nezar AlSayyad, ed., *Hybrid Urbanism: On the Identity Discourse and The Built Environment* (Westport, CT: Praeger, 2001), 5.
[5] Manuel Castells, "Communal Heavens: Identity and Meaning in the Network Society," in *The Power of Identity: The Information Age: Economy, Society, and Culture* (Malden, MA: Wiley-Blackwell, 2010), 7-8.
[6] Ibid.

to them, is a system of values and beliefs that are shared by a group of people and that are expected to be transmitted from one generation to the next.[7] People obtain certain knowledge as a result of interaction with their environment and this knowledge must be identified by humans to be perceived as a meaningful. Thus, culture as a system is manifested in people's perceptions, behaviors, lifestyles, and their built environments that include architecture and landscape design. Therefore, a cultural landscape represents the dynamic and continuous relationship between people and their natural environment over time. Through the process of identification of the environment, people produce a sense of place and identity.[8]

The architecture and gardens of the built environment are cultural artifacts that work as signifiers of cultural identity.[9] According to Hall, there are two ways to think of cultural identity. The first way is to define cultural identity as "one shared culture" that unifies people as a coherent group. The second position is to acknowledge that while there are many similarities, there are also major differences, for which Hall supplies the term "otherness." Hall explains the latter position of cultural identity as "framed by two axes or vectors, simultaneously operative; the vector of similarity and continuity; and the vector of difference and rupture."[10] Based on this, we can examine contemporary Islamic gardens and landscapes as a part of a long and continuous history, while at the same time, introduce the possibility of finding similarity, symbolic, conceptual, and visual representation between various projects. Nevertheless, we have to keep in mind the fact that the various changes in the character of modernity (including structural change and globalization) have affected the cultural identity of the Islamic and non-Islamic world and by extension the built

[7] Meltem Yilmaz and Meltem Maz, "Architectural Identity and Local Community," *Ekistics* 73, no. 436/441, (December 2006): 140-141.
[8] Ibid.
[9] Mohammad Gharipour, "Tradition vs. Modernity: The Challenge of Identity in Contemporary Islamic Architecture," *Local Identities Global Challenges, ACSA Fall Meeting, Houston* (2011): 200.
[10] Stuart Hall, "Cultural Identity and Diaspora," in *Identity: Community, Culture, Differences*, edited by Jonathan Rutherford (London: Lawrence & Wishart. 1990), 226-227.

environment. Consequently, contemporary Islamic garden and landscape design projects may have similarities, but they may also have evolved in different directions.

As a part of the built environment, landscape can be considered as a system of signs that have meaning and representation. But how is meaning constructed in a landscape? Anne Spirn argues, "Landscape is language."[11] In her interpretation, landscapes have all the features of language that allows them to speak, write, read, and be imagined. In other words, landscapes have a grammar that guides how they are formed. In a similar way, James Corner states that a landscape is a text that allows for many interpretations and transformations. He believes that a landscape is a "schema, a representation, a way of seeing the external world," and says that "based on one's point of view, such schemata vary significantly."[12] Matthew Potteiger and Jamie Purinton introduce the term "landscape narratives," which considers the landscape site as a story. Like a story, every landscape has an author (designer) and readers (users), where the author writes the text with a specific meaning in mind and the reader introduces his/her own meaning into the text.[13]

Therefore, the identity of the author or creator (a role fulfilled by both designers and patron) is projected into the design of the built environment. The designer uses visual and cultural vocabulary that embodies a system of signs as representation to make the built space meaningful. Hall has noted that "representation means using language [signs and images] to say something meaningful about, or to present, the world meaningfully, to other people."[14] He provides three approaches for representation: reflective, intentional, and constructionist. The reflective, or

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[11] Anne Whiston Spirn, "The Language of Landscape (1998)," in *Theory in Landscape Architecture*, edited by Simon Swaffield (Philadelphia: University of Pennsylvania Press, 2002), 125. Also see: Anne Whiston Spirn, *The Language of Landscape* (New Haven: Yale University Press, 1998).
[12] James Corner, "Representation and landscape (1992)," in *Theory in Landscape Architecture*, edited by Simon Swaffield (Philadelphia: University of Pennsylvania Press, 2002), 144.
[13] Matthew Potteiger and Jamie Purinton, "Landscape Narratives," in *Theory in Landscape Architecture*, edited by Simon Swaffield (Philadelphia: University of Pennsylvania Press, 2002), 136.
[14] Stuart Hall, "The Work of Representation," in *Representation: Cultural Representations and Signifying Practices*, edited by Stuart Hall (London: Sage, 1997), 1.

mimetic, approach indicates that meaning exists in the "object, person, idea or event in the real world, and language (signs) functions as a mirror, reflecting the true meaning as it already exists in the world."[15] The intentional approach indicates that meaning exists in the author, who imposes his/her meaning on the world though language. The constructionist approach recognizes that language is socially constructed; in other words, things do not have meaning, but we create meaning using a representational system.[16] In this way, people who use and experience the built space are exposed to the meanings attached to certain forms and cultural vocabulary, but they react to them differently based on their own personal and collective experiences. Those meanings then play an important role in the construction of the personal and cultural identity of the users. Based on Hall's representational approaches and Castells's view, I believe that the identity and meaning of contemporary Islamic gardens can be perceived from the constructionist approach as socially constructed.

Historically, the form and design elements of Islamic gardens have had various meanings, signifying different religious, cultural, economic, and political positions. For example, the plan of the *chahar bagh* garden, a classical formal style in which the garden is divided into quadrants by cross-axially water channels with a central water fountain, has been interpreted by scholars such as D. Fairchild Ruggles as a representation of the agricultural landscape.[17] According to Ruggles, the layout of the *chahar bagh* garden and the water channels associated with it signify the irrigation systems used in farms. However, similar to identity, the garden's meanings are not fixed; rather, they change and evolve over time along with social and cultural practices. Hence, Ruggles explains that when gardens in the Islamic world became a setting for tombs, an emphatic religious or

[15] Stuart Hall, "The Work of Representation," 25.
[16] Ibid.
[17] D. Fairchild Ruggles, *Islamic Gardens and Landscapes* (Philadelphia: University of Pennsylvania Press, 2008).

paradisiac meaning of these gardens also emerged. Therefore, the meaning of the *chahar bagh* (the form of which preexisted in agricultural contexts) became the earthly reflection of the four rivers of paradise (mentioned in the Qur'an and Hadith, the collection of traditions or sayings of the Prophet Mohammad) as rewards for true believers.[18] Much like historical Islamic gardens, which had recognizable and meaningful forms and functions that might change over time, contemporary Islamic gardens have their own set of forms and meanings suitable to the zeitgeist of their time and the functions that they serve. In this way, according to the Indian architect Charles Correa (1930-2015), identity and meaning in the built space are not fixed; instead, they are dynamic, pluralistic, and changing all the time.[19]

Islamic gardens and landscapes first became a field of study and research for many Western scholars during the early twentieth century. The early scholars, such as Titus Burckhardt, Elizabeth MacDougall, and Richard Ettinghausen, focused on the formal development and symbolic representation of the Islamic gardens as a coherent entity.[20] Later scholars, such as Jan Pieper and Yasser Tabbaa, shifted from this surveying and homogenizing approach to more regionally oriented studies.[21] In more recent decades, environmental aspects have been considered by scholars such as James Wescoat and Ruggles.[22] The majority of contemporary scholars of Islamic

[18] D. Fairchild Ruggles, "The Here and Hereafter: Mausolea and Tomb Gardens," in *Islamic Gardens and Landscapes* (Philadelphia: University of Pennsylvania Press, 2008), 103.
[19] Charles Correa, "Quest for Identity," in *Architecture and Identity*, edited by Robert Powell (Singapore: Concept Media/Aga Khan Award for Architecture, 1983), 10.
[20] Titus Burckhardt, *Moorish Culture in Spain* (London: George Allen & Unwin, 1972); Elizabeth B. MacDougall and Richard Ettinghausen, eds., *The Islamic Garden* (Washington, D.C.: Dumbarton Oaks, Trustees for Harvard University, 1976).
[21] Jan Pieper, "Hanging Gardens in the Princely Capitals of Rajasthan and in Renaissance Italy: Sacred Space, Earthly Paradise, Secular Ritual," *Marg* 39, no. 1 (1988): 69-90; Yasser Tabbaa, "The Medieval Islamic Garden: Typology and Hydraulics," in *Garden History: Issues, Approaches, Methods: Dumbarton Oaks Colloquium on the History of Landscape Architecture*, edited by John Dixon Hunt (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1992), 303-330.
[22] James L. Wescoat, Jr., "Mughal Gardens: The Re-emergence of Comparative Possibilities and the Wavering of Practical Concern," in *Perspectives on Garden Histories*, edited by Michael Conan (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1999), 107-135; Ruggles, *Islamic Gardens and Landscapes*.

garden studies follow an approach that focuses on specific regions such as the work of Nurhan Atasoy (Turkish Ottoman), Wescoat (Mughal), Ruggles (Spain), and Philip Jodidio (Egypt). Other contemporary research has focused on formal design development, as in the work of Jonas Lehrman, John Brookes, and Emma Clark.[23]

Despite the importance of contemporary Islamic gardens to the history of world gardens and the history of Islamic gardens, they have received limited attention from historians who prefer working on historic Islamic gardens. Finbarr Flood explains that the preference of Western scholars was related to the concept of the "death of Islamic art," which suggests that there was no modern or contemporary Islamic arts worth studying at the time.[24] As a result, the majority of scholarly work focused on the history of the pre-eighteenth-century period, with little attention paid to the nineteenth, twentieth and twenty-first centuries when colonialism, internationalism, and globalization become important issues. In addition, research on Islamic gardens and landscapes has mostly been written by and for historians, without addressing the ways that contemporary landscape designers engage with history and cultural identity. Thus, there is a need to bring the historical focus closer to the present and explore the various ways that designers have used the rich archive of historical precedents for inspiration in their garden and landscape designs around the world.

In response, my intervention in the study of Islamic landscape architecture projects will focus on contemporary Islamic gardens located in Western countries. More specifically, three Islamic public gardens and parks in Europe and North America will be examined. These are the Mughal Garden in Bradford (2001), the Bakewell Ottoman Garden in St. Louis (2008), and the

[23] See Chapter 3, "Islamic Gardens: Literature Review."
[24] Finbarr Barry Flood, "From the Prophet to Postmodernism? Geopolitics, the Canon and the End of Islamic Art," in *Making Art History: A Changing Discipline and Its Institutions*, edited by Elizabeth Mansfield (New York: Routledge, 2007), 31-53.

Aga Khan Park in Toronto (2014). These locations contain large diasporic Muslim communities that are self-consciously connected to Islamic cultural traditions. For example, in Toronto, there is a large Shia Ismaili population, many of whom arrived in 1972 when Idi Amin, the former President of Uganda (from 1971-1979) ordered the expulsion of the South Asian minority for political and religious reasons. In Bradford, there is a significant number of Muslims from Pakistan, India, and Bangladesh who originally came as laborers to work in the burgeoning manufacturing industry. In St. Louis, there are numerous Muslims refugees who came during the 1960s-70s, following the Bosnian war.

The term "diaspora" is generally used to describe the dispersion of a population from their original homeland to other host countries. In the social sciences, the concept of diaspora is used to describe migrant populations that maintain their connection to their homeland, ethnic tradition, and/or collective identity while in the host country.[25] William Safran, writing in 1991, proposed that diaspora could be used as a "metaphoric designation", which mean that it can be used to describe various emigrant minority communities.[26] Borrowing from Safran, I define the Muslim communities in my case studies in Toronto, Bradford, and St. Louis as diasporic. In addition, I argue that the identity of the Islamic gardens in my case studies are connected (sometimes unintentionally) to the collective cultural identity of Muslim diasporic communities in those cities and beyond.

The three selected cases with their various scales and forms can articulate how the identity of Islamic garden is constructed in a non-Islamic country, where the issues of Islamic identity, tradition, and representation are complicated. Unlike a garden built in an Islamic country (e.g.,

[25] Lisa Anteby-Yemini and William Berthomière, "Diaspora: A Look Back on a Concept," *Bulletin du Centre de recherche français à Jérusalem* 16 (2005): 262-270.
[26] William Safran, "Diasporas in Modern Societies: Myths of Homeland and return," *Diasporas* 1, no. 1 (1991): 83.

Saudi Arabia and Pakistan) that by definition could be consider Islamic, the Islamic identity of a garden built in non-Islamic country has to be explicitly communicated to produce a meaningful experience. The purpose of this study is to investigate how designers negotiate with history, tradition, and local conditions to construct Islamic gardens in North America and Europe with a clear Islamic cultural identity.

TRADITION AND MODERNITY

As important aspects in forming the cultural identity, it is important to understand what "tradition" and "modernity" are and how they have been employed. Tradition, as a broad term and concept, has been widely used in many academic fields with various open-ended definitions. As a general definition, the *Oxford Dictionary* defines tradition as "the transmission of customs or beliefs from generation to generation."[27] Often, tradition is confused with "history," but they are not same. History is the study and discovery of the past that relates to past events and memories important to humans. While tradition in some ways begins in history, it exists in the present and not just in the past. Yi-Fu Tuan defines tradition as "a product of culture and ecology [or landscape], which cannot be controlled by individuals."[28] In this way, a cultural landscape represents a dynamic and continuous relationship between people and their natural environment over time. In other words, through the process of identification of the cultural environment, people produce a sense of place and identity.

A term that is often placed in opposition to tradition is modern. The term "modern," according to Raymond Williams, emerged in the late sixteenth century as "synonymous with now,"

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[27] *Lexico.com*, "Tradition," (Oxford University Press, 2019). Accessed February 3, 2020. https://www.lexico.com/en/definition/tradition.

[28] Yi-Fu Tuan, "Tradition: What does it Mean?," in *Dwellings, Settlements and Tradition: Cross-cultural Perspectives*, edited by Nezar AlSayyad and Jean-Paul Bourdier (Lanham. MD: University Press of America, 1989), 7.

and used to mark the end of medieval and ancient periods.[29] The experience of becoming "modern" through a rejection of the past and tradition and the search for a new progressive future is called modernity, according to David Harvey.[30] Historically, modernity in Europe appeared as a result of the seventeenth century Renaissance and the eighteenth century Enlightenment, moving into a more dominant stage during the nineteenth century as result of the Industrial Revolution and continuing to this day. The widespread manifestation of modernity as result of social, political, economic, and technological revolution influenced almost every aspect of Western culture, including the development of architecture, landscape architecture, and urban planning.[31]

However, modernity is not a phenomenon exclusive to the West. Instead, it is a global condition that emerged in various societies around the world, including Muslim society. In the edited volume *Multiple Modernities*, the contributing authors challenge the classical theory of modernization that claims modernity developed first in the West and only then became universal.[32] For instance, Shmuel Eisenstadt argues that non-Western societies developed their own modernity and only by the end of twentieth century did Western modernity emerge in those societies as a result of globalization. Thus, he distinguishes between different forms of modernity. According to Nilufer Gole, in some cases (including in Islamic societies), various aspects of Western modernity were actually rejected while others were appropriated.[33]

Moreover, modernity and tradition cannot be seen as binary oppositions. Rather, they exist together in the present in a dynamic flux that allows them to evolve and constantly change, and in

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[29] Raymond Williams, "When was Modernism?" (original lecture 1987), *New Left Review* 1, no. 175 (1989): 48.
[30] David Harvey, "Modernity and Modernism," in *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford: Blackwell, 1990), 10-38.
[31] Ibid., 25.
[32] Shmuel N. Eisenstadt, eds. *Multiple Modernities* (New Brunswick, NJ: Transaction Publishers, 2002).
[33] Nilufer Gole, "Snapshots of Islamic Modernities," in *Multiple Modernities*, edited by Shmuel N. Eisenstadt (New Brunswick, NJ: Transaction Publishers, 2002), 91-117.

this sense, they are similar to identity. For example, Anthony Giddens argues that even if modernity destroys tradition, there were continuous conversations between the new and the old, particularly in the earlier phases of modernity.[34] He continues, stating that in fact tradition does not completely disappear as a consequence of modernity; instead, it is still there all the time, but its influence on contemporary society simply becomes less evident. According to Giddens, early modern institutions did not only depend upon pre-existing traditions, but also created new ones, a phenomenon that Eric Hobsbawm and Terence Ranger call "invented tradition."[35]

The idea that all traditions are invented has led scholars to question the concept and debate the idea of modernity as the "end of tradition." Nezar AlSayyad argues that tradition is neither ending nor dead and that it will always exist. Instead, what AlSayyad claims is "ending" is an earlier notion of tradition as authentic or unchanged, owned by certain people and attached to a certain place with a legacy of the past as heritage.[36] According to him, globalization has changed the conventional connection between place and culture and so, led to a new understanding of tradition. In this context, tradition is no longer confined by the boundaries set by time and space; rather, it has become a global phenomenon. Indeed, the expansion of Islamic gardens beyond their "traditional" geographical boundaries, such as in my three cases studies, are a direct result of this globalization process.

For the purpose of my research, I will use "modern" in two ways. First, I use the term "modern" to describe the post-medieval era that evolved throughout the Renaissance and Enlightenment to the current time. In this context, the term "contemporary" will be used as a subset

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[34] Anthony Giddens, "Living in a Post-Traditional Society," in *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order,* edited by Ulrich Beck, Anthony Giddens, and Scott Lash (Stanford: Stanford University Press, 1994), 8-9.
[35] Eric Hobsbawm and Terence Ranger, *The Invention of Tradition* (Cambridge: Cambridge University Press, 1983), 1.
[36] Nezar AlSayyad, ed., *The End of Tradition?* (London: Routledge, 2004), 23.

of the modern era from the late twentieth century to the present day. In this wide historical framework, "modern" also refers to or is associated with a wide range of social, cultural, economic, political, scientific, and technological progress. The second use of "modern" is to describe a specific period in the history of architecture and landscape architecture that emerged in the first half of the twentieth century as a result of modernity and was overturned in the second half of the twentieth century by the postmodern movement. In the design context, "modern" has a set of distinguishable principles and characteristics such as simplicity and functionality of forms, elimination of ornament, rejecting history and tradition, use of innovative technologies of construction, and building materials. Some of these modernist principles were embraced, and others were countered by contemporary approaches such as postmodern architecture, critical regionalism, landscape urbanism, and vernacular architecture to accommodate a variety of perspectives and histories.

DISSERTATION FRAMEWORK AND METHODS

This dissertation is divided into six chapters in addition to the introduction and the conclusion. In chapter two, I will explore the history of representation and cultural exchange between the Islamic and Western world. In addition, I will also explore the formation of modernity and its impact on the Muslim built environment, which includes gardens and parks. In chapter three, I review major literature on Islamic gardens and landscapes, highlighting their theoretical and methodological approaches and the current gap in the research. The fourth chapter explores the primary forms of knowledge about Islamic gardens and examines the design tactics utilized by contemporary designers to construct an Islamic identity in garden and landscape design. In chapters five, six, and seven, I will examine the selected three cases studies of Islamic gardens located in Europe and North America: the Mughal Garden in Bradford, the Bakewell Ottoman

Garden in St. Louis, and the Aga Khan Park in Toronto. The dissertation ends with a general conclusion that summarize and analyze my dissertation chapters and proposes a scope for future research.

This thesis is based on research methodology consisting of qualitative case studies in the form of in-depth exploration of three contemporary Islamic gardens in Europe and North America. My methods of data collection involved interviews, site observation, and a review of primary and secondary documents. I conducted semi-structured comprehensive interviews with twelve designers of Islamic gardens around the world—including the designers of the three sites selected as my case studies. I traveled to the three locations (Bradford, St. Louis, and Toronto), where I carried out fieldwork during the summers of 2017 and 2018. My daily field research program consisted of photo documentation, observation of the site and its visitors, and informal conversations with visitors.

To understand the gardens in terms of their historical, physical, cultural, urban, and natural settings, I used thematic analysis and art historical methods to analyze my qualitative data. In each case study, I conducted formal, technical, and interpretation analyses to describe its formal composition and to understand its function and meaning. In addition, I examined primary data such as design documents and records, along with secondary data such as journal articles and publications, related to the case studies. I also looked at other twentieth and twenty-first century sites (e.g., Al-Azhar Park in Cairo, Ismaili Center roof garden in London, Shangri la in Honolulu, Alhambra garden in Leeds) which, although they did not become my primary objects of study, gave me a valuable comparative perspective. My research and theoretical approaches draw on scholarship related to identity, representation, modernity, tradition, and globalization. I consider

the impact and implications of these themes on the history and design of modern Islamic gardens and landscapes.

This research contributes to the literature on cultural identity as realized in the built environment and to the study of Islamic gardens and landscapes by extending the historical framework into the twentieth and twenty-first centuries. It also seeks to contribute a comprehensive understanding of the multiple meanings of Islamic gardens and landscapes in a contemporary global context. In doing so, it contributes to the analysis of a larger phenomenon because, similar to the contemporary Islamic gardens, there are other non-Western gardens, such as Japanese and Chinese gardens, that have been transported from their native landscape and reproduced into new locations as a result of cultural globalization. Thus, this research has the potential to be a substantial contribution to the role of design and designers in promoting cross-cultural tolerance and appreciation. In terms of its larger impact, this research will contribute to designers' understanding of how the emergent identities of minority (or diasporic) communities around the globe are projected and represented in new environments and local conditions through design.

CHAPTER 2: REPRESENTATION, CULTURAL EXCHANGE AND MODERNISM: A HISTORICAL BACKGROUND

This chapter provides a brief historical overview of the representation and cultural exchange, as a dynamic practice, between the Islamic world and Western European nations in the modern period. It highlights the colonial and post-colonial history of representations and misrepresentations of Islamic culture as exemplified by universal expositions. In addition, it examines how modernism as a global phenomenon affected the Muslim built environment in terms of city planning, architecture, and landscape design. In particular, this chapter explores the history of formation and transposition of Islamic gardens from their local geographical and cultural contexts to the global setting. This chapter aims to recognize the complex history from which the contemporary Islamic gardens and landscapes emerged in the Islamic and non-Islamic world.

ISLAMIC EMPIRES AND THE WEST: KNOWLEDGE ABOUT THE "OTHER" AND EARLY REPRESENTATIONS

By the mid-sixteenth century and throughout the seventeenth century, the Islamic world was mostly ruled by three powerful neighboring Islamic empires: the Ottomans in Turkey and the eastern Mediterranean, the Safavids in Persia, and the Mughals in South Asia (figure 1). This was a time of political stability, military advancement, expansion, economic growth, and cultural exchange, all of which in turn played an important role in the development of art, architecture, and garden designs in the Islamic world and beyond.[37] In addition, the cultural, economic, and commercial relationship between Europe and the three Empires was at its peak during the

[37] Douglas E. Streusand, *Islamic Gunpowder Empires: Ottoman, Safavid, and Mughals* (Boulder, CO: Westview Press, 2011), 1-4.

seventeenth and into the eighteenth century, which facilitated cultural, intellectual, and artistic exchange in both regions.[38]

Great examples of Islamic architecture and gardens were built by the Islamic Empires during the seventeenth century, some of which still survive today and continue to function as important public (or semi-public) parks. For example, in the Mughal Empire, the Shalimar Bagh (1616) in Kashmir was a royal garden for the Emperor Jahangir, and the Taj Mahal (built in 1632-53) in Agra was commissioned by the Mughal emperor Shah Jahan (figure 2). The Safavids built royal gardens at palaces such as the Chihil Sutun (1647) and the Hasht Bihisht (1669-70) in Isfahan. The Ottoman Turks built the Sultan Ahmet complex (1609-1620) in Istanbul, which included a mosque, pavilion, mausoleum, hospital, and public fountain among other facilities.

Many of these architecture and garden projects were documented by Western travelers, such as Thomas Herbert (1606-1682) and John Chardin (1643-1713), who traveled to Islamic cities and brought back extensive knowledge about them in the form of drawings, sketches, physical objects, and written descriptions.[39] This act of representation of the Islamic culture, in particular, is a practice that arose in Europe during the Renaissance period and continued into the seventeenth century as a way to obtain knowledge about the "Other" (meaning non-European and non-Christian lands and cultures). These enthusiastic travel accounts ultimately enhanced European curiosity and interest in Islamic architecture and gardens, marking the beginning of a history of influence and transposition of Islamic architecture and gardens into a Western, non-Islamic context. In other words, the direct connection between Europe and the Islamic world in trade and

[38] Mohammad Gharipour, Preface to *Gardens of Renaissance Europe and the Islamic Empires: Encounters and Confluences* (University Park: The Pennsylvania State University Press, 2017), xiii-xix.
[39] See Thomas Herbert, *Travels in Persia, 1627-1629*, abridged and edited by Sir William Foster, C. I. E. (New York: R. M. McBride & Company, 1929); Sir John Chardin, *Travels in Persia*, *1673-1677* (New York: Dover Publications, 1988).

politics contributed to the development of garden design in both Europe and the Islamic world.

In *Gardens of Renaissance Europe and the Islamic Empires: Encounters and Confluences*, the contributors explore the development of garden design in Europe and the Islamic world during the Renaissance, highlighting the similarity and linkages between them.[40] In a chapter on the connections between Venetian and Islamic Garden design, Christopher Pastore demonstrates the impact of early-modern travel accounts of those who visited the Islamic world, such as Andrea Navagero, Ambrosio Bembo, and Luigi Roncinotto, on architecture and garden designs in Venice. The direct and indirect exposure to new knowledge about the architecture and gardens of the Islamic world fascinated the Venetian elite and subsequently encouraged them to use design features found in the Islamic world and other foreign territories in their villa designs.[41] For example, the written description of Andrea Navagero, the Venetian ambassador to Spain, regarding a garden he visited in Granada was a source of inspiration and a model for the design of the garden at the Villa Della Torre in Fumane (1558-60). In particular, the garden's water features (e.g., a water channel that connects the upper level, central court, and the lower terraced Orchard) and the interconnected open spaces were derived from the gardens at the Alhambra and the Generalife.[42] Moreover, the direct contact of the Venetian with Islamic Spain benefited the Venetians in many other ways, including learning the skills of using water in the engineered landscape and the development of agricultural enterprise. Similar to Venice, other parts of Europe such as France, Portugal, and Italy were actively engaged with the Islamic world and significantly influenced each other in the areas of garden design.

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[40] Mohammad Gharipour, ed. *Gardens of Renaissance Europe and the Islamic Empires: Encounters and Confluences* (University Park: The Pennsylvania State University Press, 2017).
[41] Christopher Pastore, "Embracing the Other: Venetian Garden Design, Early Modern Travelers, and the Islamic Landscape," in *Gardens of Renaissance Europe and the Islamic Empires: Encounters and Confluences*, edited by Mohammad Gharipour (University Park: The Pennsylvania State University Press, 2017), 14.
[42] Ibid., 20-21.

THE FORMATION OF MODERNITY AS A "GLOBAL CONDITION"

The Enlightenment movement, Industrial Revolution, and later the French social and political revolution in Europe rapidly changed Western socio-cultural norms and led to the rise of modernity in the eighteenth century. Philosophers of the time emphasized reason, individualism, and scientific methods to understand the world and produce knowledge rather than depending on medieval, religious, and traditional explanations.[43] They believed foremost in the idea that progress could improve both the human condition and our way of life through the use of science, technology, and social organization. As a result, scientific and technological innovations in areas such as mathematics, physics, biology, and chemistry arose in Europe. Ultimately, the extensive presence of modernity influenced almost every aspect of Western culture, including the development of architecture, landscape architecture, and urban planning.[44]

In similar ways, modernity also greatly influenced other parts of the world, including Islamic areas. The modern science and technology developed by the West were utilized by Muslims to improve the economic, urban, and social condition of Islamic cities. For example, in 1727, Western printing machines were used to establish the first Ottoman language printing press in Istanbul. However, this was not merely an act of Westernization, in the sense of becoming more like the West; instead, it was an outcome of this unique time, characterized by flexibility and trans-regional cultural flows between the East and West.[45] In fact, many scholars argue that modernity is not a phenomenon exclusive to the West, but rather modernity is a "global condition" that

[43] Louis Dupré, "A Definition and a Provisional Justification," in *The Enlightenment and the Intellectual Foundations of Modern Culture* (New Haven: Yale University Press, 2004), 3-5.
[44] David Harvey, "Modernity and Modernism," in *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford, UK: Blackwell, 1990), 25.
[45] Nebahat Avcioğlu and Finbarr Barry Flood, "Introduction: Globalizing Cultures: Art and Mobility in the Eighteenth Century," *Ars Orientalis* 39 (2011): 7-8.

emerged in various societies around the world, including Muslim societies.[46] This included exchanges and appropriations of Western forms, ideas, science, and technologies in architecture and gardens.

For instance, during the eighteenth century, the Ottoman ruling elite built many new palaces and gardens in Istanbul along the Bosporus Strait and the Golden Horn, in a new style that synthesized foreign and local Ottoman traditional design. Interestingly, many of these new palaces were designed by European architects.[47] This new trend in Ottoman architecture and garden design is manifested in the Sa'dabad Palace (1722) and its gardens at Kâğıthane, a district in Istanbul located on the European side along the shores of Cendere Valley.[48] The imperial palace of Sa'dabad was built for Sultan Ahmed III as a summer residence by his grand-vizier Ibrahim Pasha along the banks of the Kâğıthane Valley—a popular destination for recreation activities for local citizens, foreign travelers, and the ruling elite since the early seventeenth century.[49] The royal complex contains three main parts: the imperial palace, the state officials' residences, and the public garden.[50] The design of the palace and the gardens was largely influenced by French architecture and gardens, with particular references to the palace of Louis XV and seventeenth century Versailles and Fontainebleau. However, there is also evidence that shows significant Persian and Ottoman traditional influences.[51] For example, the harem section or *zenana* (a private

[46] Wittrock, Björn, "Modernity: One, None, or Many? European Origins and Modernity as a Global Condition," in *Multiple Modernities*, edited by Shmuel N. Eisenstadt (New Brunswick, NJ: Transaction Publishers, 2002), 31.
[47] Shirine Hamadeh, *The City's Pleasures: Istanbul in the Eighteenth Century* (Seattle: University of Washington Press, 2008), 34, 48-50. However, this preference for Western design did not necessarily signify a greater shift toward Westernization overall, since the movement was only expressed by the elite, a small wealthy group in Ottoman society.
[48] Dogan Kuban, *Istanbul, An Urban History: Byzantion, Constantinopolis, Istanbul* (Istanbul: Economic and Social History Foundation of Turkey, 1996), 341.
[49] Öztürk Hayriye, "The Sadabad Park project in Istanbul – balancing garden heritage conservation and contemporary park design," *Journal of Landscape Architecture* 4, no. 2 (2009): 72.
[50] Shirine Hamadeh, "Ottoman Expressions of Early Modernity and the 'Inevitable' Question of Westernization," *Journal of the Society of Architectural Historians* 63, no. 1 (2004): 38.
[51] Kuban, *Istanbul, An Urban History*, 338.

space reserved for the women of the house) of the palace had a classical Turkish plan similar to the classical Anatolian *hayat* (or house).[52] Moreover, various elements of the garden had Persian names such as the *Cedvel-i-Sim* (silver canal), a large linear canal with elaborate cascades, and *Cisri-i Surur* (the bridge of joy).[53] These examples suggest that the architectural and garden design of Sa'dabad was not simply a product of Western or Eastern influences, but was an original and innovative synthesis formed as a result of a broader cultural exchange between the Ottoman Empire and all the nations that had close contact with it, such as Persia and those in Europe.

(MIS)REPRESENTATIONS OF ISLAMIC CULTURE AT UNIVERSAL EXPOSITIONS: THE RISE OF COLONIAL POWER

In *Orientalism*, Edward Said argued that representations can never be real or objective and that the whole idea of representation is a "theatrical one."[54] He questioned and examined many fixed paradigms of thought and inaccuracies based on the assumptions and stereotypes that formed the foundation of so-called Orientalist thinking. He posited that the discourse of the "Orient" and the "Oriental" (i.e., Arabs, Indians, Muslims, Chinese, etc.) is a system of representation constructed by Western political forces that generally began with the great discovery of the East (by travelers like Marco Polo) and later the conquest of the Eastern world through colonization. Said explained that for the West to control, colonize, trade, and travel to the East, they needed to gain knowledge about the "Orient," so that the colonizing enterprise was tied to education and science. Thus, in the nineteenth century, the first orientalist scholars (e.g., Hugo, Nerval, and Flaubert) began systemically studying, editing, and translating texts and observing the people in these places. As a result, Western audiences received a form of representation of the Orient, which

[52] Ibid., 342.
[53] Ibid., 343.
[54] Edward W. Said, *Orientalism* (New York: Pantheon Books, 1978).

they assumed to be real, because so much of it was based on evidence, that was filtered entirely through the imaginations of Western visitors.

In the case of World Exhibitions, Timothy Mitchell suggests there are two aspects of certainty that can be used to understand the various representations of Islamic culture in the nineteenth century.[55] First is the idea of realism, which means that the objects displayed should perfectly correspond to the external reality. Owen Jones attempted this when he reproduced the Court of the Lions at the Great Exhibition (1851) in London, using his detailed and scientific study of the Alhambra.[56] The second aspect put forth by Mitchell is that, although these exhibitions achieved realistic effects through their use of real objects such as animals and buildings, the representations were not "real"—in his words, "reality is only an effect."[57]

By the nineteenth century, European colonial powers had penetrated and controlled many parts of the Islamic world. The British Empire abolished the Mughal dynasty in India in 1857 and incorporated India into its vast colonial domains; some parts of Indonesia, such as Java, were under Dutch rule; France controlled many North African Muslim countries such as Algeria (starting in 1830), Tunisia (1881), Egypt (1882), Sudan (1889), and Morocco (1912). Most of the rest of the Islamic world during the nineteenth century was ruled by the Ottoman Empire, which controlled the majority of the Middle East and some parts of Eastern Europe, and the Qajar dynasty in Iran. During this period, however, these Islamic Empires were in decline and facing many political, social, and economic challenges.[58]

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[55] Timothy Mitchell, "The World as Exhibition," *Comparative Studies in Society and History* 31, no. 2 (1989): 222-223.
[56] Owen Jones and Francis Bedford, *The Grammar of Ornament* (London: Day and Son, 1856).
[57] Ibid., 226.
[58] See George E. Kirk, *A Short History of the Middle East, from the Rise of Islamic to Modern Times* (London: Methuen, 1948).

Imperialism and colonialism played a significant part in the evolution of the universal exposition (also called world fairs or world expos), where colonized nations, including Muslim colonies, were displayed as commodities that revealed the economic power of the colonizer. For example, in 1878, Algeria under French colonial rule was displayed as a "trophy" at the Galerie des Machines in Paris.[59] At that event, Algerian architecture was represented in one massive building (a palace) that combined the elements of mosques with other design elements from several Islamic monuments, including the Great Mosque of Tlemcen (1082). Mixing religious with elite residential architecture, the Algerian palace had a large central garden courtyard with a fountain, palm trees, and roses.[60] This kind of display of Muslim colonial architecture (with many variations of local and regional elements) at universal expositions glorified the image of the colonizer's power and dominance, but it also showed the regional variation in Islamic culture and architectural design, challenging the idea of Islam as a single entity.[61]

The exchange of knowledge, including about art and garden designs, between the Islamic Empires and Western nations, emerged during the seventeenth century and continued into the eighteenth and nineteenth century, fueled by colonial motivations but also lasting well beyond the age of colonies. This is because ideas were transmitted relatively quickly and easily as a result of the direct cultural diffusion and the stable political relationship between the Islamic Empires and Europe. Indeed, Islamic gardens became a new exotic source of "Oriental" inspiration in many Western art, architecture, and garden designs. The influence of Islamic art and garden style is evident in Western buildings such as Villa Torlonia (1806), Villa Melzi's Casino (1808-10), and

[59] Zeynep Çelik, *Displaying the Orient: Architecture of Islam at Nineteenth-Century World's Fair* (Berkeley: University of California Press, 1992), 125.
[60] Ibid., 127.
[61] Ibid., 136.

in the landscape design of the Stibbert Garden in Florence (1870).[62]

By the second half of the nineteenth century, Europe's obsession with Islamic and other oriental cultures took on new dimensions as manifested at universal expositions. Throughout their history, universal expositions were places to celebrate the economic and industrial achievements of the West and to show their interest in the non-Western world. Thus, universal expositions have played a significant role in the theory and practice of art and architecture. Expositions such as those held in Paris (1855), London (1862), and Vienna (1873), among others, were used to identify new building technologies and design trends, and to prompt new practices. For example, at the 1873 Universal Exposition in Vienna, a book was published by the Ottoman Commission titled *Usul-u-mimari-I Osmani,* or *L'Architecture ottomane* ("On the origin and principles of Ottoman architecture"), illustrating to Western architects the high quality of Ottoman architecture and new innovations worthy of international exposure.[63] The book was written by Victor Marie de Launay (an Ottoman official of French origin), Montani Effendi (an Italian architect), Boghoz Chachian (an Armenian architect), and M. Maillard (a French architect). The contributors, according to Zeynep Çelik, followed the typical format of books on Western architecture with drawings, descriptions, and technical documents. The main objective of the book was "to make a place for Ottoman architecture within the wide spectrum of Western architectural styles and to encourage the use, at home and abroad, of a neo-Turkish style."[64]

These expositions set the stage for experimental designs that profoundly impacted modern architectural culture. They also were places for professional networking, where designers

[62] Attilio Petruccioli, "Rethinking the Islamic Garden," in *Transformation of Middle Eastern Natural Environments: Legacies and Lessons*, edited by Jane Coppock and Joseph A. Miller (New Haven: Yale University Press, 1998), 349.
[63] Çelik, *Displaying the Orient*, 42; Marie de Launay et al., *L'Architecture ottomane* (Constantinople: Imprimerie et Lithographie Centrales, 1873).
[64] Çelik, *Displaying the Orient*, 44.

interacted with each other and built relationships with important clients. Islamic culture, manifested in art, architecture, and gardens, was an important object typically featured in universal exhibitions.[65] In the words of Çelik, the representation of Islamic culture at the universal exhibitions helped maintain "scientific authority and accuracy while nourishing fantasy and illusion."[66] One of the earliest examples is the Great Exhibition of the Works of Industry of All Nations in Crystal Palace, London (1851). In this exhibition, Owen Jones (1809-1874), a key architect and design theorist of the nineteenth century, used Spain's Islamic architecture to represent Spain as an "Oriental" nation. In 1834, he had traveled with the French architect Jules Goury (1803-1834) to Egypt, Istanbul, and Spain to study Islamic architecture and ornaments. In Spain, they focused on the Alhambra Palace, built in Granada by the Nasrid sultans (thirteenth-fourteenth century). Unlike earlier travelers who only romanticized the Alhambra, Jones conducted a full architectural documentation of the site, which included a set of plans, architectural sections, elevations, and detailed drawings of its decoration.[67]

Later, when he was assigned to work on the Great Exhibition of 1851, Jones was responsible for the interior decoration of the Crystal Palace, the arrangement of the exhibit, and the design of a court for the Kingdom of Spain. Interestingly, to express Spanish identity, he selected the Alhambra's Court of the Lions (figure 3). His design was not an exact replica of the Court of the Lions; instead, he modified and rearranged the actual plan of the court in order to make it fit in the limited assigned space in the Exhibition, thereby also magnifying the visual aesthetics of the court.[68] In this way, Jones's reproduction of the Alhambra's court reflects

[65] Mitchell, "The World as Exhibition," 227.
[66] Çelik, *Displaying the Orient*, 2.
[67] Stephanie Moser, *Designing Antiquity: Owen Jones, Ancient Egypt and the Crystal Palace* (New Haven: Published for the Paul Mellon Centre for Studies in British Art by Yale University Press, 2012), 25-27.
[68] "A higher ambition: Owen Jones (1809-74)," Victoria and Albert Museum, 2016. Accessed November 25, 2019. http://www.vam.ac.uk/content/articles/a/a-higher-ambition-owen-jones/; see also Moser, *Designing Antiquity*.

Mitchell's idea of the realism of representation in World Exhibition.

As a result of Europe's romantic fascination with the exotic world to the east and the south, many aspects of Islamic culture were distorted and misrepresented, such as at the World Exhibition held in Paris (1889). Mitchell explains how the organizers of the Paris exhibition built a replica of a medieval commercial street in Cairo's bazaar to resemble the chaotic everyday life of the city, with enough "truth" to make it highly convincing.[69] In the bazaar, according to Mitchell, visitors saw Frenchmen dressed as Orientals, shops selling actual merchandise made in Egypt, a coffee shop with the exterior façade of a mosque, and real donkeys brought in from Egypt that gave rides to visitors. Even the paint on the building was dirtied to look more realistic. Unsurprisingly, the Egyptian delegations invited to the exhibition were offended by the way that Egyptian culture was selectively represented in the exhibition to emphasize its Otherness. At the same time, they were also surprised by the order, organization, and how real these exhibits seemed.[70]

These cases of representations and misrepresentations in Western universal expositions are perhaps one of the earliest examples in the modern period that show the transmission of Islamic architecture and garden forms from their local setting into a new location. They also articulate the role of design intent and how designers negotiate with local conditions (e.g., Alhambra's court in the Crystal Palace) to reproduce buildings and gardens with a clear Islamic identity. Later in chapter four, I will discuss the various design tactics and processes that contemporary landscape designers used to recreate Islamic gardens in unusual environments.

The representation of Islamic culture was further enriched with the development of the photography industry throughout the nineteenth century. Beginning in the mid-nineteenth century, many Western photographers traveled to the Islamic world and former Islamic cities to take

[69] Mitchell, "The World as Exhibition," 217.
[70] Ibid., 217-218.

photograph of its monuments, which were then circulated in published albums in Europe. One of the earlier and most significant examples is Jean Laurent (1816-1886), a French photographer who worked extensively in Spain and took many pictures of the Alhambra in Granada (figure 4).[71] Similarly, James Anderson, who was one of the most important photographers of landscapes and architectural sites in Italy, traveled to Spain in 1917 and produced many pictures of the Alhambra. Later, in the 1920s and 1930s, the Italian firm Alinari Fratelli, one of the leading and oldest companies in the photography industry, sent photographers to Granada to capture fabulous pictures of the Alhambra.[72] Individuals like Anderson and firms like Alinari Fratelli show how Europeans considered Islamic architecture as works of art, framing these buildings as an individual object and isolating it from its urban and social context. This style is a form of representation that conceives of the "monument as a privileged architectural feature."[73] In other words, the monument or its architectural elements always dominates the perspective of the view. These pictures of the Alhambra and other Islamic monuments were printed and reproduced as high-quality copies and distributed throughout Europe. As a result, they became a valuable tool to record and accurately capture events and moments in history.

TOWARDS AN ISLAMIC MODERNITY: INFLUENCE AND REACTION AT THE END OF COLONIAL POWER AND THE RISE OF INDEPENDENT NATION-STATES

As a byproduct of the European colonial presence in the East, Western ideology and technologies were introduced, sometimes by force, to these colonized territories, which included many parts of the Islamic world. Thus, Western modernity became a political, economic, and

[71] Javier Piñar Samos and Carlos Sánchez Gómez, eds., *Luz Sobre Papel: La imagen de Granada y La Alhambra en las fotografías de J. Laurent* (Alcobendas: T.F. Editores & Interactiva, 2013).
[72] Zevi Filippo and John Berger, *Alinari Photographers of Florence 1852-1920* (Florence: G Spinelli & Co., 1978).
[73] Ibid., 18.

aesthetic model and a new way of life in these areas, as it reinforced the supremacy of the colonizers.[74] In particular, the influence of modernity manifested itself in the built environment and the culture of the colonized areas. As a result, a new trend that combined both foreign and local indigenous styles emerged in the architecture and landscape design of the colonized area. One example of the mixed style is the Rashtrapati Bhavan (formerly known as the Viceroy's Palace), designed by Sir Edwin Lutyens in New Delhi, India (1858-1947) when India was under British rule. The palace was designed in a neo-classical style with columns and pediments, but with some Indic elements such as rooftop *chhatris* (meaning "umbrella," referring to building elements in the form of domed, open air kiosks) and statues of elephants. Similarly, the palace garden was designed in a mixed style that featured the water channels, surface textures, and quadrilinear layout characteristic of Mughal garden design, but with British elements such as lawns and pergolas.[75]

The strong influence of Western modernity affected local traditions and Islamic values, while empires in the Islamic world were already experiencing a decline somewhat independently of the colonial project. Because of this, Muslim nations responded to the introduction of Western modern ideology in various ways. These reactions ranged from the complete rejection of Western modernity, to shifts toward secularism, and in some areas led to the call for an appropriately Islamic modernity. In response to the political and cultural threat of European colonialism and imperialism, an Islamic modernism movement emerged and began to initiate various revival and reform movements across the Muslim world that called for the reformation and reinterpretation of Islam.

[74] See George E. Kirk, "Britain and her rivals in the Middle East (1770-1914)," in *A Short History of the Middle East, from the Rise of Islamic to Modern Times* (London: Methuen, 1948).
[75] See Ruggles, *Islamic Gardens and Landscapes*, 109-110.

New intellectual Muslim modernists, such as Sir Syed Ahmed Khan (1817-1898), Muhammad Iqbal (1877-1938), and Jamal al-Din al-Afghani (1838-1897), believed that Islam was a "progressive, dynamic and rational religion,"[76] and they advocated for the idea that modern science and technology would also be beneficial to the progress of the Islamic world. Many Islamic leaders during the nineteenth century embraced this idea of Islamic modernism, which selectively adapted and rejected Western models.[77] For instance, when the printing press was established in both the Ottoman Empire and the Qajar dynasty to print documents in the national local languages of Turkish and Persian, it led to the mass-production of books and newspapers. This encouraged literacy among the middle classes and thus, printed text became a new way to spread information to the public. In addition, modern schools for boys and girls that combined Islamic education with modern subjects (e.g., science) were opened.[78] Not surprisingly, new visual art, architecture, and garden styles formed as a result of a broader cultural exchange between Islamic Empires and European nations. An example of this hybridity occurred at the Dolmabahçe Palace, built in 1853, on the shores of the Bosporus in Istanbul; it was thoroughly influenced by European Baroque and Neoclassical design styles.

The twentieth century marked the decline of both Islamic and European imperial powers and the rise of independent nation-states. Following the First World War (1914-1918) and the Arab Revolt (1916-1918), the Ottoman Empire lost most of its territory in the Middle East and Europe until it completely dissolved in 1922. As a result of the Turkish Revolution (1919-1923) led by

[76] Tauseef Ahmad Parray, "Islamic Modernist and Reformist Thought: A Study of the Contribution of Sir Sayyid and Muhammad Iqbal," *World Journal of Islamic History and Civilization* 1, no. 2 (2011): 80- 81.
[77] Sandy Isenstadt and Kishwar Rizvi, *Modernism and the Middle East: Architecture and Politics in the Twentieth Century* (Seattle: University of Washington Press, 2008), 3-4.
[78] Mahshid Modares, "Qajar 1779-1924," Archnet. Accessed November 25, 2019. http://archnet.org/timelines/48/period/Qajar/year/1818; Interestingly, during this time period, many Muslim students were sent to Europe to study art and science among other majors, while at the same time European teachers were hired to teach in Islamic regions.

Mustafa Kemal, known as Ataturk, the Republic of Turkey was established in 1923 as a secular state. In addition, newly decolonized areas like Albania, Syria, Iraq, and the Hijaz declared their independence from the Ottomans and asserted themselves as independent nation-states. The Qajar dynasty in Iran was also going through political changes, leading to its collapse in 1925, and the rise of Reza Shah Pahlavi, a former military commander, who became the Shah of Iran.[79]

Ataturk and Reza Shah brought new modes of political, educational, economic, and cultural reforms into their regions, laying the foundation for Turkey and Iran as secular modern nation-states. In their move toward secularization, these states regarded religion as a force that interfered with the progress of modernization.[80] For example in Turkey, Islamic institutions like the sultanate were dissolved and Muslim religious scholars (the *ulama*) were placed under the supervision of the state's office of religious affairs. Islamic Shari'a law, related to family law, was replaced by a different non-religious model. In addition, Latin characters replaced Arabic script so that there was a break between classical Ottoman and modern Turkish. Moreover, gender equality, employment and the right to vote were guaranteed.[81] In response, Islamic intellectuals supported a different mode of reforms that called for an Islamic revival and rejection of Western and secular trends. Such reform demanded a return to original Islamic values as the only way that Islamic society would regain its power in the modern world. This mode of Islamic revival was exercised by adherents to the Salafiyah movement, who created several offshoots such as the Muslim Brotherhood in Egypt (1928) and Wahhabism in Saudi Arabia (1932).[82]

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[79] See George E. Kirk, "The Struggle for Independence (1918-39)," in *A Short History of the Middle East, from the Rise of Islamic to Modern Times* (London: Methuen, 1948).
[80] Hasan-Uddin Khan, "Editorial: Identity, Globalization and the Contemporary Islamic City," *International Journal of Islamic Architecture* 1, no. 2 (2012): 200.
[81] "Islamic Modernism and Islamic Revival," in *Atlas of the World's Religions*, edited by Ninian Smart and Frederick Denny, *Oxford Islamic Studies Online*. Accessed November 25, 2019. http://www.oxfordislamicstudies.com/article/opr/t253/e9.
[82] Nilüfer Göle, "Snapshots of Islamic Modernities," 96.

Furthermore, territories in Asia and Africa also experienced dramatic changes as a result of modernist movements during the twentieth century. After more than a century of colonial rule, the British withdrew from India in 1947 and the country split between a predominantly Hindu India and Muslim Pakistan (which are to this day in a state of conflict). In addition, Muslim countries in North Africa, including Libya (1951), Sudan (1956), Tunisia (1956) and Algeria (1962), achieved independence from European powers, sometimes through painful, violent rebellions. These new Muslim independent states were eager to express freedom from a colonial or foreign-dominated past, which meant both embracing their older traditions as a way to assert identity, while at the same time seeking departures from them as a way to assert modernity. This required new advancements in urban forms and architecture, amongst other things, as an attempt to create a new national identity that could distance them from the memory of colonization and move them toward modernity through progress and development. As a result, many of these Islamic countries applied Western architectural styles and city planning principles, such as the ones developed in 1933 by the Congrès Internationaux d'Architecture Moderne (CIAM), which disregarded existing contexts and histories; instead, they promoted high-rise residential towers and separated residential areas from transportation arteries.[83]

New modern capitals and major cities in the Islamic world were built, sometimes on the foundation of older cities, including Ankara in Turkey (1928-32), Islamabad in Pakistan (1959-64), and Riyadh in Saudi Arabia (1971). These new cities applied modernist urban planning principles such as zoning and rational transportation systems. However, in this rush toward modernity and development, old cultural traditions and histories were often neglected in the design

[83] CIAM was an organization of the most prominent architects of the early twentieth century (i.e., Le Corbusier) with an objective of spreading the principles of modernism in architecture and planning around the world. This organization saw architecture as an economic and political tool that could improve the world through design.

of the new built environment. Massive amounts of older buildings were demolished, replaced by new buildings that embraced the modern international style using materials such as steel, concrete, and glass instead of traditional (and locally available) materials such as mud brick and stone.[84] Local architects and planners in these nations, which were experiencing rapid economic change and engagement in the global system, blamed Western modern ideology for this destruction.[85] They complained that the local architecture tradition had given away in favor of an international forms of architecture that failed to reflect their local social and cultural values.[86]

In the meantime, the meta-narrative of universal modernism (i.e., the idea that one absolute universal truth that could connect, represent, and explain everything) started to be challenged and rejected in favor of the individual experience of people's own voices. This rejection also began to be reflected in architectural theory through countermovements such as post-modernism, classicism, and traditionalism, followed by regionalism and critical regionalism, which became prominent during the late twentieth century.[87] Several theoretical writings began to contradict modernist ideas and principles about architecture and city planning and pushed beyond modernist approaches.[88] As a result, tradition, history, identity, meaning, sense of place and body, cultural values in the built environment, community participation, and the environment became significantly more important in the design of contemporary built spaces. In addition, the rethinking of modernism in the realm of architecture brought significant scholarly interest to the study of Islamic architecture and gardens (I will review this topic in more detail in chapter 3).

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[84] Süha Özkan, "Complexity, Coexistence and Plurality," in *Architecture for Islamic Societies Today*, edited by James Steele (London: Academy Editions, 1994), 23.
[85] Ibid.
[86] Peter Herrle, "Introduction," in *Constructing Identity in Contemporary Architecture: Case Studies from the South*, edited by Peter Herrle and Stephanus Schmitz (Münster: LIT Verlag, 2009), 7.
[87] Özkan, "Complexity, Coexistence and Plurality," 24.
[88] See Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage Books, 1961); Sibyl Moholy-Nagi, "The Future of the Past," *Perspecta* 7 (1961): 65-76; Kate Nesbitt, ed. *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory* (New York: Princeton Architectural Press, 1996).

This attitude toward modernity was also reflected in the Islamic world, as various design approaches arose during the second-half of the twentieth century to create an identity that would reflect Islamic cultural and architectural heritage. One such approach was a rejection of the Western design style and technology in favor of a more traditional and classical style, as exemplified by the work of Hassan Fathy (1900-1989), who pioneered designs for rural poor housing in Egypt using local materials, affordable design, and what became known as "appropriate technology." Another approach called for the congruence between tradition and modernity in the built environment. This later approach aimed at preserving a regional and Islamic identity, while still employing advanced modern building and construction technologies to ensure human comfort. As a result, many significant contemporary architectural projects (e.g., mosques, hotels, university campuses, etc.) emerged in Islamic countries and countries with large Muslim populations that reflected their regional and Islamic cultural identity.

Many architectural projects of the twentieth century reflect an Islamic modernist thinking that rejects *taqlid* ("direct copy") and calls for *ijtihad* ("independent judgment and interpretation").[89] In other words, these designs should not be interpreted as a simple duplication of any historical precedent or universal architectural model, and instead are reinterpretations of tradition, constructed to create a unique cultural identity. However, not all architects shared the same view or definition of what this "tradition" was, and they employed it differently in their methods of selection, interpretation, and transformation.[90] It should also be noted that tradition looks different in different areas of the extensive Islamic world.

For example, the King Faisal Mosque (1986) was built as the Grand National Mosque and iconic landmark for Islamabad, the new modern capital city of Pakistan. Designed by the Turkish

[89] I am adapting a term used by Parray, "Islamic Modernist and Reformist Thought," 79-93.
[90] See Hobsbawm and Ranger, *The Invention of Tradition*.

Architect Vedat Dalokay after winning an international design competition, the King Faisal Mosque represents the designer's abstract interpretation of Islamic and Ottoman mosque architecture combined with modern elements and construction techniques (figure 5-6).[91] In India, the Mughal Sheraton Hotel (completed in 1976) in Agra was designed by the ARCOP Design Group to represent Mughal architectural in a modern idiom. It was built to accommodate the vast numbers of international tourists and visitors who pour into Agra to see the two iconic architectural world heritage sites, the Taj Mahal and nearby Fatehpur Sikri.[92] In Oman, the Sultan Qaboos University (completed in 1986) in Muscat was greatly inspired by Islamic landscape and garden traditions with respect to the local landscape. The campus was designed by the British firm YRM International in collaboration with the landscape firm Brian Clouston and Partners.[93] The campus is arranged in both a formal and informal layout, which nicely integrates with the surrounding hilly desert landscape.[94]

The rapid urban and population growth in twentieth-century Islamic cities has raised profound environmental, economic, and social concerns, which have affected their livability. In response to these issues, many cities in the Islamic world have begun proposing major urban landscape projects (such as public parks) to provide recreational and social spaces for people, improve the economy and environment, limit urban sprawl, and encourage tourism. For example, in 1992, the Municipality of Tehran hired Baft-e-Shahr, a local architecture and urban planning firm, to design a green buffer zone to protect its natural environment and limit the rapid urban

[91] Renata Holod and Hasan-Uddin Khan, *The Mosque and The Modern World: Architects, Patrons and Designs Since the 1950s* (London: Thames and Hudson, 1997), 76-80.
[92] Renata Holod and Darl Rastorfer, "Mughal Sheraton Hotel," in *Architecture and Community*, edited by Renata Holod and Darl Rastorfer (New York: Aperture, 1983), 200-209. See also "The Aga Khan Award for Architecture: Mughal Sheraton Hotel Report. Award cycle 1978-1980," The Aga Khan Foundation, 2018. Accessed November 25, 2019. https://www.akdn.org/architecture/project/mughal-sheraton-hotel.
[93] Hasan-Uddin Khan, "Sultan Qaboos University," *Mimar* 37 (1990): 46.
[94] Ibid., 46-49.

development along the edges of the city. This buffer zone consists of several natural urban parks, including the 30-hectare Bagh-e-Ferdowsi, completed in 1997, which was a recipient of the Aga Khan Award for Architecture in 2001 for its innovative environmental and landscape design.[95] The landscape design of Bagh-e-Ferdowsi is a re-interpretation of the traditional paradisiacal Persian garden, in an abstract fashion, that respects the cultural and natural landscape of the site, emerging from the natural rigid topography and environmental features (figure 7). [96]

CONTEMPORARY TRANSPOSITION OF ISLAMIC GARDENS: FROM LOCAL TO GLOBAL CONTEXT

The act of exchange, representation, and influence of Islamic culture through its art, architecture, and garden design continued as a global practice in the twentieth and twenty-first centuries. Both patrons and designers played an important role in the transposition of Islamic design traditions (e.g., ideas, materials, objects, style, etc.) into a more global context. For example, in the twentieth century, Doris Duke (1912-93), an American heiress, had a particular interest in and fascination with non-Western arts. Thus, she built her residence Shangri La in Honolulu, Hawaii in an eclectic style, incorporating Islamic art objects and architectural styles.[97] As a patron, Duke collected Islamic artifacts such as ceramics, textiles, glasses, and metal objects for her house during and after a honeymoon trip in 1935 that took her to the Middle East and India (figure 8).

The construction of the house was completed in 1939 by the firm Wyeth & King. However, Doris continued developing her residence to suit her personal desires and artistic tastes until her

[95] "Aga Khan Award for Architecture: Bagh-e-Ferdowsi Report. Award Cycle 1999-2001," The Aga Khan Foundation, 2018. Accessed November 25, 2019. https://www.akdn.org/architecture/project/bagh-e-ferdowsi.
[96] Jolyon Leslie, "Bagh-e-Ferdowsi: Technical Review Summary" (Tehran: *The Aga Khan Award for Architecture*, 2001), 1-6.
[97] Author's site visit to Shangri La, Honolulu, Hawai'i, June 2019.

death in 1993.[98] Today, the house is owned and operated by the Doris Duke Foundation for Islamic Art. The complex has two main buildings: the main residence and the playhouse with an outdoor pool. The buildings contain both native Hawai'ian and Islamic elements. Moreover, the complex features many landscape gardens such as the main Kashmiri garden, which seems to have been influenced by the Achabal Bagh and Shalimar Bagh (India) and a Mughal garden with a linear *chahar bagh* and a *chini khana* (China cabinet, referring to the vase and cup shapes of the panel's niches) at one end over which water pours into a central water channel with a row of water jets (figure 9-11).[99]

Islamic influences are also manifested in the work of the British landscape and garden designer Russell Page (1906-1985). In the early 1930s, Page worked for the British government in Egypt, Ceylon (Sri Lanka), and India. This exposure to non-European, and Islamic culture in particular, influenced his garden design approach, as he is reported saying that "Islamic art and Islamic gardens, in particular, taught me a more subtle geometry and how to use it to make a very basic and apparently simple pattern and forms and then to add all the luxuriance of living plants to make a special kind of world whose visual impact is unique."[100] In the 1960s, Page traveled to Spain to work on several garden projects and had the opportunity to visit and study the gardens of the Alhambra and Generalife in Granada. He became so passionate about Islamic art and garden design, with a special interest in Andalusian style, that he applied it directly and indirectly to his design work. For example, starting in 1965, Page was commissioned by Don Jaime Ortiz-Patino to work on his new villa at Sotogrande, an elite private residential development located in Cadíz,

[98] See Saima Akhtar, "Shangri La: Architecture as Collection," *International Journal of Islamic Architecture* 3, no. 1 (2014):103–28.
[99] Ruggles, *Islamic Gardens and Landscapes*, 222-223; and "Shangri La Museum of Islamic Art, Culture & Design," Doris Duke Charitable Foundation, 2019. Accessed November 25, 2019. http://www.shangrilahawaii.org.
[100] Gabrielle van Zuylen, *The Gardens of Russell Page* (New York: Stewart, Tabori & Chang, 1991), 148.

Spain. Page collaborated with the architect Jacques Regnault on the house design and was himself responsible for the garden and landscape design. He advised Regnault to create a series of inside and outside courtyards in the villa inspired by the garden courtyards of Alhambra and for the gardens, he introduced a narrow water channel with an octagonal fountain and a pavilion at the end.[101]

After the decline of the colonial era, the development of modern transportation, the hope for job opportunities, and the desire for a better life encouraged a large-scale flow of people around the world. Today, there are a large number of Muslim immigrants living in Europe, North America, and other non-Islamic countries. For the most part, Muslims have occupied urban districts in major Western cities, such as New York and London, and built major cultural, residential, commercial, and religious spaces to cater to their communities. For example, the Great Mosque of Paris (1920s) and the Ismaili Center (1981) in London were built for Muslims to practice their religion and to express their identity in a public space (figure 12). Of course, as Muslim communities became established outside of their home regions, the issues of identity, tradition, and representation also became more complex.

The mass waves of human migration and global tourism growth that emerged in the twentieth century paved the way for the establishment of foreign cultural gardens in the built landscape of non-Muslim countries. For example, many Japanese style gardens were built in American botanic gardens, including at the Brooklyn Botanic Garden (1915), Cleveland Botanical Garden (1975), and Missouri Botanical Garden (1977). The majority of these gardens were designed by Japanese designers following traditional Japanese style and garden practices to reach a high level of cultural authenticity. Similarly, in the early twenty-first century, Islamic gardens

[101] Ibid., 157-158.

were represented in Western urban landscapes. Some of these Islamic gardens were constructed within existing public parks. An example of this is the Alhambra Garden (built in 1999) at Roundhay Park in Leeds, designed to echo the historic gardens of the Alhambra and Generalife in Granada.[102] Likewise, the Indian Char Bagh Garden was constructed in 2005 at the Hamilton Gardens, a public park in New Zealand, as a representation of Mughal riverside gardens and was inspired by the seventeenth century Taj Mahal and Lal Mahal in Agra.[103]

Other contemporary Islamic gardens were commissioned by host countries as a way to show their recognition of their Muslim communities. For example, the Peace Garden (2015) at the Muslim Burial Ground in Woking, UK, was designed as an English interpretation of the Mughal garden and was dedicated to commemorate the British Indian Muslim soldiers who died during the World Wars.[104] The site was originally an enclosed Muslim burial ground (built in 1917) with distinctive architectural features, such as the domed gateway, influenced by the design of nearby Shah Jahan Mosque (built in 1889). However, due to vandalism, the bodies were exhumed and relocated in the Brookwood Military Cemetery in Brookwood, UK. In 2011, a new landscape plan was proposed by the landscape designer Lionel Fanshawe of Terra Firma to transform the site from a former cemetery to a memorial garden.[105] The new garden design was inspired by English and Mughal garden traditions with a linear axial geometric layout and water features.[106] The main

[102] Author's site visit to Alhambra Garden at Roundhay Park, Leeds, England, July 2017; see also Sophie Gilliat Ray and Mark Bryant, "Islamic gardens in the UK: Dynamics of Conservation, Culture and Communities," (Richmond, Surrey, UK: Botanic Gardens Conservation International, 2010): 59-60. Accessed November 11, 2019. https://www.bgci.org/files/Worldwide/Education/Islamic_report/islamic_report.pdf.
[103] Hamilton Gardens, "Indian Char Bagh Garden," 2019. Accessed October 2, 2019. https://hamiltongardens.co.nz/collections/paradise-collection/indian-char-bagh-garden/.
[104] Gilliat-Ray and Bryant, "Islamic gardens in the UK," 57; see also "The Peace Garden," Horsell Common Preservation Society, 2019. Accessed November 25, 2019. https://www.horsellcommon.org.uk/sites/the-peace-garden/.
[105] The Horsell Common Preservation Society (HCPS) (the owner of the site) won a grant from the English Heritage Trust for their restoration proposal.
[106] Other examples include the Bradford Mughal Garden (2001) (see chapter 5) and the gardens of the Great Mosque of Paris (1926).

feature of the garden is the memorial wall, inscribed with a Qur'anic verse and the names of the deceased Muslim soldiers, placed on a water pool with a small *chadar* (an ornamental water cascade) linked to a narrow black water channel, which in turn opens to a large rectangular reflecting water pool (figure 13).[107]

After the tragedy of 9/11, Islamic art, exhibitions, cultural events, and gardens seemed to offer a way to bridge cultural differences and political tensions between the West and the Islamic world. Museums, universities, and cultural institutions deepened their interest in Islam to better represent its culture. For example, in 2016, the Arab World Institute in Paris organized an exhibition titled the "Jardins d'Orient" (Gardens of the Orient), that focused on the development of Eastern Islamic gardens in the Islamic World from their origin to the present. In conjunction with the exhibition, the Institute held a competition to design a temporary garden that would represent a contemporary Islamic garden. The Oriental Garden in Paris, designed by the French landscape architect Michel Péna, won the competition and was built on the Institute's plaza. Péna's concept was to emphasize the shared culture between the Muslim and non-Muslim world, particularly in Europe, and thus, in his design, he combined ideas and design elements (i.e., signs and symbols) from Islamic garden and visual art traditions with European art culture.[108]

Péna's garden is framed all around with an elevated ramp that has a viewing platform on the western side, allowing visitors to gaze over the entire garden. In the middle of the garden, François Abélanet (a French architect and artist) designed the *Polygone étoilé*, an Islamic pattern overlaid on a three-dimensional anamorphosis. He believed that, through his design, he was able to avoid "literal references while being authentically connected to the history of the Oriental

[107] Author's site visit to Alhambra Garden at Roundhay Park, Leeds, England, July 2017.
[108] Author's interview with Michel Péna, May 2016.

garden."[109] The anamorphosis consists of a surface plane of thirty-two polygons of various sizes covered with plants that is gradually lifted off the ground, thereby providing a shaded sitting area underneath it. Visitors can see the complete form of the pattern only from one particular angle, which is located on the viewing platform (figure 14-16). In this way, the garden becomes a display object that can be viewed by the visitors from the top. This concept of viewing or exhibiting the world as a picture is similar to the way that Mitchell described about how modern Europe and Westerners represented the Orient.

The Oriental Garden in Paris is an example of a contemporary Islamic garden that was designed by Westerners who projected their identity as French designers and implemented Western ideas while at the same time selectively using key design elements—water, geometry, plant selection—that evoked Islamic identity. Neither Péna nor Abélanet intended to create a replica of an existing traditional Islamic garden, and in this respect, their approach is very different than the approach used in the Oriental Exhibition in Paris in 1889. Instead, Péna and Abélanet were trying to avoid an earlier form of Orientalist thinking, even if they were also implicitly making an imaginative representation of what they believed is, or should be, a model of a contemporary Islamic garden. Unlike traditional Islamic gardens that are deeply rooted (literally and metaphorically) in their specific site and the environment, this garden at the Arab World Institute can be disassembled and relocated to any place in the world. And indeed, in 2017, the garden was transported and displayed with new plants at the International Garden Festival in Sicily.[110] This example of translocation challenges our way of thinking about gardens as fixed to

[109] François Abélanet, "Le Polygone étoilé," 2016. Accessed November 25, 2019. http://www.francois-abelanet.com/project/le-polygone-etoile/?lang=en.
[110] François Abélanet, "Polygone Etoilé in Sicily," 2016. Accessed November 25, 2019. http://www.francois-abelanet.com/project/polygone-etoile-in-sicily/?lang=en .

a particular location, and instead offers a way for designers to reproduce gardens in different locations while maintaining their design integrity.

Western botanic institutions have also hosted many cultural exhibitions that reflect garden history and the culture of great civilizations, including Islamic civilization. The practice began during the nineteenth century when botanical institutions, such as the Royal Botanic Garden at Kew and Scotland's Royal Botanic Garden in Edinburgh, sent botanists to discover and collect plants from around the world, including from Islamic nations.[111] As a result, vast amount of new plants (including ornamental and those with economic importance such as coffee) were introduced to the Western world and exhibited in botanical gardens for public visitors. Typically, these cultural gardens are temporary constructions intended to be removed or relocated after the exhibitions. For example, in the United States, the New York Botanical Garden hosted an exhibition in 2001, titled "Spanish Paradise: Gardens of the Alhambra." The main feature of the exhibition was an Islamic Andalusian garden with central fountain and classical Islamic *chahar bagh* built at the 15,000-square-foot Haupt Conservatory.[112]

In the United Kingdom, the Chelsea Annual Flower Show and Exhibition, organized by the Royal Horticultural Society (RHS), has displayed several modern Islamic gardens, such as the Silver Gilt award-winning "The Beauty of Islam" (2015), designed by the Emirati landscape designer Kamelia Zaal of the Kamelia Landscape Design studio from Dubai. The garden featured poetry, horticulture, calligraphy, and sculpture that reflected Arabic and Islamic cultures. Standing in the garden, four walls opened with pointed horseshoe arches, inspired by the Sheikh Zayed

[111] Elizabeth B. Rogers, "The History of the Botanic Garden" in *Botanic Gardens: A Living History*, edited by Nadine Kath Monem (London: Black Dog Publishing. 2007), 14-15.
[112] Edward Rothstein, "Temptations Found in Gardens of Islamic Delight," *The New York Times*, May 20, 2011. Accessed November 11, 2019. https://www.nytimes.com/2011/05/21/arts/design/spanish-paradise-gardens-of-the-alhambra-at-the-new-york-botanical-garden-review.html.

Grand Mosque in Abu Dhabi. The floor was covered with white marble and had water features such as a water channel inlaid in the floor, fountains, and a rectangular water pool with a stainless-steel sculpture with the name of Allah in the center. A variety of plants were used, such as jasmine and rosemary, which are typically found in Islamic gardens around the world (figure 17-18).[113]

Similarly, new Islamic public gardens and parks have been constructed within existing Western landscapes as a way to embrace and appreciate cultural pluralism. For example, in 2018 the 4.8-hectare Aga Khan Garden was built at the University of Alberta Botanic Garden in Edmonton. The Aga Khan Trust for Culture (AKTC) commissioned Nelson Byrd Woltz, a renowned landscape architecture firm based in Virginia, to design a twenty-first century Islamic public garden inspired by Mughal garden traditions but situated in Alberta's climate. The garden has three main parts: a woodland garden with an open amphitheater, leading to a central Mughal style *chahar bagh* garden, and descending down to the Calla Pond, framed by a *bustan* (an orchard) (figure 19-21).[114]

In conclusion, modernity emerged in the Islamic world during the eighteenth century as a result of new economic, social, and political conditions. This was followed by a period of decay in the nineteenth century due to colonization. Later, in the twentieth century, the end of colonialism allowed for the formation of independent Islamic countries, and the oil boom in the Middle East encouraged massive rapid modernization in terms of urban and landscape development. Both Western and Islamic modernism have affected Muslim culture and the built environment (such as city planning, architecture, and landscape design) in various ways, provoking a spectrum of

[113] Kamelia Zaal, interviewed by the author, April 2017. See also Royal Horticultural Society (RHS), "The Beauty of Islam with Al Barari Firm Management LLC," 2015. Accessed May 6, 2015, https://www.rhs.org.uk/shows-events/rhs-chelsea-flower-show/exhibitors/archive/2015/gardens/the-beauty-of-islam. Other examples include: The M & G Paradise Garden designed by Cleve West (2014) and The Turkish Ministry of Culture & Tourism: Garden of Paradise designed by Nilufer Danis (2015).

[114] D. Fairchild Ruggles, "An Islamic Garden in Edmonton," in *Heritage of the Mughal World: The Aga Khan Historic Cities Programme*, edited by Philip Jodidio (Munich: Prestel, 2015), 267-271.

responses. In some cases, Western modernity was totally rejected and countered with a Muslim version of modernity. In other cases, Western modernity was appropriated by Islamic culture. The dynamic act of representation and cultural exchange between the Islamic world and Western Europeans has a long history that continues into the present. While it began as part of the great discovery and exploration of the "the Orient" during the early modern period, it slowly transformed into a period of mutual exchange of knowledge before changing once again during the colonial period, when Islamic culture was appropriated for the Western gaze (in art, media, exhibition and so on) in which such (mis)representations served political interests by showing the Islamic world to be unmodern, and therefore ripe for development, improvement, and enlightenment. Yet, starting with the post-colonial period and the rise of independent nation states, national identity and local traditions once more became significant.

The process of globalization has certainly enabled a massive flow of people, ideas, and cultural material from their local and regional boundaries to the global context. As a result, Islamic cultural forms such as gardens can be found in many different parts of the world today, including in countries that are not predominantly Muslim, such as the United States, Canada, and the United Kingdom. These are only some of the complex histories from which Islamic garden and landscapes emerged in the modern Islamic and non-Islamic world.

CHAPTER 3: ISLAMIC GARDENS: LITERATURE REVIEW

This chapter offers a brief review of how the term "Islamic," as it applies to architecture and gardens, has been defined and problematized by scholars writing in English. In particular, it explores the early contemporary Islamic garden and landscape studies and the various methods and approaches used by historians to study Islamic gardens and landscapes. The chapter concludes with an overview of some recent literature on contemporary Islamic gardens and landscapes.

WHAT IS ISLAMIC? WHAT IS AN ISLAMIC GARDEN?

Islamic architecture, landscapes, and later Islamic gardens emerged as a cohesive field of investigation during the late twentieth century, primarily studied art historians, architects, artists, and designers.[115] However, the field was poorly defined because the association of the term Islamic as applied to art, architecture, and garden design is a relatively modern phenomenon. Historically, Muslims did not refer to their built mosques, palaces, madrasas, gardens, and so on as Islamic. That term arose among Western scholars as a result of the need to differentiate Islamic art and architecture from European forms. Hence, Western scholars created terms such as Saracenic, Moorish, Mohammedan, Oriental, and later Islamic as way to study the art, architecture, and gardens produced in the Islamic world. The problem was that the term Islamic did not take into consideration all the nuances within the Islamic world, including differences in climate, natural landscapes, language, and social and cultural heritage traditions.[116] Ultimately, the term Islamic raises complex questions such as what makes a built space Islamic, particularly in the modern world where political state boundaries are in many cases fairly recent, and where geographical

[115] Attilio Petruccioli, "Rethinking the Islamic Garden," 349-63.
[116] Ruggles, *Islamic Gardens and Landscapes*, 3.

boundaries have dissolved as a result of globalization, allowing people and their culture to rapidly travel around the world?

The question of defining Islamic has been explored widely in the field of Islamic art and architecture. Some scholars, such as Georges Marçais, claimed that Islamic architecture and art could be defined by visual measures alone (i.e., in terms of style).[117] Marçais believed that Islamic art had a unique "personality" that distinguished it from other artistic traditions. However, this argument, according to Oleg Grabar, is problematic because it is based on assumptions such as the "uniqueness of an Islamic art."[118] Grabar questioned, "what does the word 'Islamic' mean when used as an adjective modifying the noun 'Art'… or any aspect of culture other than the faith itself?"[119] For him, Islamic did not refer to the religion, but rather to a culture or a civilization with a majority Muslim population. According to Nasser Rabbat, Grabar argued over the course of his career that Islamic architecture is "the architecture built by Muslims, for Muslims, or in an Islamic country, or in places where Muslims have an opportunity to express their cultural independence in architecture."[120] Grabar's substantial body of work on this topic helped to expand the study of Islamic architecture to include different styles, trends, and periods while also raising the issue of the lack of distinction between culture and religion.[121]

The difficulty in defining the core components of the study of Islamic art and architecture is still debated by scholars today, especially because of the various social-economic and political changes in the Islamic world. For example, Rabbat takes issue with Grabar's attempt to define

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[117] Georges Marçais, *L'art de l'Islam* (Paris: Larousse, 1946).
[118] Oleg Grabar, *The Formation of Islamic Art* (New Haven: Yale University Press, 1973).
[119] Ibid., 1-3.
[120] Nasser Rabbat, "What Is Islamic Architecture Anyway?," *Journal of Art Historiography* 1, no. 6 (2012): 3-4. See also Oleg Grabar, "Teaching of Islamic Architecture," *The Yale Architectural Magazine* 1 (1963): 14-18; Oleg Grabar, "What Makes Islamic Art Islamic?," *Art and Archeology Research Papers* 9 (1976): 1-3; Oleg Grabar, "Reflections on the Study of Islamic Art," *Muqarnas* 1 (1983): 1-14; and Oleg Grabar, "What Should One Know about Islamic Art?," *RES* 43 (2003): 5-11.
[121] Rabbat, "What Is Islamic Architecture Anyway?," 3.

Islamic in a way that limits these built spaces to those designed by Muslims, for Muslims. In fact, there are many historical and contemporary examples that show non-Muslim designers working for Muslim patrons to construct Islamic designs, from the tenth-century mosaic *mihrab* (a niche in the wall of a mosque) made by a Byzantine master at the Great Mosque of Cordoba, to the twenty-first century Aga Khan Museum designed by a Japanese architect in Toronto. This is an important dimension that is often neglected in the attempt to define "Islamic." Rather, as Rabbat argues, "Islamic architecture is…the architecture of those cultures, regions, or societies that have directly or via some intermediary processes accepted Islam as an integral component of their epistemological and socio-cultural makeup."[122] Defined thus in cultural terms, Islamic art and architecture is not limited or exclusive to Muslim designers, but can also be said to include the work of non-Muslim designers for Muslim and non-Muslim patrons alike.

In the field of Islamic gardens and landscapes, the question of defining or identifying Islamic in terms of religion and/or culture is also problematic. Many scholars have studied the history of Islamic gardens but only a few have attempted to define it. For example, Annemarie Schimmel views Islamic gardens from a religious perspective, defining them as reflections of the paradise mentioned in the Qur'an.[123] Similarly, Jonas Lehrman states that Islamic gardens in the Islamic world are "a foretaste of paradise." He claims that as Muslim civilization grew, there was a tendency to build their gardens "as close to the Qur'anic description as possible, and a prized garden was always compared to paradise."[124] In a similar way, Ralph Blakstad argues that Islamic

[122] Ibid., 15.
[123] Annemarie Schimmel, "The Celestial Garden in Islam," in *The Islamic Garden*, edited by Elisabeth B. MacDougall and Richard Ettinghausen (Washington, D.C.: Dumbarton Oaks, Trustees for Harvard University, 1976), 11-40.
[124] Jonas B. Lehrman, *Earthly Paradise: Garden and Courtyard in Islam* (London: Thames and Hudson, 1980), 31-32.

gardens can be considered a "sacred garden created within an Islamic cultural context."[125] The idea of the garden as an image of paradise is also manifested in John Brookes' *Gardens of Paradise*.[126]

The English word paradise originated from the ancient Persian word *pairidaēza*, which was modified by the Greek into *paradeisos*, meaning "an enclosed park."[127] The Arabic word for paradise is *al-janna*, which is etymologically linked to *Jannah*, the final abode for Muslim believers as promised in the Qur'an. *Jannah* is described in various chapters of the Qur'an. For example, God promised his believers "gardens under which rivers flow." There are four types of rivers mentioned in the Qur'an: "rivers of fresh water, rivers of milk that never changes in taste, rivers of wine delicious to drink, and rivers of pure honey." Accordingly, believers will spend eternity "in pleasant shade, reclining on thrones" and rewarded with "all kinds of fruit."[128]

These vivid descriptions of *Jannah* or paradise in the Qur'an were then symbolically linked by historians to Islamic gardens. Nonetheless, these texts do not provide a blueprint or design guideline for an Islamic garden. In this regard, D. Fairchild Ruggles argues that all gardens can be seen as heaven on Earth in a very general sense, but that the specific link between garden and paradise emerged as Muslims began to build mausoleums in their gardens.[129] In particular, she explains that the *chahar bagh* layout (the four-fold garden with a central fountain and four streams flowing from it) was a reflection of the agricultural irrigation system used in the pre-Islamic and Islamic world, which would also later acquire an especially significant meaning as a reflection of

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[125] Ralph Blakstad, "What is an Islamic Garden: Where is Paradise?," *Environmental Design: Journal of the Islamic Environmental Design Research Centre* 1 (1986): 22.
[126] John Brookes, *Gardens of Paradise: The History and Design of the Great Islamic Gardens* (London: Weidenfeld & Nicolson, 1987).
[127] *Oxford Learner's Dictionary* Online, s.v. "Paradise." Accessed December 11, 2109. https://www.oxfordlearnersdictionaries.com/us/definition/american_english/paradise
[128] The Qur'an 9:72, 47:15, 36:55-58.
[129] D. Fairchild Ruggles, "The Garden as Paradise: The Historical Beginnings of Paradisiac Iconography," in *Islamic Gardens and Landscapes* (Philadelphia: Pennsylvania University Press, 2008), 89-103.

the four rivers of paradise. In other words, she sees the form developing before the symbolism.[130]

In order to understand the complexity of the Islamic garden as a discursive term, Attilio Petruccioli identifies three pre-Islamic roots: the Arab, the Persian, and the Turkish. These three cultures greatly influenced each other and also interwove with other cultures—like Muslims coexisting with Hindus and Buddhists in India and Muslims coexisting with Christians and Jews in Spain—which made it more difficult to exactly identify what forms were original to Islam and those that resulted from this intermingling. According to him, the most applicable approach to studying the Islamic garden in a way that can deal with the multi-layered nature of the Islamic world is to look at it as a "cultural region."[131] Petruccioli's cultural region approach allows for multiple interpretations of cultural identity and can help to understand the concept of hybridity in design form.

Alternatively, Ruggles provides three outlooks that can help to define and understand Islamic gardens: contextual conditions, design intentions, and cultural meaning.[132] The first approach views the Islamic garden as strongly linked to the physical landscape of the place where it is built. Therefore, elements and resources such as climate condition, water availability, local vegetation, and topography, to name few, become the main inspiration for the design of Islamic gardens—representing the concept of a sense of place.[133] The second approach that can be used to understand the meaning of Islamic garden is based not on the place but rather on the patron's or the designer's objectives. In this regard, Emma Clark states, "In Islam the intention of a person is profoundly important," and thus when studying Islamic gardens, "the intentions and mentality of

[130] D. Fairchild Ruggles, "Organizing the Earth: Cross-axial Gardens and the Chahar Bagh," in *Islamic Gardens and Landscape*s (Philadelphia: Pennsylvania University Press, 2008), 40.
[131] Petruccioli, "Rethinking the Islamic Garden," 362.
[132] D. Fairchild Ruggles, "Religion and Culture: The Adoption of Islamic Garden Culture by Non-Muslims," in *Islamic Gardens and Landscapes* (Philadelphia: Pennsylvania University Press, 2008), 143-144.
[133] For an example of this approach, see Lehrman, *Earthly Paradise*, 32-33.

all those skilled craftsmen, artists and designers who created them should be taken into account."[134] The third approach, according to Ruggles, urges us to view Islamic gardens as part of a "worldwide phenomena," where Islamic culture (including architecture and the garden) is appreciated by both the patron and the users, who may or may not be Muslims.[135] These approaches show us the degree of complexity in understanding and defining Islamic gardens. They also raise many questions that merit further investigation, such as what is the role of place, patron and globalization in forming the meaning and identity of an Islamic garden? In my dissertation, I use Islamic as a term to describe designed landscapes that have been directly and with clear intention inspired by the history, culture, and tradition of Muslim civilization. I follow Ruggles's third approach, which views Islamic gardens as a worldwide phenomenon, and do not limit my use of the term to a particular geography or environment, or to the religious faith of the designer or patron.

ISLAMIC GARDEN STUDIES

The ongoing debates over defining the term "Islamic" has not stopped scholars of Islamic gardens and landscape from developing frameworks and methods to study and analyze gardens of the Islamic world. For example, early scholars followed a descriptive approach to study major Islamic gardens. This was followed by a regional comparative approach that focused on regional classical themes such as Ottoman, Mughal, and Moorish. Later, scholars began to consider the environmental, cultural, and social factors in their study of Islamic gardens. The following is a review of these approaches.

[134] Emma Clark, *The Art of the Islamic Garden* (Ramsbury: Crowood, 2004), 14.
[135] Ruggles, "Religion and Culture," 144.

Early Descriptive Frameworks

The first forays of Western scholars into Islamic art, architecture, and gardens resulted in a number of significant descriptive works. The first two studies on Islamic gardens that set the basis for further research were *Gardens of the Great Mughals* (1913) by C. M. Villiers-Stuart and *Die Indische Garten* (The Indian garden) (1923) by Baroness Maria Luisa Gothein.[136] These two studies focused on Mughal gardens in India and analyzed them from two different perspectives. To illustrate, Villiers-Stuart focused on the exotic atmosphere and botanical species of Mughal gardens with little attention to the spatial and structural layout, whereas Gothein studied Indian gardens' form and examined them as a "product of Indo-Muslim culture."[137]

The scholarly literature on Islamic gardens continued throughout the late twentieth century following the survey approach of famous gardens in the Islamic world. For example, in 1976, Richard Ettinghausen and Elizabeth B. MacDougall edited an important book titled *The Islamic Garden*, which covers a wide range of garden traditions from Spain to India.[138] The contributors to the volume discuss several Islamic garden styles, such as the royal formal gardens, celestial gardens, terrestrial gardens, and regional types in places such as Spain and Persia. Ettinghausen and MacDougall also include a discussion of the Persian Islamic garden style (which the author identified as the *chahar bagh*) and the Mughal garden in India. The contribution of this book to the field of Islamic garden study is noteworthy because it was the first survey that looked comparatively at different kinds of Islamic gardens. The work also introduced comparative research methods and themes that could be applied to additional studies. However, it should be noted that the survey ends with the eighteenth century and all the authors were Western orientalists

[136] Petruccioli, "Rethinking the Islamic Garden," 350-351.
[137] Ibid., 350.
[138] MacDougall and Ettinghausen, eds., *The Islamic Garden*.

who paid little attention to the issues of cultural identity, environmental concern, experience, or conservation.

In 1988, Charles W. Moore, William J. Mitchell, and William Turnbull, Jr. published *The Poetics of Gardens*, which examined the context and qualities of famous gardens around the world.[139] The catalog includes many Islamic gardens such as the fifteenth century Alhambra and Generalife in Granada and the seventeenth century Shalamar Bagh and Nishat Bagh in Kashmir. The authors focus on understanding what makes the garden special by analyzing the environmental quality of the gardens, including the patterns of land and water, orientation of the sun, plant types, and wind movement. The book contains extensive graphic representations and spatial analysis that is especially useful for designers.

These earlier scholarly works on Islamic gardens are mostly based on textual descriptions and formal typologies. Yet, they are important publications to the field of Islamic gardens, even if they emphasize description and provide only a very limited analysis of the origin and development of these gardens or explanations for differences among them.[140] In this way, the Islamic garden as a category, according to Ruggles, was established on the basis of a "not as a reflection of the many different types of garden and designed landscape that have existed [in the Islamic world], but as literary idea and a formal abstraction."[141]

Regional Comparative Frameworks

James Wescoat points out that, beginning in the late 1980s, the scholarly literature on

[139] Charles W. Moore, William J. Mitchell, and William Turnbull Jr., *The Poetics of Gardens* (Cambridge, Mass: MIT Press, 1988).
[140] D. Fairchild Ruggles, "Prologue: Paradigm Problems," in *Gardens of Renaissance Europe and the Islamic Empires: Encounters and Confluences*, edited by Mohammad Gharipour (University Park: Pennsylvania State University Press, 2017), 7.
[141] Ibid.

Islamic gardens shifted from surveys of the most famous gardens throughout the Muslim world to more focused research on regional garden trends.[142] Instead of focusing on elite traditions (Mughal, Persian, and Spanish), new comparative methods considered three geographic scales instead: Mediterranean, pan-Islamic, and multiregional.[143] Wescoat noted that analyses of Mediterranean-region gardens tend to focus on "contact and transmission (i.e., genealogy) more than on similarities and differences in garden form, function, or meaning (i.e., comparison in a formal sense)."[144] For example, Ruggles explored the tenth-century palace gardens of Madinat al-Zahra (Cordoba, Spain), comparing them to several Abbasid palaces to show the significant influence of Abbasid architectural typology on Hispano-Umayyad palace architecture and gardens in southern Spain.[145] Subsequently, Yasser Tabbaa investigated the historical connection between early Islamic gardens in Mesopotamia and later medieval Islamic gardens in Spain. In particular, he first documented palaces and gardens of ninth-century Samarra and then studied their influence and evolution on the gardens and courtyards of the tenth to thirteenth centuries.[146]

The pan-Islamic comparative approach, according to Wescoat, focuses on relationships and common themes between different Islamic gardens such as, for example, the theme or concept of the "paradise garden" and how it has been applied extensively to many gardens in the Islamic world.[147] One of the first scholars who supported the concept of paradise in the Islamic garden was the German scholar Titus Burckhardt. In his book *Moorish Culture in Spain*, Burckhardt devoted

[142] James L. Wescoat, "Mughal Gardens: The Re-emergence of Comparative Possibilities and the Wavering of Practical Concern," in *Perspectives on Garden Histories*, edited by Michel Conan (Dumbarton Oaks Research Library and Collection, 1999), 110.
[143] Ibid., 114.
[144] Ibid., 115.
[145] D. Fairchild Ruggles, "The Mirador in Abbasid and Hispano-Umayyad Garden Typology," *Muqarnas* VII (1990): 73-82.
[146] Yasser Tabbaa, "The Medieval Islamic Garden: Typology and Hydraulics," 303-30.
[147] See for example: Lehrman, *Earthly Paradise*; Elizabeth B. Moynihan, *Paradise as a Garden in Persia and Mughal India* (New York: George Braziller, 1980); and Brookes, *Gardens of Paradise*.

an entire chapter to the subject titled "Heaven and Earth," which clearly emphasized the concept of paradise.[148] However, the concept of the paradise garden received criticism from many subsequent scholars as, for example, Ruggles who writes that although literary sources, including Qur'anic references to paradise, "suggest a very meaningful location with tangible form, the vehicle of the description is textual, not visual, and is primarily bound up with the message of the text itself rather than issues of garden design."[149] She further points out that when scholars exclusively place the concept of the garden as paradise at the center of their analysis, they are missing other important sources that could explain other aspects of garden design—such as studying Islamic agriculture systems and their impact on garden design and economic development.[150]

The multiregional comparative approach, according to Wescoat, is similar to the Mediterranean approach, except it is not limited to the Mediterranean area and instead may include any region in the world. For example, Jan Pieper examined the historical link between the hanging gardens of Rajasthan in India with those of Renaissance Italy.[151] Ebba Koch explored the extensive use of *pietra dura* floral inlay work as a technique that was exchanged between Indian and Italian architecture.[152] Ruggles and Tabbaa independently examined the historical influence of Abbasid architecture from Samarra in the architecture and garden design in Syria and Spain.[153]

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[148] Burckhardt, *Moorish Culture in Spain*.
[149] D. Fairchild Ruggles, "A Mythology of an Agrarian Ideal," *Environmental Design: Journal of the Islamic Environmental Design Research Centre* 1 (1986): 24.
[150] Ibid., 24-25.
[151] Pieper, "Hanging Gardens in the Princely Capitals of Rajasthan and in Renaissance Italy," 69-90.
[152] Ebba Koch, "Pietre Dure and Other Artistic Contacts between the Court of the Mughals and that of the Medici," *Marg* 39, no. 1 (1988): 29-56.
[153] Yasser Tabbaa, "Circles of Power: Palace, Citadel, and City in Ayubbid Aleppo," *Ars Orientalis* 23 (1993): 186-187; Ruggles, "The Mirador in Abbasid and Hispano-Umayyad Garden Typology," 73-82.

Environmental Framework

In the second half of the twentieth century, some scholars began to explore Islamic gardens as a part of a larger environmental system and to consider various aspects such as geography, water systems, and climate for the first time. For example, Wescoat studied the traditional water systems and territorial landscape of Mughal gardens in India;[154] Tabbaa studied the typological and hydraulic aspects of the Alhambra's gardens and courtyard;[155] and Ruggles devoted two chapters in *Islamic Gardens and Landscapes* to exploring traditional water systems and agriculture practices in the Islamic world. These publications provide historical and scientific knowledge about Islamic gardens and their relationship to the natural and landscaped environment, viewing the garden as an environmental entity. In Ruggles's words, a "garden is not an isolated site but part of a larger landscape that includes water sources, natural vegetation, and climate, all which originate somewhere outside of the garden [and] yet have a profound impact on the kinds of plants grown therein."[156]

Cultural and Social Frameworks

Another group of scholars has examined the Islamic garden as a cultural production that has had a profound effect on Muslim society.[157] For example, Nurhan Atasoy promoted this type of framework in her extensive study of the history of Ottoman art, culture, and gardens. In *A Garden for the Sultan*, she studied the writing and visual accounts (e.g., poetry and miniatures) to understand the role and effect of flowers in Ottoman culture and garden settings.[158] Similarly,

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[154] James L. Wescoat, Jr. "Early Water Systems in Mughal India," in *Environmental Design: Journal of the Islamic Environmental Design Research Centre* 2 (1985): 51-57.
[155] Tabbaa, "The Medieval Islamic Garden: Typology and Hydraulics," 303-330.
[156] Ruggles, *Islamic Gardens and Landscapes*.
[157] Ruggles, "Prologue: Paradigm Problems," 6.
[158] Nurhan Atasoy, *A Garden for the Sultan: Gardens and Flowers in the Ottoman Culture* (Istanbul: Aygaz, 2002).

Shirine Hamadeh investigated the history of Ottoman architecture and gardens in the eighteenth century, asking how these social and cultural practices emerged in the urban landscape of Istanbul.[159] Finally, Maria Subtelny explored the history of flowers and rose cultivation in Iran and their various applications and effects on Persian culture.[160] In particular, the author shows how roses were used spiritually (e.g., in religious ceremonies as symbolic representation of God and his prophets), artistically (e.g., in poetry and paintings), and as commodity (e.g., in medicine, food and perfume).[161] These publications and their analytical framework go beyond a simple typology and design schema of Islamic gardens in order to create a deeper understanding of the social and cultural significance and ideology associated with these gardens.

CONTEMPORARY ISLAMIC GARDEN STUDIES

Increasingly, writers—both academic and popular—are paying attention to contemporary garden and landscape projects. For example, Clark devoted a chapter in *The Art of the Islamic Garden* to the Prince of Wales' Carpet Garden in Highgrove.[162] In *Islamic Gardens and Landscapes*, Ruggles wrote about several Islamic garden projects located within and outside of the Islamic world, including Al-Azhar Park (2005) in Cairo, Shangri La (1937-38) in Honolulu, and the Enid A. Haupt Garden (1987) in Washington D.C.[163] More recently, she has authored essays about Aga Khan Park (2015) in Toronto and Aga Khan Garden (2018) in Edmonton.[164] Nurhan Atasoy and Philippa Scott wrote a short book on the Bakewell Ottoman Garden (2006) in St.

[159] Hamadeh, *The City's Pleasures.*
[160] Maria Subtelny, "Visionary Rose: Metaphorical Application of Horticultural Practice in Persian Culture," in *Botanical Progress, Horticultural Innovations, and Cultural Changes*, edited by Michel Conan and W. John Kress (Washington, D.C.: Dumbarton Oaks, 2007), 13-34.
[161] Ibid., 15.
[162] Emma Clark, "HRH the Prince of Wales' Carpet Garden, Highgrove: A Case Study," in *The Art of the Islamic Garden* (Ramsbury: Crowood Press, 2004), 171-188.
[163] Ruggles, "List of Gardens and Sites," 147-224.
[164] D. Fairchild Ruggles et al., "The Aga Khan Park: An Urban Oasis," in *Pattern and Light Aga Khan Museum* (New York: Skira Rizzoli, 2014), 32-39; Ruggles, "An Islamic Garden in Edmonton," 267-271.

Louis.[165] The contributors to *Contemporary Urban Landscapes of the Middle East* (2016) explore the development of urban landscapes in the Middle East, citing several garden landscape projects designed in an Islamic style, such as the Bagh-e-Ferdowsi (1997) in Tehran, Al-Azhar Park (2005) and the Cultural Garden for Children (1990) in Cairo, and Landscape of the Sultan Qaboos Grand Mosque (2001) in Muscat.[166]

Seminal contributions have been made by the Aga Khan Trust for Culture (AKTC) in the development of the field of Islamic gardens and landscapes. This contribution includes constructing new Islamic gardens and parks around the world, such as Al-Azhar Park and Sunder Nursery (2008) in Delhi; restoring historic gardens, including Bagh-e Babur (2008) in Kabul; and recognizing significant Islamic landscape projects like Wadi Hanifa (2007) in Riyadh through the Aga Khan Award for Architecture.[167] These projects have been well documented by writers associated with the AKTC, such as Philip Jodidio. In *Under the Eaves: The Aga Khan: Builder and Patron*, he documented Prince Karim's (the Aga Khan) building initiatives through his various agencies under the Aga Khan development network, and his reasoning for supporting the design of gardens and parks.[168] In 2011, Jodidio edited a volume *The Aga Khan Historic Cities Programme: Strategies for Urban Regeneration*, which examines in depth these AKTC garden and park projects and their social and economic impact.[169]

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[165] Nurhan Atasoy and Philippa Scott, *The Bakewell Ottoman Garden at the Missouri Botanical Garden* (St. Louis: Missouri Botanical Garden, 2010).
[166] See: Mohammad, Gharipour, ed., *Contemporary Urban Landscapes of the Middle East* (London: Routledge, 2016); See also: Cameron Rashti, "The Development of Azhar Park," in *Cairo: Revitalising a Historic Metropolis*, edited by Stefano Bianca and Philip Jodidio (Turin: Umberto Allemandi & C. for Aga Khan Trust for Culture, 2004), 149-163; Selma al-Radi and Charles Moore, "Cultural Park for Children. Cairo, Egypt," in *Architecture for a Changing World*, edited by James Steele (London: Academy Editions, [for] The Aga Khan Award for Architecture,1992), 104-123.
[167] Cameron Rashti, "Parks and Gardens" in *The Aga Khan Historic Cities Programme: Strategies for Urban Regeneration*, edited by Philip Jodidio. (Munich: Prestel, 2011), 49-55.
[168] Philip Jodidio. *Under the Eaves: The Aga Khan: Builder and Patron* (Munich: Prestel, 2008).
[169] Philip Jodidio. ed., *The Aga Khan Historic Cities Programme: Strategies for Urban Regeneration* (Munich: Prestel, 2011). For other AKTC publications, visit: www.Archnet.org.

A number of studies on Islamic gardens have been conducted with the aim of proposing design guidelines for Islamic gardens today. For example, Clark wrote an introductory guidebook about the design and symbolic meaning of Islamic gardens.[170] One of the objectives of this book was to illustrate the principles of making an Islamic garden today, particularly in Western countries. According to her, this book was not written as a history or survey book for historians or designers, but instead targets ordinary people who see gardens as a place for peace and meditation and as a source of sanity.[171] The author focuses on the symbolic representations embodied by traditional design elements and how to apply those elements to make contemporary Islamic gardens.[172]

A more specific project-based design guideline was produced by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2008 for developing the master plan of the Qur'anic Botanic Garden in Sharjah (UAE).[173] The goal behind this project was to preserve the botanic diversity and cultural heritage of the Arab region by displaying a living collection of plants mentioned in the Qur'an as well as indigenous plants of Arabia.[174] The guideline was created and developed by multidisciplinary experts in fields such as botany, landscape design, and history.[175] As a result, it contains a list of botanical species mentioned in the Qur'an and technical requirements to implement the project. In 2014, the construction of the

[170] Clark, *The Art of the Islamic Garden*.
[171] Ibid., 11.
[172] Faezeh Ashtiani, "Principles for Designing a Modern Islamic Garden: How Can New Design Contain the Memory of the Past?" (Master's thesis, University of Illinois at Urbana-Champaign, 2015). With an objective similar to Clark's, my colleague Faezeh Ashtiani wrote her master's thesis project on how to design modern Islamic gardens. However, unlike Clark's guidebook that focuses on making Islamic gardens in the UK or in places with a similar climate, Ashtiani's thesis attempts to provide a design guideline and principles to help professional landscape designers in designing Islamic gardens worldwide. http://hdl.handle.net/2142/78541
[173] Guido Licciardi et al., "Qur'anic botanic Garden in Sharjah (UAE): Guidelines for Developing the Master Plan," (Doha, Qatar: UNESCO, 2007).
[174] Ibid., 5-7.
[175] Ibid., 8.

Islamic Botanic Garden in Sharjah was completed and open to the public.

UNESCO's Qur'anic Botanic Garden initiative stimulated a wide interest in the idea of Qur'anic botanic gardens and how such a garden can be developed outside the Arabian Peninsula. In this regard, Sophie Gilliat-Ray and Mark Bryant conducted a research project using a mixed-method approach to explore "the need, value, and viability of establishing 'Qur'anic Gardens' in the UK."[176] During the early phase of their research, the authors decided to change their study focus from the concept of "Qur'anic" to "Islamic" gardens in the UK. They realized that the concept of a Qur'anic garden is restrictive and not well known in comparison to Islamic gardens, which is more generally accepted.[177] As part of the project, the authors investigated the feasibility of Islamic gardens in promoting biodiversity conservation and an interfaith understanding of Islam in the UK. The researchers found that Islamic gardens built in the UK are an important source for British Muslims and non-Muslims alike to learn about Islamic cultural heritage. The final report briefly highlights several contemporary Islamic gardens in UK such as the Ismaili Center's roof garden in London (1986), the Mughal Garden at Lister Park (2001) in Bradford, and the Alhambra Garden at Roundhay Park (2003) in Leeds.

The study of Islamic gardens has developed in different ways from the study of Islamic architecture. Unlike in Islamic gardens studies, where the majority of analytical literature typically stops at the eighteenth century, research and studies on Islamic architecture (or architecture of the Islamic world) include contemporary projects, in large part due to the forty-three issues of *Mimar,* an international architectural journal (1981-1992). *Mimar* covered various contemporary architecture projects in Islamic and developing countries with a goal "to bring good contemporary architecture to international attention and to begin the discourse in parts of the world which had

[176] Gilliat-Ray and Bryant, "Islamic gardens in the UK: Dynamics of Conservation, Culture and Communities," 59.
[177] Ibid., 10.

very little until then."[178] The themes were broad in topic such as construction technology, urban housing, higher education buildings, hotels, vernacular architecture, spiritual architecture, monographs on architects, and occasionally landscape architecture projects, such as the Children's Cultural Park (1990) in Cairo, designed by Abdel Halim Ibrahim, the recipient of the Aga Khan Award 1992.[179]

In addition, although not their primary focus, many contemporary architectural books often contain valuable information about Islamic gardens. For example, in *The Mosque and the Modern World,* Renata Holod and Hasan-Uddin Khan conducted a survey of contemporary mosques and Islamic centers built around the world.[180] While focusing on the architecture of the mosques, the authors discuss, in a limited manner, some gardens and landscapes associated with those mosques. Indeed, many of the examples of mosques and Islamic centers in the book, such as the Ismaili Jamatkhana and Center (1985) in Burnaby and the King Faisal Mosque (1986) in Islamabad, have courtyards and gardens designed in an Islamic style that merit much more in-depth analysis.

Similar contributions have been made by Mohammad Al-Asad, who devoted a chapter in his book, *Contemporary Architecture and Urbanism in the Middle East*, to urban landscape projects.[181] He highlights the significance of public spaces in improving the image of the city and, more importantly, their role in improving the overall quality of life. However, Al-Asad does not describe any of these projects as "Islamic," and he does not explain if there are any connections between traditional Islamic gardens and these contemporary landscape projects. Nonetheless, the

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[178] Hasan Uddin Khan, "Developing Discourses on Architecture: The Aga Khan Award for Architecture, the Journal Mimar: Architecture in Development, and Other Adventures," *Journal of Architectural Education* 63, no.2 (2010): 82.
[179] Khaled Asfour, "Abdel Halim's Cairo Garden: An Attempt to Defrost History," *Mimar* 36 (1990): 72-77.
[180] Renata Holod and Hasan-Uddin Khan, *The Mosque and The Modern World: Architects, Patrons and Designs Since the 1950s* (London: Thames And Hudson, 1997).
[181] Mohammad Al-Asad, *Contemporary Architecture and Urbanism in the Middle East* (Gainesville: University Press of Florida, 2012).

author's catalogue includes several contemporary architectural projects in Middle East that contain Islamic gardens. For example, Islamic gardens appear as part of religious buildings such as the King Hussein Mosque (2006) in Amman and as part of cultural projects such as the Museum of Islamic Art (2008) in Doha. Although the author does not reflect on or provide information about these gardens, this work is a valuable source for scholars of contemporary Islamic gardens and landscapes.

In conclusion, this chapter provided a brief review of contemporary scholarship on Islamic gardens and landscapes, highlighting several issues that the remainder of this dissertation attempts to address. First, much of the available research focuses almost entirely on the historical period between the eighth and eighteenth centuries. Such a limited historical focus has in turn relegated the study of Islamic gardens to the past. However, a small number of scholars have contributed to expanding the scope of study toward the modern era. While these previous studies can only be considered a first step, they nonetheless represent an important move towards a more profound understanding of modern Islamic gardens and landscapes. In recognition of this, my research seeks to define "Islamic" in a way that accounts for both historical and contemporary gardens and landscapes, expanding the field of study beyond both the pre-modern era and geographical boundaries into a global context, addressing critical questions about their meaning and identity in the twenty-first century.

CHAPTER 4: CONTEMPORARY ISLAMIC GARDENS: KNOWLEDGE AND TACTICS

This chapter investigate two questions about contemporary Islamic gardens: How does a connection to space and time help construct an "Islamic" identity in garden design? And what are the various ways in which the larger discourses of "modern" and "traditional" impact contemporary designers' approaches to building Islamic gardens in the present? To answer these questions, I asked several professional designers, including Emma Clark, Kamelia Zaal, Maher Stino, Michel Péna, Fazil Sütşü, Thomas Woltz, Tom Stuart-Smith, and Vladimir Djurovic about their Islamic garden projects and the source of their inspiration.

Emma Clark is an author and garden designer who specializes in the art of Islamic garden. Her major Islamic garden designs include the Carpet Garden at Chelsea Flower Show (2001) and the Islamic Garden at the Central Oxford Mosque, UK. Kamelia Zaal is the founder and principal of the Kamelia Landscape Design studio based in Dubai. Her Islamic designs include the Beauty of Islam Chelsea Flower Show (2015) and the Seal of the Prophet at Gardening World Cup, Japan (2016). Maher Stino is co-founder of Sites International, a landscape architecture firm based in Cairo. His major Islamic garden and landscape projects include Al-Azhar Park in Cairo and the Ismaili Center's garden in Dubai. Michel Péna is the principal of Péna Paysages, a landscape architecture firm based in Paris. He designed the Oriental Garden in Paris. Fazil Sütşü is a Turkish American architect and the designer of the Bakewell Ottoman Garden in St. Louis. Thomas Woltz is the owner and principal of Nelson Byrd Woltz Landscape Architects based in Virginia. His Islamic garden and landscape works include the Aga Khan Garden in Edmonton and the Garden of Light at King's Cross, London. Tom Stuart-Smith is the founder and principal of Tom Stuart-

Smith Ltd., a landscape design firm based in London. His Islamic design projects include Le Jardin Secret Palace in Marrakesh and a public garden at King's Cross, London. Vladimir Djurovic is the founder and principal of the Vladimir Djurovic Landscape Architecture firm based in Lebanon. His Islamic gardens projects include Aga Khan Park in Toronto and Garden of Reflection and Terrace of Unity at King's Cross, London.[182]

I learned that these designers rely on two primary forms of knowledge about Islamic gardens: (1) visiting major historical Islamic gardens and architectural sites (which I consider a connection to "space"), and (2) text-based literature and representations (or a connection to historic "time"). Yet, the interviews also revealed that the use of this knowledge of space and time and how to apply it on site differs from one designer to another. In this chapter, I will explore these two sources of knowledge and the various design tactics used by contemporary landscape designers.

SPACE: HISTORICAL ISLAMIC GARDENS TODAY

The experience of visiting a historical Islamic garden in person is a vital source for any designer interested in Islamic garden and landscape design. Although it does not substitute for documentary evidence, it does allow for the development of a holistic sensory experience and spatial awareness of the garden site. Garden and landscape sites, as living entities, are more challenging to maintain than works of architecture and typically only a few have survived for extended periods. Throughout history, a significant number of Islamic gardens around the world have slipped into decline or were actively destroyed, and many others are still under threat due to

[182] http://emma-clark.com; https://www.kamelia.ae; http://www.sitesint.com; http://www.penapaysages.com; https://www.nbwla.com; http://www.tomstuartsmith.co.uk; http://www.vladimirdjurovic.com.

neglect, urban development, environmental disaster, and war. For example, several gardens in Iran, such as the Bagh-i Takht (eleventh century) in Shiraz and Bagh-i Shimal (fourteenth century) in Tabriz, have been built over and nearly erased by new urban development. In Kashmir, new road construction truncated the seventeenth century Shalamar Bagh, thus destroying its integrity.[183]

Apart from the changes that have occurred over time, the surviving historical gardens—in their different conditions and locations—have become the most valuable living source of inspiration and a model for Islamic garden design in the modern period. Fortunately, we still have some beautiful examples of historical gardens that have survived in Muslim-majority countries like Morocco, Turkey, Iran, Pakistan, and Afghanistan. We also have exceptional examples in countries with historical ties to Islam, such as Spain and India. Some of these gardens survive today in a state close to their original spatial form, although they have been replanted with new vegetation that does not necessarily match the original planting. Examples of this are the garden courtyards of the Alhambra Palace (thirteenth-fourteenth centuries) in Granada and the gardens of the Taj Mahal (seventeenth century) in Agra. Other Islamic gardens have been rehabilitated and extensively rebuilt, such as the Bagh-e Babur (sixteenth century) in Kabul, restored by the Aga Khan Trust for Culture in 2003-2007 (figure 22).

These surviving historic gardens (all in different conditions) are a source of inspiration for many contemporary designers working on Islamic gardens and landscape. As an example, the British landscape architect Tom Stuart-Smith was commissioned in 2014 to design two Islamic gardens: one for Le Jardin Secret Palace in Marrakesh (completed in 2016) that contained the ruins of two rooftop courtyard gardens, and Jellicoe Garden for the Aga Khan King's Cross project in London (expected 2020). At the time, Smith declared, "I didn't know much about Islamic

[183] Lehrman, *Earthly Paradise*, 218-222.

gardens," so he traveled to visit major architecture and garden sites in India, Spain, and Morocco (such as the Taj Mahal, Fatehpur Sikri, the Alhambra, the Badi Palace, and the Bahia Palace in Marrakesh, among others) to get a direct, personal perspective, and this greatly inspired his designs.[184]

Likewise, Thomas Woltz was commissioned to design the Aga Khan Garden in Edmonton (completed in 2018) and was sent by the Aga Khan to visit and experience ancient Islamic gardens and architectural sites in India and Egypt. In India, he was amazed by the simple form and strong geometry of Mughal gardens. In particular he was inspired by the seventeenth century Ram Bagh (Bagh-i-Nur Afshan) in Agra. This journey, according to Woltz, made him think of Mughal gardens as functioning "productive landscapes" rather than framing them purely as paradise or pleasure gardens.[185]

For the Emirati landscape designer Kamelia Zaal, the inspiration for her Beauty of Islam Garden at the Chelsea Flower Show (2015) came from visiting local contemporary Islamic architecture projects and natural landscape sites in the United Arab Emirates.[186] In particular, she visited and was inspired by various architectural elements from Sheikh Zayed Grand Mosque Center in Abu Dhabi. In an interview with the BBC, Zaal indicated her reasons for referencing Sheikh Zayed Mosque in her garden design. She stated that the Mosque is "such an amazing piece of architecture. It shows the unity and diversity of Islam throughout the world. The architecture itself shows that. It is Moorish, it is Arab, it is Mughal, and it is also Persian."[187] In other words, Zaal saw the hybrid multicultural design approach in Sheikh Zayed Mosque as suitable for

[184] Tom Stuart-Smith, interviewed by the author, July 2017.
[185] Thomas Woltz, interviewed by the author, September 2019.
[186] Kamelia Zaal, interviewed by the author, April 2017.
[187] Kamelia Zaal, "Chelsea Flower Show – BBC Documentary 2015," YouTube video [05:38], Posted November 7, 2016. Accessed April 21, 2020. https://www.youtube.com/watch?v=Xy_WeEAcNuc

designing an Islamic garden in London, one of the most multicultural cities in the world. In terms of the landscape design, Zaal used the classical *chahar bagh* layout and applied the traditional design principles of Islamic gardens (e.g., use of water, various edible and aromatic plants, light and shade), but in a contemporary way. Interestingly, at that time, Zaal declared that "I never actually visited any Islamic garden," so she relied on books and visual representations of Islamic gardens and, more importantly, on her personal understanding of Islam as a Muslim women with a hybrid Arab and Scottish identity.[188]

There are also other ways that contemporary designers can obtain spatial experience and knowledge about Islamic gardens without actually visiting them. The advancement in media technologies has contributed significantly to the creation of knowledge about Islamic gardens and how their spaces are experienced through visual media such as images, videos, three-dimensional models, 360° photos, and three-dimensional virtual experiences. In fact, many major historic Islamic monuments, such as the Alhambra, Taj Mahal, and Topkapi Palace, are well documented digitally in these ways.[189] In a similar fashion, visual representations (e.g., pictures and videos) of many contemporary Islamic garden projects have been published and widely shared in various online outlets by users, designers, and patrons of these gardens, and also by bloggers interested in Islamic visual art.

Moreover, digital satellite imaging applications such as Google Earth provide high quality two-dimensional and three-dimensional aerial photography (for some locations) and allow users to view previous versions of a map over time. These visual media of Islamic gardens can help designers to visualize the gardens' layout at different times and during different seasons. They are

[188] Kamelia Zaal, interviewed by the author, April 2017.
[189] See: Alhambra 3D Map, https://www.alhambra.org/en/virtual-tour-alhambra.html; Taj mahal 360° photo by 2VR website, http://www.2vr.in/V-RU; Topkapi Palace 3D tour, http://www.3dmekanlar.com/en/topkapi-palace.html

particularly valuable in cases where the garden itself is inaccessible due to travel restrictions, political issues, conflict, or other safety reasons.

TIME: DOCUMENTARY EVIDENCE

By the end of the twentieth century, Islamic gardens had become an established subject in world garden history. Scholars have used different approaches to study Islamic gardens such as discovery and review of primary source material, formal site analysis, archaeology, environmental studies, and social and cultural studies (as explained in chapter 3). As a result, today we have a broad array of information that has contributed to our scientific knowledge of Islamic gardens. Earlier, I mentioned that visiting Islamic gardens in person provides designers with an important sensory experience, but that it must also be supplemented with documentary research in order to reach back in time. This is because the state of the gardens that we can see today is not necessarily the same as—or even similar to—that of gardens that were built centuries ago. Thomas Woltz explained that in the Aga Khan Garden project, in addition to visiting ancient Islamic gardens in India and Egypt, "we did one year of extensive research on Islamic gardens and Mughal gardens to understand their forms and meaning throughout time."[190] For Woltz, the Aga Khan Garden was his first Islamic garden project, thus doing research was essential to avoid "obnoxious quotation" and misrepresentation.[191] Thus, scholarly research is the most effective way for historians, archaeologists, and designers to understand the historical background and changes that have occurred over time in these gardens.

There are some key primary sources for Islamic gardens, typically written in Arabic, Persian, and Turkish. While some designers have the means and skills to read and understand such

[190] Thomas Woltz, interviewed by the author, September 2019.
[191] Ibid.

primary texts in their original language, other designers rely on the scholarly works that translate, study, and analyze these texts. The primary historical texts on Islamic gardens can be grouped into three categories: mystical, scientific, and literary themes.[192] The following is a brief review of those categories.

In the *mystical* category, the focus is on two essential religious texts in Islam: the Qur'an (the word of God) and the Hadith (the collection of traditions or sayings of the Prophet Mohammad). The Qur'an and the Hadith describe the paradise (*Jannah*) promised to the faithful as a garden with many gardens, beneath which flow rivers of water, milk, wine, and honey—the reward for those who believe and who follow the path of righteousness. Moreover, this paradise has shade and fruit trees of every kind within reach. Abu Hurairah (1206-1282) narrated that when the Prophet Mohammad was asked by his companion what *Jannah* is constructed of, he replied: "Bricks of silver and bricks of gold. Its mortar is musk of a strong fragrance, and its pebbles are pearls and rubies, and its earth is saffron. Whoever enters it shall live and shall not suffer, and shall feel joy and shall not die, nor shall their clothes wear out, nor shall their youth come to an end."[193] These vivid descriptions in religious texts provide a conceptual picture of an ideal, heavenly place that appeals to the senses and, most importantly, takes the form of a garden.

Some historians have assumed that early Islamic gardens were designed to reflect these religious texts, particularly the Qur'an, which seemed to serve as a model for designing an earthly paradise.[194] Thus, based on their understanding of religious texts and their analysis of historical examples, modern scholars listed the design principles and attributes of Islamic gardens, drawing

[192] Adapted from: Ruggles, *Islamic Gardens and Landscapes*. Ruggles discusses the primary sources in her book: Chapter 3 and 5 explore the scientific theme, Chapter 7 explores the fictional theme, and Chapter 8 explores the mystical theme.
[193] The Hadith, Vol. 4, Book 12, Hadith 2526. http://sunnah.com/urn/678320.
[194] See chapter 3, page 47-49.

from the Qur'an and the Hadith. Some of the most frequently mentioned by historians are: the layout of the Islamic garden should be quadripartite (a *chahar bagh*) to reflect the four rivers mentioned in the Qur'an; the garden should be a walled enclosure to promote privacy; it should have fruit trees as mentioned in the Qur'an; and it should include water elements, shade, and pavilions.

Many contemporary designers, such as Emma Clark, have followed these Qur'anic design principles in their landscape design work. Clark designed several contemporary Islamic gardens for private residential buildings, religious and cultural institutions, and flower shows in the United Kingdome and around the world using the concept of "paradise" mentioned in the Qur'an. In an interview, Clark explained her design process: "I start with the principles of Islamic gardens and then of course I have to study the site and see what are the requirements of the site. I think the design process is very personal to the designer. For me, I try always to see what the clients like and discuss the ideas with them and what works and what does not."[195] One of Clark's recent garden design projects is the landscape of the Cambridge Central Mosque (opened in 2019). She collaborated with Urquhart and Hunt Landscape Design Studio in London to design the front garden of the mosque as a contemporary representation of a classical paradise *chahar bagh* garden mixed with English garden traditions. The garden, according to Clark, is based on the values of Islamic gardens and contains a variety of recognizable elements from Islamic garden traditions, such as the geometric Islamic patterns, the central octagonal stone jet fountain, and fruit trees. However, according to her, not all the design principles of Islamic gardens were applicable in this project because of scale and functionality of the space. She stated that the garden "is not hidden or enclosed like traditional Islamic gardens. We could not do that here."[196]

[195] Emma Clark, interviewed by the author, July 2017.
[196] Ibid.

It is important to note that not all historic Islamic gardens reflect the Qur'anic attributes exemplified in the paradise *chahar bagh* theme. The garden orchard and the courtyard garden are both examples of such gardens that are not necessarily cross-axial and not necessarily endowed with pavilions. The courtyard of the Great Mosque of Cordoba (eighth century) is an example of an important historic garden that was not a *chahar bagh*. The Qur'an, therefore, is an important source of inspiration, expressed in many gardens; however, the description of *Jannah* is not an actual guideline for making earthly gardens, with the result that many gardens do not reflect the Qur'an's specific garden form of four streams and pavilions. That alternative interpretations of even a Qur'an-inspired garden are possible can be seen in contemporary gardens such as the Islamic Botanic Garden in Sharjah (2014) and the Qur'anic Botanic Garden in Doha (2008-ongoing), both of which were constructed to preserve and exhibit the plants mentioned in the Qur'an and Hadith but do not follow the classical style.[197] Similarly, in 2019, the Dubai Municipality launched a new public park called the Qur'anic Park, with the aim of stimulating a cultural and educational understanding of Islamic heritage but, as in the aforementioned examples, the design of the park does not follow the traditional classical style; instead, the concept derives from narratives found within the Qur'an.[198]

The *scientific* category includes primary texts that were written with a systematic approach, as for example, site documentation, archeological records, and agricultural and botanical manuals. These texts provide definitive, practical knowledge about the science and design of Islamic gardens historically, which can be useful to designers. Several historical accounts provide detailed

[197] Qur'anic Botanic Garden in Doha official website https://qbg.org.qa; Environment and Protected Areas Authority, "Islamic Botanical Garden," Sharjah, UAE; http://www.epaashj.ae/learning-centres/desert-park-centres/ibg/.
[198] "Inside the just opened Qur'anic Park in Dubai," *Gulf News*, March 30, 2019. Accessed November 11, 2019. https://gulfnews.com/uae/inside-the-just-opened-Qur'anic-park-in-dubai-1.63013584#.

descriptions of garden sites, and although more narrative than scientific, they are useful for the level of detail observed by the narrator. An early prominent example of such a key historical account is the fifteenth century *Baburnama*, the memoirs of the Mughal emperor Babur (1483-1530), in which Babur described the landscape, gardens, and plants he encountered in his journeys, which were illustrated with images of gardens a few decades later.[199]

Archeological reports yield extraordinary amounts of scientific information and evidence that can help extend our understanding of Islamic garden history. The American archaeologist William M. Kelso stated that landscape and garden designs "leave imprints in the soil…and without damaging effects of major erosion or modern changes to the land, every so-called lost garden design could be recovered."[200] In this way, Kelso demonstrated that with careful investigation in landscape and garden sites, it is possible to identify the original layer and all the subsequent layers. To illustrate, in Smith's work at Le Jardin Secret Palace in Marrakesh, the designer relied on archaeologists from the Laboratory of Archaeology and Architecture of the City of Granada, Spain to understand the history of the ruined garden site on which he was to superimpose his new design.[201] The archeologists working at the site discovered the original layout of the garden, which turned out to be two parts, the larger one having a classical *chahar bagh* layout. Based on the findings, Smith's approach was to "restore and replant the larger garden as an Islamic paradise garden," using the available archeological information, historical literature, and other garden precedents (figure 23-24).[202] Likewise, the restoration of the sixteenth-century Bagh-e Babur (Gardens of Babur) would not have been possible without the intensive

[199] *The Baburnama: Memoirs of Babur, Prince and Emperor*, translated by Wheeler M. Thackston (New York: The Modern Library, 2002), 59.
[200] William M. Kelso, "Landscape Archaeology and Garden History Research: Success and Promise at Bacon's Castle, Monticello, and Poplar Forest, Virginia," in *Garden History: Issues, Approaches, Methods*, edited by John Dixon Hunt (Washington, D.C.: Dumbarton Oaks, 1992), 31.
[201] Tom Stuart-Smith, *Le Jardin Secret* (Casablanca: Europrint, 2016), 34.
[202] Tom Stuart-Smith, interviewed by the author, July 2017.

archeological work done by the German Archaeological Institute and Institute of Archaeology in Kabul, supported by the Aga Khan Cultural Foundation, which was a necessary precursor to the restoration.[203]

Another type of scientific text is agricultural and botanical books, such as the twelfth-century *Kitab al-Filaha* (Book of Agriculture) by Ibn al-'Awwam al-Ishbili.[204] Agricultural practice flourished in the Islamic world, particularly in al-Andalus, Egypt, Syria, and Yemen during the eighth to twelfth centuries, resulting in a large body of written literature on the science of agriculture.[205] For instance, Muslims wrote calendars based on astronomical studies that provided instructions regarding the most suitable time for planting. An example of this is the ninth century *Kitab al-anwa'* (Calendar of Cordoba) by Ibn Masawayh, a physician from Iraq, which was translated from Arabic into Latin (indicating its value across cultures).[206] Muslims also translated and studied Greek and Roman agricultural manuscripts such as the *De materia medica* by Dioscorides, written in 78 C.E.[207] These texts inspired Muslim scholars to develop their own agronomic manuals such as the sixteenth century *Irshad-al-Zara'ah* (Guide for Agriculture) by Qasim b. Yusuf Abu Nasr. Many of these manuscripts contain illustrations of plants and practical and important information about plant types, cultivation, characteristics, irrigation, and medical benefits.[208]

In the modern era, with the establishment of landscape architecture as a practice and field of study, new types of scientific text appeared that provides technical guidelines for landscape and

[203] Aga Khan Historic Cities Programme, "Babur's Garden Rehabilitation Framework" (Kabul: The Aga Khan Trust for Culture, 2004), 6.
[204] Published translated edition: Ibn al-'Awwām. Kitāb al-Filāḥa, *Le Livre de l'Agriculture*, 2 vols. French translation by J.-J. Clément-Mullet (Paris: Librairie A. Franck, 1866).
[205] Ruggles, *Islamic Gardens and Landscapes*, 29. For more information about scientific agricultural historic publications, see: http://www.filaha.org.
[206] Ibid., 30.
[207] Ibid.
[208] Ibid., 32.

planting design. For example, *Time-saver Standards for Landscape Architecture,* by Charles Harries and Nicholas T. Dines, offers extensive site design standards and construction detail references for various landscape projects—serving as a handbook for professional designers around the world.[209] Moreover, there are a large number of technical guidebooks for local and regional landscape architecture projects that provide standard practices and techniques for planting. Landscape designers are usually required to follow those set of standards in their design projects regardless of the form and style of the project.

Local and regional plant manuals are one of the essential resources for contemporary landscape designers. Unlike hardscape materials, which can be easily adapted in various projects, plants require specific climate and environmental settings. Thus, contemporary designers, including the designers I have interviewed, have used planting manuals to select plants for their landscape projects. For example, in Marrakech's Islamic Garden, Tom Stuart-Smith consulted Emma Clark and her Islamic guidebook, which contains a list of typical plants in historic Islamic gardens.[210] The majority of plants that he used in his project were brought from local nurseries to ensure high performance. Other designers such as Maher Stino and Laila ElMasry created their personal landscape and planting design manual based on their academic and professional experiences working on various landscape projects, including Al-Azhar Park in Cairo.[211]

The *literary* category consists of poems and narratives, some illustrated, where gardens are described in imaginary and creative terms. Islamic culture is rich with stories about legends, heroic battles, adventures, and romances. Many of these stories contain textual information and

[209] Charles Harries and Nicholas T. Dines, *Time-saver Standards for Landscape Architecture: Design and Construction Data* (New York: McGraw-Hill, 1988).
[210] Tom Stuart-Smith, interviewed by the author, July 2017. Clark, *The Art of the Islamic Garden*.
[211] Laila ElMasry, *Landscape Architecture in Egypt*, 2 vols. (Egypt: Shorouk Int'l. Bookshop, 2013). The book includes two volumes: "Landscape Architecture and the Planting Design of Al-Azhar Park, Volume I" and "A Plant Guidebook for Al-Azhar Park and the City of Cairo, Volume II."

illustrations about architecture and gardens that historically influenced, to some degree, the design of real gardens.[212] The validity of these texts may be ambiguous due to the use of exaggeration and metaphors in their description, causing uncertainty as to what is real and what is fiction. However, the descriptions of gardens in these texts are still an important source for scholars of Islamic gardens because they describe the emotional effect of gardens, and thus can be a source of inspiration for designers. For example, the story of the gardens of "Iram" in *The Thousand and One Nights*, narrated by Scheherazade, inspired the design of several gardens—not in the sense of a copy but as an ideal place of beauty and sumptuous materials.[213] Iram is described in the tale (and in religious texts) as a legendary city built for the King Shaddad who wanted his city to reflect the paradise that he heard about. He ordered the city to be built of expensive materials such as gold, silver, pearls, and rubies and to contain all kinds of trees and water fountains. According to the tale, the construction of the city took three hundred years to complete; however, Shaddad died before entering his city and all traces leading to Iram were hidden.[214] Many Muslim scholars such as Ibn Kathir (1301-1373) believed that the tale of Iram as narrated in stories is not real, but the fact that it was mentioned in the Qur'an as "Iram of the pillars. The like of which were not created in the land" gives its existence religious validity; in other words, it exists as a conceptual place known only via text.[215] In addition, the materials that Shaddad used in the construction of Iram should remind us of the description of paradise in the Hadith that refers to the same materials, gold and silver. In this way, we can see how the attributes of paradise mentioned in religious texts are repeated and used in other texts to describe an ideal, unseen heavenly place on earth.

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[212] Ruggles, *Islamic Gardens and Landscapes*, 75.
[213] Ibid.,76.
[214] The tale of Iram is mentioned in religious narratives see: Shaykh As-Saduq, "Shaddad and his Paradise, those who has very long life-spans," in *Kamaaluddin wa Tamaamun Ni'ma*, vol. 2, translated by Sayyid Athar Husayn S.H. Rizvi (Mumbai: Az-Zahra, 2015); see Chapter 54. Online version URL: https://www.al-islam.org/kamaaluddin-wa-tamaamun-nima-vol-2-shaykh-saduq/chapter-54-shaddad-and-his-paradise-those-who-had.
[215] Qur'an 89: 7-8.

Throughout history, Islamic gardens were a stage where Muslim elites satisfied their ambitions and imaginations, inspired by fictional and mythical stories such as "Iram." Thus, in the tenth century palace of Madinat al-Zahira in Cordoba, where the Umayyad ruler al-Mansur had a large pool in his garden filled with waterlilies, we can understand that this was an indulgence in fantasy inspired by such literary descriptions. When he was expecting foreign visitors, he ordered that silver and gold pieces be inserted in the flowers, and when the flowers opened in the morning, he invited his guests to the garden so they could see the gold blooming flowers.[216] In this way, the Umayyad prince was able to demonstrate his power, similar to the way that Shaddad used silver, gold, and precious materials in the construction of Iram, in a fantastic manner where the unreal became real, with the garden enhanced by human artifice.

Poetry and visual art representation can provide a mixture of real and fictional knowledge about gardens in a romantic fashion, and thus be a valuable source for scholars of Islamic gardens. For example, in her study of eighteenth century Istanbul, Shirine Hamadeh used a poem by the famous Ottoman poet Ahmed Nedim Efendi (1681-c.1730) and eighteenth century paintings to explain the shift in Ottoman garden traditions from the fifteenth century private royal gardens to new public gardens that promoted visibility and flexibility in a more foreign style.[217] Nedim wrote several poems about the eighteenth century Ottoman imperial palace Sa'dabad and its garden, capturing the spirt of the Tulip Period and demonstrating the shift in Ottoman Garden tradition. In his poems, he describes the elements of the garden—cypress trees, drinking fountains, and the pool—and the sensory experience of it, and he compared it with other gardens in Istanbul and

[216] Ruggles, *Islamic Gardens and Landscapes*, 80.
[217] Hamadeh, *The City's Pleasures.*

Isfahan.[218] These poetic descriptions are important source of information since the garden no longer exists:

Let us give a little comfort to this heart that's wearied
Let us visit Sa'dabad, my swaying Cypress, let us go!
Look there is a swift caique all ready at the pier below.
Let us visit Sa'dabad, my swaying Cypress, let us go!
There to taste the joys of living, as we laugh and play about,
From the new-built fountain drink a draught such as Tesnim pours out,
Them to watch enchanted waters flowing from the gargoyle spout,
Let us visit Sa'dabad, my swaying Cypress, let us go!
For a while we'll stroll beside the pool. And then another while
Off we'll go to view the palace, moved to marvel by its style;
Now we'll sing a ballad, now with dainty verse the hours beguile,
Let us visit Sa'dabad, my swaying Cypress, let us go![219]

Contemporary designers of Islamic gardens can use poetry and visual art representation in their Islamic garden and landscape projects in different ways. For instance, the designers of the Aga Khan Garden in Edmonton researched various Islamic poetry and literature to come up with a list of plants for their project. Thomas Woltz stated that "his highness [the Aga Khan] referred us to Islamic miniature paintings to try to build a vocabulary of what plants would be there. Our team cross-referenced what grew at the University of Alberta's botanical garden (the location of the Aga Khan garden) with plants mentioned in traditional Islamic poetry and literature. We got a body of plants substantial enough to give us a satisfying horticultural display."[220] In other words, the Aga Khan (as a patron) and the design team wanted to select plants that could survive in Alberta and, at the same time, have a connection to Islamic gardens.

In a slightly different manner, poetry and art can also tease the imagination of contemporary designers. In an interview, the garden designer Kamelia Zaal acknowledged the

[218] Shirine Hamadeh, "Ottoman Expressions of Early Modernity and the 'Inevitable' Question of Westernization," *Journal of the Society of Architectural Historians* 63, no. 1 (March 2004): 40. The Tulip Period is the first three decades of the eighteenth century, under the reign of Ahmet III in Istanbul.
[219] Cited in Kuban, *Istanbul, An Urban History*, 343.
[220] Thomas Woltz, interviewed by the author, September 2019.

influence of poetry and art in her design work.[221] One of the books that inspired her is *The Calligrapher's Garden* by Hassan Massoudy, which contains a series of calligraphies with short excerpts of poems about gardens.[222] Zaal uses calligraphy in her garden design, and interestingly the names she invents for her gardens are also very poetic, an example being "The Beauty of Islam" and "The Seal of the Prophet." Similarly, the Turkish American designer Fazil Sütçü decorated the main gate of the Bakewell Ottoman Garden in St. Louis with an inscription of a contemporary poem by the Turkish musician Kudsi Ergüner. These cases show us the importance and the effect of poetry for both designers and scholars in the field of Islamic gardens (figure 25).

The aforementioned sources and documentary evidence about historic garden sites show how an Islamic identity is first created through a connection to space and time. The interviews with designers show how the surviving historic garden sites can provide valuable information and personal experience for contemporary designers of Islamic gardens, and demonstrate why restoring and preserving those historic sites is essential. The historical documentary evidence on the other hand provide mystical, scientific, and fictional information about the history of Islamic gardens and its development throughout time, which is equally important. With these fundamental elements in mind, I ask, what are the various ways in which contemporary designers more freely approach concepts like "modern" and "traditional" when building Islamic gardens in the present?

DESIGN TACTICS: MAKING CONNECTIONS TO THE PAST AND TRADITION

Today, Islamic gardens are a key component in the design of many residential, religious, and institutional Islamic architecture projects around the world, including museums, hospitals, university campuses, cultural centers, mosques, government buildings, and hotels. In addition,

[221] Kamealia Zaal, interviewed by the author, April 2017.
[222] Hassan Massoudy, *The Calligrapher's Garden* (London: Saqi Books, 2009).

Islamic gardens also have become part of the fabric of the urban landscape of cities. In the urban context, Islamic gardens and landscape projects engage with various environmental, social, economic, and cultural issues of contemporary societies. Similar to historical Islamic gardens that had recognizable forms and functions, contemporary Islamic gardens (of various types) have their own set of forms and meanings.

The majority of designers of Islamic gardens and landscape that I have interviewed follow design approaches that counter the early modern international style with its implied universalism that neglects cultural traditions and histories of the built environment. Instead, they look to the past ,through both site observation and documentary evidence, to design and create an identity for their Islamic gardens. Many of them were inspired by long-established classical styles such as Ottoman (e.g., Fazil Sütşü in the Bakewell Ottoman Garden in St. Louis, 2006), Mughal (e.g., Thomas Woltz in the Aga Khan Garden in Edmonton, 2019), and Persian (e.g., Tom Stuart-Smith in the King's Cross project in London, expected 2020). Nonetheless, contemporary landscape designers have the freedom to connect with past traditions and represent cultural knowledge in different ways, using design tactics such as imitation, paraphrase, hybridization, abstract, and adaptation.[223] These tactics can be used alone or in combination with other tactics based on the type and requirements of the landscape project, along with the personal preference of the designer and the patron.

The *imitation* approach is used by designers to produce a copy of an earlier work of Islamic gardens. This model of connection to the past through "quotation" is not popular among the

[223] The design tactic terms are adopted from David Leatherbarrow, John Dixon Hunt, and Laurie Olin, "Some terms for the transposition of gardens between countries," *Studies in the History of Gardens & Designed Landscapes* 31, no. 4 (2011): 355-56. See also Raffaella Fabiani Giannetto ed., *Foreign Trends in American Gardens: A History of Exchange, Adaptation, and Reception* (Charlottesville: University of Virginia Press, 2016).

designers of Islamic gardens that I have interviewed, who prefer other methods of connecting to the past. For example, when designing the Aga Khan Park in Toronto, Vladmir Djurovic stated,

> We did a lot of research of what is an Islamic garden and how it changed dramatically from one continent to another depending on the cultural differences. We found that Islamic gardens evolved throughout time and place. In every place, you will see that the people retranslated it in their own way adding elements that they know how to make and adapting it to their climate. We were certain in our project in the West to not copy any historic Islamic garden. If you just copied the past, it will look completely out of place; it will not have an impact."[224]

In other words, Djurovic believes that using imitation excludes creativity, originality, and innovation from the design process.[225]

Despite the unpopularity of the imitation approach, it has been used to create the sense of an accurate cultural representation, as in the case of the replica of the Alhambra by Owen Jones at the Crystal Palace Exhibition. Other designers have used imitation to meet the aspirations of their clients. A notable example of this is the replica of the fifteenth century Alhambra's courtyards created for Prince Abdualziz bin Saud, the son of the late King Fahd of Saudi Arabia, inside his mega palace complex in Riyadh.[226]

Prince Abdualziz is known for his deep admiration of Islamic Andalusia and its cultural heritage, and in particular, holds nostalgia for the Alhambra Palace in Granada. In 1997, he hired OGER International to create a replica of the Alhambra's buildings and its splendid gardens, including the Court of the Myrtles with its Comares Tower, Court of the Lions, and the Partal.[227] To achieve this kind of sophisticated replication, OGER International collaborated with many

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[224] Vladimir Djurovic, interviewed by the author, July 2018.
[225] However, imitation has its merits in many cultures, including in China—where designers have practiced architectural mimicry. See Bianca Bosker and Jerome Silbergeld, *Original Copies: Architectural Mimicry in Contemporary China* (Honolulu: University of Hawai'i Press, 2013).
[226] OGER International, "Construction of a Landscaped Garden in Riyadh." Accessed November 11, 2019. http://www.ogerinternational.com/our-achievements/infrastructures-urbaines-et-paysageres-en-gb/r-alisation-d-un-jardin-paysager-riyadh-abf-5.
[227] Ibid.

prestigious architects, landscape designers, artists, and historians from France, Morocco, and Spain. In addition, they conducted an extensive survey to map the walls and floors of the Alhambra. The Saudi version of the Alhambra was built using Andalusian traditional building methods and with historical and artistic precision.[228] In this regard, the Saudi Prince wanted to show off his capability for rapidly building a perfect replica of this magnificent piece of architecture in a very different context. For the Prince, the Alhambra is a precious token that directly links him to the glorious past of the Arab Muslim rulers of Andalusia.

The replication of the architectural features of the Alhambra (e.g., walls, columns, and decoration) and its gardens was possible in the new location. However, the authentic connection of the Alhambra with its natural landscape of mountains, water systems, and trees was not possible in the urban desert city (figures 26-29). In this new context, the Alhambra's buildings and gardens were adopted into Prince Abdualziz's mega complex, which also contains replicas of other Andalusian celebrated buildings such as the Mosque of Cordoba and the Giralda of Seville.[229]

While imitations are meant to directly copy, the *paraphrase* method is a restatement or interpretation of the meaning and ideas of the original design using similar arrangements and design vocabulary that is suitable to the new context. The paraphrase technique is favored by many designers because it allows them to have some level of creativity but in a more restricted setting to ensure clarity and the correct expression of meaning. This method has been applied in the design of many Islamic gardens such as the landscape of the Mughal Sheraton Hotel (1976) in Agra, designed by ARCOP Design Group in collaboration with the landscape architect Ravindra Bhan to capture the values of the Mughal architectural and garden tradition in a modern idiom.[230] In

[228] Karmentux Marín, "La Alhambra clónica del desierto" (The Alhambra clone of the desert), *El País*, March 21, 1999. Accessed November 11, 2019. https://elpais.com/diario/1999/03/21/cultura/921970805_850215.html.
[229] Ibid.
[230] "The Aga Khan Award for Architecture. Mughal Sheraton Hotel. Award cycle 1978-1980 Report."

particular, the five-star hotel was built to accommodate the vast numbers of international tourists and visitors to two iconic architectural world heritage sites, the Taj Mahal and Fatehpur Sikri (figure 30).

The hotel is organized around three internal landscape courtyards that are connected by a network of walkways and features various landscape elements such as swimming pools, planters, seating areas, and landscape terraces. The hotel's landscape includes a formal Mughal-style garden, situated on the northern central axis that connects visually with the Taj Mahal. It consists of a long linear water channel with jets and cypress trees lined on each side. The water falls from the south terrace, decorated with *chini khana* niches, into the lower channel that terminates in a square pool (figure 31).[231] These landscape design elements or vocabulary (e.g., geometric layout, linear narrow water channel, terraces, and *chini khana* niches) were common in traditional Mughal gardens and were paraphrased by the designer to emphasize the Mughal style without imitating any specific garden.

Another common tactic used in Islamic garden design is the *hybridization* of two or more distinct types or styles. This approach allows designers to combine various design styles and elements in their work. In some cases, designers aim to synthesize Islamic and foreign styles as way to promote cross-cultural aspects between them. For instance, the Oriental Garden in Paris designed by the French landscape architect Michel Péna (discussed in chapter two) exemplifies this approach. The Oriental Garden was deliberately designed in a hybrid style that combined Islamic and Western design elements, such as the Western art of anamorphosis rendered in an

[231] Renata Holod and Darl Rastorfer, "Mughal Sheraton Hotel," in *Architecture and Community*, edited by Renata Holod and Darl Rastorfer (New York: Aperture, 1983), 200-209.

Islamic star pattern with water features, to highlight the shared culture between the Muslim and non-Muslim world.[232]

Similarly, the architecture and landscape of the La Mamounia Hotel (2009) in Marrakech was designed in a hybrid style that combined Art Deco and the Moorish style with columns, arcades, mosaic surfaces, Andalusian fountains, indoor garden courtyards, and orchard gardens outside the building. The indoor courtyard was designed as a contemporary interpretation of classic Moorish courtyard with a central decorated fountain. The orchard garden has a formal layout, with a central axial alley framed by ancient olive trees that divides the garden into six parts. Along the main alley is a pavilion called the *menzeh*. The gardens feature a variety of plants trees such as orange, lemon, palms, cypress, and thousands of flowers and roses.[233] The hotel, with its indoor and outdoor Islamic gardens, provides a mixture of oriental and occidental experiences for twenty-first century travelers and tourists (figures 32-33).[234]

The *abstract* model gives the designer of Islamic gardens the freedom to investigate new design possibilities and introduce new meaning to the built work while adhering to the underlying values of Islamic landscape design (as perceived by the designer). The designer's effort to link their design works with the past using this method is often more intangible than tangible. Understanding an abstract design work may require explanation from the creator and an open imaginative mind from the audience. The abstract approach has no limitation when it comes to the source of design inspiration. For example, Thomas Woltz and his team used the abstract tactic in

[232] Michel Péna, interviewed by the author, May 2016.
[233] La Mamounia Marrakech, "Garden." Accessed November 11, 2019. https://www.mamounia.com/en/garden/park.html
[234] See: Fritz Gubler and Raewyn Glynn, "La Mamounia," *Great, Grand & Famous Hotels: Facts, Tales, Secrets and Scandals* (Crow's Nest, Australia: Great, Grand & Famous Pty Ltd., 2008), 224. In 1923, the eighteenth century La Mamounia Palace was converted and redesigned by Henri Prost and Antoine Marchisio into a five-star hotel to accommodate European clientele. The hotel was expanded and renovated several times with major refurbishments, completed in 2009.

the first design scheme for the Aga Khan Garden in Edmonton (completed in 2018). The original selected location for the garden was a large circular wetland site, known as the Imrie Wetland Preserve in Alberta (figures 34-35). Inspired by the site characteristics and the Islamic garden tradition, the design team proposed an abstract "circular *chahar bagh* that would serve as a 'productive landscape'."[235]

In an interview, Woltz explained the design idea for the first design proposal of the Aga Khan Garden. He stated that "we [the design team] took the idea of four axial pavilions and instead of facing a *chahar bagh*, we eliminated the *chahar bagh* and made a circular walk that was permissible in the wetland setting. So, in some way, it became a circular *chahar bagh* that you really don't see. We are basically taking the four squares and morphing it and using the pavilions to initiate the axis and mentally completing it."[236] In other words, the designers reimagined the Islamic *chahar bagh,* with its typical geometrical square or rectangular layout and intersecting pathways, as a relaxed layout that dissolves or harmonizes with the natural landscape. In this abstract *chahar bagh* (which was not realized)*,* the Imrie Wetland when flooded by water would have replaced the typical geometric narrow water channels and central fountain found in the classic *chahar bagh.*

Other designers invent abstract forms and ideas from the natural and cultural context to design Islamic garden and landscape projects. The Islamic identity in these works is symbolic, not always of the classical forms and styles (e.g., Ottoman, Moorish), but rather of the local cultural and natural landscape. For example, the Bagh-e Ferdowsi (1997) in Tehran was designed by the Baft-e Shahr firm as an abstract interpretation of the traditional paradisiacal Persian garden with

[235] Thomas Woltz, interviewed by the author, September 2019.
[236] Thomas Woltz, interviewed by the author, September 2019.

respects to the cultural and natural characteristic of the site.[237] The majority of historic Persian Islamic gardens (e.g. Bagh-e Fin) were designed as private enclosed gardens with a geometric layout, decorated water features, and a variety of productive and aromatic plants to create a paradisiacal landscape contrary to the outside desert landscape. Unlike the historical Persian gardens, Bagh-e Ferdowsi is a public park, is not enclosed, has an informal layout, and was not intended to create a separation from the outside world. The design directly emerged from the rigid natural topography and environmental features of the site. The connection to the past in Bagh-e Ferdowsi achieved through an abstract interpretation of various traditional garden elements, such as water channels and fountains, and through its cultural and environmental design approach.

Similarly, HOK (Hellmuth, Obata + Kassabaum) used the abstract approach to design the architecture and landscape of the King Abdullah Petroleum Studies and Research Center's mosque (2014) in Riyadh. Inspired by Islamic traditions and the regional landscape, the contemporary mosque in Riyadh was built as a concrete cube perforated with *mashrabiya* patterns (latticework) and covered with an outer skin of glass. The building is situated in the middle of formal Islamic courtyards within a reflection pool with an elevated glass bridge.[238] The landscape was designed to evoke the values of Islamic gardens through the geometrical layout, Islamic patterns, water features, and connection to the surrounding desert landscape (figures 36-37).

In large urban landscape projects, designers tend to use mixed methods that combine various tactics. For example, in Al-Azhar Park (2005), Sites International, in collaboration with Sasaki Associates, used various techniques to construct the garden's Islamic identity including

[237] Jolyon Leslie, "Bagh-e-Ferdowsi: Technical Review Summary," *The Aga Khan Award for Architecture* (2001), 1-6. Accessed November 11, 2019. https://www.akdn.org/sites/akdn/files/media/documents/akaa_press_kits/2001_akaa/Bagh-e-Ferdowsi%20-%20Iran.pdf.
[238] Hellmuth, Obata + Kassabaum (HOK), "King Abdullah Petroleum Studies and Research Center Community Masjid, Riyadh, Saudi Arabia," 2019. Accessed November 11, 2019. https://www.hok.com/projects/view/kapsarc-community-masjid-mosque/.

abstract, hybridity, and paraphrase. In particular, the designers paraphrased and abstracted ideas from the Fatimid (909-1171) design tradition in Egypt to stress the architectural identity of the surrounding Fatimid historical sites and, perhaps, the personal identity of the Aga Khan IV (the patron of the project).[239] In an interview, Maher Stino stated that "our approach to the Al-Azhar Park design was to take the values, themes and ideas from the Muslim people who did the gardens at that time. We looked at how Muslims were able to use a minimum amount of water with a maximum amount of visual enjoyment and we applied those with modern interpretation. Everything that we designed here [Al-Azhar Park] is not imitating or mimicking any existing Islamic design."[240]

The Park's layout consists of a hybrid composition of symmetrical and organic design. It has a ceremonial geometrical central axis that stretches from a hilltop restaurant descending across the formal garden that consists of six *chahar baghs*, passing through a walkway lined with palm trees, until it reaches the main plaza. The axis continues from the main plaza and passes through a palm walkway to the sunken garden area. From this point, the axis pivots, shifting its direction towards the west, ending in a café that opens onto an artificial lake. The formal section of the park is surrounded by a network of informal curvilinear pathways and more loosely designed landscape areas, which express a more naturalistic style (figure 38).[241]

The transposition of the Islamic garden from its local and regional context to the global context requires a certain degree of *adaptation*. Unlike architecture, gardens are a living entity that

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[239] Maher Stino, interviewed by the author, July 2015. See also: Rashti, "The Development of Azhar Park," 149-163. The Fatimids were Ismaili Shi'i dynasty (a branch of Islam) in North Africa founded by Abdullah al-Mahdi Billah. The Aga Khan is the current leader of the Sh'ia Imami Ismaili Muslims around the world.
[240] Maher Stino, interviewed by the author, July 2015. Stino is the co-founder and principal of Sites International.
[241] Stefano Bianca, "A New Path to Urban Rehabilitation in Cairo," in *Cairo: Revitalising a Historic Metropolis*, edited by Stefano Bianca and Philip Jodidio (Turin: Umberto Allemandi & C. for Aga Khan Trust for Culture, 2004), 69-148; Aga Khan Development Network (AKDN), *Al-Azhar Park, Cairo, and the Revitalization of Darb Al Ahmar Project Brief* (Geneva: The Aga Khan Trust for Culture, 2005); Ruggles, *Islamic Gardens and Landscapes,* 168.

function within a larger ecological system that change throughout time. While the design, style, and architectural features of any of the aforementioned approaches can be moved to any location, as occurred in the Alhambra replica in Riyadh, designers must take into consideration environmental factors such as climate, soil, topography, as well as cultural factors to ensure better performance. For example, in the King's Cross Jellicoe Garden, Stuart-Smith's goal was to design a contemporary Islamic garden that avoided direct quotation of any historic Islamic garden, thus avoiding the problem of favoring any single regional tradition. Nonetheless, he wanted his design "to read typologically correct" as Islamic and also be relevant to the geographical and cultural context of London.[242] According to the designer, this approach was reasonable and necessary because the garden is located in a country that is not predominantly Muslim and will be used mostly by non-Muslims.[243] To accomplish his ideas, he used various design tactics such as adaptation, paraphrase, and abstraction from both Islamic gardens in general and from the Bagh-e Fin near Kashan, Iran (1590) in particular. The majority of the plants in the projects were selected to suit the climate of London (figure 39).

Similarly, new public gardens and parks have been constructed in the West to represent foreign cultures and more importantly to embrace and appreciate cultural pluralism. We see this in the case of Japanese-style gardens, Chinese-style gardens, and Islamic-style gardens. In all of these, contemporary designers use various tactics, such as imitation, paraphrase, and abstraction, to evoke certain ideas or images that represent culture. This type of representational design is typically seen in museums, exhibitions, botanical gardens, and theme gardens. For example, in the UK, the Alhambra Garden (1999) at Roundhay Park was designed by Keith Jackson and Jane Cash of the Leeds City Council as a direct representation of the historic gardens of the Alhambra and

[242] Tom Stuart-Smith, interviewed by the author, July 2017.
[243] Ibid.

Generalife in Granada. It was built as part of an ambitious plan to establish the "Gardens of the World" at Roundhay Park, which was not fully realized.[244] The Alhambra Garden at Roundhay Park has a linear rectangular *chahar bagh* layout with a narrow water channel and fountain jets surrounded by a variety of plants suitable to the local climate (figure 40).[245]

In the United States, the temporary installation of an Islamic Andalusian Garden (2001) at the New York Botanical Garden (NYBG) was designed in the classical Islamic *chahar bagh* form, in which the garden is divided into quadrants by cross-axially water channels with a central water fountain. All the plants displayed in the exhibition—such as lavender, jasmine, rosemary, and citrus trees—are associated with the gardens in Islamic Andalusia and the Alhambra in particular (figure 41).[246]

A similar strategy was used in New Zealand by Peter Sergel, director of the Hamilton Gardens, in designing the Indian Char Bagh Garden (2005). In his design, he imitated and paraphrased various elements from Mughal riverside gardens such as the seventeenth century Taj Mahal and Lal Mahal in Agra as representations of an Islamic paradise garden. The Char Bagh (an alternative spelling of *chahar bagh*) is enclosed by walls and laid out in a classic four-part design, with crossing axial water channels and central raised fountains that divide the garden into four flower carpet beds. On one end, there is an arched pavilion design in a Mughal style that allows visitors to gaze through the garden from one side and into the Hamilton Gardens from the other side (figure 42).[247]

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[244] Gilliat-Ray and Bryant, "Islamic gardens in the UK: Dynamics of Conservation, Culture and Communities," 59-60.
[245] Author's site visit, July 2017. Discussed in chapter one.
[246] Edward Rothstein, "Temptations Found in Gardens of Islamic Delight," *The New York Times*, May 20, 2011. Accessed November 11, 2019. https://www.nytimes.com/2011/05/21/arts/design/spanish-paradise-gardens-of-the-alhambra-at-the-new-york-botanical-garden-review.html
[247] Hamilton Gardens, "Indian Char Bagh Garden," 2019. Accessed October 2, 2019. https://hamiltongardens.co.nz/collections/paradise-collection/indian-char-bagh-garden/.

In Canada, the Aga Khan Garden (opened in 2018) was gifted by the Aga Khan as a symbol and physical manifestation of cultural pluralism. As mentioned earlier, Nelson Byrd Woltz proposed an abstract circular *chahar bagh* layout for the garden. However, when the site was moved to a nearby location, the design team proposed a new master plan that responded to the changed site requirements. In the final design, instead of abstracting the *chahar bagh* layout, the design team paraphrased and adapted the classical Mughal style, with its *chahar* bagh and water features, to a new geographic context while, and more importantly, utilizing the garden as a botanically productive site that would be an "agent for positive change" in the region.[248] The Aga Khan Garden with its Mughal *chahar bagh* form was intended to produce native plants seeds that will be planted to restore the disturbed wetland ecology of Alberta, affected by extensive tar sands exploitation. The *chahar bagh*, according to the designer, provides a controlled environment that will allow university researchers to plants seeds for various types of wetland sites. In this way, the Aga Khan Garden is not only serving as a social pleasure space but also as a productive garden (figures 43-44).[249]

In summary, this chapter examined the available knowledge about Islamic gardens and how contemporary designers use it to construct an Islamic identity in garden design. As shown above, designers can obtain knowledge and personal experience about Islamic garden through visiting major Islamic gardens and architectural sites (which I consider a connection to "space"). They then reinforce this knowledge through various text-based literature and representations (or a connection to "time") manifested in religious, scientific and fictional texts that give them access to history. Ultimately, they apply this knowledge in their work using design tactics such as imitation, paraphrase, abstract, hybridization, and adaptation. All these various design approaches

[248] Thomas Woltz interviewed by the author, September 2019.
[249] Ruggles, "An Islamic Garden in Edmonton," 267-271.

play an important role in constructing the identity of Islamic garden in the present. As I demonstrated, designers can follow one particular approach or combine multiple approaches. However, the question of which approach is more valid than the other remains subjective and is related to the type of the project, location, and the intentions of the patron and designer. The majority of contemporary Islamic gardens discussed in this chapter follow multiple design approaches, and rarely can we find one dominant strategy, such as in the case of the Alhambra in Saudi Arabia. However, for the purpose of my research, I highlighted the primary approach that I believe is more visible in each project. The next three chapters examine three case studies of contemporary Islamic gardens built in Europe and North America in-depth to understand how Islamic gardens are represented and how their identity is constructed.

CHAPTER 5: THE MUGHAL GARDEN IN BRADFORD

Life in the Mughal garden is envisioned in conflicting terms: exotic yet practical, orderly but decadent, sensitive but brutal. The Mughal garden is…one of the finest physical and symbolic representations of paradise.

—James L. Wescoat, Jr.[250]

In 2001, a Mughal-style garden was constructed at Lister Park by the City of Bradford Council as a recognition, celebration, and representation of the large Muslim South Asian community in the Bradford cosmopolitan area. The addition of the Mughal garden was a part of the renovation plan of Lister Park, supported by a grant from the Heritage Lottery Fund. The City of Bradford design team paraphrased and adapted the traditional Mughal style (1526-1858) to design a contemporary representation of a garden in Bradford with respect to the local environment and the cultural significance of the historical site. The new garden, as we will see in this chapter, was intended to promote cultural pluralism in Bradford and allow the large Muslim diasporic community residing there to maintain and express their cultural identity. In addition, the garden was designed to represent the historical connection and shared cultural heritage between the South Asia and the UK through hybrid design features.

Based on interviews, site observation, and a review of primary and secondary sources, this chapter tells the story of the Mughal garden at Lister Park. It explores the patronage role of the City of Bradford and their design team in constructing the garden's Islamic identity, asking how the garden is represented and used as a medium to promote cultural diversity and community togetherness in the built environment. In particular, the case of the Mughal garden in Bradford will help to answer the question of how contemporary designers negotiate with various local conditions

[250] James L. Wescoat, Jr., "Picturing an Early Mughal Garden," *Asian Art* 2, no. 4 (1989): 59.

and Islamic cultural heritage to construct gardens with clear Islamic identity in a context that is not predominantly Muslim.

A TOUR OF THE MUGHAL GARDEN

The Mughal garden is located on the southwest side of Lister Park, parallel to a formal Victorian-style garden and overlooked by Cartwright Hall, a neo-Baroque-style museum and art gallery. The garden is laid out on a rectilinear plan in an axial geometrical *chahar bagh* style, covering approximately 3,600 square meters. The garden has three entrances. The north entrance provides access to the garden from the upper level terrace adjacent to Cartwright Hall. From the elevated level of this plaza, there are stairs leading down into the garden. The west entrance has a stairway and a ramp next to it that takes visitors from the upper level of the Victorian formal garden down into the Mughal garden. The south entrance provides a gentle slope leading from the Lister Park open lawn area to the garden (figures 45-46).[251]

Approaching from the north side, the site's highest point is a terrace that provides a sweeping vista of the entire garden. The terrace is surrounded by a balustrade that is fronted by a decorated row of seven pointed curved arches, the first and seventh of which feature textured cascades, known in the Mughal garden tradition as *chadars*. The water flows down the stepped slope of the two *chadars*, falling downward toward the garden, where they merge into a single linear stone-lined canal that forms the central axis, the main feature of the garden (figures 47-48).

Running from this water feature toward the south, the canal expands to frame a raised quadrilateral platform—known in the Mughal tradition as *chabutra*—with a cascade fountain in the center and flat bridges that connect the outer path with the inner platform (figure 49). The canal merges again as an axial linear stream with side branches leading to six square pools with one

[251] Author's site visit, July 2017.

fountain at each end and one single fountain along the main canal at the garden's midpoint. These small dead-end square pools are set in a flat rectangular area of turf bordered by box hedges (figure 50). Immediately west of this area, and raised on a higher terrace, there is a large sloped grass lawn with a row of juniper trees (*Juniperus chinesis*)—an alternative to the cypresses found more typically in Mughal gardens in South Asia—on the lower edge and hawthorn trees (*Crataegus monogyna*) in the southwest corner. The Mughal garden's opposite edge is also bordered by a row of juniper trees, beyond which is a grass area and a hedge wall framed from the outside by a lush green backdrop of trees.

At the south end, the axial canal terminates in a large circular pool with a central fountain and large copings used for sitting. The various elements of the garden are connected by the paved walkway, made from Yorkshire stone, which forms a loop around the central axial canal, thus encouraging visitors to make a circuit. The garden is enclosed by walls on the north and west sides and by dense hedges from the other sides (figure 51).

In the north corner of the garden, there is a seating area shaded with a flowering ash tree (*Fraxinus ornus)*, a bed of flowers and shrubs behind it, and an explanatory sign for the Mughal garden. The sign clearly labels the garden as Mughal and explains how the iteration in Bradford follows the traditional Mughal style and how it is linked to the Cartwright Art Gallery:

> Mughal Gardens: These gardens have been modelled on the fabled Mughal gardens of Northern India and Pakistan. Most of the Mughal Emperors (Mughal rule over the Indian sub-continent extended mainly from the sixteenth to nineteenth centuries) were not only great patrons of art and architecture but also lovers of nature, particularly all forms of flora. Mughal Emperors commissioned a number of beautiful gardens including the Shalimar gardens in Srinagar, Kash[m]ir and the garden of the legendary Taj Mahal in Agra. Formal Mughal gardens are a geometric ordering of nature. The avenue of trees, pathways, flowering plants, tumbling water cascades and graceful fountains are a wonderful example of fusion between Muslim and Hindu styles. The very picture of tranquility, Mughal gardens usually provided a majestic setting for a mausoleum or a palace. The Mughal gardens of Lister Park too follow this tradition, since they link in a number of ways with Cartwright Hall Art Gallery. The gardens use the same mellow Ashlar sandstone as

Cartwright Hall. The object in the permanent collections of Cartwright Hall also encompass different cultures, including many fine works of art that come from the Indian sub-continent.

BRADFORD, LISTER PARK AND THE MUSLIM COMMUNITY: HISTORICAL BACKGROUND

Bradford is a major city in the metropolitan district of West Yorkshire, in northern England, a district that incorporates other towns including Shipley, Bingley, Keighley, and Ilkley. It is located in the eastern moorland region of the South Pennines (the southern part of a range of mountains and hills in England), dominated by eastern slopes dropping from upland in the west with sandstone and carboniferous rock (coal-bearing) soil. It has several valleys and rivers such as River Air, Bradford Beck, and Carr Beck. It experiences a maritime climate with relatively cool summers and winters of annual temperatures averaging 5.1 to11.8 °C. There is significant rainfall throughout the year with an average precipitation 1024.1 mm.[252]

Bradford, like many cities and towns in England, experienced massive and rapid urban and industrial development during the Industrial Revolution in the eighteenth and nineteenth centuries. With this growth, many immigrants came to Bradford under the guest worker scheme to work in the manufacturing sector, and this included large numbers of Muslims from Pakistan, India, and Bangladesh. By the mid-nineteenth century, Bradford had emerged as a center for textile manufacturing and trade, which brought substantial wealth and prosperity to the city.[253]

In 1870, Samuel Cunliffe Lister, the owner of Manningham Mills in the Bradford area, decided to sell his residence and its estate, which covered an area of 22 hectares, to the Bradford City Corporation. He sold it for a price below market value but on one condition: that the land

[252] Met office, "UK Climate Average: Bingley SAMOS station," Accessed November 6, 2018. https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcwdjeczy.
[253] Pletcher, "Bradford England, United Kingdom."

would be used as a public park, a generous offer which the Corporation accepted. The site was named "Lister Park" and they built a statue of Samuel Lister to honor him. The design and construction of the park began the following year, but the complete layout of the park was not finished until 1903 with the creation of the Cartwright Hall. Thereafter, the site was used only as a public park, except for a short period during the Second World War when it was used for agricultural production.[254]

The historical records from the Historic Building and Monuments Commission for England (known today as Historic England) describe the original design elements of Lister Park. Based on the records, one of the first landscape features constructed in the park was the lake with its four islands, fed by Carr Beck, a natural stream that runs through the park from the west end.[255] According to the historical records, three landmark gateways were constructed in the Park located on Oak Lane, Keighley Road, and North Park Road. The Oak Lane gate had ornate piers and ironwork, while the Keighley Road gate had a giant castellated arch with turrets, and the North Park gates were designed in a Baroque style to complement the architectural style of the Cartwright Hall next to them.[256] Besides this, the park featured an open-air swimming pool, a botanical garden, a plant nursery, glasshouses, water elements, pavilions, terraced lawns, a woodland, a rockery area, a bandstand, and a formal Victorian-style garden situated south of Cartwright Hall.[257]

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[254] Historic Building and Monuments Commission for England (known as Historic England), "Lister Park," Parks and Gardens, legacy data system. List Entry number:1001222, Heritage category: Park and Garden National Heritage List for England. First listed on Dec1984. Description written: December 1998 Amended: March 1999 Register Inspector: CEH Edited: November 1999. https://historicengland.org.uk/listing/the-list/list-entry/1001222.
[255] For more information about Historic England, visit: https://historicengland.org.uk/about/what-we-do/historic-england-and-english-heritage.
[256] "9. Lister Park," in *Manningham Conservation Area Assessment,* City of Bradford Metropolitan District Council, 2005-2007, 217. https://www.bradford.gov.uk/media/2272/manningham09listerpark.pdf.
[257] Historic England, "Lister Park," Accessed December 21, 2019. https://historicengland.org.uk/listing/the-list/list-entry/1001222.

In 1984, Lister Park and many of its structures and features (including Cartwright Hall, the three gates, and the statues of Samuel Lister and Titus Salt) were registered under the Historic Buildings and Ancient Monuments Act of 1953 within the Register of Historic Parks and Gardens by Historic England as Grade II for their particular historical values.[258]

The textile wealth of nineteenth-century Bradford provided the capital to construct striking Victorian architecture and landscape projects such as Bradford Cathedral, City Hall, and Lister Park, among others, that can be seen throughout the city. The economic boom encouraged the Muslim guest workers to invite their family members (mostly wives and children) to join them and thus a new influx of Muslim immigrants came to Bradford. As a result, Muslims established a more permanent settlement in Bradford that included facilities such as a mosque, a Muslim cemetery, shops, and schools. The annual *Mela*, a festival for South Asian culture, has also been held at the Lister Park. In this way, the city became more cosmopolitan, representing a unique mixture of cultural identities.[259]

However, the textile industry in Bradford significantly declined during the late twentieth century due to the emergence of the global trade market.[260] As a result, Bradford experienced a massive drop in its fortunes, which depressed its urban and economic progress. Subsequently, employment became a significant challenge in Bradford, which had a devastating economic and social impact on society, including the British Muslim community for whom factory work was a significant area of employment.[261] In competition for scarce jobs, the city witnessed growing

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[258] Ibid.
[259] Charles Husband and Yunis Alam, "Ethnic Diversity and Creative Urban Practice: The Case of Bradford's Mughal Garden," *COLLeGIUM: Studies Across Disciplines in the Humanities and Social Sciences* 13 (2012): 97. Also see Frank J. Buijs and Jan Rath, "Muslims in Europe: The state of research," IMISCOE working paper (Amsterdam: University of Amsterdam, 2002), 4.
[260] Kenneth Pletcher, "Bradford England, United Kingdom," *The Encyclopaedia Britannica*, Last updated February 18, 2019. https://www.britannica.com/place/Bradford-England.
[261] Husband and Alam, "Ethnic Diversity and Creative Urban Practice," 97.

divisions among its people based on factors like religion, ethnicity, culture, and race.[262] Consequently, the city lost its civic pride and spirit of togetherness, and the idea of "otherness" (i.e., us vs. them) became entrenched, provoking issues such as ethnic segregation, racism, and discrimination.[263]

In response to these issues and concerns, in 2001 the Bradford District launched a new initiative, part of the "Bradford 2020" vision, which aimed to create "a District whose people respect and celebrate differences in gender, race, culture, and religion."[264] To do that, a review team was selected to explore all the issues and concerns of the communities across the district (focusing on the hidden and vulnerable voices) and suggest various methods, strategies, and an action plan to solve these issues and promote greater understanding and respect between communities. The idea was to involve all the key institutions in playing a positive role to bridge the communities, encourage multicultural interaction, promote social harmony, and more importantly, to establish civic pride through a collective common identity as "Bradfordians."[265]

The final report, titled *Community Pride Not Prejudice: Making Diversity Work in Bradford* (hereafter referred to as *Community Pride*), covered the scope of this initiative and listed many excellent private and public based projects and programs that resulted. For example, one of the key projects was the Keighley Asian Women and Children's Center, which promotes cultural diversity and awareness among children. Another project was the Manningham and Girlington Youth Partnership, which helps young people in these two areas (with a majority of South Asian Muslims) to improve their quality of life.[266]

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[262] Herman Ouseley, *Community Pride – Not Prejudice: Making Diversity Work in Bradford*, Bradford Vision, 2001, 1. http://www.tedcantle.co.uk/publications/004%20Bradford%20pride%20not%20prejudice%20Ouseley%202001.pdf.
[263] Ibid.
[264] Ibid., 2.
[265] Ibid., 1.
[266] Ibid., 17-18.

THE LISTER PARK DEVELOPMENT PLAN: A SENSE OF BELONGING AND PRIDE

As an outcome of the late twentieth-century economic decay, many important structures and features of Lister Park, such as the swimming pool, glasshouses, and rockeries, were removed and other park amenities and facilities gradually fell into decline.[267] The park turned into a place for gangs and other illegal activities, leading to a significant drop in the number of park visitors.[268] It was for these reasons that the Bradford City Council prepared a restoration and redevelopment plan for the park, submitted to the Heritage Lottery Fund in 1996.

The Heritage Lottery Fund (HLF) was founded in 1994 to fund a variety of heritage-related projects in the UK, including landscapes and parks. As the goal of the HLF is to help people appreciate and engage with their local heritage and meet their needs and expectations, it asked candidates for grants to demonstrate how they would manage, record, interpret, and explain their heritage (both natural and built) to the people. The program (which is ongoing) asks that projects provide a memorable experience and opportunities for people to enjoy heritage with a clear plan to welcome a diversity of users from various ages, ethnicities, and social backgrounds. Moreover, the funded projects should have an impact on the surrounding community, providing them with a sense of belonging and pride in their heritage.[269] Thus, the main aim of the Lister Park restoration and development plan was to accommodate and improve the experience of the visitors as well as to protect the park's historical significance as a Grade II registered site.[270]

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[267] Historic England, "Lister Park."
[268] Joy Leach and Hawarun Hussain, "Mughal Garden: Lister Park, Bradford," in *Ethnic Communities and Green Spaces: Guidance for Green Space Managers*, Black Environment Network, 2005, 93. http://www.ben-network.org.uk/pdfs_publications/Green%20Spaces%20Part%202.pdf.
[269] The Heritage Lottery Fund official website: www.heritagefund.org.uk
[270] "Mughal Garden: Proposal 17," in *The Restoration and Redevelopment Plan for the Lister Park*, Bradford City Council (submitted to the Heritage Lottery Fund 1996). Obtained from Ian Wood, the Principal Manager of Parks and Green Spaces.

The park service division of the City Council consulted thousands of local people during the early stages of the park renovation project to ask about their opinion and expectation of the renovation plan. They used different types of methods to reach out to people, including distributing questionnaires to the houses around the park and through community meetings.[271] According to authors Charles Husband and Yunis Alam, the majority of the feedback was positive, and based on the responses, the city council proposed a restoration of the park's structures and features.[272] The proposed plan included the renovation of Cartwright Hall and the bandstand along with the addition of new facilities and landscape features such as a children's playground, tennis courts, basketball courts, pedal boats on the lake, a café, and more interestingly a new addition in the form of a Mughal garden.[273]

MUGHAL GARDEN PROPOSAL: A NEW PARADISE IN BRADFORD

The intentions behind adding a Mughal garden to Lister Park and the main design concept were explained in "Proposal 17" of the restoration and development plan document. According to Proposal 17, the site selected for the Mughal garden was a linear semi-derelict hard area situated east of Cartwright Hall, used in the past by children for skating and bicycling.[274] However, over time, the surface of the site deteriorated, and children stopped using the space. Moreover, since the 1970s, the site was being misused as a temporary parking area for Cartwright Hall visitors, a function regarded as inappropriate by the city council (figure 52). The bid document for the renovations highlighted the opportunity to develop this neglected area as a Mughal garden to

[271] Husband and Alam, "Ethnic Diversity and Creative Urban Practice," 108; Roger Scales, interviewed by the author, July, 2017. Roger Scales is a landscape architect who worked with the design team for the Mughal garden.
[272] Ibid., 109.
[273]The Heritage Lottery Fund, "Bradford, Lister Park," Accessed December 20, 2019. https://www.heritagefund.org.uk/our-work/bradford-lister-park.
[274] "Mughal Garden: Proposal 17."

complement the heritage value of Cartwright Hall and its formal garden, and increase the number and diversity of visitors—particularly the South Asian Muslim community living around the park and the surrounding area of Bradford.[275] Proposal 17 states:

> The inclusion of a Mughal garden within the proposals for Lister Park is fundamental to creating harmony between the cultural exhibits in Cartwright Hall, the park and the cultural diverse community in Manningham and the wider area of Bradford…The linear site criteria provide an ideal opportunity to create a Mughal garden….The provision of a Mughal garden at the site will rejuvenate this semi-derelict area, increase the number and diversity of visitors to the park and will complement the historical features which are next to it. [276]

The traditional Mughal gardens are known for their simple symmetrical form and their social, economic, and environmental functionality.[277] The layout is typically square or rectangular with various levels divided into smaller units along a central axis. The main elements of the Mughal garden are water features (such as canals and *chadars*), pavilions, raised platforms, and a variety of plants. The Mughals were passionate about religious and secular symbolism and incorporated it into their garden design in different ways. For example, the *chahar bagh* formations with their intersecting water channels in Mughal tomb gardens, such as those at Humayun's Tomb (sixteenth century), are clearly a religious symbol referring to the sacred four rivers mentioned in the Qur'an. The presence of the emperor's tomb at the point of intersection of the axes drives this point home.

Many of these traditional Mughal garden features, such as the *chahar bagh* layout and the water channels, were paraphrased in the design proposal for the Mughal garden provided by the City Council to the HLF. The typical linear-rectangular layout of the traditional Mughal garden

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[275] Ibid.
[276] Ibid.
[277] James L. Wescoat and Joachim Wolschke-Bulmahn, eds., *Mughal Gardens: Sources, Places, Representations, and Prospects* (Washington, D.C: Dumbarton Oaks Research Library and Collection, 1996), 24-26. The Mughal dynasty (1526-1857) was founded by the emperor Zahir ud Din Muhammad Babur who was profoundly interested in the landscape and natural environment and had an especial interest in the construction of gardens.

was considered appropriate for formal reasons because of the preexisting shape of the selected site and also appropriate for cultural reasons because of the large South Asian Muslims in Bradford.[278] The bidding document contains a freehand overview perspective of the proposed Mughal garden design looking along the axis from the south end (figure 53). The general proposed layout and the features shown in the perspective were realized in the actual garden as built, with few exceptions. As one of the exceptions, the drawing shows a domed pavilion (*chhatri*) situated at the north end of the perspective, but this was excluded in the built phase. Also, the area in front of the pavilion is circular, rather than rectilinear as in the built garden, but it contains a large water feature.

To construct the Islamic identity in the garden, I believe, the design team relied on the text-based literature and representations of traditional Mughal gardens. In other words, the design team only experienced historic Mughal gardens through documentary evidence without actually visiting and observing them in person. The documentary evidence helped designers to connect with historic Islamic gardens through time, providing them with valuable historical information about them. However, as I discussed in chapter four, visiting historic Islamic gardens in person gives the designer a unique sensory experience and understanding that is not available in books. Thus, having both forms of knowledge about historic Islamic gardens (through a connection to space and time) is important to get a comprehensive understanding of their forms, function, and meaning.

The Lister Park proposal successfully met the HLF criteria in terms of its goals to provide long-term benefits for heritage, people, and communities both locally and nationally. Although not mentioned in the *Community Pride* report, the creation of the Mughal garden at the historical Victorian style Lister Park certainly reflects the goals and objectives of the *Community Pride* initiative. It is a clear manifestation, celebration, and representation of the South Asian cultural

[278] "Mughal Garden: Proposal 17."

heritage, which resonated with the large South Asian Muslim community in Bradford City and Manningham in particular. For instance, with a nod to the local community, the dress of the human figures (e.g., Pakistani *shalwar kameez* and English suits) in the perspective reflects the diverse community of the Bradford, including South Asian Muslim. In this way, the Mughal garden responded to one of the HLF's essential requirements, mentioned earlier, which asked the applicants to increase the diversity and the numbers of the visitors and make sure that the community is involved and satisfied with the restoration of the park.

According to Husband and Alam, although the community consultation shows that the majority of the people were in favor of adding the Mughal garden, which added value and credibility to the plan, some people, generally of white, European descent and generally older, were against the idea. To them, the Mughal garden was an intruder to Lister Park, changing its identity from a Victorian English park (as it had been previously) to an Asian or Islamic park. In other words, they considered it to be a symbolic threat to English culture.[279]

Nonetheless, in 1997, the City Council proposal to restore and develop Lister Park was approved by the HLF board of trustees with a total grant of £3.220,500 million. The Bradford Council also added £1million toward the improvement project.[280] The process to obtain the funds and the various successive stages took around four years after winning the essential bid (1998-2002).[281] The design and construction was a collaboration between several divisions within the Design and Construction Services including architects, landscape architects, and civil engineers, with no single designer able to take credit for the overarching idea or design.[282] In 1999, the site

[279] Husband and Alam, "Ethnic Diversity and Creative Urban Practice," 109.
[280] "9: Lister Park," 219.
[281] Roger Scales, interviewed by the author, July, 2017.
[282] Ibid.; The team included landscape architects Roger Scales, John Hogg, Chris Shepherd, Terry Martin, David Brickley; architects John Mitchel and D. Sykes; and planting drawings by Carol Unwin.

design of the Mughal garden, which included details of the water features, hardscape, furniture, and planting design, was completed (figure 54).[283] The traditional Mughal style largely inspired the new design, but it also had many fundamental differences, which merit discussion.

Most traditional Mughal gardens were connected to natural springs and designed to produce fruits and flowers, which hold a significant economic value.[284] However, in Bradford, the natural stream of Carr Beck that runs through Lister Park from the west is not linked to the Mughal garden. Instead, the water is pumped and recycled through underground pipes.[285] The landscape team selected plants with a Mughal connection whenever applicable, such as jasmine and tulips, but the majority of the selected plants were ornamentals common to the regional landscape, and agricultural production inside the new Mughal garden was not intended. The aim behind the local plant selection was "to ensure a pleasant and soothing atmosphere in the garden throughout the year."[286] However, Leach and Hussain reported that some local Asian people living around Lister Park, who have a passion for gardening, suggested that the new Mughal garden could have been a great place for allotment or a community garden.[287]

The majority of the early Mughal gardens in South Asia were private sites for comfort, recreation, and major rituals and they were not generally open to the masses. Only a few gardens built by individuals were more accessible.[288] In Bradford, the Mughal garden is essentially designed for public use, and all its activities and events are open to the community. Traditional

[283] Based on the original landscape working drawings. Obtained from Ian Wood, the Principal Manager Parks and Green Spaces.
[284] Irfan Habib, "Notes on the Economic and Social Aspects of Mughal Gardens," in *Mughal Gardens: Sources, Places, Representations, and Prospects*, edited by J. L. Wescoat, Jr. and J. Wolschke-Bulmahn (Washington, D.C: Dumbarton Oaks Research Library and Collection, 1996), 131.; Wescoat and Wolschke-Bulmahn eds., *Mughal Gardens*, 25.
[285] Leach and Hussain, "Mughal Garden: Lister Park, Bradford," 95.
[286] Roger Scales, interviewed by the author, July, 2017.
[287] Leach and Hussain, "Mughal Garden: Lister Park, Bradford," 96.
[288] Habib, "Notes on the Economic and Social Aspects of Mughal Gardens," 135.

Mughal gardens were usually associated with architecture, whether a palace, mausoleum, or a pavilion, and yet in Bradford, the proposed pavilion was not incorporated into the final design phase. In this way, the Cartwright Hall Art Gallery with its classical English style became the main architectural feature associated with the garden and its new cultural identity. To make the connection between the garden and Cartwright Hall more visible, the garden designers used the same mellow ashlar sandstone in the Mughal garden—as had been used in Cartwright Hall (figure 55).[289]

In its deviation from the typical Mughal garden form, the Bradford garden was still fulfilling its role as Mughal garden because this kind of adjustment and adaptation to the local climate, culture, and landscape are common in Mughal garden traditions. For example, gardens built in mountainous areas with cold winters such as the Bagh-e Babur (1528) in Kabul and Shalimar Bagh (1619) in Kashmir are not like the ones built in Agra, with its warm climate and flat terrain. Each location has special climatic and topographic conditions that require different solutions. In Kabul and Kashmir, the hilly landscape with natural springs was used to build a multi-terraced garden with a dynamic central water feature connected to the natural spring. In Agra, the flat landscape made it difficult to construct terraced gardens, but still, the Mughals took advantage of the natural landscape and resources whenever possible to create smaller hydraulic effects.

The Mughal garden design in Bradford is a result of a long historical process of cultural exchange between English and Mughal culture, which is evident in both the UK's and India's urban landscape. For example, the Rashtrapati Bhavan in New Delhi was designed by the British architect Edwin Landseer Lutyens in a Neo-classical architectural style with Indo-Saracenic motifs. [290] The palace has a large so-called "Mughal garden" with three parts linked along the

[289] Mentioned in the Mughal Garden explanatory sign at the garden.
[290] Ruggles, *Islamic Gardens and Landscapes*, 209-210.

central axial line. The first part has a large geometric *chahar bagh* layout that is a classic Islamic form, yet the turf area in the center reflects English culture and its fondness for lawns. The second part contains tennis courts with a sandstone pergola along the central axis. The third part was designed as a walled circular perennial garden, a popular English style garden.[291] In this way, the Rashtrapati Bhavan's Mughal garden utilizes the hybrid design approach to reflects the cultural exchange between the English and Mughals.

In 2001, the Lister Park Development Project (including the new Mughal garden) was completed and opened to the public.[292] In the same year, the Friends of Lister Park organization was established to promote the park as a friendly, safe, and accessible place, representing the tastes of its diverse users, and to help with its daily management.[293] The park soon became a vital recreation and entertainment destination for the community. The new features of the park (including the Mughal garden) encouraged the South Asian Muslim community of Bradford to visit the park and participate in its programs as well. In 2003, Joy Leach of the Friends of Lister Park wrote about her visit to the park and how she observed the people using it:

> I visited the park, I saw a great many Asian people walking. Some ladies walked in groups … and others were walking independently, perhaps encouraged by primary healthcare professionals or simply by increased awareness within the community of the importance of exercise…they feel safe because of the friendly presence of park keepers… In the afternoon I saw a number of older Asian men, singly or in small groups, taking a gentle stroll on the grass or resting on a bench in the sunshine, enjoying a moment of peaceful contemplation. But they seemed just as likely to sit in the formal gardens by Princes Gate, facing a statue of the pagan hunter goddess Diana, as by the paradise fountains of the Mughal garden… I saw a party of multi-cultural school children savoring the delights of the Mughal garden. One can easily imagine how wonderful a water garden would appear in a hot, dry country. Here in the North of England, the symmetry of the fountains was off-centered in a brisk autumnal breeze and the children laughed to receive a sudden cold shower! [294]

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[291] Ibid.
[292] According to the Green Flag Award website, the Lister Park development was completed in 2002. http://www.greenflagaward.org/park-summary/?park=237
[293] Leach and Hussain, "Mughal Garden: Lister Park, Bradford," 96.
[294] Ibid., 96-97.

The Lister park development project received several awards, including the 2006 award of Britain's Best Park and Green Flag Award for twelve consecutive years, which reflects its remarkable achievement. [295]

AFTERMATH OF 9/11 AND 7/7: THE MUGHAL GARDEN AS A SANCTUARY

The Bradford District was unquestionably moving forward in its process to reform as a modern multicultural society, and the Mughal garden was the shining example of this progress. Unfortunately, in 2001, the same year when *Community Pride* and the Mughal garden were launched, the Western world was devastated by the terror attack of September 11, 2001 on the World Trade Center in New York and the Pentagon in Washington D.C., causing a massive backlash against Muslims in the US and major European countries, including the UK.[296] The anxiety between Muslim and non-Muslims in the UK was elevated further after the London bombing attack of July 7, 2005. In fact, the London bombers were British Muslims from the West Yorkshire area close to Bradford.[297] With this in mind, the political discourse, media, and non-Muslims defined British Muslim communities as "suspect" and a "national security threat" tied to terrorism.[298] The government launched counter-terrorism initiatives such as "Prevent," which allowed police officers to investigate local Muslim communities, measures which contributed to the media's negative stereotype about Muslim communities as suspicious, questioning their

[295] See: "District's parks win top awards," *Telegraph & Argus*, August 1, 2013. https://www.thetelegraphandargus.co.uk/news/10584296.districts-parks-win-top-awards/; Bradford Council, "Lister Park," in *Bradford Leisure Services-Parks Services*. http://www.bradforddistrictparks.org/sites/parks/parks.php?ID=41; "Lister Park: Green Flag Award Winner," Green Flag Award, Retrieved March 19, 2019. http://www.greenflagaward.org/park-summary/?park=237.
[296] See Romana Majid, "The Hidden Victims of September 11: The Backlash Against Muslims in the UK," *Islamic Human Rights Commission*, 2002. https://www.ihrc.org.uk/wp-content/uploads/2009/07/7545_report02sep06backlash.pdf
[297] Yasmin Hussain and Paul Bagguley, "Securitized Citizens: Islamophobia, Racism and the 7/7 London Bombings," *The Sociological Review* 60, no. 4 (2012): 715.
[298] Ibid.,715-716.

belonging to British society. Over the next decade, despite local efforts such as Bradford's *Community Pride*, the level of discrimination, racism, hate, and violence towards British Muslims increased.[299] In the face of this hostile environment, the majority of Muslim communities became ethnically isolated, withdrawing from much of civic society. Others tried to hide their cultural identity in public as an attempt to integrate with society. Finally, some Muslims embraced their religious identity and took comfort in a more conservative, sometime restrictive, form of Islam.[300]

The government's policy regarding counter-terrorism against British Muslims was brought into question by popular and political discourses that demanded better solutions.[301] At the same time, several research studies criticized government policies and approaches, emphasizing their possible negative impacts—such as the issues related to minority ethnic segregation—on the national level.[302] In media and the public perception, many inner-city areas in Northern England with a significant Muslim population, like Manningham in Bradford, were regarded as Muslim ghettos associated with hostility and violence.[303] The damaging impact of urban segregation and ghetto communities on the UK's socioeconomic structure encouraged the government and policymakers to take a new approach. The goal this time was to "strength[en] citizenship and national identity among British Asians" by breaking down ethnic clustering and encouraging community cohesion and social integration.[304] In this chaos, the media overlooked the story of the Bradford Mughal garden, but the garden was always there as a sanctuary for Bradfordians and a

[299] Ibid.
[300] See: Gabe Mythen and Fatima Khan, "Futurity, Governance and the Terrorist Risk: Exploring the Impacts of Pre-emptive Modes of Regulation on Young Muslims in the UK," *University of Liverpool & University of Kent*, 2009.
[301] Deborah Phillips et al., "British Asian Narratives of Urban Space," *Transactions of the Institute of British Geographers* 32, no. 2 (April 2007): 217.
[302] Phillips et al., "British Asian Narratives of Urban Space"; Hussain and Bagguley, "Securitized Citizens"; Mythen and Khan, "Futurity, Governance and the Terrorist Risk."
[303] Husband and Alam, "Ethnic Diversity and Creative Urban Practice," 94; Phillips et al., "British Asian Narratives of Urban Space," 217.
[304] Phillips et al., "British Asian Narratives of Urban Space," 218.

constant reminder to the city of the path they had started in 2001.

LISTER PARK AND THE MUGHAL GARDEN TODAY

Parks and gardens are places of peace, serenity, and safety. They provide common public spaces that allow people to socialize peacefully. As a result of the Lister Park development scheme, the number of park visitors increased significantly, and today, the park receives over one million visitors annually.[305] In addition, the demographic profile of park users has become more diverse, with significant numbers of Asians using the park on a daily basis, a change that is likely attributable to the presence of the Mughal garden (figure 56).

In July 2017, I visited and conducted site observation at Lister Park to explore how the people are using the park and its Mughal garden. In the morning, especially during the weekends, many South Asian and white seniors (both men and women) use the park for a workout. They walk, run, and ride bicycles independently and in small groups on the track. During my visit, most of the South Asian users were comfortable wearing their traditional Pakistani clothing (*shalwar kameez*), while a few others were in sportwear (such as track suits) (figure 57). Similarly, Leach's observation of Lister Park, mentioned earlier, shows how the multicultural society of Bradford felt safe and enjoyed using the park and its Mughal garden following the Park's development plan.[306] The morning walk, according to Leach, started as part of the Walking for Health program, supported by the Bradford City Primary Care Trust to encourage the community to do exercise and have an active lifestyle.[307] It appears that Walking for Health became a daily habit for many people in Bradford. Unlike Lister Park, which is busy with many people doing regular morning exercise, the Mughal garden had fewer visitors, and that makes it a perfect place for relaxation and

[305] "Lister Park: Green Flag Award Winner."
[306] Leach and Hussain, "Mughal Garden: Lister Park, Bradford," 96-97.
[307] Ibid., 96.

contemplation.

Lister Park and its Mughal garden have become an attractive destination for schools and organized trips. This could be as an opportunity to teach kids about South-Asian culture, or simply because it is an attractive place. During my visit, I saw a Muslim teacher leading a group of young multiethnic students around the park (figure 58). Another group of children with physical disabilities were visiting the Mughal garden as well. They spent around an hour enjoying their lunch to the sound of the water.

On the weekends, the Mughal garden becomes a vibrant, lively place filled with couples and families with kids of many ethnic groups. The Mughal garden changes from a quiet place for relaxation into an active water play garden. Although there is a sign prohibiting paddling in the pool, there are many children and adults who apparently cannot resist the joy of playing in the water (figure 59). In *The Art of Integration*, Peter Sanders writes about his visit to Lister Park's Mughal garden: "It was not the quiet place of meditation that I had imagined, but buzzing with life and children of many ethnic groups playing together."[308] This observation, from sometime between 2005-2008, shows the resilience of public parks like Lister Park and its Mughal garden as a place that promotes peace and unity in multicultural societies (figure 60).

The relation between the Cartwright Hall Art Gallery and the Mughal garden is significant. When the Art Gallery opens at 10 am during the week, the number of visitors to the Mughal garden gradually increases. Indeed, the beauty of the Mughal garden encourages many of the visitors who come to visit the art gallery also visit the garden on their way out.[309] Some of these visitors spend a couple of minutes taking pictures and looking around from the terrace area, while others spend more time walking and exploring the garden.

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[308] Peter Sanders, *The Art of Integration: Islam in Our Green and Pleasant Land* (Swansea, UK, 2008), 36.
[309] Site observation and an interview with an older white male at the Mughal garden.

The proximity of the Mughal garden to the Art Gallery provides the opportunity to use the garden as an outdoor exhibition. The Art Gallery, on many occasions, has brought its exhibition and events to the Mughal garden, providing a unique experience to its visitors. In 2006, the award-winning Pakistani artist Imran Qureshi used the Mughal garden as a stage for his artwork "Garden Within A Garden," which was part of the UK's art program for the First World War Centenary.[310] Inspired by the traditional Pakistani and Indian miniature painting style, Qureshi painted on the garden's paving with dark and light colors reflecting the horror and hope that the War produced.[311] In this way, the Mughal garden gained an additional meaning as an art extension for Cartwright Hall (figure 61).

In conclusion, the Mughal garden in Bradford is an example that shows how the identity and meaning of an Islamic garden are constructed in the diaspora. First, the identity of the garden is constructed through its name as "Mughal," with a sign at the garden that explains its connection to the traditional Mughal garden. The garden design creates a sense of place by paraphrasing the traditional Mughal style (such as a geometrical *chahar bagh* layout) while addressing the environmental constraints and respecting the cultural significance of the site through adaptation strategy. In addition to the Mughal style, the garden complements the Victorian landscape style of Lister Park through materials and context, exemplifying hybridity. Indeed, the identity and the meaning of the Mughal garden significantly transformed within this new Western context—both at the city level and within the Victorian landscape park.

[310] Heather Millard and Nilesh Mistry, "Garden Within a Garden," Bradford Museums and Galleries, 2016. Retrieved from URL https://www.bradfordmuseums.org/blog/garden-within-a-garden/
[311] "Imran Qureshi: Garden Within a Garden," 14–18 NOW. Accessed January 15, 2020. https://www.1418now.org.uk/commissions/garden-within-a-garden/

In this new context, the Mughal garden should not be seen as exotic or a symbol of otherness but as, I would call it, a "Bradfordian representation of a Mughal garden" that serves the entire community of Bradford, both Muslim and non-Muslim, reflecting the spirit of community togetherness and multiculturalism in the built environment. The authenticity of the Mughal garden in Bradford and its connection to the Mughal tradition is not only based on the design layout and materials, but also to the presence of the British South-Asian Muslim community. After all, the identity of the Mughal garden in Bradford is synonymous with the identity of the diverse Muslim immigrants who came from their home countries to Bradford and constructed their new hybrid personal, cultural, and national identity as Muslim, Asian, and British. Despite the large backlash against British Muslims after the terror attacks in 2001 and 2005, the Mughal garden remains a sanctuary, bringing all people together in a place where cultural differences are respected and even enjoyed.

CHAPTER 6: THE BAKEWELL OTTOMAN GARDEN IN ST. LOUIS

Praise to the Benefactor, Praise…The Benefactor Awaits the Reach of Your Memory Within the Garden

— Kudsi Ergüner, Turkish musician[312]

In 2006, a small Ottoman-style garden was constructed at the Missouri Botanical Garden (MBG) in memory of Edward L. Bakewell, Jr. (1916-1993) and named for him. The garden, designed by Turkish-American architect Fazil Sütçü, attempts to revive the Ottoman garden tradition in the West, inspired by late seventeenth- and eighteenth-century Ottoman gardens. It highlights the Tulip Period (the first three decades of the eighteenth century, under the reign of Ahmet III), a significant historical time in the Ottoman Empire when urban public gardens flourished. At the same time, the garden was designed to reflect the Bakewell family's identity and connection to Ottoman heritage. On the one hand, the garden was intended to complement the diverse garden cultures at the MBG and provide an exotic experience to its visitors, both Muslim and non-Muslim, at the site scale. On the other hand, the Ottoman garden attempts to represent (problematically, as we shall see) the cultural identity of Muslim diasporic communities in St. Louis, especial Bosnians—with their historical ties to the Ottoman Empire—at the larger urban scale.

Through in-depth interviews with the designer and the co-patron, Ted Bakewell (the son of Edward L. Bakewell, Jr.), coupled with site observation and a review of primary and secondary sources, this chapter tells the story of the Ottoman garden in St. Louis and examines the role of its patrons and designer in constructing the identity of the garden. In particular, the case of the Ottoman garden in St. Louis will help to answer the question of how contemporary designers

[312] Translation of two Ottoman inscriptions above the garden's main entrance, from Atasoy and Scott, *The Bakewell Ottoman Garden*, 42.

negotiate with various local conditions and Islamic cultural heritage to construct gardens with clear Islamic identity in a non-Islamic context.

A TOUR OF THE OTTOMAN GARDEN: SITE DESCRIPTION

The Bakewell Ottoman Garden covers approximately 1,000 square meters in the Missouri Botanical Garden (MBG) and was completed in 2006 and formally dedicated on May 16, 2008. The garden is enclosed by a brick wall along the north side, a preexisting historical wall along the east side, and a fenced hedge on the south and west sides. The garden has a geometric layout inspired by the *chahar bagh* with a central water fountain and a pavilion on the north end. Along the linear south-north axis, one finds the main design features of the garden: the main gate, an Ottoman sundial, central water fountain, flower beds, domed pergola sheltering a seat, and a water fountain in the wall (figures 62-63). Many of the garden elements, such as the pedestal fountain (*çeşme*), the reflecting pool (*havus*), and the wall fountain (*selsebil*) were designed and built in Turkey, which endows the garden with "a strong sense of authenticity."[313]

There are two entrances to the Bakewell Garden. The main entrance for the general public is located on the south side of the garden where the linear axis starts. It has a red ochre double-door gateway and gabled terracotta tile roof. There is an informational signboard at the entrance that briefly describes the Ottoman garden:

> This Ottoman-style walled garden, the first of its kind in the United States, is modeled on the luxurious Turkish "Gardens of Paradise" of the seventeenth and eighteenth centuries…Feed your senses. Smell the fragrant blossoms and herbs. Listen to the playful splashing of water. Look closely at the earth patina of the surrounding walls and columns. Feel the brick and stone paths beneath your feet.

The entrance wall is made of brick and covered with decorative stucco. On the top of the main

[313] The quote is from the garden's information signboard located at the entrance gate. Author's site visit 2017. Fazıl Sütçü, interviewed by the author, April 2015 and August 2017.

entrance gate, on the interior side, there is an inscribed panel with gold letters and rosettes on a blue background. It has the last line of a contemporary poem by the Turkish musician Kudsi Ergüner, which translates as: "The Benefactor Awaits the Reach of Your Memory Within the Garden." The exterior side panel is divided into three parts, the middle panel proclaiming in Ottoman script, "*Al-hamd li wali al-hamd*," which translates to: "Praise to the Benefactor, Praise," whereas the outer panels contain rosettes (figure 64).[314]

The second entrance is located in the northwest corner of the garden and is used as a gateway to the MBG for special events. Here, the architectural design features of the gate are similar to the main entrance. The panel at this entrance is covered with intertwined floral decorations on the interior face and with inscriptions on the exterior face. The gate opens to a pathway lined with rows of juniper trees (*Juniperus virginiana*) on each side, leading to the main entrance (figure 65).

Proceeding through the main entrance along the main linear axis, one enters the garden and encounters an Ottoman sundial designed by St. Louis-based sculptor Abraham Mohler. It has four different sets of times: Western European time, Italian time, Babylonian time, and finally the Muslim Prayer times (figure 66).[315] On the southeast side stands a pedestal fountain (*çeşme*) that invites visitors to wash their hands, such as before prayer (ritually mandated ablutions). It was handcrafted in Turkey using white marble and was decorated with *muqarnas* (ornament consisting of stacked niches) and golden arabesque, and has a Turkish brass water valve (figure 67).[316]

Moving forward along the central axis toward the north, one comes to a small quadrilateral flower garden divided by gravel walkways into four smaller rectangular parts. In front of it is a

[314] Atasoy and Scott, *The Bakewell Ottoman Garden*, 42.
[315] Atasoy and Scott, *The Bakewell Ottoman Garden*, 58-59.
[316] Fazil Sütçü. interviewed by the author. April 2015 and August 2017.

shallow reflecting water pool (*havus*) also designed and built in Turkey. It is made of white marble and has a central fountain with eight jets of water around its perimeter that arch inward (figure 68). On the eastern and western sides of the reflecting pool, there are eight flowers beds (four on each side) divided by walkways.

The linear axis ends with a single-domed pergola that stands on a raised paved patio that is preceded by a wooden grape arbor (*çardak*). The dome is made of copper and topped by a tulip-shaped brass finial (*alem*). The inner surface of the dome is painted with a medallion in blue, gold, red, green, and black. Beneath the dome, a decorative wooden seat looks outward toward the garden. The seat, made in Turkey, was inspired by the Ottoman royal throne—similar to the one in the Topkapi Palace (figures 69-70).[317]

Behind the throne stands a wall water fountain (*selsebil*) of white marble that, like the pedestal fountain, was designed and made in Turkey. It is adorned with golden arabesque style decoration, and it has six basins where the water gently makes tinkling sounds as it drops from one level to another. The back wall has six painted panels by a local artist—three on each side of the fountain's walls—decorated with floral designs. Also, the rear wall has two birdhouses (*kusevi*), one in either corner, carved by a local artist using rigid foam that is made to look like marble. The design of the birdhouses was inspired by the classic *mashrabiya*, a projecting oriel window that was popular in Islamic architecture (figure 71).

The geographical and climate setting of St. Louis, according to the designer, is suitable for cultivating many native and exotic plants that represents Ottoman garden culture. For example, the average temperature during the spring season is 19.3 °C in St. Louis and 17°C in Istanbul. In the summer, the average temperature is 31°C in St. Louis and 27.3°C in Istanbul. During the fall

[317] Fazıl Sütçü, interviewed by the author. April 2015 and August 2017.

season, the average temperature is around 20°C in both cities. The winter season is relatively cold with an average temperature of 6°C in St. Louis and 9.6°C in Istanbul. Moreover, both cities are fortunate to have a high percentage of rainfall every year. In St. Louis, the average rainfall per year is around 965 mm and in Istanbul is 838 mm. This climatic similarity provided an opportunity to build a garden in St. Louis that recalls the traditional Ottoman garden, without having to make significant adaptations (as was necessary in the Mughal garden in Bradford).

The Bakewell Garden contains many fruit trees, such as pomegranate (*Punica granata*), apple (*Malus* spp.), grape (*Vitis* spp.), and pear (*Pyrus* spp.). The formal beds in the garden are planted with flowers such as jasmine (*Jasminum sambac*), Turkish iris (*Iris orientalis*), and tulip (*Tulipa* spp.). The garden also has a variety of herbs such as rosemary (*Rosmarinus officinalis*) and oregano (*Origanum vulgare*). Many of the flowering plants are rotated seasonally. For example, in spring, carnation (*Dianthus caryophyllus*) and hyacinth (*Hyacinthus orientalis*) flowers are replaced by marigolds (*Calendula officinalis*).[318] In wintertime, the MBG moves the more sensitive plants, like the lemon trees, inside the greenhouse. All the plants in the garden are labeled with their scientific name and common English and Turkish names for educational purposes.

GARDEN NARRATIVES: EVERY STORY HAS AN AUTHOR

Whereas the Bradford Garden represented a South Asian identity using a specific regional Islamic style (Mughal) that was shared by many of the people of the local community, the Bakewell Garden was designed in a particular regional style (Ottoman) to represent a family's identity. The garden is dedicated to Edward L. Bakewell, Jr., whose bequest made the garden possible. He began his career working at his father's residential real estate company and later

[318] For complete list of plants see: Atasoy and Scott, *The Bakewell Ottoman Garden*, 60-61.

established his own company known as the Bakewell Corporation, through which many suburban industrial parks were developed into corporate campuses.[319] In addition, Mr. Bakewell was a member of Ducks Unlimited, a nonprofit organization that supports the conservation of wetlands and waterfowl habitats, which in some ways reflects his sense of responsibility and positive attitude towards nature and wildlife conservation.[320]

Bakewell and his wife Jean (1924-1985) had an extraordinary interest in gardens and landscapes, especially the Missouri Botanical Garden programs, which they supported with their generous contributions. As a result, Mr. Bakewell bequeathed the MBG endowments to construct two gardens in his and his wife's memory after their deaths. When Jean died, the funding was used to build the Bakewell Court, a small courtyard in her memory, located on the west side of the Linnean House, and when Edward died, the endowment was used to construct a garden in his honor (figure 72).[321]

The MBG had proposed that the Bakewell memorial garden take the form of an English perennial garden, but his sons Ted and Anderson rejected the idea because they did not see a sufficient connection to their family. Ted recalled that "before my dad died, my brother and I spoke to him about what kind of garden he wanted us to build, where we should start… he wanted us to build a garden in his name in Missouri Botanical Garden, but he did not specify the style."[322] Therefore, Ted and Anderson decided to look for a theme that would represent their family in a meaningful way, ultimately selecting the Ottoman style.[323]

The Bakewell family history is unusual. Its members believe that through the maternal line

[319] Harry Levins, "Edward Bakewell Jr.; Real Estate Developer," *St Louis Post-Dispatch* (MO), December 19, 1993. Accessed December 17, 2019. https://www.questia.com/newspaper/1P2-32845518/edward-bakewell-jr-real-estate-developer.
[320] Ted Bakewell, interviewed by the author, August 2017.
[321] Ibid.
[322] Ibid.
[323] Ibid.

they are related to Aimée du Buc de Rivéry, also known as "Nakşidil," the mother of the Ottoman sultan Mahmud II.[324] There is little historical research on Aimée, but oral narrative says that she lived in the late eighteenth century and was a wealthy French girl from the island of Martinique.[325] According to legend, Aimée was the cousin of Empress Joséphine de Beauharnais, the wife of Napoleon I. When the two girls were young, they went to see a local fortuneteller who prophesied that the two girls would grow up to be queens, one to rule the East, the other the West. Joséphine married Napoleon and thus became the Queen of the West, while Aimée—according to the tale—became the Queen Mother of the East.[326]

As the story goes, Aimée eventually went missing at sea, was captured by Barbary pirates, and was later gifted as a concubine to the Ottoman Sultan Abdul Hamid I. As part of the sultan's harem, she was giving a Turkish name, Nakşidil. She soon became his favorite and bore him a son, who later became Sultan Mahmud II, and since then was known by the prestigious title "Valide Sultan Nakşidil" (Mother of the Sultan).

The Bakewell family, according to Ted Bakewell, believes that Aimée had a sister who traveled to the United States sometime during the late eighteenth century, when St. Louis was still a French settlement. According to their family records, Aimée's sister is a direct ancestor on their maternal grandmother's side. Ted Bakewell stated that "my great grandmother's maiden name was du Buc, and as far as we know she is descendent from that line of Du Buc, and has connection to Aimée du Buc de Rivéry who was the Nakşidil, the mother of the sultan."[327] Thus, the family is

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[324] Ibid.
[325] The majority of sources that tell the story of Aimée du Buc de Rivéry are works of fiction. See for example: Janet Wallach, *Seraglio*, 1st ed. (New York: Nan A. Talese, 2003). See also: Scott Philippa, "An Ottoman Garden Grows in St. Louis," *Saudi Aramco World* 61, no. 6 (November/December, 2010): 2-11.
[326] Ted Bakewell, interviewed by the author, August, 2017. Also mentioned in an online article by Linotte Melodieuse, "The French Valide Sultane: The Legend of Aimee Dubuc de Rivery," *Persephone Magazine*, February 2012. http://persephonemagazine.com/2012/02/the-french-valide-sultane-the-legend-of-aimee-dubuc-de-rivery/comment-page-27/.
[327] Ted Bakewell, interviewed by the author, August, 2017.

confident that they are directly connected to the Ottoman House, and to Turkish culture; in other words, it is part of their identity. Ted also conceded, "I don't know if I am an Ottoman, but we certainly believe we have a connection to the Ottoman Empire. My brother certainly feels he is Ottoman because he spent so much time in that part of the world and in the tradition of music that the Ottoman lefts, and that is a tradition that still alive in Turkey."[328] Therefore, when the question arose of what type of garden they should make in their father's memory, according to Ted, they favored the Ottoman style. Ted explained:

> We always had this talk growing up about this story [the story of Aimée du Buc de Rivéry], which made this unusual connection. It occurs to us that the answer to what garden we should build in our father's memory was in front of us. Especially when we discovered that there were no other Ottoman gardens, public Ottoman gardens, anywhere in the world, we thought, why not use this opportunity here at Missouri Botanical Garden to reconstruct this garden style and tradition that the Ottoman has perfected, and use that exotic connection to our family history and the generous gift that my father left to the Botanical Garden to recreate that tradition here in St. Louis among other world gardens at the Missouri Botanical Garden, like the Japanese and Chinese garden, and all the other gardens that you have seen there. Why not fill the corner with a garden tradition that actually provided the link between East and West in history, and the perfect link in Missouri Botanical Garden connecting the Eastern and the Western gardens.[329]

In other words, the family inclination of Ottoman style was confirmed when they discovered that there are no surviving seventeenth and eighteenth century public Ottoman gardens anywhere in the world. Thus, by using their father's generous gift to construct an Ottoman garden at the MBG, they hoped that the new garden would contribute to reviving the lost Ottoman garden tradition and reconnect the Bakewell family in St. Louis to their claimed Ottoman heritage. Although there is very little concrete evidence to support the story of Aimée du Buc de Rivéry being the "Nakşidil," what is important here is how the Bakewell family has embraced their personal and cultural identity by linking themselves to the Ottoman Empire—and translating their legendary lineage

[328] Ibid.
[329] Ibid.

into a built space in the form of a garden.

Henry Shaw and Turkish Culture

Dr. Peter Raven, the former president of the MBG, welcomed the idea for the Ottoman-Turkish theme because it resonated with the MBG founder Henry Shaw's (1800-1889) admiration of Turkish culture and MBG themes. After retiring from a successful business career, Mr. Shaw traveled widely, and in 1841, he went to Istanbul and spent around two months there.[330] In his personal journal, he wrote about Turkish-Ottoman traditions, including their lifestyle, architecture, and gardens, expressing his fascination with the gardens and the kiosks of the fifteenth century Topkapi Palace. He also listed some of the local plants in his journal, including honeysuckle, oleander, and cypress.[331]

In 1851, Shaw began a project to build a botanical public park for the city of St. Louis, inspired by the gardens he saw on his trip to Europe. In 1859, the MBG was opened to the public and today it is one of the oldest botanical institutions in the United States—a National Historic Landmark and registered on the list of National Historic Places. The MBG features many Western style gardens, as well as gardens from East Asia, including a Japanese garden and a Chinese garden. In 1868, Shaw gifted some land adjacent to the MBG to build another public park for the city of St. Louis, which is named the Tower Grove Park.[332] The park's design was inspired by the

[330] Missouri Botanical Garden, "Our History," Accessed December 17, 2019. https://www.missouribotanicalgarden.org/about/additional-information/our-history.aspx. Text by Joseph M. Schuster (except fourth and last paragraph). Reprinted by permission from *Garden*, January-February 1983, the publication of The Garden Society, a Division of The New York Botanical Garden. For more information see: William Barnaby Faherty, *Henry Shaw, His Life and Legacies* (Columbia: University of Missouri Press 1987).
[331] Atasoy and Scott, *The Bakewell Ottoman Garden*, 6; See also: Henry Shaw, *The Rose: Historical and Descriptive; Gathered from Various Sources* (St. Louis: R.P. Studley & Co. 1879; revised and expanded edition 1882); Henry Shaw, *The Vine and Civilization: from Various Sources* (Saint Louis: [s.n.], 1884).
[332] See Nini Harris, *Tower Grove Park: Henry Shaw's Living Legacy* (St. Louis: Friends of Tower Grove Park, 1997). See also: Tower Grove Park, "Our History," Accessed December 12, 2019. https://www.towergrovepark.org/our-history-1.

Victorian era, featuring many pavilions and statues, including a Turkish pavilion (which clearly shows Shaw's appreciation of Ottoman Turkish culture). Therefore, according to the Bakewell family and Dr. Raven, adding an Ottoman garden to the MBG honored the vision of Mr. Shaw and the general theme of the MBG as a place with a rich and diverse garden culture. The Ottoman garden, according to Dr. Raven, also provides an opportunity to promote cross-cultural awareness and dialog between the East and the West.[333] It also contributes the general mission of the MBG "to discover and share knowledge about plants and their environment in order to preserve and enrich life."[334]

Design Team: The First Proposal

Once the Bakewell family and the MBG agreed on the Ottoman garden theme, the challenge was to decide what an Ottoman garden in St. Louis should look like. The few examples of Ottoman gardens that exist today, such as the gardens of the Topkapi Palace in Istanbul, have been replanted in the modern era. Thus, they had to rely on literature and professional experts who had access to historical materials on Ottoman gardens. In 1997, the MBG and the Bakewell family hired Nikos Stavroulakis (1932-2017) to work as a historical and conceptual consultant on the Ottoman garden project. Stavroulakis was a friend of Anderson Bakewell and the co-founder and former director of the Jewish Museum of Greece in Athens.[335] He had expertise in Ottoman cultural heritage and worked on many architectural conservation projects. Stavroulakis also worked alongside the Pittsburgh based firm Environmental Planning and Design for several landscape

[333] Atasoy and Scott, *The Bakewell Ottoman Garden*, 7.
[334] Missouri Botanical Garden, "Our Mission," Accessed December 26, 2019. https://www.missouribotanicalgarden.org/about/additional-information/our-mission.aspx
[335] Jewish Heritage Europe, "Greece: Remembering Nikos Stavroulakis," May 22, 2017. http://jewish-heritage-europe.eu/2017/05/22/nikos-stavroulakis-zl/.

architecture projects.[336] During the earlier stages of this project, the Turkish architect Fazil Sütçü, who resides in St. Louis, was hired and became an essential part of the team, working as the lead architect and project coordinator.[337]

Sütçü was born and educated in Turkey, gaining a Master's degree in architecture and science of restoration from the Middle East Technical University. For his master's thesis research, Sütçü worked on the proposed restoration of a sixteenth-century Ottoman *madrasa* (school). After graduation, he worked for almost two years at archeological sites in Turkey. In 1986, he moved to St. Louis with his wife (originally from St. Louis) and a few years later, joined Peckham Guyton Albers & Viets, Inc. (PGAV Architects), working as a senior design architect.[338]

The design and consulting team put together the first design proposal for the Ottoman garden, which was inspired by descriptions and images of historic Ottoman gardens from the late seventeenth-eighteenth century.[339] This era was selected to emphasize the lifetime of Aimée du Buc de Rivéry and the Tulip Period (known in Turkey as *Lâle Devri*), a time marked by political stability, cultural innovation, and social and urban reform. Many new public services were introduced to Ottoman cities during the Tulip Period, such as public libraries, fire departments, and press printing.[340] Furthermore, the ruling Ottoman elite built many new palaces and public gardens, such as the Sa'dabad and Hürremabad in Kağithane, along the waterfront in a novel style that is a result of a dynamic synthesis of foreign with local traditional design and more importantly

[336] Environmental Planning and Design firm official website: https://epd-pgh.com.
[337] Fazıl Sütçü, interviewed by the author, April 2015.
[338] Ibid.; Sütçü worked mostly in recreational design projects such as Port Aventura Theme Park in Salou and Isla Magica theme parks in Seville, Spain. In 1999, Sütçü left PGAV Architects and worked for The Korte Company for three years until a couple years later when he joined the Anheuser-Busch Companies, Inc., working as a senior architect and project manager in the theme park-entertainment division. In 2009, he began working as independent design consultant and two years later became a partner and director of JCO, an architectural firm specializing in themed designs.
[339] Fazıl Sütçü et al., *The Ottoman Garden Design Proposal* (St. Louis: Missouri Botanical Garden, 1997), unpublished. A copy of the proposal was obtained from Fazıl Sütçü.
[340] Hamadeh, *The City's Pleasures*, 3-4.

to correspond to the new social and cultural shift.[341] Although these public gardens are no longer extant, historians can restrict them from descriptions and documents.

Although the first design proposal for the Bakewell Ottoman garden was not built due to financial complications, it is worth exploring because it provided a model that reproduced the spirit of the late-seventeenth and eighteenth century Ottoman gardens. The general layout of this version of the garden was a horizontal linear rectangular shape covering an area of around 2,000 square meters.[342] There were two main entrance gates designed in an Ottoman style: the main gate located on the western side next to the visitors' center, and the other gate located on the northern side, providing access from the parking lot. The proposed plan incorporated three types of Ottoman garden styles, including a kiosk garden, a formal *chahar bagh* garden, and an informal natural-style garden. The three Ottoman gardens were integrated and placed in sequence next to each other (figure 73).[343]

The main western entrance lead to the kiosk garden, which contained a small courtyard, an Ottoman style wooden kiosk, an orangery, and a large rectangular reflecting pool. The small entry court contained a water basin, and it was surrounded with trees and seasonal flowers such as tulips, irises, and lilies. The kiosk had wide roof eaves to provide shade, two entry doors, shelves next to the entry doors (to place the visitor's turban), and a central water fountain. The kiosk was elevated, overlooking the reflecting pool from the east side. The pool had eight water jets around its perimeter that arched inward, creating a pleasant sound. Next to the reflecting pool from the east side were beds of tulip. The south side of the kiosk garden contained a variety of fruit trees, including peaches, damsons, and apricots. Also, in the summertime, the tulip bulbs were to be

[341] Ibid., 48-50.
[342] Sütçü et al., "The Ottoman Garden: The Plan," in *The Ottoman Garden Design Proposal* (St. Louis, Missouri Botanical Garden, 1997), 2.
[343] Sütçü et al., "The Ottoman Garden," 2.

moved to the orangery and replaced with vegetables and fruits. The orangery was located in the northwest corner of the kiosk garden, and it had an open gallery overlooking the reflecting pool (figure 74).[344]

The second part of the proposed garden was the formal sunken rose garden with a domed pavilion at one end. The garden had many types of flowers such as lilies, bellflowers, lavender, and marjoram. It had a classical *chahar bagh* style layout. The quadrilateral garden was divided by walkways into four smaller rose gardens. A water fountain was situated at the crossing of the main axis and attached to a water channel from the south side. The domed pavilion with a central fountain was located on the north axis looking out onto the formal garden. The pavilion was attached to the orangery by a pergola covered with vines (figure 75).[345]

Following the formal rose garden to the east was a grape arbor that lead to the informal natural-style garden. This part of the garden was intended to represent an earlier Turkish garden tradition that primarily depended on the existing natural environment and resources. At the center of the informal garden was a natural pool of water surrounded by trees and shrubs. On the northeast side, there was to be a group of display tombs that represented a common Turkish tradition of burial in a cemetery garden (figure 76).[346]

This first design proposal was not built because it was very expensive. Although the fund exceeded $1.5 million, it was not enough to cover the cost, and the MBG could not cover the extra expense. Ted explained that "the actual gift of my father is not entirely devoted to the actual construction of the garden. There are all these overhead costs that have to be subtracted, and everything must be built by a special contractor, and because this project took so long, the

[344] Sütçü et al., "The Ottoman Garden," 2-6. Formal analysis and reading of the site design drawings by author.
[345] Ibid.
[346] Ibid., 8.

administrator expenses were high. Every year the project is delayed, they [the Missouri Botanical Garden] charge an administrator cost. As a result, it was extremely costly to build this garden."[347] Therefore, to cover the cost of the project, the family reached out to the Turkish Ministry of Culture, which agreed to donate $1 million to the project. Unfortunately, in 1999, just before the family got the money from the Turkish government, there was a massive earthquake in Turkey, with devastating consequences, and the Turkish government understandably had to pull out from the project. Consequently, the garden project stopped for a while.

Later, the Bakewell family asked Sütçü to come up with an alternative design that would fit their budget. To do so, Sütçü selected a much smaller site at the MBG (the current location) and proposed a new, simpler design for the Ottoman garden. This time, instead of representing three different types of Ottoman gardens, Sütçü decided to focus only on the formal *chahar bagh* garden. He believes that the *chahar bagh* symbolized Islamic "paradise," a theme famous in Ottoman garden tradition, and its geometric layout can be easily modified to fit into various sizes and settings.

In his new design, Sütçü quoted and paraphrased various design elements from historic elite Ottoman gardens, which were documented in the historical records. He stated:

> Our design approach was not to design a royal sultan garden. This garden is like a Pasha garden [a garden for high ranking Ottoman official], a scaled down version…I was trying to do the real authentic but there is no blueprint of an authentic Ottoman garden. The old Ottoman garden does not exist anymore, all we have is old drawings and sketches and their size is also different than our garden. There was no model that we can duplicate even from the historic records that we could find.[348]

Therefore, to accurately represent the eighteenth-century Ottoman style, Sütçü frequently consulted with various scholars of Ottoman architecture and culture including Gülru Necipoğlu, a

[347] Ted Bakewell, interviewed by the author, August, 2017.
[348] Fazıl Sütçü, interviewed by the author, April, 2015 and August, 2017.

Turkish professor of Islamic Art at Harvard University. In addition, to minimize the cost and to connect with Ottoman craftsmanship, many of the garden's elements including the water features were manufactured in Turkey and shipped to St. Louis. [349]

Moreover, Sütçü worked with many local multiethnic artists to create various decorative elements of the garden such as the birdhouses, the Ottoman sundial, the flower paintings on the back wall, the domed decorative pergola, and the inscription on the two entrance gates. He stated that the desire to have a multiethnic team involved in this project was because "this is the true Ottoman way to do things. To involve different ethnic groups in the design." [350] However, he noted, the majority of local artists that he worked with had no knowledge about Ottoman culture, so he needed to "educate these artists to do the correct job and provide them with the concept and direction." [351]

INAUGURATION, AND RE-INAUGURATION: AN ATTEMPT TO CREATE AN "AUTHENTIC" OTTOMAN GARDEN

The new design was approved and in 2006 the Bakewell Ottoman Garden was inaugurated with a grand opening held at the garden, attended by the Turkish ambassador, diplomats, delegates, experts, and friends of the Bakewell family. Soon afterwards, Nurhan Atasoy, the preeminent Turkish expert in Ottoman garden history, was invited to visit and endorse the garden. In an interview, Ted noted that Atasoy admired the idea and the effort, but she did not like the garden as built because she was troubled by some design elements that, according to her, were not historically accurate.[352] He states:

> I called Nurhan Atasoy and invited her to see the garden… she is a world expert in Ottoman gardens and we wanted her endorsement. She was amazed that there is this Ottoman garden

[349] Ibid.
[350] Ibid.
[351] Ibid.
[352] Ted Bakewell, interviewed by the author, August, 2017.

> in Missouri and I brought her here to St. Louis. Fazil and I met her, and we went to the garden, she said this is wonderful, having an Ottoman garden in the US, this is crazily amazing except for one problem, she said, I don't like it! There are many things in the garden that I think are not historically correct. If you want me to endorse this garden as an authentic Ottoman garden by my criteria you have to make the following changes and she made a list. [353]

In her celebrated book, *A Garden for the Sultan,* Atasoy writes extensively about the history of Ottoman garden traditions and art. In particular, she devotes a chapter to the features and design elements of Ottoman gardens, which include a kiosk, thrones, fountains, and various types of flowers and trees.[354] Based on her scholarship, she proposed some changes and additions to the Bakewell garden design. One of these was to add the throne seat, which became one of the most attractive features in the garden as we see it today. Another vital change was regarding the planting design. She proposed adding new plants and to rearrange some existing flowers on the raised beds. This particular change, according to Ted, was difficult and expensive because they already designed and assembled the underground irrigation system. She also recommended moving the *çeşme* from the center to the east side because it was blocking the main view. Additionally, she proposed changing some of the artwork in the garden.[355]

The Bakewell family valued Atasoy's suggestions, but since the endowment had already been spent on the garden's construction, Ted and Anderson decided to pay for the new changes using their own money. After two years of modification, in May 2008, the second formal opening of the garden was held at the MBG, and Atasoy gave a speech endorsing the garden as "the most authentic Ottoman garden of the eighteenth century," according to Ted. [356] While I don't know what Atasoy actually mean by "authentic," I can speculate based on my review and understanding

[353] Ibid.
[354] Nurhan Atasoy, "The Features of Ottoman Gardens," in *A Garden for the Sultan: Gardens and Flowers in the Ottoman Culture* (Istanbul: Aygaz, 2002), 25-53.
[355] Ted Bakewell, interviewed by the author, August 2017.
[356] Ted Bakewell, interviewed by the author, August 2017.

of her book on Ottoman gardens. I believe that, for Atasoy, authentic is used in this context to describe the accuracy of the concept (the paradise *chahar bagh*) and the formal composition of the garden and more importantly the depth of connection with historic references and design components as mentioned in her book. [357] At the same time, Sütçü declared that this Ottoman garden is "authentic enough for here [meaning in St. Louis] but it is not authentic enough for Istanbul…this garden is for the general public. It is for an educational purpose. We had to compromise a lot."[358] In this sense, Sütçü is referring to authenticity as a "real" representation, or in his own words "to represent the real Turkish garden," which include using traditional techniques, materials, and forms.[359]

The Bakewell Ottoman garden project, according to Ted, was possible only because "the planets were aligned."[360] In this sense, he explained:

> The passion of my mother for gardening, the involvement of my parents in the Missouri Botanical Garden, my father's desire to give a gift to the Missouri Botanical Garden, the family tradition and connection to the Ottoman Empire, my brother's connection to the Ottoman Empire through music, and the fact that Fazil was here in St. Louis, and can be part of this project. All those unusual things made the building of this garden possible, all had to come together in one place.[361]

Following the second inauguration, the Bakewell family and the MBG hired Atasoy and Philippa Scott (an author and journalist) to write a guidebook about the Bakewell Ottoman garden.[362] The four-chapter book describes the origin of the Bakewell Ottoman garden and briefly places it within the context of Ottoman garden culture. The authors provide historical background on the Ottoman garden and talk about the connection of the Bakewell family with the Ottoman

[357] Atasoy, *A Garden for the Sultan*.
[358] Fazıl Sütçü, interviewed by the author, April, 2015 and August, 2017.
[359] Ibid.
[360] Ted Bakewell, interviewed by the author, August, 2017.
[361] Ted Bakewell, interviewed by the author. August, 2017.
[362] Atasoy and Scott, *The Bakewell Ottoman Garden*.

Empire. The book has beautiful pictures of the garden's features. It also contains a site plan and a list of plants used in the garden.

A GARDEN FOR ALL: THE BOSNIAN MUSLIMS

Beyond the garden's immediate boundaries, the MBG gardens also reflect the diverse ethnic communities of St. Louis. The greater Missouri area and the city of St. Louis in particular are home to many European immigrants including Germans, Russians, Ukrainians, and a large number of Muslims from Bosnia. For four centuries (1463 to 1878), Bosnia served as an important province of the Ottoman Empire, supporting the Ottoman expansion into central Europe. Bosnia provided the Ottomans with soldiers, many of whom become highly ranked in the Ottoman military.[363] More importantly, they contributed to and were influenced by Ottoman culture. In 1878, Ottoman rule in Bosnia ended and later, Bosnia and Herzegovina found themselves a part of the Austria-Hungarian regime. After the First World War, Bosnia became part of Yugoslavia and since then, there have been a series of devastating wars and conflicts in the region. During 1960s-1970s (following the Cold War in Bosnia), a few Bosnian refugee families settled in St. Louis. Following the Bosnian War (1992-1995), more Bosnian refugees started coming to St. Louis—many of whom were professionals and skilled workers. In 2002, the number of Bosnian refugees in St. Louis was approximately 35,000, whereas today, there are around 70,000 Bosnians that live in the area, making a profound economic impact on the city. The Bosnian community settled mostly in the old southern neighborhoods of St. Louis, which enabled a fast, urban revitalization of the area.[364]

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[363] András Riedlmayer, "A Brief History of Bosnia-Herzegovina," *Bosnjaci.net Web Magazine*, November 25, 2004. http://www.bosnjaci.net/prilog.php?pid=18707.

[364] Hisako Matsuo et al., "Bosnian Refugee Resettlement in St. Louis, Missouri: Race, Religion, and Identity," *International Journal of Humanities and Social Science* 4, no. 11(1) (2014): 207-208; see also Kathy Gilsinan,

The Bosnian cultural imprint, which in many ways in an extension of Ottoman culture, is evident in the built environment of St. Louis in the form of Bosnian restaurants, shops, bakeries, and cafes, as well as several mosques and Islamic centers. On September 2013, the Bosnian community built a kiosk-shaped public fountain (*sebilj* in Bosnian, *sebil* in Turkish) in Bevo Mill district (known as Little Bosnia), to show their gratitude to the City of St. Louis for hosting them (figure 77). The fountain is a replica of an eighteenth-century Ottoman decorative *sebilj* built in the city of Sarajevo (the capital of Bosnia today).[365] The practice of building public fountains for drinking and ablutions was common throughout the Ottoman Empire, and most of them were built through charitable endowments for the public good. In this way, the Bosnian *sebilj* in St. Louis provides a historical connection between the Bosnian Muslim community in the city and their Ottoman legacy. Given this regional connection, the Ottoman garden at the MBG could have linked to the Bosnian Muslim community but in actuality, they were marginalized in the narratives of the Bakewell Ottoman garden.

Neither Atasoy and Scott's guidebook nor the MBG's official website mention the significant relationship of the Bosnian community to Ottoman culture. This could be because the garden was not specifically built for the Bosnians, but rather to honor to Bakewell's legendary ties to the Ottomans and as a service for all St. Louis communities, both Muslim and non-Muslim. However, it was certainly a missed opportunity to exclude the Bosnians and other Muslim communities in St. Louis from the design process. Bosnians represent a large Muslim community in St. Louis and more importantly a "real" historical connection to the Ottoman Empire.

"Why Are There So Many Bosnians in St. Louis?," *CITYLAB*, February 15, 2013.; Jack Strauss, "The Economic Impact of Immigration on St. Louis" (St. Louis: Saint Louis University, 2012).

[365] Paul Hampel, "In Little Bosnia, a gift from immigrants," *St. Louis Post-Dispatch News*, September 30, 2013. https://www.stltoday.com/news/local/metro/in-little-bosnia-a-gift-from-immigrants/article_e9f1f910-41f6-5335-ae9d-59181f8db4be.html.

THE BAKEWELL OTTOMAN GARDEN TODAY

Today, the Bakewell Ottoman garden is open to all MBG visitors, free for children and at a discounted price for St. Louis residents. A general entry fee permits visitors to explore all the beautiful gardens at the MBG, including the Bakewell garden. The MBG has hosted several events at the garden, such as Ottoman music and food, allowing people to engage with other aspects of Ottoman culture.[366] In addition, several wedding parties have been held in the MBG—some of which were Turkish. For some evening events, the Ottoman garden's role changes, as it becomes the main entrance into the MBG as a whole. Thus, all the night event's visitors must pass through the Ottoman garden and experience the Islamic garden paradise.[367]

In July 2017, I visited and conducted site observation at Bakewell Ottoman garden to explore how people are using the garden. In 2017, over one million people visited the MBG and I found that the Ottoman garden attracts many of them.[368] During the site visits, I saw school groups, tourists, families, and individuals visiting the Ottoman garden.[369] In fact, I never observed the garden uncrowded. There was always someone walking around, sitting on the wooden benches, or taking pictures of the garden features (figure 78). However, the majority of the visitors I observed spent less than ten minutes at the garden.[370] The most popular part in the garden is the throne area where visitors can sit and feel like a "sultan," gazing upon the entire garden (figure 79). The water features, especially the central Turkish fountain, were another source of joy, providing soothing sounds to relax, attract birds, and help cool the air during the summer. To further enhance the sensory experience, the Bakewell family and the MBG were at one time planning to insert sound

[366] Ted Bakewell, interviewed by the author, August 2017.
[367] Ibid.
[368] Kristine Gruver and Andrea Androuais, "2017 Annual Report" (St. Louis: Missouri Botanical Garden, 2018), 2-3.
[369] First week of July 2017. Daily observation from 10am-3pm.
[370] Author's site visit, July 2017.

systems in the garden to play Ottoman-Turkish music. However, the idea was not realized due to cost. There is also a plan to provide a virtual tour guide to help visitors better understand and appreciate the history of the Ottoman garden.

In conclusion, the Bakewell Ottoman Garden in St. Louis shows one way that identity is constructed and manifested in the built space of gardens. In this case, the garden evokes pluralistic identity and meaning, although it does so via a family narrative that largely ignores other communities who might identity with Ottoman culture. The garden identity was first constructed through human agents, the Bakewell family, who wanted to reclaim their lost identity. For them, the garden was a signifier of their personal identity through the reference to an Ottoman garden style and the construction of the garden narratives. In turn, the Missouri Botanical Garden wanted to enhance its botanical garden identity as a place that brings together East and West. To do this, they chose a designer with a hybrid identity of both Turkish and American, who then created a garden—the Islamic identity of which is communicated through material and style used in the Ottoman garden tradition.

The designer deliberately quoted, paraphrased, and adapted design elements and ideas from seventeenth-eighteenth Ottoman gardens to the new geographical and cultural context. Because St. Louis and Istanbul have similar climates, Ottoman plants could flourish. Many design elements, such as the water fountains, were also imported from Turkey to promote integrity and "authentic" feelings, according to the designer. Finally, the identity of the garden was reinforced by its name (Ottoman), the information signs, and the various artistic motifs translated from Ottoman garden traditions. The Ottoman garden was intended to reflect the Bakewell Ottoman identity, but it welcomes visitors of many ethnic groups, although—at least in the Bosnian case—no direct heritage link is acknowledged.

CHAPTER 7: THE AGA KHAN PARK IN TORONTO

I hope this park will contribute to strengthening Toronto's already vibrant pluralism, showcasing to the world Canada's rich example of pluralism in action…As we walk through this place we can feel a deep sense of connection with those who walked through similar gardens centuries ago…The Park and its Gardens can serve as a symbol of "connection."

—Aga Khan IV[371]

Aga Khan Park (2015) is an urban landscape park with two iconic buildings, the Ismaili Center and the Aga Museum, located in the North York district of Toronto, Canada. It was designed by the Lebanese landscape architect Vladimir Djurovic, who won an international design competition and visited many historical Islamic sites around the world under the direction of the Aga Khan IV. The park has a formal-style garden, situated between the two buildings, designed as an abstract modern interpretation of the traditional *chahar bagh* and surrounded by a larger informal wooded band. Unlike the previous two cases of Islamic gardens in Bradford and St. Louis, the Aga Khan Park design avoids direct quotation or paraphrase of any classical, regional Islamic style. Instead, the design of the park and its formal garden are inspired by the spirit and principles of those Islamic gardens that the designer visited and observed. Aga Khan Park is intended to serve the multi-ethnic communities of Toronto, including the large Ismaili Muslims diaspora, and is open to all local and international visitors to the Museum and the Ismaili Center.

With the absence of clear visual identification to Islamic garden tradition, this case brings the question of what makes it Islamic. Based on interviews, site observation, and a review of primary and secondary sources, this chapter tells the story of Aga Khan Park and its two primary

[371] Karim Al-Husayn, (The Aga Khan IV), "Inauguration of the Aga Khan Park, Toronto," *AKDN*, May 25, 2015. https://www.akdn.org/speech/his-highness-aga-khan/inauguration-aga-khan-park-toronto.

structures in Toronto. It shows how twenty-first-century designers can evoke Islamic garden traditions with new forms, purposes, and meanings appropriate for a new context and audience, both Muslim and non-Muslim. The case of Aga Khan Park will help to understand how Islamic gardens are represented and adapted in a non-Islamic global context and how they are used to promote cultural diversity.

A TOUR OF THE AGA KHAN PARK: SITE DESCRIPTION

The 6.8-hectare site is home to two principal buildings: the Ismaili Center designed by the Indian architect Charles Correa (1930-2015) and the Aga Khan Museum designed by the Japanese architect Fumihiko Maki. The roughly triangular site is formed by Wynford Drive to the north, Don Valley Parkway to the east, Eglinton Avenue to the south, and Brookfield Real Property Solutions and Gervais Drive on the west. There are two main vehicular entrances located on Wynford Drive, one for the Ismaili Center and another for the Aga Khan Museum. Both entries have a drop off area and parking nearby. The museum also has an underground parking garage that accommodates 600 cars for both museum and park users (figures 80-81).

The hillock site is encircled by 1.6 kilometers of pedestrian trails and walkways, meandering through a lush informal landscape area with benches and a variety of mature trees. In the heart of the park, between the center and the museum, there is a formal garden designed by Vladimir Djurovic in collaboration with the Toronto-based Moriyama & Teshima Architects. The 1.2-acre garden is a rectangular, semi-enclosed space that lies between the museum and the prayer hall of the Ismaili Center. Cedar hedges (*Thuja occidentalis*) provide boundaries on the eastern and western sides.[372]

[372] Author's site visit, June 2018.

The garden features five spacious rectilinear infinity pools in a quincunx pattern (four in the corners and one at the center), divided by wide walkways, inspired by the traditional Islamic *chahar bagh* form but rendered here in a more abstract modern fashion. The pool is made of flat black granite, which enhances its reflectivity. Together, the five pools mirror the surrounding landscape and architecture. The edge of the basin extends outward over the surrounding sunken channel, which increases movement of the spilling water and enhances its sound (figures 82-83).[373]

An orchard of serviceberry trees (*Amelanchier arborea*), a native to eastern North America, flanks the central reflecting pool. These provide year-round splendor with white flowers in the spring, edible fruits in summer, and yellow and red leaves in the autumn. The serviceberry trees are planted in parallel rows: five along the west side of the central pool and three along the east side. Each row contains five trees separated by soft gravel walkways and raised planting beds in the middle (figures 84-85). To the north, a wide granite carpet forms a threshold between the museum building and the formal garden. At the south end of the garden on the central path facing the glass dome of the Ismaili prayer hall is a bed of Russian sage (*Perovskia atriplicifolia*) and deciduous dawn redwood trees (*Metasequoia glyptostroboides*). Along the east side of the formal garden is a field of soft gravel, divided by two paved walkways, with six honey locust trees (*Gleditsia triacanthos*) and a row of cedar hedges (*Thuja occidentalis*). Opposite, on the western perimeter of the formal garden, is a row of connected granite benches with raised cedar hedge planters behind them. Next to the benches, at a lower level, is a large open lawn area (figures 86-89).

Heading south on the eastern sidewalk is a path that leads to the garden on the back side of the Ismaili Center. This path was originally gravel but had apparently been replaced by lawn by

[373] Author's site visit, June 2018.

the time of my visit in 2018. The Ismaili Center's garden features orchard beds in geometrical order; for example, a bed of Amur maple trees (*Acer ginnala*), a native ornamental tree to northeastern Asia, is aligned in three rows with eight trees in each line. Beyond the orchard trees is a small paved terrace area for the Ismaili Center (figures 90-91).

The Aga Khan Park's formal garden and the Ismaili Center garden flow seamlessly into a larger lush landscape area that forms the eastern periphery of the park. It features a 650-meter pedestrian trail, used for walking and jogging, that flows loosely from the north edge of Wynford Drive to the south side of the park to Eglinton Avenue. The trail gently curves through thousands of shrubs and hundreds of mature trees such as star magnolia (*Magnolia stellate*), river birch (*Betula nigra*), trembling aspen (*Populus tremuloides*), weeping cherry (*Prunus subhirtella 'Pendula'*), rose glow barberry (*Berberis thunbergii*), Chinese wisteria (*Wisteria sinensis*), and forsythia bushes (*Forsythia* spp.) (figures 92-94).[374]

THE ISMAILI CENTER: A PHYSICAL MANIFESTATION OF THE ISMAILIS IN CANADA

The project started in 1996, with a plan to build a new center to serve the growing Ismaili community in Toronto and the surrounding region.[375] The first Ismailis, the Shia Imami Ismaili Muslims, arrived in Canada in the mid-1960s mostly as a small group of students.[376] The second large wave of 6,000 Ismaili refugees settled in Canada in 1972, when Idi Amin, the former President of Uganda (from 1971-1979), ordered the expulsion of the South Asian minority from Uganda. The flow of Ismailis toward Canada continued, with the majority coming from Kenya, Tanzania, and Zanzibar. The welcoming gesture of Canada and its approach to cultural pluralism helped the Ismaili diaspora integrate successfully into the social fabric, contributing in business,

[374] Author's site visit, June 2018.
[375] Al-Husayn, "Inauguration of the Aga Khan Park, Toronto,"
[376] Philip Jodidio, *The Aga Khan Museum, Toronto* (Munich: Prestel, 2008), 18.

politics, and culture.[377] In 1984, the first Ismaili center in North America was established in the city of Burnaby, British Columbia, designed by the Canadian architect Bruno Freschi to serve as religious, social, and cultural center for the Ismailis.[378]

In light of the growing population of Ismailis in Canada, Prince Karim Al-Husayn, the 49th and current *Imam* (or leader) of the Shia Ismaili Muslims, decided to construct a new religious, social, and spiritual center for the Ismailis in the Don Mills area of Toronto. This is because the Don Mills area is one of the most diverse neighborhoods in Toronto, with significant numbers of immigrants and diasporic Ismailis who settled there since the 1970s.[379] In addition, the area was home to the first Ismaili Council for Eastern Canada. Thus, a new center in the area would mark the presence of the Ismailis as a significant part of the Canadian urban fabric.[380] In 1996, the Aga Khan purchased a 3.6-hectare parcel in the Don Mills area, next to the Bata Shoes Headquarters, a modern building designed by John C. Parkin in the mid-1960s. In 2000, an international competition for the Ismaili Center design was won by the renowned Indian architect Charles Correa, who was hired to design the building.[381]

Correa was an architect and urban planner known for his adaptation of modern design principles to suit non-Western contexts. He believed that tradition and modernity do not have to be mutually exclusive but can occur at the same time, especially in architecture. In 1958, he started his firm in India and worked on a variety of projects including public buildings, low-income

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[377] Karim H. Karim, "At the Interstices of Tradition, Modernity and Postmodernity: Ismaili Engagements with Contemporary Canadian Society," in *A Modern History of the Ismailis: Continuity and Change in a Muslim Community*, edited by Farhad Dartary (London: IB Tauris, 2011), 265-94.
[378] Philip Jodidio. "Ismaili Centers," in *Under the Eaves of Architecture: The Aga Khan: Builder and Patron* (Munich: Prestel, 2007), 182.
[379] Tamizan Esmail and Nikhat Ahmed, "New chapter in Canadian Ismaili story set to unfold in the Don Mills neighborhood of Toronto," *The Ismaili*, May 23, 2010. https://the.ismaili/our-culture/new-chapter-canadian-story-set-unfold-don-mills-neighbourhood-toronto.
[380] Cited from: Esmail and Ahmed, "New chapter in Canadian Ismaili story." The article states that this is according to Nizar Sultan, former Chief Executive Officer of the Ismaili Council for Canada.
[381] Philip Jodidio, "The Challenge of Pluralism: Projects in Canada," in *Under the Eaves of Architecture*, 202.

housing, hotels and resorts, and high-rise luxury apartments, receiving awards such as the Royal Institute of British Architects Gold Medal (1984), the Indian Institute of Architects Gold Medal (1987), and the Aga Khan Award for Architecture (1998).[382]

In his Toronto commission, Correa followed an approach used in the other Ismaili centers around the world—interpreting the traditions of Islamic architecture in a modern way. One of the main features of the design of the Toronto Ismaili Center is its circular prayer hall, with its steel trusses and crystalline glass pyramidal domed roof, oriented northeast toward Mecca. The center has a library, classroom, administration offices, and social area.[383]

THE AGA KHAN MUSEUM: A CELEBRATION OF LIGHT AND CULTURE

The Aga Khan has engaged with important social, cultural, and economic projects in the developing world through his organizations at the Aga Khan Development Network (AKDN). As part of his initiatives, under the Aga Khan Trust for Culture (AKTC), the Aga Khan wanted to establish a museum in Europe to provide an opportunity for the West to learn about and understand Islamic culture and its civilization.[384] He believes that museums, through their display of material culture and programs, have a strong direct impact on people and can foster cross-cultural dialogues.[385] His initial idea was to build the museum in London at a prestigious location besides St. Thomas's Hospital opposite the House of Commons. He offered £24 million to purchase the 1.8-acre site but, in 2002, the land was sold to another buyer.[386] Fortunately, the same year, the

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[382] Irena Murray, *Charles Correa: India's Greatest Architect* (London: RIBA Publishing, 2013), 4-5.; Hasan-Uddin Khan, *Charles Correa* (Singapore: Concept Media, 1987), 160-161.
[383] Author's site visit, June 2018. Also see: Faranaaz Alimohamed, "Ismaili Centre, Toronto: A new addition to a growing global network," *The Ismaili* 2 (July 2010): 36-41. https://the.ismaili/sites/ismaili/files/3906-524504946.pdf.
[384] Jodidio. *The Aga Khan Museum, Toronto*, 7.
[385] Ibid., 6.
[386] Jo Revill, "Aga Khan's dream of art palace fading," *The Guardian*, October 6, 2002. https://www.theguardian.com/society/2002/oct/06/1.

3.35-hectare site adjacent to the proposed Ismaili Center in Toronto became available. The Aga Khan bought the land and hired Sasaki Associates to conduct the feasibility studies and the preliminary master plan for the site.

According to Luis Monreal, the General Manager of the AKTC, Canada has a very pluralistic environment open to all cultures and civilizations, including Islam, that makes it an excellent location for the museum. In addition, Monreal believed that the strategic geographical location of the museum in Canada next to the United States would help attract millions of visitors.[387] Twelve years later, with 150,000 visitors in the first year alone, his prediction proved correct.[388] In order to engage the community in the process, the AKTC conducted a survey asking young Canadian Muslims about their expectations for the museum building. The majority of the respondents favored a building that would be modern and yet would evoke Islamic tradition and provide opportunities for them to integrate with the cultural environment of Canada.[389] In other words, they were looking for a building that would represent current and future Canadian Muslims as an educated, forward-looking people who embrace both Islamic cultural tradition and modernity.[390]

The long relationship, active engagement, and investments of the Aga Khan with Canada, since the 1970s, facilitated the process of obtaining the permission to advance the project.[391] However, the John Parkin-designed Bata Shoes Office would have to be demolished to make way for the proposed museum, and thus a new challenge arose when a local heritage group began to

[387] Luis Monreal, "Wisdom Begins with Wonder: The Aga Khan Museum in Context," in *Pattern and Light: Aga Khan Museum*, edited by Philip Jodidio (New York: Skira Rizzoli, 2014), 9.
[388] The Aga Khan Museum, "A Year in review: 2014-2015" (2016): 18. https://www.agakhanmuseum.org/about/pdf/AKM_A-Year-in-Review-2014-15.pdf.
[389] Jodidio, *The Aga Khan Museum*, 29. Based on an interview with the Aga Khan by Jodidio Philip in London 2007.
[390] Ibid.
[391] Al-Husayn, "Inauguration of the Aga Khan Park, Toronto."

advocate for the building as a heritage site. Nonetheless, with full support from the owner of Bata Shoes, the building was demolished in 2007 and the Aga Khan project proceeded as planned.[392]

At the same time that museum planning was underway, the embassy building for the Delegation of the Ismaili Imamat in Ottawa, designed by Fumihiko Maki and Moriyama & Teshima Architects in the late 1990s, was in its final stage of construction. The building was opened in 2008 to serve as the first embassy representing the Aga Khan and his institutions (The Aga Khan Development Network) in Canada.[393] In his designs for the Delegation building, following the direction of the Aga Khan, Maki used "rock crystal" with its transparent and translucent surfaces as the inspiration and starting point for the design. The key features of the building include a large central atrium surrounded by a *jali* (a traditional form of screen) and covered by a glass roof structure that mimics the shape of rock crystal. In addition, the building has an interior *chahar bagh* courtyard garden with four raised beds, each having two Japanese lilac trees (*Syringa reticulate)*, box hedges, and flowering groundcovers that thrive in Canada all year long (figures 95-96).[394]

The Delegation's modern building and its garden represent concepts and elements rooted in Islamic tradition. Furthermore, they are based on the idea of openness and transparency, signifying the delegation's commitment to promoting dialogue, exchange, and partnership.[395] The Delegation of the Ismaili Imamat building shows Maki's ability to create a signature modern design that reflects the vision of the Aga Khan and deep values of Islamic architecture. It won the

[392] Al-Husayn, "Inauguration of the Aga Khan Park, Toronto."
[393] Aga Khan Foundation Canada official website: https://www.akfc.ca.
[394] Fumihiko Maki et al., *Fumihiko Maki* (London; Phaidon, 2009), 274-275.
[395] The Delegation of the Ismaili Imamat, "Visit the Delegation," Accessed December 30, 2019. https://www.akfc.ca/about-us/visit-us/.

2012 Governor General's Medal in Architecture for architecture representing "peace and plurality."[396]

Maki, the principal of Tokyo-based Maki and Associates, is a modernist architect and academic professor, well known for works such as the Shimane Museum of Ancient Izumo (2006), which celebrates Eastern and Western cultures in a modern fashion.[397] He received numerous awards, including the Pritzker Prize in 1993 and an AIA Gold Medal in 2011.[398] In light of this, Maki was hired in 2004 for his second commission to design the Aga Khan Museum in collaboration with the firm Moriyama & Teshima Architects as the Architect of Record.

For the museum design, Maki followed an approach similar to the one used in his first commission (although different in terms of its program and function), designing a contemporary building that evokes the essence of Islamic architecture. In an interview with Philip Jodidio, Maki stated, "In Ottawa and also here, His Highness wanted a modern building, but once you are inside, there should be a feeling of Islamic architecture."[399] The 11,000 square-meter museum has a simple rectilinear layout with underground parking, two floors above grade, and a central courtyard. The first and second floors contain a large reception area, galleries, exhibition rooms, an auditorium with a dome, classrooms, a library, a shop, and a restaurant.[400] In this case, instead of "rock crystal" that allows light to pass through, the Aga Khan wanted the museum to be directly inspired by the light because of its significant symbolic meaning in Islam, coming from the title of a chapter in the Qur'an, as well as in other religions. He wrote to Maki:

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[396] Philip Jodidio, "A conversation with Fumihiko Maki, Architect of the Aga Khan Museum," in *Pattern and Light: Aga Khan Museum*, 24.
[397] For more information about the architect see: Maki et al., *Fumihiko Maki*.
[398] The Pritzker Architecture Prize, "Fumihiko Maki Biography," Accessed December 30, 2019. https://www.pritzkerprize.com/laureates/1993; The Gold Medal is the AIA's highest honor award for individuals with exceptional work on the theory and practice of Architecture., according to their website: https://www.aia.org/awards/7046-gold-medal
[399] Jodidio, "A conversation with Fumihiko Maki, Architect of the Aga Khan Museum," 28.
[400] Jodidio, *The Aga Khan Museum, Toronto*, 42-44.

> For the Aga Khan Museum, I thought that "Light" might be a concept around which you could design an outstanding museum. The notion of light has transversed nearly all of human history, and has been an inspiration for numerous faiths, going as far back of course to the Zoroastrians and their reverence for the Sun, to the *Sura* [chapter] in the Holy Qur'an titled *al-Nur* [light]. Decades of Western history are referred to as the "Enlightenment" for good reasons…I hope that the building and the spaces around it will be seen as the celebration of Light, and the mysteries of Light, that nature and human soul illustrate to us at every moment in our lives…Thus the architecture of the building would seek to express these multiple notions of Light, both natural and man-made, through the most purposeful selection of internal and external construction materials, facets of elevations playing with each other through the reflectivity of natural or electric light, and to create light gain or light retention from external natural sources or man-made internal and external sources.[401]

Responding to the wishes of his client, Maki incorporated the theme of light both symbolically and functionally in his design. The museum's interior revolves around a central courtyard, an important element in Islamic architecture, and is surrounded by transparent glass walls and a layer of metal *mashrabiya* (latticework) patterns, allowing natural light to flood into the building. The exterior walls are inclined at different angles to variously cast shade or refract natural light. They are clad with white Brazilian granite, which glows with the natural colors at sunrise and sunset, similar to the Taj Mahal with its white marble that glows red at sunset and white at noon, according to Maki (figures 97-98).[402]

When the AKTC commissioned Maki for the Museum, Correa's Ismaili Center was already in its final design stage. Therefore, the Ismaili Center was a fixed element of the site that Maki needed to consider. In his design, Maki established a formal relationship between the Museum and the Ismaili Center, particularly with the dramatic pyramidal shape of the prayer hall that faces the front façade of the museum. He placed the Museum's main entrance along the axis of the prayer hall's dome to establish a visual connection. To further enhance this connection, he molded the roof of the Museum's auditorium like a facetted precious stone, thus echoing the crystalline roof

[401] Philip Jodidio, "Al-Nur (The Light): The Architecture of Fumihiko Maki," in *The Aga Khan Museum, Toronto*, 37 and 53.
[402] Jodidio, "A conversation with Fumihiko Maki, Architect of the Aga Khan Museum," 26-27.

of the Ismaili Center.[403] Another important consideration, requested in the project brief, was to make the museum auditorium roof lower than the dome of Center's prayer hall, so as to resonate with the symbolic meanings of the prayer hall dome and its orientation toward Mecca.

AN ISLAMIC GARDEN FOR THE TWENTY-FIRST CENTURY: THE JOURNEY OF VLADIMIR DJUROVIC

The Aga Khan wanted his Museum and the Ismaili Center to be connected within an urban park forming the three realms of "art, spirit, and nature."[404] Thus, to complement the architectural design of the Museum and the Ismaili Center, an international landscape architecture design competition was held for the park. The main task was to create a landscape space that connected the Museum and the Ismaili Center with their distinctive architectural design, program, and function.[405]

The Lebanese landscape architect Vladimir Djurovic won the design competition with his proposal for a contemporary interpretation of the *chahar bagh* (the four-part garden) that unites the two monumental buildings. In addition, he proposed a landscape design solution for the entire Wynford Drive site with its busy surrounding highways and condominium towers. Because the Aga Khan Park was Djurovic's first attempt to design an Islamic style garden, he had to prepare for the design competition by reading about and studying historic Islamic garden design elements and principles. Djurovic stated, "We did a lot of research on: What is an Islamic garden? What is it all about? What it stands for? What it represents?—and how it changed dramatically from one continent to another depending on the cultural differences."[406] The winning design proposal, which was modified after he won the competition, featured a reformed *chahar bagh* with polished glass

[403] Jodidio, "A conversation with Fumihiko Maki, Architect of the Aga Khan Museum," 26-27.
[404] Karim Al-Husayn (His Highness The Aga Khan), Forward to *Pattern and Light: Aga Khan Museum*, 6.
[405] Jodidio, *The Aga Khan Museum, Toronto*, 83.
[406] Vladimir Djurovic, interviewed by the author, July 2018.

slabs with water running gently over the angled edge. In the wintertime, he explained, the snow would cover the basin and the freezing ice on the glass would gradually dissolve and fall off the edge, creating a sensory pleasure.[407] In this way, Djurovic's first design proposal is connected to the Islamic garden tradition, but expressed using contemporary design language that responds aesthetically to Canada's long winter season.

The Aga Khan Park commission provokes the question of what makes it an Islamic garden, given that its forms are so abstract. As I see it, there are several clear connections to Islamic history in the personage of the designer himself. Djurovic is a contemporary minimalist landscape architect known for his innovative and poetic designs that celebrate nature and culture. He is principal of Vladimir Djurovic Landscape Architecture (VDLA), a firm in Broumana, Lebanon. In 1992, he received a Master's degree in landscape architecture from the University of Georgia, after which he worked for EDAW in Atlanta (acquired by AECOM in 2005), before returning to Lebanon in 1995 to establish his own firm.

As someone with a hybrid identity (having a Lebanese mother and Serbian father) and living in Lebanon (home to various ethnic minorities), Djurovic valued pluralism. He worked on many private and public landscape projects in Lebanon, including Samir Kassir Square in Beirut (2004), which received the Aga Khan Award for Architecture in 2007. The 815 square-meter urban plaza is situated in a central area of Beirut, which was heavily destroyed by the Lebanese Civil War (1975-1990). It features a raised reflecting pool with cascades over the edges and two large ficus trees (*Ficus benjamina*) sitting on a rectangular timber deck with a twenty-meter long stone

[407] Ibid.

bench on one side.[408] As in the Toronto commission, this public square in Beirut serves diverse ethnic communities of the city.

Shortly after he won the Toronto competition, the Aga Khan sent Djurovic to see historic Islamic sites around the world, including in Spain, India, Egypt, and Iran. He stated that "when we [the design team] won the competition, I met him [the Aga Khan] in France and he said, 'I want you to visit some places around the world,' and he gave us a list of places to visit…we were wondering why he asked us to do that and what he is expecting from us. What exactly we should be looking at, and what should we learn from these gardens?" [409] With those questions in mind, Djurovic began his journey, visiting sites such as Humayun's Tomb (1570), Fatehpur Sikri (1571) and the Taj Mahal (1631-1648) in India; the Alhambra (fourteenth century) in Spain; and ending with historic mosques and contemporary public spaces such as Al-Azhar Park (2005) in Egypt.[410]

While exploring the great Islamic sites, Djurovic began wondering what made these historic places so extraordinary both in the past and today. In India, for example, he admired the minimal design approach used in Humayun's Tomb and garden that evoked the local hybrid (i.e., Mughal and Indic) cultural tradition. He stated, "I was wondering all the time what exactly the Aga Khan wanted us to look in these gardens. It only starts hitting me when I visited Humayun's Tomb in Delhi, which is one of the most beautiful gardens I have visited in my life. It is very basic and simple with few elements but somehow it is magical." [411] The tomb of Humayun, the second emperor of the Mughal Empire, built in 1570, is the oldest extant example of a Mughal imperial tomb set in a garden, and it inspired many subsequent Mughal works, including the Taj Mahal.

[408] Mohammed Al-Asad, "Public Spaces: Rethinking the City," *in Contemporary Architecture and Urbanism in the Middle East* (Gainesville: University of Press of Florida, 2012), 112-113.
[409] Vladimir Djurovic, interviewed by the author, July 2018.
[410] Ibid.
[411] Ibid.

The monumental domed mausoleum, with its cladding of red sandstone and white marble, stands on a raised platform at the center of a classical *chahar bagh* garden with pools linked by narrow water channels.[412] The fact that the project was built in a multicultural society of Muslims and Hindus by multiethnic craftsmen makes it relevant for Toronto with its pluralistic society. The challenge for Djurovic was how to translate those Islamic design traditions into a contemporary architectural language that would fit the cultural and natural context of Toronto.

In the fourteenth-century Court of the Myrtles at the Alhambra, Djurovic found a different set of inspirations for his Aga Khan Park. The courtyard had a large rectangular pool with rows of myrtle shrubs along the eastern and western sides. At either end of the pool, there were small basins with water jets. The court was enclosed at the northern and southern ends by decorated arched galleries and by two-story buildings forming the walls of the east and west sides. The large pool mirrored the adjacent architecture, thus amplifying its size and framing it within the garden setting.[413] Djurovic was fascinated by the simple yet complex harmony and connection between the architecture and the gardens. He was touched by the unique sensory experience—the sound of the water and the smell of flowers—that he experienced in the Alhambra's courtyard gardens.[414]

This journey, according to Djurovic, provided him with new knowledge and understanding about Islamic gardens and landscapes generated from his own personal experience. He realized that the majority of the great Islamic gardens that he visited have many shared design principles, such as the notion of simplicity, functionality, and sensitivity toward the environment and local context. In addition, those visits ultimately helped Djurovic to understand the expectation of the Aga Khan and his vision for the Toronto park. He said, "The Aga Khan didn't want us to design a

[412] United Nations Educational, Scientific, and Cultural Organization, "Humayun's Tomb, Delhi," Accessed December 30, 2019. https://whc.unesco.org/en/list/232/.
[413] D. Fairchild Ruggles, *Gardens, Landscape, and Vision in the Palaces of Islamic Spain*, 185-186.
[414] Vladimir Djurovic, interviewed by the author, July, 2018.

very nice garden for himself; it was my first experience with him. All my clients want projects for themselves for their own purposes. The Aga Khan wanted us to design a garden that will last for generations. This design is not only for now; he doesn't want us to design something for now. This experience was a mind opener, and its impact is manifested in all our design projects."[415]

In light of these findings, Djurovic decided to modify his design proposal for the Aga Khan Park. The main intent this time was to create a contemporary minimalistic landscape that reflect the spirit of the great Islamic gardens that he visited yet would serve current and future generations. Thus, in his new design, durability was a key factor, which affected the choice of materials, construction techniques, and plant selection.[416] Djurovic collaborated with Moriyama & Teshima Architects to find the most appropriate technical solutions for his design ideas given the complex challenges of the site and its northern location.[417] As a result, many of his previous ideas were abandoned; for example, the glass slab turned out to be not durable during Canada's winters.

The new design proposal, according to Djurovic, is connected and inspired by Islamic garden traditions but did not directly quote any garden that he observed during his journey. The landscape proposal included a large formal Islamic garden situated between the two buildings on the site and a series of smaller formal gardens (such as a botanical garden) around the periphery. The central garden was designed in an abstract *chahar bagh* layout, which reflects the theme of paradise in Islamic garden tradition and features a few design elements: five large black granite water pools (that replace the typical *chahar bagh* composition of four green gardens and a central water feature), a fruit orchard, granite, and loose gravel for the paving. Those elements, according to the designer, were assembled in a simple but sophisticated way that embraced the five senses.

[415] Vladimir Djurovic, interviewed by the author. July 2018.
[416] Jodidio, *The Aga Khan Museum, Toronto,* 96.
[417] Jodidio, *The Aga Khan Museum, Toronto,* 96.

He worked closely with Maki and Correa to make sure that his central *chahar bagh* garden would complement and connect the two buildings while maintaining the garden's own identity. It was a challenging task, according the Djurovic, because while the Museum faces the garden, the Ismaili Center turns away from it. Thus, the *chahar bagh* now mainly addresses the prayer hall of the Ismaili Center by framing the reflection of the sculptured glass dome within the garden, while the rest of the garden's composition addresses the architecture of the Museum. The use of water as a reflection device in the garden amplifies the garden space both physically and visually, evoking the kind of mirroring that occurs in many of the great Islamic gardens that Djurovic had visited, such the Court of the Myrtles at the Alhambra. Another important connection to the Islamic garden tradition was made through the use of various plant types, especially productive plants, which are very common in tradition Islamic gardens. Djurovic explained his approach:

> After we did a lot of research and traveled following the Aga Khan's request to visit many Islamic gardens around the world, we noticed that the most beautiful Islamic gardens have a very simple plan with few elements… in our project, we wanted to abstract the main features, sensation, and components of the Islamic gardens, and we translated them in a modern language that fit properly with the new context… If you just copied the past, it will look completely out of place; it will not have an impact. The overall theme [of the central garden] inspired by the traditional *chahar bagh* with its four quadrants and a central water element, but in our case, we did all the four quadrants as a water mirror along with the central water feature, which is also a water pool mirror… the surrounding urban areas are very dense with highways and buildings, so we really wanted to capture you in the garden… those black water mirrors with a very beautiful fruit orchard of native Canadian berry trees framed the Ismaili Center prayer hall and really reflect the sky and bring the element of change.[418]

INAUGURATION OF THE AGA KHAN PARK

In 2008, the Aga Khan officially approved the new design for the Park. However, as in any ambitious project of this magnitude, Aga Khan Park faced many challenges that delayed the project and ultimately drained the budget. Faced with a shortfall, Djurovic decided to keep the central

[418] Vladimir Djurovic, interviewed by the author, July 2018.

chahar bagh between the two buildings but replaced all the proposed formal gardens around the periphery with a simple, more affordable design. In this way, he managed to resolve the budget issue and at the same time eliminated all the elements that may have interrupted the visual manifestation of the Museum and the Ismaili Center as large-scale sculptures.[419] Another smart decision made by the designer was to purchase smaller (and thus less expensive) trees in advance, allowing the trees to mature and grow before transplanting them to the site.[420] In September 2014, the Museum and the Ismaili Center were formally opened, and eight months later the Park was completed and opened to the public.

At the inauguration of Aga Khan Park, the Aga Khan emphasized the importance of gardens in the twenty-first century, believing that open green spaces are an essential for creating a healthy city and improving the quality of life.[421] He also talked about the symbolic meaning of gardens in the Qur'an and how they became a fundamental part of Muslim culture. He stated, "The Holy Qur'an, itself, portrays the Garden as a central symbol of a spiritual ideal – a place where human creativity and Divine majesty are fused, where the ingenuity of humanity and the beauty of nature are productively connected."[422] The twenty-first century garden, according to the Aga Khan, should renew our connection with the past and provide opportunities to strengthen the connection between people and their culture. In other words, the design of Islamic gardens today should be based on Islamic tradition—for example, geometric forms that reflect the natural landscape—but must be expressed in a contemporary language suitable to the modern context. Those principles were the basis of Aga Khan Park.[423] In his speech the Aga Khan stated:

[419] Vladimir Djurovic, interviewed by the author, July 2018.
[420] Vladimir Djurovic, interviewed by D. Fairchild Ruggles, May 2013.
[421] Al-Husayn, "Inauguration of the Aga Khan Park, Toronto."
[422] Ibid.
[423] Ibid.

> As we walk through this place we can feel a deep sense of connection with those who walked through similar gardens centuries ago. And, by renewing our connection with the past, we can also connect more effectively with one another – and, indeed, with those who will walk these paths in the future… those who designed this complex. On one side, looking at the Museum, we see the work of a Japanese master. On the other side, looking at the Centre, we see the work of an Indian architectural giant. And in between we recognize the masterpiece of a young landscape artist of Lebanese descent. All of this, of course, is done in the service of rich Islamic traditions – expressed in a twenty-first century idiom. And it is all set, in a Canadian context, where the ideals of cultural pluralism are so deeply rooted.[424]

The Aga Khan Park in Toronto is the ninth contemporary landscape and garden project commissioned by the AKTC. Previous parks and garden projects range from the restoration, preservation, and rehabilitation of existing historic sites (such as the case of Babur's Garden in Kabul and Forodhani Park in Zanzibar), to new developments (such as Al-Azhar Park in Cairo and Sunder Nursery in Delhi).[425] The main goal of the AKTC in these projects was to improve the quality of life for resident communities and bring positive economic, social, and cultural change to the developing world. In addition to the Park in Toronto, the AKTC launched two more major park projects in Canada. The first was the Aga Khan Garden in Edmonton, designed by Nelson Byrd Woltz Landscape Architects, which was opened in 2018. The second project is a new park planned for Burnaby.

THE AGA KHAN PARK TODAY

Today, the Aga Khan Park is a major destination for tourists and local Canadians, both Muslim and non-Muslim. The Museum and the Ismaili Center stand independently in terms of their distinctive function and programs. The Ismaili Center is a religious and social space serving the growing Ismaili community in Toronto, but visitors are welcome to explore through guided

[424] Ibid.
[425] Rashti, "Parks and Gardens," 49.

tours. The Museum, with its exhibition rooms, education programs, and cultural activities, is dedicated not only to Muslim communities in North America, but accessible for a broader global audience.

The Park was designed to offer spaces for leisure, education, and cultural activities for both institutions and is open to the public throughout the year. All the landscape areas around the Park's buildings—particularly the central formal garden, the open lawn and the stone carpet—are used for gatherings, performances, and events sponsored by the Museum and the Ismaili Center. For example, in 2017, the Museum hosted an outdoor photography exhibition titled "Skate Girls of Kabul" at the Park that showcased the work of the British photographer Jessica Fulford-Dobson. The exhibited photo collection captured the joy and spirit of young Afghani girls participating in the *Skateistan* program in Kabul that empowers young girls.[426] In the same year, the Museum hosted other events for the public such as "Dancing in the Park," where visitors had the chance to learn various folk dances, and "Films under the Stars," which transformed the park into an outdoor cinema hall.[427]

The formal garden is usually crowded with people, mostly with visitors of the Museum and its events. During my site visit in June 2018, a free outdoor gallery titled "Reflections of Hope" by Aida Muluneh, an Ethiopian-born photojournalist, was held at the formal garden, with five large double-sided portraits placed in the middle of the black reflecting pools. Muluneh's artistic work explored themes such as slavery, war, colonialism, and human rights in Africa and presented them in a creative dramatic fashion (figure 99).

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[426] Aga Khan Museum, "Photographs Skate Girls of Kabul," Accessed December 30, 2019. https://www.akdn.org/project/photographs-skate-girls-kabul. *Skateistan* is an international NGO founded in 2009 in Kabul that provides a safe skate park for Afghani girls.

[427] The Aga Khan Museum, "A Year in Review: 2017" (2018): 20. https://www.agakhanmuseum.org/about/pdf/AKM_A-Year-in-Review-2017.pdf.

I observed many people walking unhurriedly around the formal Islamic garden, exploring the displayed artwork and capturing the beauty of the garden in pictures. Some people were sitting on the serviceberry-orchard planter bench to enjoy a quiet, peaceful moment as the sound of running water covered-up distracting sounds. Other groups of people were sitting on the garden's connected stone bench enjoying the garden and the art exhibition. Ducks were skimming along the surface of the *chahar bagh* pools, which wonderfully reflected the surrounding buildings and environment. A private event was also being held at the formal garden during my visit. For this event, a temporary lightweight glass structure was installed on the stone carpet area, which provided its guests a pleasant view of the Islamic garden and allowed them to take memorable pictures (figures 100-103).

In addition to serving as an outdoor platform for the Museum's public events, the Park is actively used by the surrounding local community (figure 104). During my visit, I saw many people walking, jogging, and biking on the Park's curvy long trail that extends from the north edge of the Wynford Drive to the south side of the park on the Eglinton Avenue. This section of the park is designed as a natural urban forest with a pool of trees and shrubs that provide a heavenly escape from the surrounding dense urban environment with its high traffic streets and highways.

The Aga Khan Museum offers a guided walking tour for visitors to explore and enjoy the architecture and Aga Khan Park. The contemporary abstract notion of Djurovic's design, along with the absence of clear Islamic visual identification (e.g., Islamic motifs) within the garden, makes it hard for some visitors to recognize the garden as Islamic. Thus, one of the objectives of the tour is to explain the connection between the Toronto's Islamic garden and traditional Islamic gardens. The tour starts from the Museum's front desk, proceeds to the *chahar bagh* garden, then to the Ismaili Center's backyard garden, and ends with a shorter walk to the outer landscape area,

after which the visitors can explore on their own.[428] During my tour, the tour guide identified the formal garden as a contemporary Islamic garden inspired by the traditional Islamic paradise garden. He described the connection to the Islamic garden tradition through the design features and principles used by the designer and also named the plant collections and how they fit the Canadian context. Thus, even if the visual elements of the garden may not be immediately recognized as "Islamic," the museum (both in written and spoken narratives) didactically constructs the garden's Islamic identity through its guided tours.

In summary, the Aga Khan Park campus in Toronto is a notable example that shows how history and tradition can influence twenty-first century Islamic gardens in the West. The Islamic identity of this park was first formed through its patron, the Aga Khan IV—the leader of the Ismaili Shia group and a direct descendant of the Prophet Mohammed through his daughter Fatima al-Zahra. In the twenty-first century, the Aga Khan is one of the most passionate patrons for Islamic architecture and gardens, clearly manifested in the many iconic Islamic architecture and landscape projects that he has sponsored around the world, including Aga Khan Park in Toronto.

Second, the architectural design of the Museum and the Ismaili Center was inspired by Islamic design principles translated into a contemporary idiom. While the architects of the two buildings avoided a direct connection to any classic Islamic style, a noble approach, it has made the visual identification and connection to Islamic style more difficult. In turn, the Islamic identity for the two buildings is made more apparent through the permanent collection of Islamic art displayed in the Museum, as well as temporary installations, and through the Ismaili community and their various religious and cultural activities at the Ismaili Center.

[428] Author's Aga Khan Park tour, June 2018.

Finally, the design of the Aga Khan Park was inspired by the essence of major historic Islamic gardens from around the world that the designer visited and adapted for Toronto's urban landscape. It follows overarching principles of Islamic garden design while avoiding any specific regional references to the Islamic world that might narrow its meaning. More specifically, the designer deliberately used an abstract interpretation of the classical *chahar bagh* layout with water and plant features to complement and connect the two iconic buildings on the site in a meaningful way. However, the contemporary abstract interpretation of the Islamic style condenses the visual references to Islamic garden tradition, making it difficult for the general user to read the garden as Islamic. Thus, the guided tour offered by the Museum is designed to educate and help users to understand the garden's design concept and its tangible and intangible connection to the Islamic tradition.

The Aga Khan Park campus reflects the long vision and ambition of the Aga Khan to "restore and create beautiful green spaces…and to protect the natural world."[429] In his inauguration speech he asked: "How can humankind honor what is distinctive about our separate identities and, at the same time, see diversity itself as a source of inspiration and blessing? Rather than fearing difference, how can we learn to embrace difference so that we can live together more peacefully and productively?"[430] With its two buildings and garden, Aga Khan Park is an honest attempt to answer those questions in Toronto's built environment with its rich and vibrant cultural pluralism.

[429] Al-Husayn, "Inauguration of the Aga Khan Park, Toronto."
[430] Ibid.

CHAPTER 8: CONCLUSION

The purpose of this research was to answer the question of what defines an "Islamic" garden in the twentieth and twenty-first centuries. In particular, its aim was (1) to investigate how landscape designers have integrated Islamic cultural tradition and modernity to design Islamic gardens in North America and Europe and (2) to determine the role of the patrons in forming the identity of these gardens. To answer these questions, I used a qualitative case study research methodology focusing on contemporary Islamic gardens in three Western cities: Bradford, St. Louis, and Toronto. The research methods I used include site observation, a review of primary and secondary sources, and semi-structured interviews with professional designers.

The historical exploration in this thesis shows the significant and extended history of representation and cultural exchange between the Islamic and Western world. First, I demonstrated that the practice of representation started with the great discovery of the "Orient" during the Renaissance in Europe, and continued throughout the modern period with mutual cultural exchange between the Islamic and the Western world. Moreover, I traced how the Islamic world passed through a complex colonial period into a post-colonial phase that marked the rise of Muslim independent nations in the global era of the present. Now, local and regional boundaries have become softened, allowing people, ideas, and cultural materials (including gardens) to flow easily outward. Therefore, this thesis argued that Islamic style gardens today are not limited to specific locations, cultures, or environments since they can be adapted to various parts of the world—including in places that are not primarily Muslim, such as the United Kingdom, United States, and Canada.

Despite the importance of this new global phenomena to the history of world gardens and the history of Islamic gardens in particular, I showed that these questions are only briefly addressed

and rarely analyzed in the literature. The majority of previous work that I explored throughout this thesis has exclusively focused on the pre-modern period, with a partial consideration devoted to the twentieth-twenty-first century. To fill this gap, this research extended the historical framework of Islamic gardens both into the contemporary period and beyond its defined Islamic geographical boundaries into a global context, addressing critical questions about their meaning and identity in the present. For the purpose of this research, I used the term "contemporary Islamic garden" to describe designed landscape projects built in the twentieth and twenty-first centuries that connect to the diverse span of Muslim history, culture, tradition, and geography.

To understand how Islamic identity connects to contemporary Islamic garden design, I interviewed several professional landscape designers, asking them about their Islamic garden projects and the source of their inspiration. The interviews showed that the majority of landscape designers construct Islamic identity through a connection to "space" and "time." For instance, designers tend to visit major historical Islamic gardens and architectural sites to gain knowledge and personal experience about Islamic gardens, which I considered as a connection to space. They support this spatial and sensory knowledge through various historical literature and representations of Islamic gardens, or a connection to time, shown in religious, scientific, and fictional texts. My analysis of these interviews in chapter four showed that landscape designers apply these forms of knowledge about Islamic gardens in their garden projects using design tactics such as imitation, paraphrase, representation, abstract, hybridization, and adaptation. The decision regarding the most appropriate approaches to apply usually depends on the designer's preference—along with the type and the context of the project. From the examples of contemporary Islamic gardens discussed in chapter four, it is clear that landscape designers can chose to follow one particular approach (e.g., imitation in the case of the Alhambra in Saudi Arabia and hybridization between

Islamic and Western style in the Orient Garden in Paris) or combine multiple approaches (e.g., adaptation and paraphrase of the classical Mughal style in the Aga Khan Garden in Edmonton).

While chapter four focused on the knowledge and design tactics used to create an Islamic identity in designed landscapes, the last three chapters in my dissertation explored three local case studies of contemporary Islamic gardens in Bradford, St. Louis, and Toronto. The primary purpose was to examine how historical resources and design tactics were used to represent a contemporary Islamic identity in a location within a Western context that is not predominantly Islamic. Every Islamic garden in the West has its own unique story, which is what makes them so interesting and inspiring to study. Besides, exploring specific local examples of Islamic gardens in the West provides an opportunity to have a comprehensive understanding of the intent and aspiration of the patron and the designer of those projects. It also provides a chance to compare the three design projects (with their different social, cultural, and geographical contexts) to understand how designers negotiate with various local conditions and communities to construct gardens in North America and Europe with an Islamic cultural identity.

The in-depth examination of the three case studies of Islamic gardens showed the effect of globalization, tourism, and the flow of people in the creation of contemporary Islamic parks and gardens in a Western context. In doing this, I also highlighted the fact that these flows are inconsistent, so that even when a Muslim population is present, it may not be acknowledged immediately—or ever—in the gardens designed for the public. I also demonstrated that the design style of these gardens varied based on the type and location of the site and, most importantly, the demand of the patron and users. In forming the Islamic identity of these gardens, the designer deliberately connected their designs (physically and conceptually) with the rich history of Islamic gardens in combination with various interpretation techniques (discussed in chapter four).

However, the transposition of such an Islamic garden design required certain negotiations with and adaptations to local cultural, geographical, and climatic conditions to produce a meaningful experience and prevent cultural alienation. Once these Islamic gardens have been transferred into a new non-Islamic location, they stop being exotic and become more familiar, normal, and domesticated.

In Bradford, the Mughal garden was designed and constructed by local architects and landscape architects from the City of Bradford who—as far as I can tell—were not raised in a Muslim tradition. Nonetheless, they were able to adapt and paraphrase the historic Islamic Mughal style, using it in their new design as a way to recognize and represent the large South Asian diasporic Muslim community in the Bradford area. The Mughal garden was placed within Lister Park, a historic Victorian style park, to highlight the shared cultural heritage between the South Asian Muslims and the British, thereby promoting cultural diversity and the spirt of togetherness in Bradford. The Islamic visual identity was established in the garden through the design elements and principles of traditional Mughal gardens with its geometric linear *chahar bagh* layout and water elements. The English identity was also reflected in the Bradford Mughal garden through the planting collection, hardscape material, and more significantly the connection to the Victorian style of Lister Park and the adjoined Cartwright Hall.

In St. Louis, the Bakewell family hired a group of experts, including a Turkish-American architect, to create a garden inspired by seventeenth-eighteenth century Ottoman garden traditions. The Ottoman style was chosen by the family to reconnect to their Ottoman heritage or perhaps to invent a new one; and although there was a resident community of Muslims in the city, theirs was not the identity explicitly evoked in the garden. The Turkish architect paraphrased design elements from various historical Ottoman gardens to design the Bakewell Garden and consulted with several

Ottoman-Turkish architectural and garden experts. The Ottoman garden is placed within the Missouri Botanical Gardens, adding to its diverse collection of Western and Eastern style gardens with the Ottoman garden serving as a bridge between them. The Islamic Ottoman identity was manifested in the garden through the *chahar bagh* design layout, water features (designed and built in Turkey), large collection of Eastern origin plants (including tulips), architectural elements, poetic epigraphy, and artistic motifs that evoke Ottoman culture.

In Toronto, the Aga Khan Park was designed by a professional landscape architect who won an international design competition for the commission. The competition was devised by the Aga Khan, who was looking for a creative design solution for adapting an Islamic style garden to the Canadian urban landscape that could, at the same time, connect the buildings of the Museum and Ismaili Center that were already on site. The winning designer then traveled and observed various historic Islamic gardens around the world to find what made those gardens special, with the goal of learning from the past rather than slavishly copying it. Thus, the designer used an abstract technique to form an Islamic identity in the Canadian built space, inspired by the essence of the major historic Islamic gardens that he visited. Here, the identity of the Islamic garden was constructed through an abstract interpretation of the classical *chahar bagh*, coupled with the use of common Islamic design elements—such as reflecting water and productive plants. The garden also reflected the vision and inspiration of its patron, the Aga Khan, and his Ismaili followers in Toronto and worldwide.

Despite their distinctive Islamic style (e.g., Mughal and Ottoman) and approaches, these three cases of Islamic gardens in the West have some similarities. All three gardens are enclosed (albeit only partially in the case of the Toronto garden) and situated within a larger urban park. Unlike in Bradford and St. Louis, where a preexisting historic public and botanical park became

the host of the two new Islamic gardens, in Toronto, the Park and its Islamic garden was a new construction. In addition, all three gardens were inspired by the *chahar bagh* and its popularly recognized paradisiacal theme but translated through different forms in each location. In Bradford and St. Louis, the *chahar bagh* followed the classical style, a style that pre-dated the Mughal garden tradition and was scarcely evident in historic Ottoman gardens. In contrast, Toronto's *chahar bagh* avoided any particular regional connection while still pleasantly evoking its quality and value through its geometric forms. The stylistic preference in the Bradford and Toronto garden projects was largely associated with the architectural style of the surrounding buildings. In Bradford, the Mughal garden seemed to be an appropriate match for the Cartwright Hall's Victorian style. Similarly, in Toronto, the Aga Khan Garden's design style complemented the contemporary style of the Museum and the Ismaili Center.

Unlike the form and architectural design elements that could be transmitted to the new locations though various design tactics, the planting design required certain environmental negotiations. The designers ideally wanted to use plants that have meaning in Islamic garden tradition, but it was not possible in all locations. In Bradford and Toronto, the designers relied, mostly, on local plants but with consideration to the Islamic garden tradition, such as having flowerbeds with fragrant blossoms, shade trees, and various productive plants. In St. Louis, the climatic similarity to Istanbul provided an opportunity to include large numbers of native plants that are associated with the Ottoman garden tradition.

The narratives of the Islamic gardens in Bradford and Toronto were closely linked to the history of the city and the Muslim communities in these areas. As Bradford had a large Muslim community from South Asia, the Mughal garden at Lister Park was intended to represent those stakeholders. Toronto has hosted large numbers of the diasporic Ismaili community from Africa,

which resulted in the Aga Khan (as leader of Ismaili community) establishing a strong relationship with the Canadian government. While the Aga Khan Park and the Museum are open to the public and used by everyone, the Ismaili Center within the park was designed specifically to serve the Ismailis. In St. Louis, the case is somewhat different, as the garden was designed in an Ottoman style to reflect the personal identity of the Bakewell family. Despite their history as Ottoman subjects, the Bosnian Muslim community was not recognized in the garden narrative. However, similar to the other two gardens, the Bakewell Ottoman garden is open to all visitors to the Missouri Botanical Gardens—including Bosnian Muslims.

The three Islamic gardens discussed in this thesis provide an important first step in understanding how the identity and meaning of Islamic gardens can be constructed in the West. However, there are still many other contemporary Islamic gardens built in Europe, North America, and around the world that negotiate between modernity, tradition, and history in different ways, the study of which could amplify this discussion. These may provide future cases to be examined and analyzed. In order to study contemporary Islamic gardens, there is a great need for a comprehensive survey that covers the entirety of Islamic gardens in the twentieth and twenty-first century around the world. Such a volume would help historians and scholars of Islamic gardens and architecture to study and analyze these gardens in depth and devise new and promising lines of research. Moreover, it would be a valuable service to designers. In addition, it is imperative that future research further investigates the user experience in Islamic gardens to determine what these gardens can mean for them. Such questions that still need to be answered include: Are the symbolic cultural and religious references that are fundamental in historic Islamic gardens realized by the contemporary garden users, and if so, how? Is there a difference in the way that Muslim and non-Muslims use and enjoy these gardens? Does a prior knowledge of various design elements in

Islamic gardens and their meaning (e.g., the association of *chahar bagh* to paradise) enhance the users' experience and appreciation of Islamic culture? Can the designer or garden curator play a role in helping the public to understand the role of the garden as a cultural intermediary not only between different parts of the world, but also between past and present and between communities of different faiths? These are only some of interesting questions that can frame future investigations into this rich subject area.

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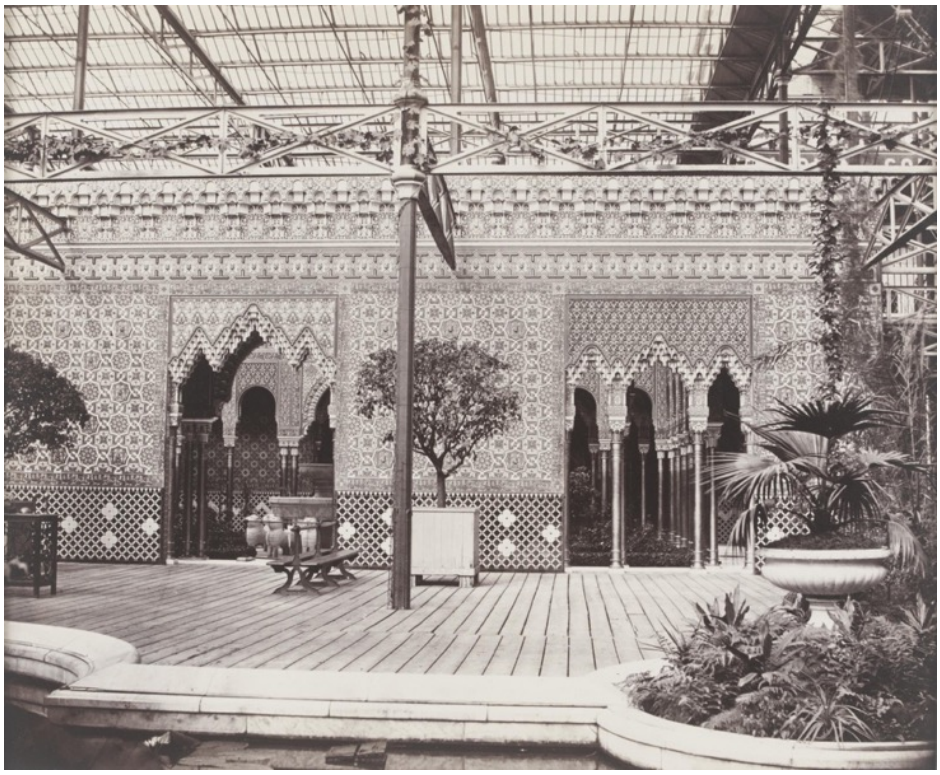

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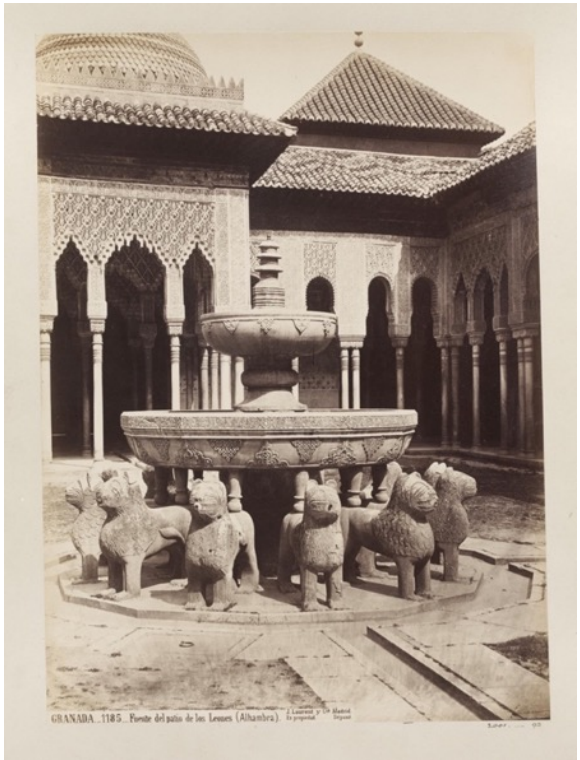

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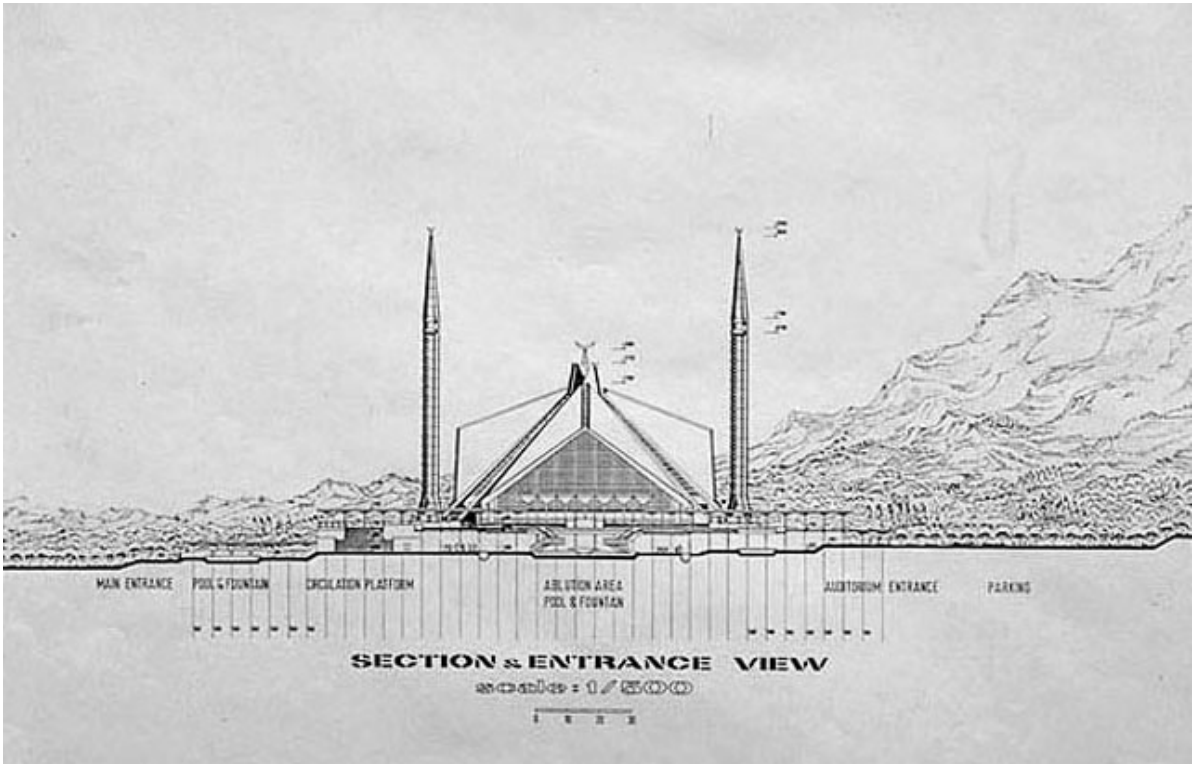

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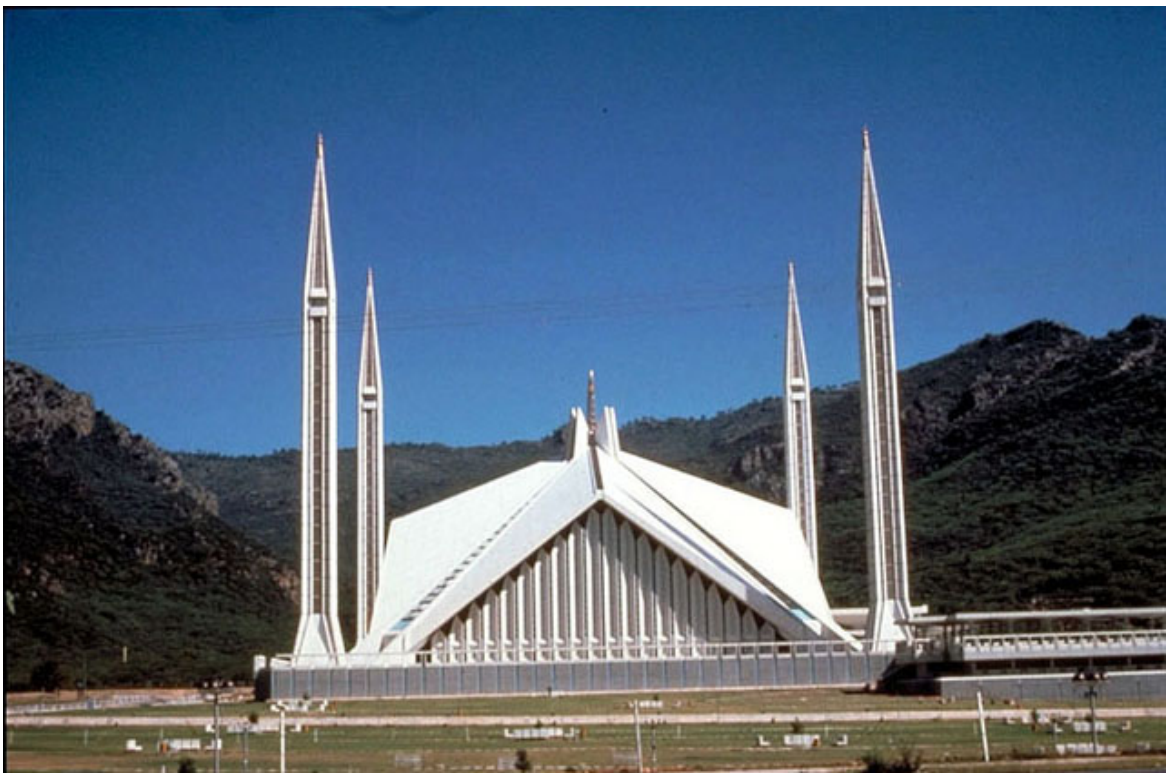
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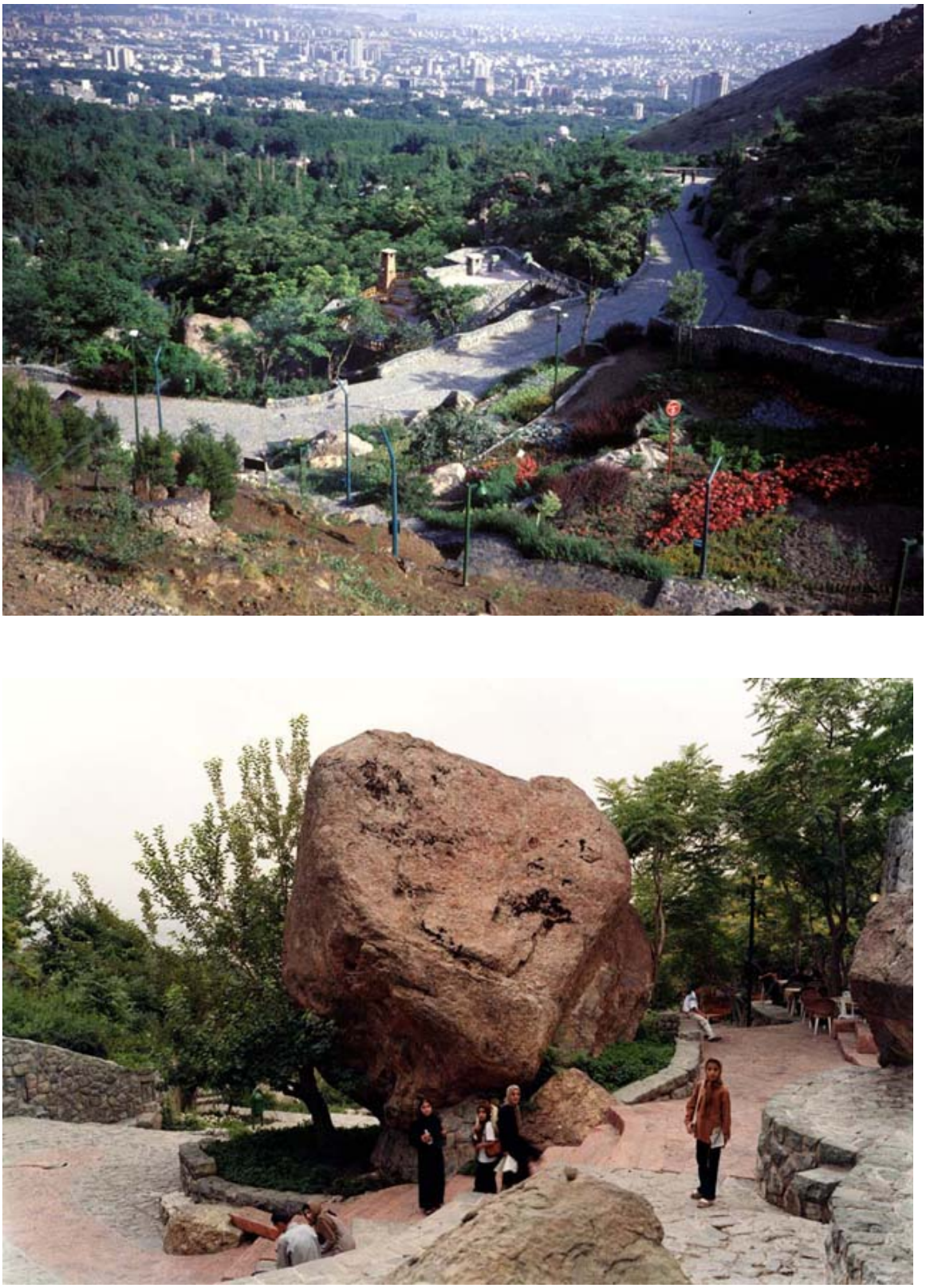

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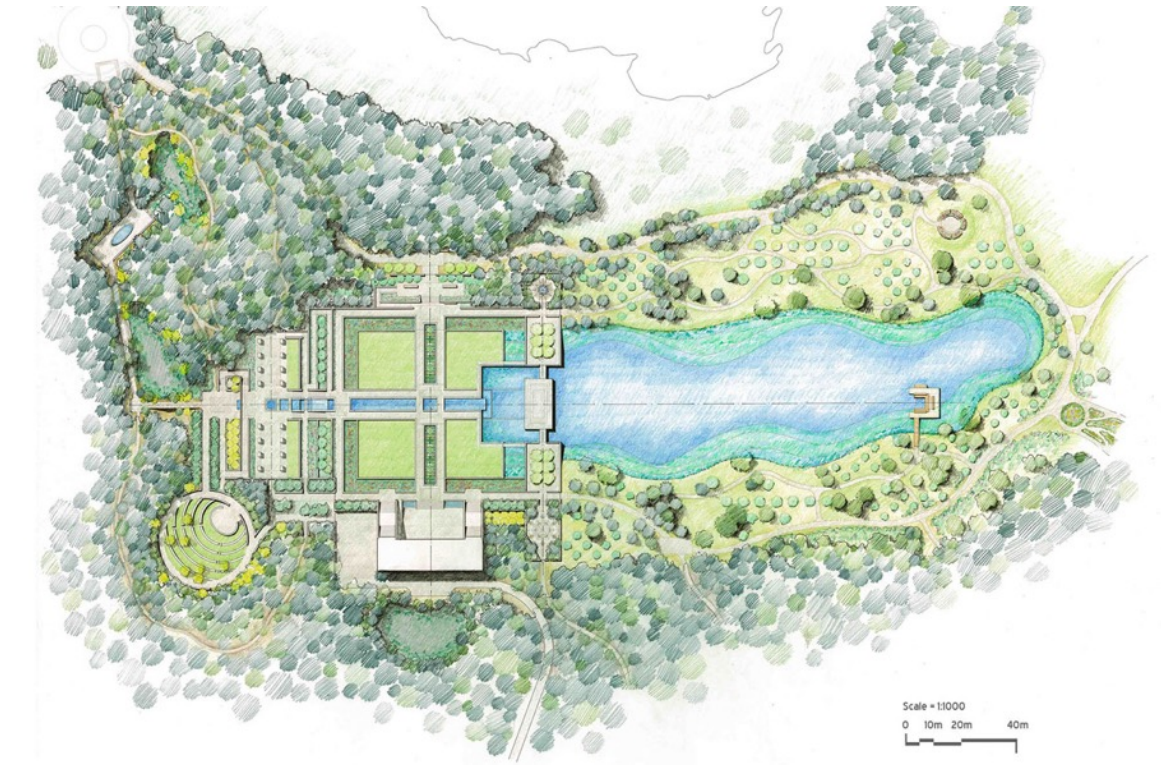

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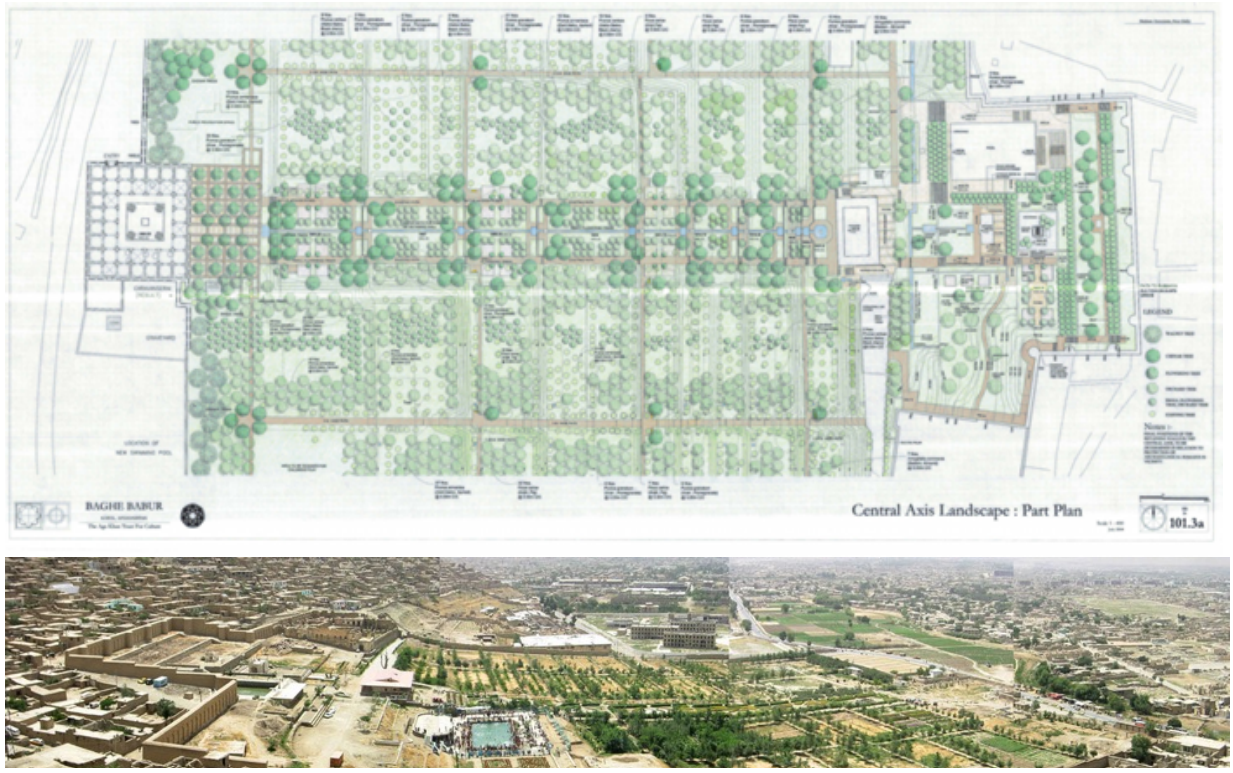

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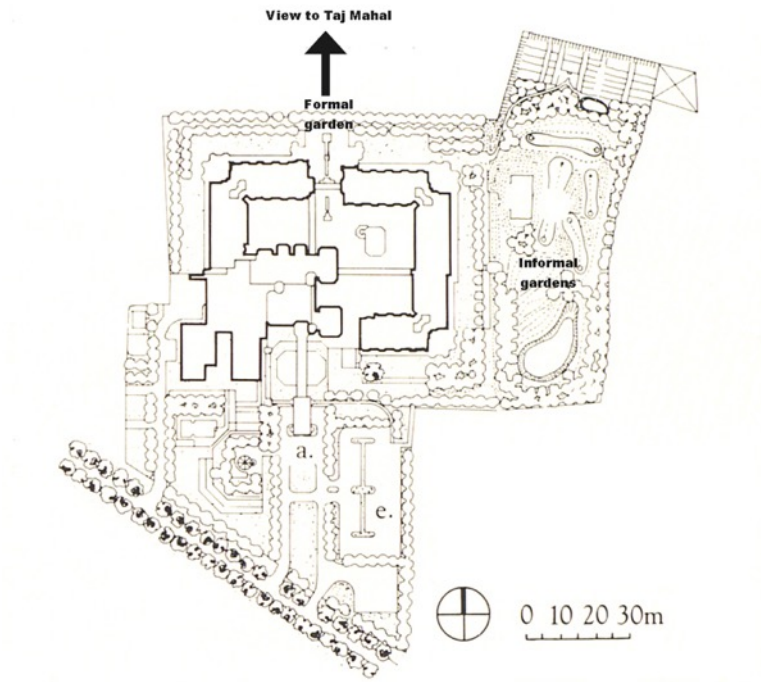

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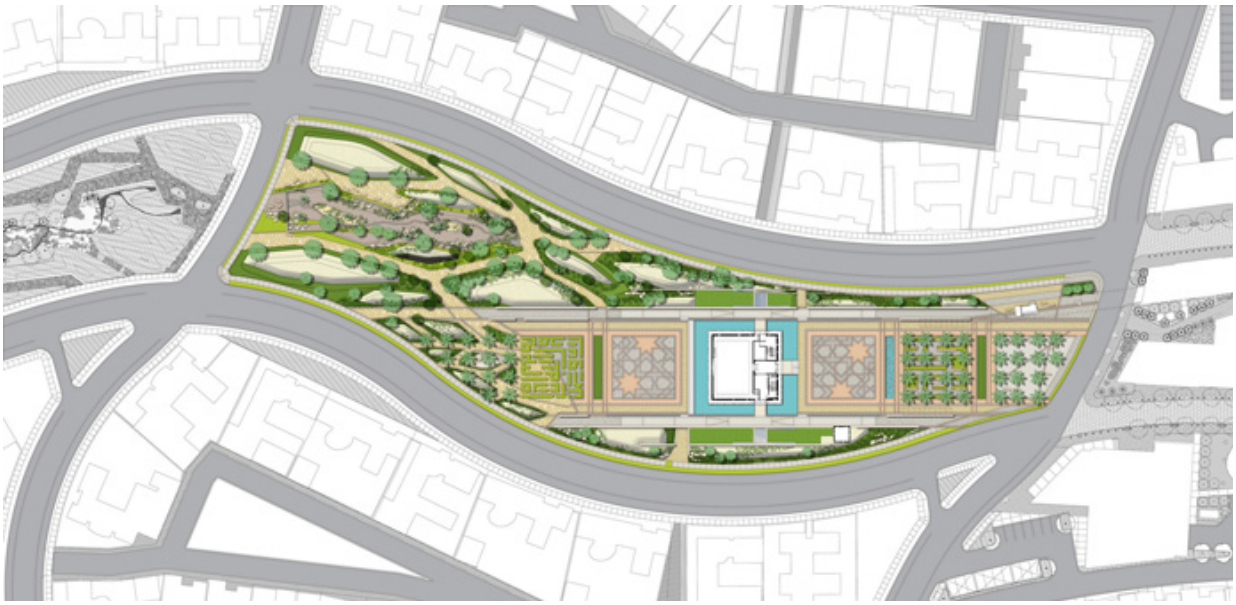

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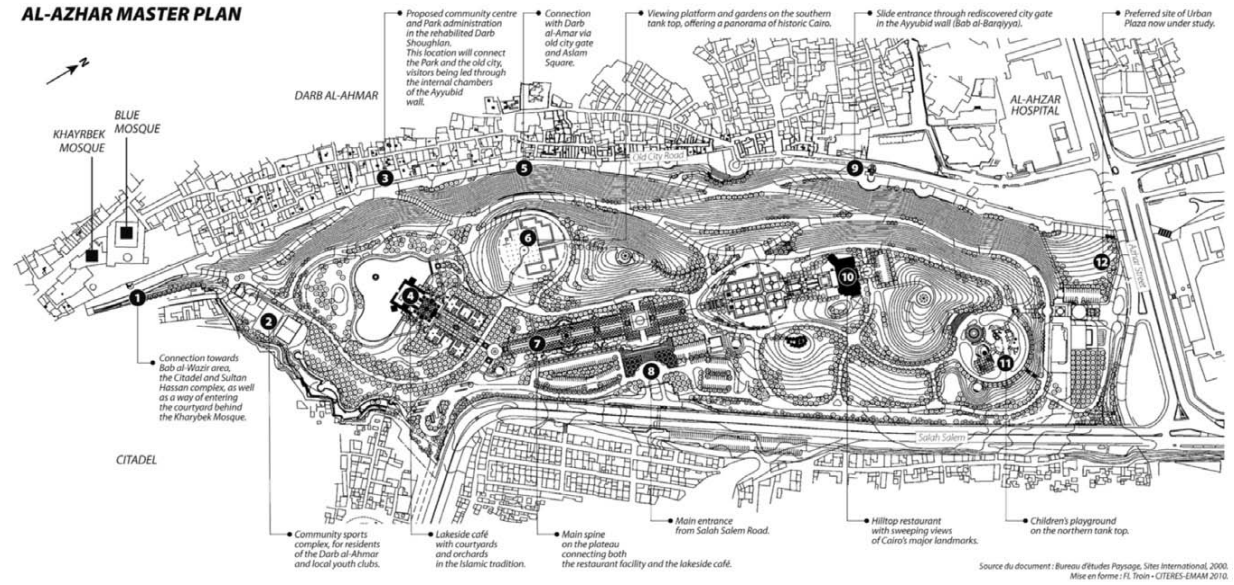

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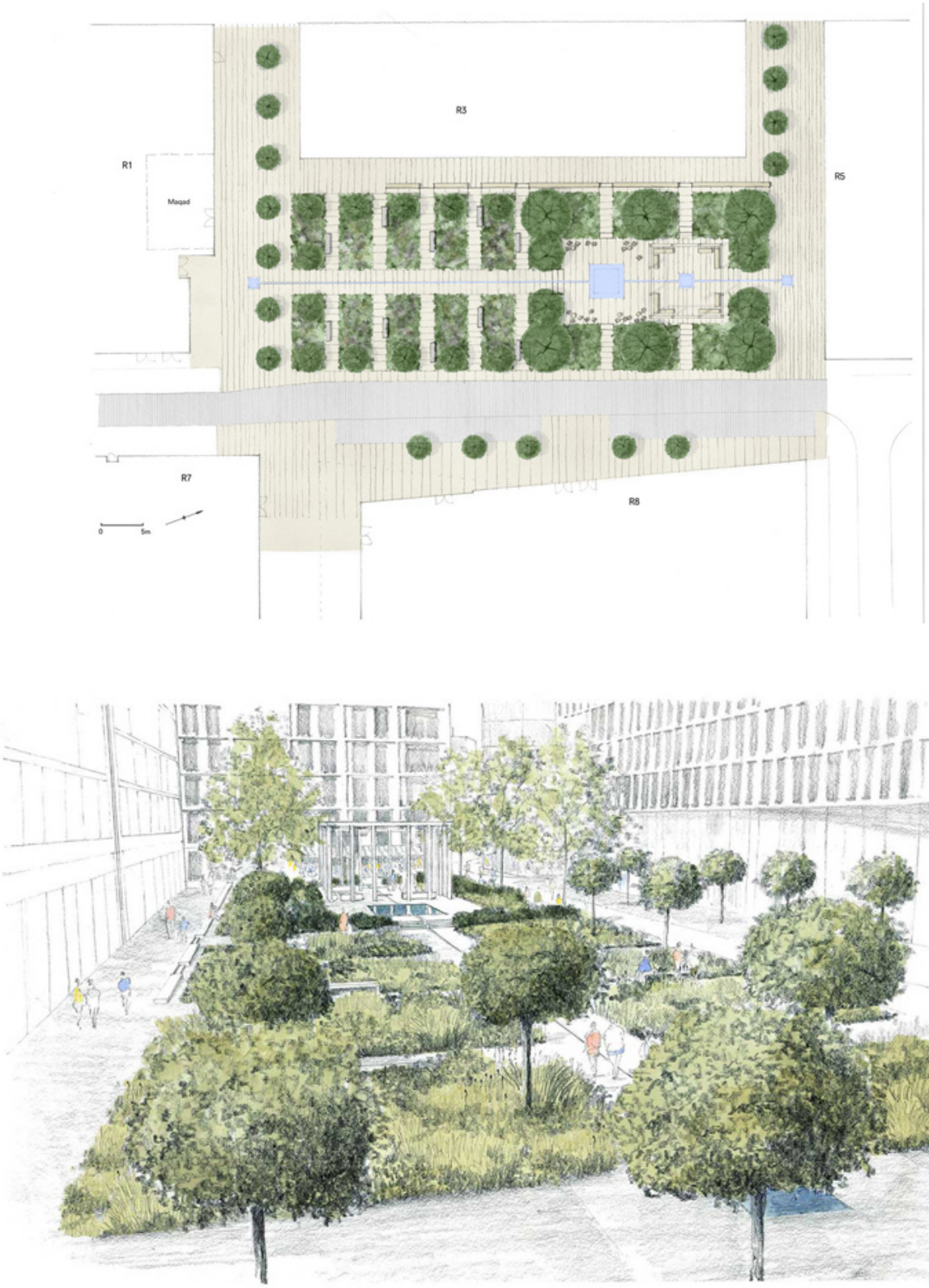

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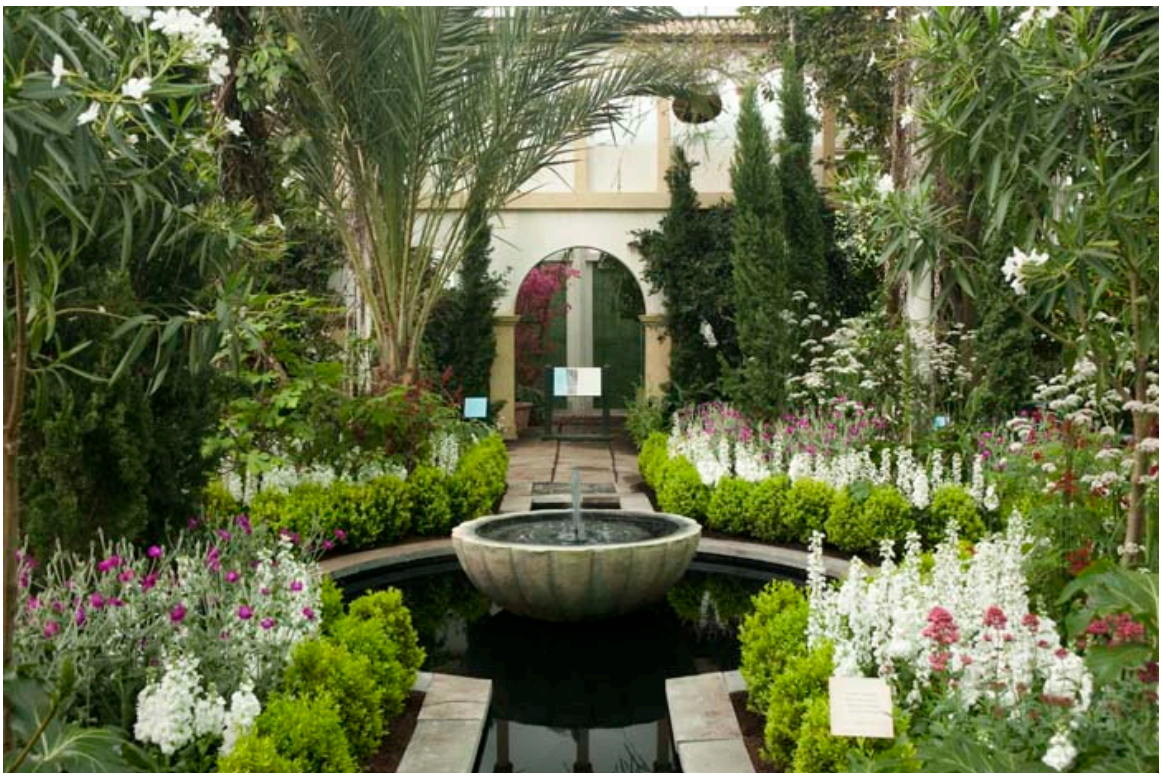

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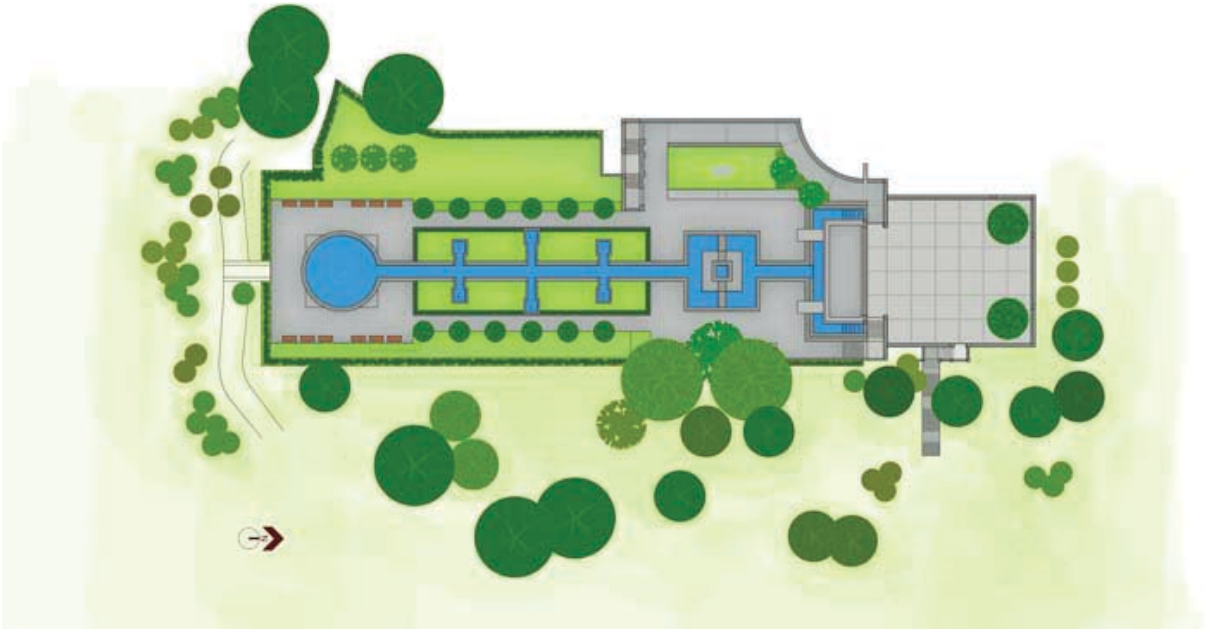

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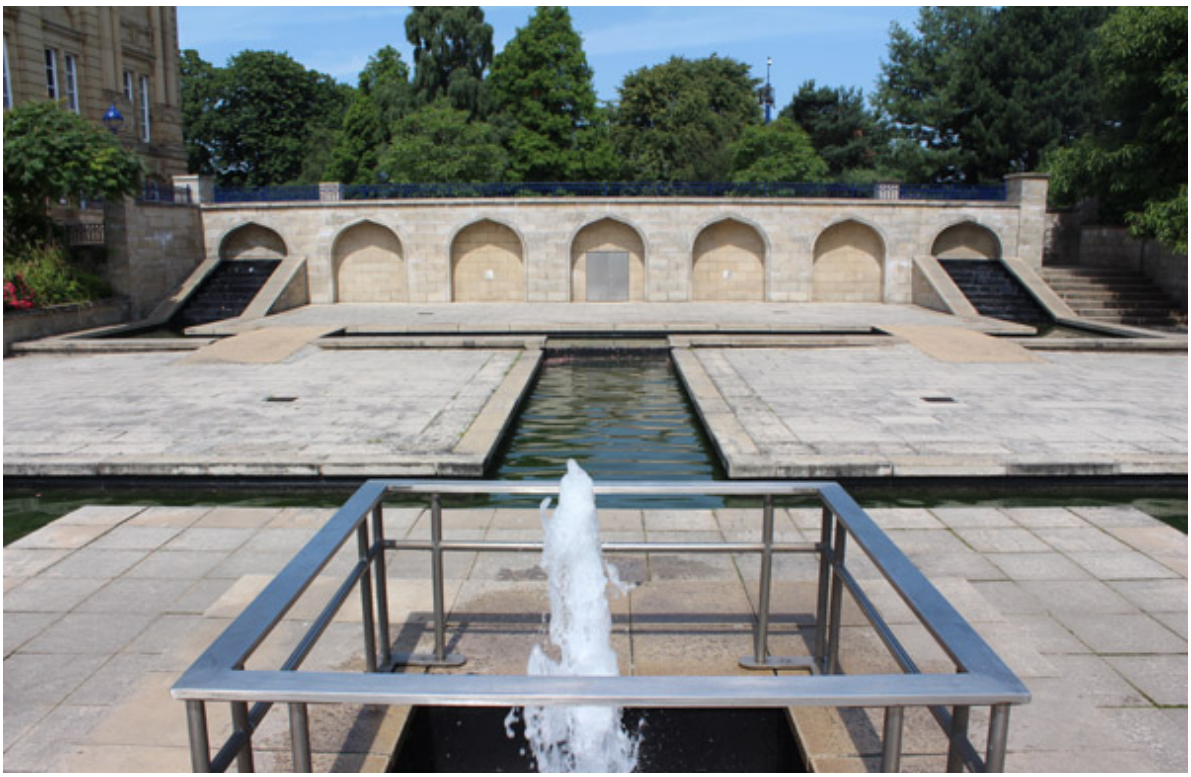

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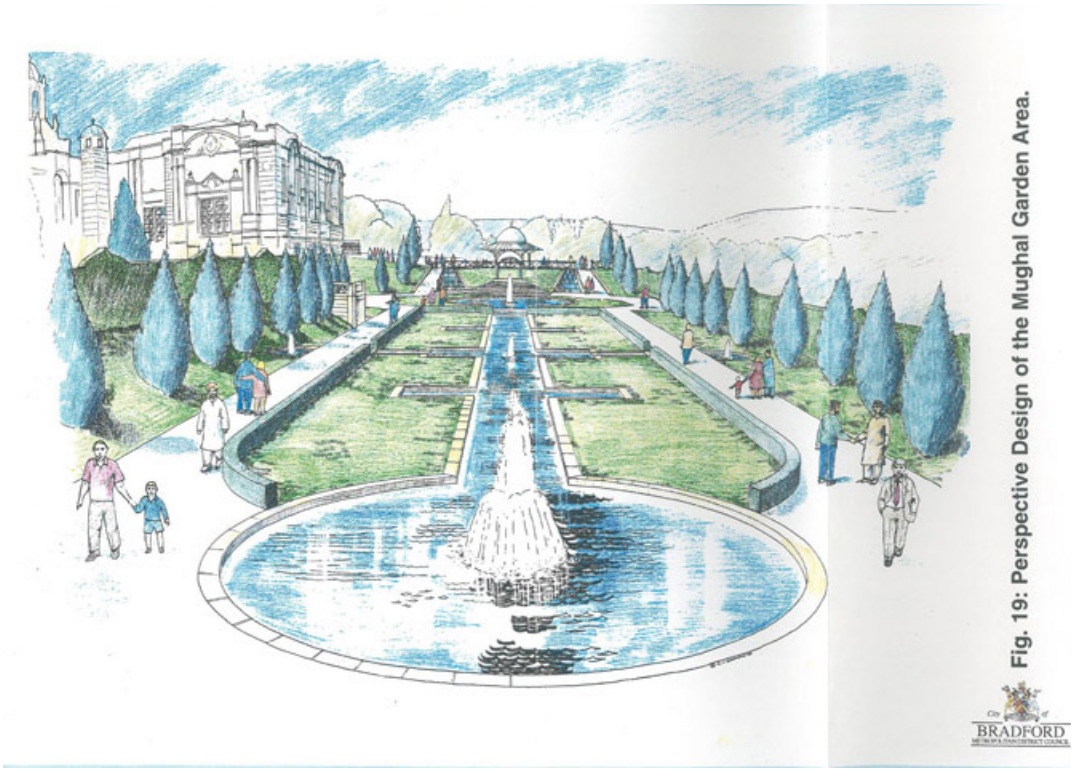

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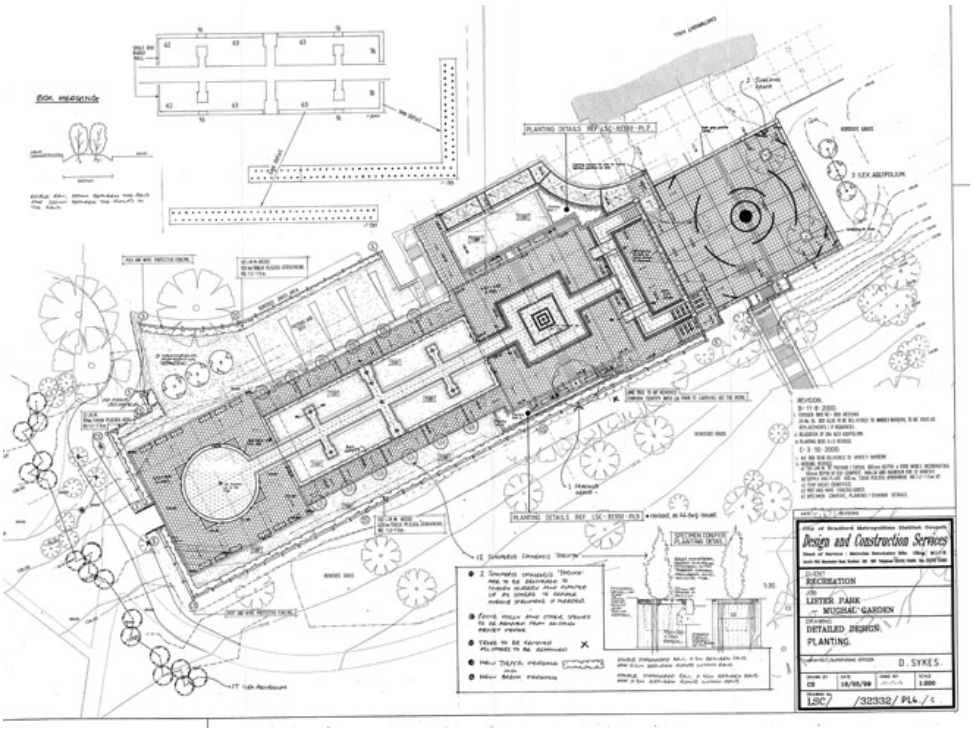

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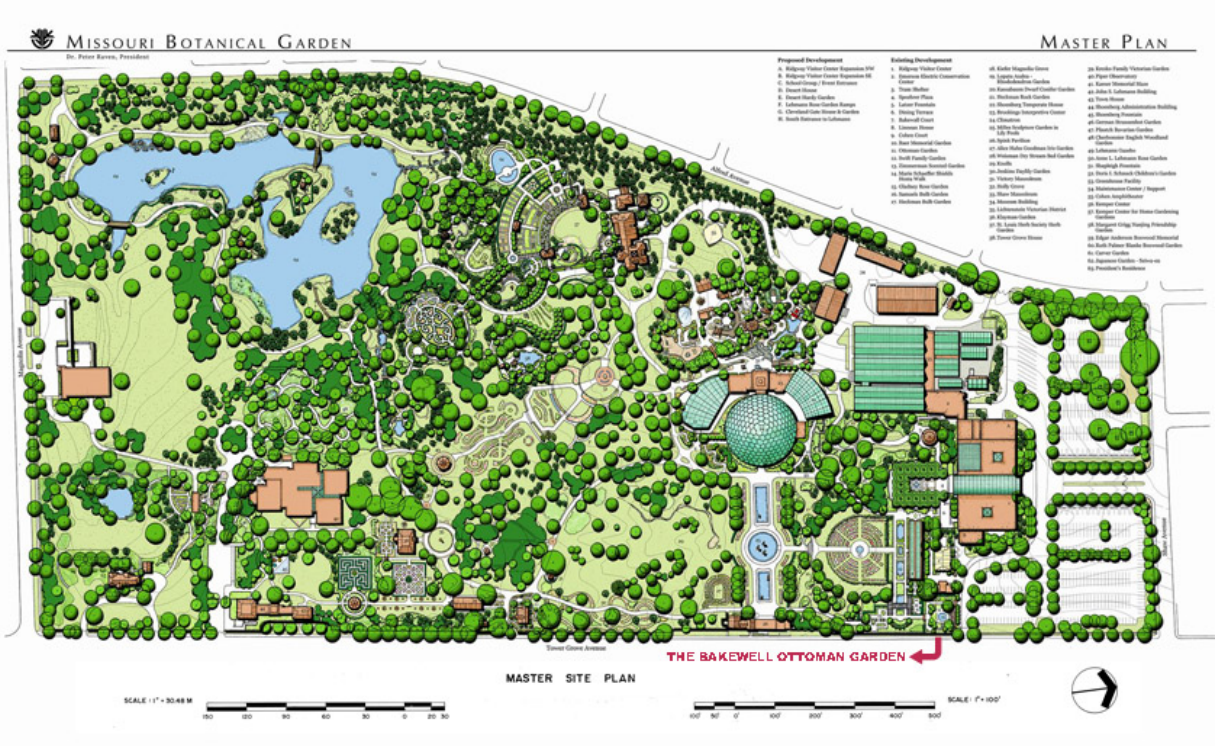

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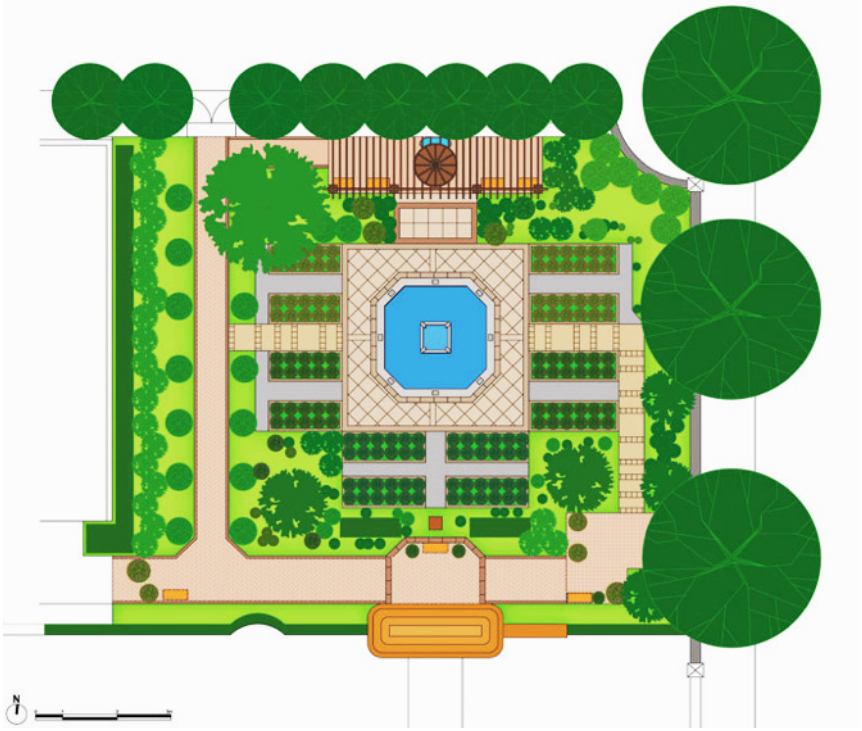

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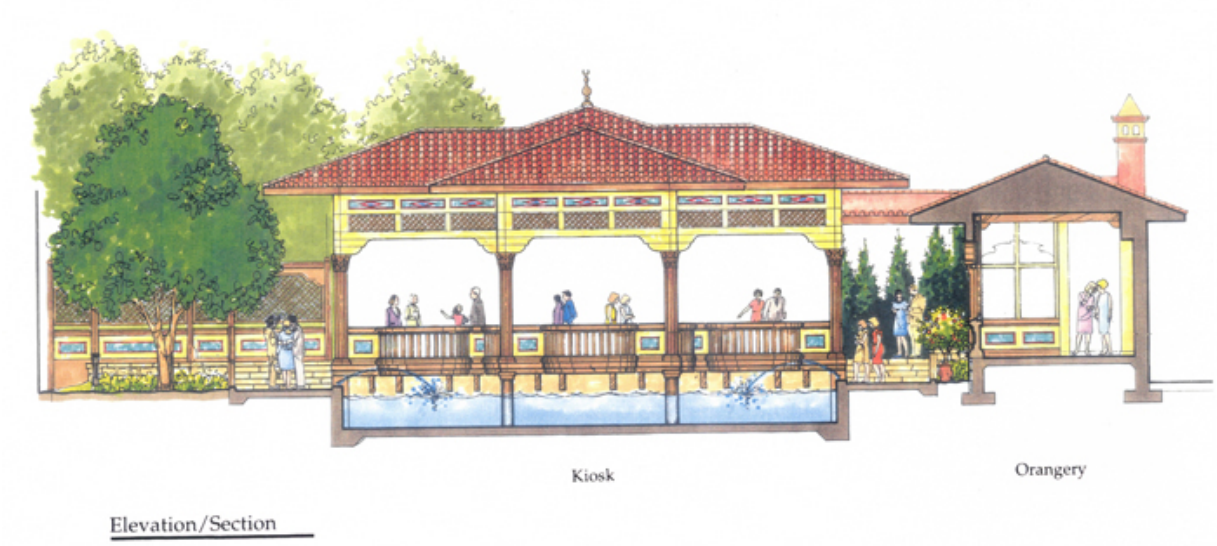

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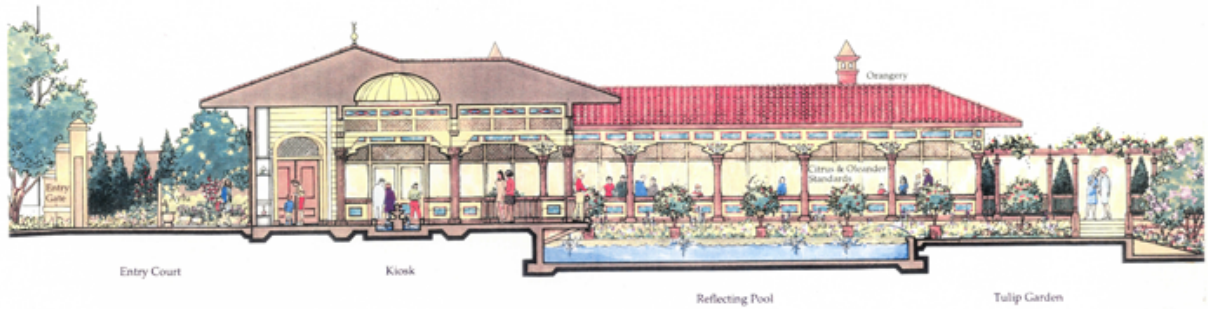

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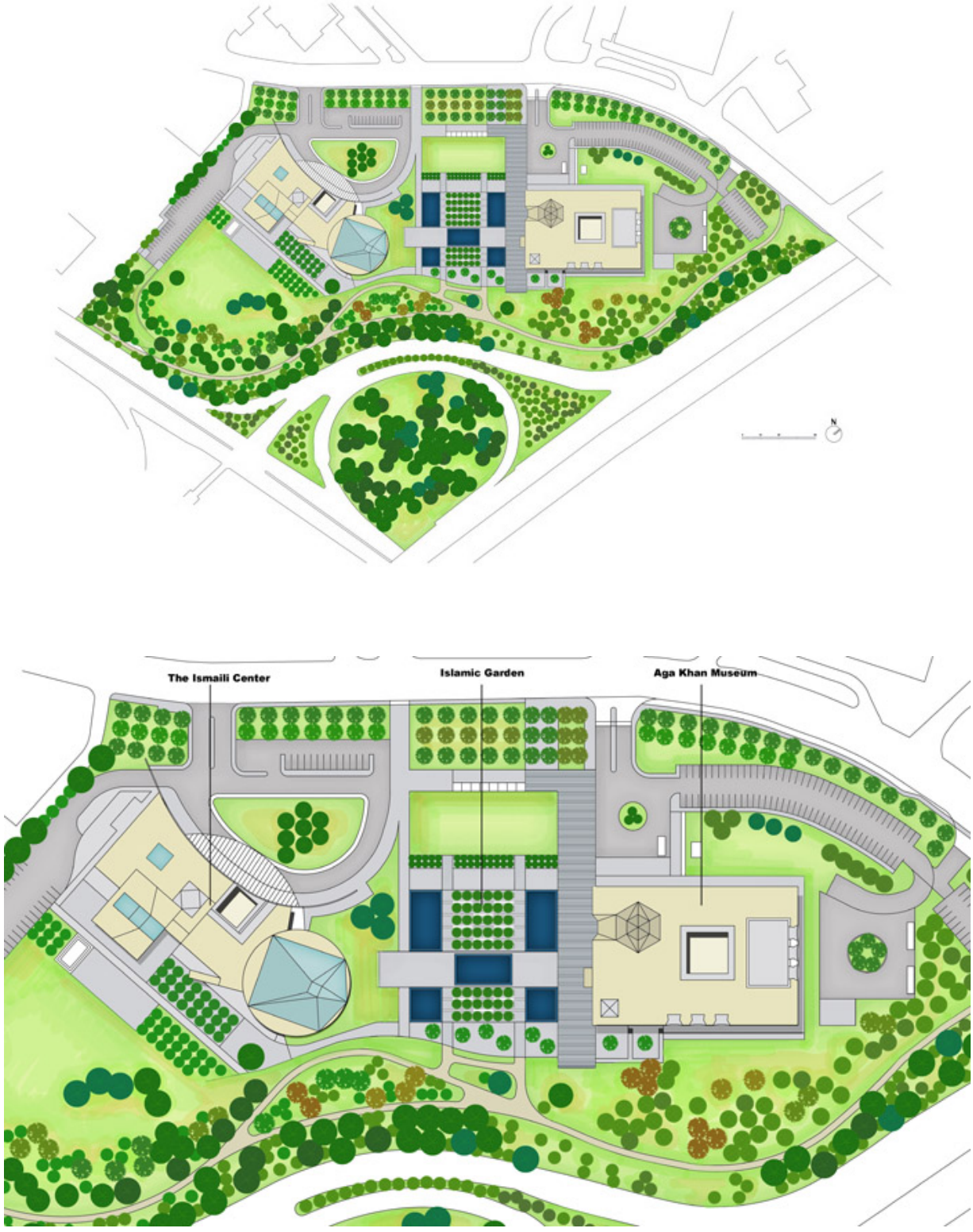

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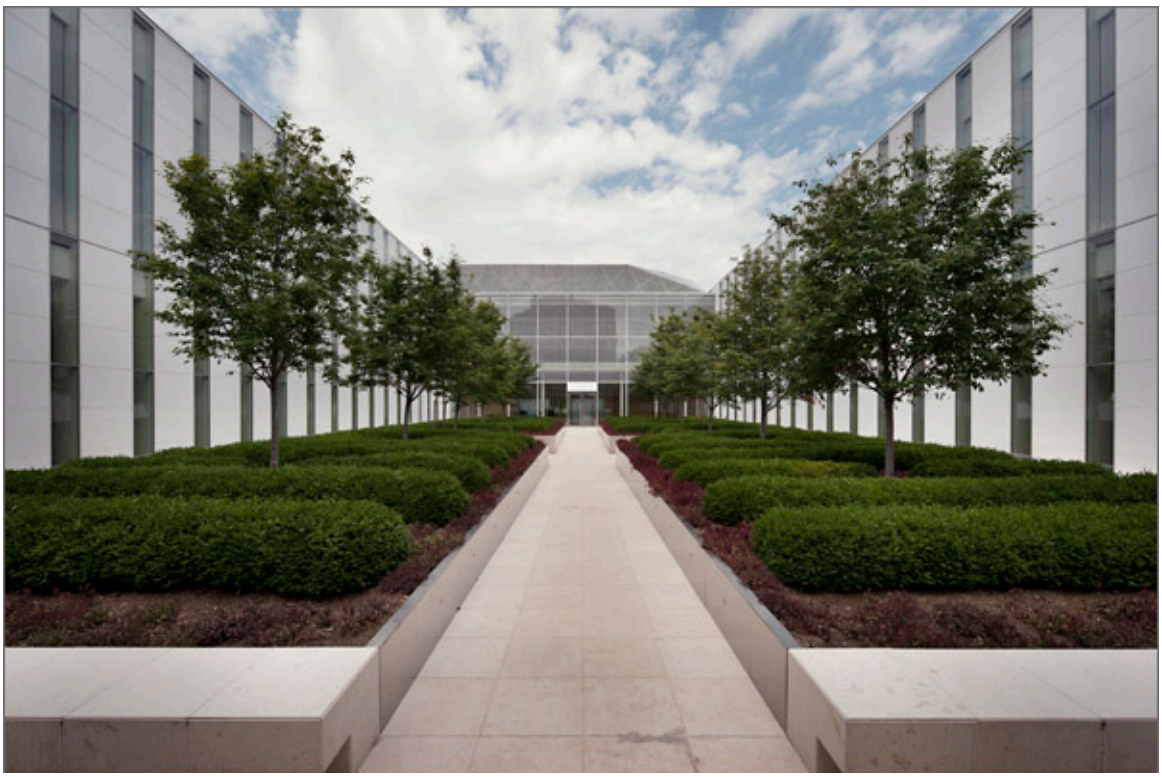

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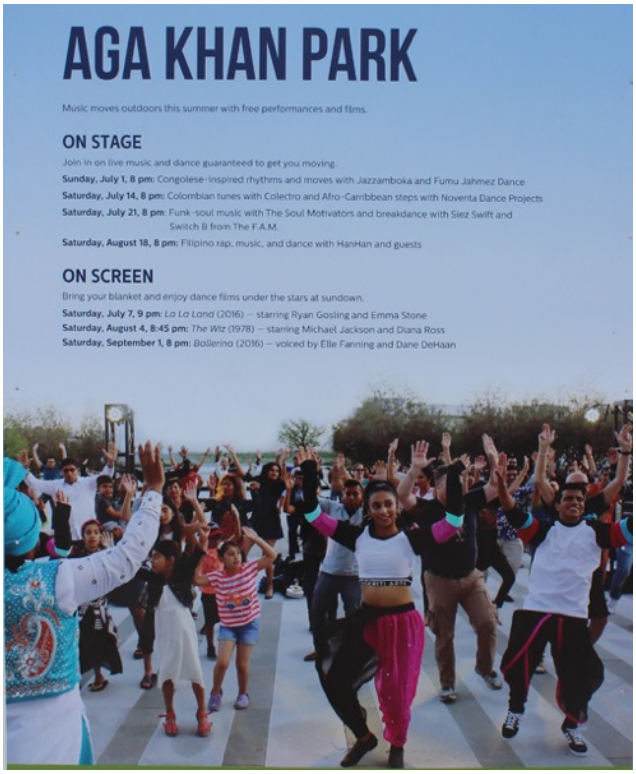

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