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Revitalization of Controversial Sites in Downtown Banda Aceh

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REVITALIZATION OF CONTROVERSIAL SITES IN DOWNTOWN BANDA ACEH

by

Ria Purnama

A thesis submitted
in partial fulfillment
of the requirements for the degree of
Master of Architecture

Department of Architecture
Golisano Institute for Sustainability

Rochester Institute of Technology
Rochester, New York
December, 2017
COMMITTEE APPROVAL
Revitalization of Controversial Sites in Downtown Banda Aceh by Ria Purnama

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ACKNOWLEDGMENTS

Alhamdulillah (Thanks to Allah Almighty) for giving me this opportunity to pave another priceless journey in my life. This is also dedicated to my family who wholeheartedly let me go miles away from home for this dream. Thank you for my friends for the endless supports through this journey.

I would like to express my deepest gratitude to Banda Aceh community and experts who allow me to dive into their memories towards the city and the sites so that I can accomplish this thesis. Thank you.

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ABSTRACT

As issues pertaining to environmental, economic and cultural sustainability continue to persist throughout the world, the manner in which abandoned sites and properties are treated can be a means of revitalizing important resources, while simultaneously preserving cultural identities. For this reason, this research intend to offer ways to approach these problems by posing a central question: “How the abandoned spaces with specific issues be revitalized in relation to the continuity of cultural identity and place familiarity by providing the functions along with criteria and parameters that comply with the context, regulations, and culture?

In this case, specific sites located in the city center of Banda Aceh, located at the tip of Sumatera Island, Indonesia, were chosen as a case study. These sites, located across each other, have particular issues related to their abandonment. They include the “unclear” agreement between government and society in regards to the proper functions to be applied in the proximity to a sacred function, in this case, the Great Mosque, located across the street. Aceh is one of the provinces in Indonesia that has special authorization to use Shari’a Law in its regular basis, which involves a special treatment and restriction towards any developments near a sacred place, such as the Great Mosque of Baiturrahman.

This study investigates the effects of the Baiturrahman Mosque and the city center contexts on the decision making for the proposed functions on the two sites, the former Atjeh Hotel and the former department store sites. This includes the following: (1) elaboration of related theories and case studies of the old and contemporary Islamic Cities; (2) questionnaires of collective memories of Banda Aceh society; (3) context analysis related to five elements of the cities by Kevin Lynch and climate issues as regards to earthquake and tsunami forces in 2004; and (4) government regulation and future plan. These factors reserve important resources for the decision making of the compatible criteria and parameters towards the sites that influences the growth of the city center.
GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Adat</td>
<td>Local customary practice</td>
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<tr>
<td>AHD</td>
<td>Authorized Heritage Discourse</td>
</tr>
<tr>
<td>Batik</td>
<td>A technique of wax-resist dyeing applied to whole cloth.</td>
</tr>
<tr>
<td>BSB Madani</td>
<td>Banda Aceh Sentra Bisnis Madani/a group of passionate designers and developers who love creating WordPress themes and giving support</td>
</tr>
<tr>
<td>CBD</td>
<td>China Business District</td>
</tr>
<tr>
<td>detikNews</td>
<td>One of divisions of DetikCom, which contains news and events. DetikCom is an online news and article website based on Indonesia</td>
</tr>
<tr>
<td>Gotong Royong</td>
<td>Work together side by side</td>
</tr>
<tr>
<td>Hablumminallah</td>
<td>حبلى من الله (Interaction with Allah)</td>
</tr>
<tr>
<td>Hablumminannas</td>
<td>حبلى من الناس (Interaction with human)</td>
</tr>
<tr>
<td>Hammam</td>
<td>Public Bath in the Arabic language</td>
</tr>
<tr>
<td>Ibadah</td>
<td>Worship</td>
</tr>
<tr>
<td>Idul Adha</td>
<td>A celebration start at same time of the annual Hajj in Mecca</td>
</tr>
<tr>
<td>Idul Fitri</td>
<td>End of Ramadhan (fasting) month as a celebration</td>
</tr>
<tr>
<td>Jama’ah</td>
<td>Congregational prayer</td>
</tr>
<tr>
<td>Ka’bah</td>
<td>Islamic Prayer direction</td>
</tr>
<tr>
<td>Kampung</td>
<td>A village in the Indonesian language</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Krueng</td>
<td>River</td>
</tr>
<tr>
<td>Labi-labi</td>
<td>Aceh local transportation/car with side by side back seats</td>
</tr>
<tr>
<td>Mashrabiyya</td>
<td>A type of projecting oriel window enclosed with carved wood latticework</td>
</tr>
<tr>
<td>MUI</td>
<td><em>Majelis Ulama Indonesia</em> (Indonesian Council of Islamic Leader)</td>
</tr>
<tr>
<td>NAD</td>
<td><em>Nanggroe Aceh Darussalam</em> (named is used for <em>Banda Aceh</em> in 2001-2009)</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organizations</td>
</tr>
<tr>
<td>Pasar Rakyat</td>
<td>Public Market in Indonesian language</td>
</tr>
<tr>
<td>Pendopo</td>
<td>A fundamental element of Javanese architecture; a large pavilion-like structure built on columns. In Aceh, it has another meaning for the Governor’s House.</td>
</tr>
<tr>
<td>Qanun</td>
<td>Specific legal framework for Aceh</td>
</tr>
<tr>
<td>RTRW</td>
<td><em>Rencana Tata Ruang Wilayah</em>/Building Code</td>
</tr>
<tr>
<td>Rumoh Aceh</td>
<td>The Acehnese traditional house</td>
</tr>
<tr>
<td>Safari</td>
<td>Journey; <em>jama'ah</em> from one mosque will do the worship by travelling from one mosque to another mosque</td>
</tr>
<tr>
<td>Serambi Mekah</td>
<td>Veranda of <em>Mecca</em></td>
</tr>
<tr>
<td>Shurooq</td>
<td>The Sharjah Investment and Development Authority</td>
</tr>
<tr>
<td>Souq</td>
<td>Market in Arabic language</td>
</tr>
<tr>
<td>Ulama</td>
<td><em>Imam</em> or Islamic leader</td>
</tr>
<tr>
<td>UNESCO</td>
<td>The United Nations Educational, Scientific, and Cultural Organization</td>
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CHAPTER 1 INTRODUCTION

1.1 Backgrounds, Problems and Aims

The number of buildings that are being abandoned in the urban area has increased significantly. Some of the cases are even located in important sites having good potential, such as city center and heritage areas. This means that if they had been developed; it would have increased the value of the land and its surroundings, both economically and socially. In the worst case of abandonment, the structural integrity of the buildings has degraded due to them being unutilized for a long time and/or a natural disaster strike, forcing to demolish the buildings, which then leaves the cold, empty, and unutilized sites in important areas.

In reality, some of the abandoned buildings had been developed. However, because many problems arose during the work progress, the projects seemed to be impossible to continue, resulting in delayed construction (Dahlan 2001), incomplete or suspended construction work (Adedeji and Solomon 2016), and even complete dismissal of any development (Doraisamy, Akasah and Riduan 2015).

There are some issues that influence abandonment, such as government policies which lack accountability due to inconsistency (Adeleke 2005); external factors, including adverse weather, negative impact of project on society or environment; and other factors, such as cultural clash among parties involved in project (Doraisamy, Akasah and Riduan 2015).

For these reasons, this project is based on specific case related to the revitalization of abandoned urban spaces in the city center, thorough review of a number of essential factors that effect on their future development. The essential factors include community engagement, site condition and context, rules and regulations, and the determinant factors of any future revitalization plans by the government combined with related theories and precedent studies (Figure 1.1). Community engagement included the perspective and expectation, through questionnaires and interviews with the local community, about the future functions of the sites. These results can then be correlated with the intention of the government obtained rules and regulation and future revitalization plans. Moreover, as Banda Aceh had experienced an
earthquake and the worst tsunami waves in the history (Cluff 2007), the resiliency of the existing buildings in regards to the natural disasters will be addressed in this study. The results of these factors will be studied through the information gleaned from the theories and the precedent studies.

![Diagram of Essential Factors](image)

**Figure 1.1 Essential Factors**  
Source: Analysis

As a number of polemic factors are to be addressed, this study will focus on two abandoned sites. The former Atjeh Hotel and the former department store, located in the city center of Banda Aceh, far west of Sumatera Island, Indonesia, both of which have been vacant for several years. Located across the street is an iconic and historical building, the Great Mosque of Baiturrahman. As a result, these two sites are restricted by several regulations so as to not detract from the positive reception for the greatness of the Great Mosque. Law No. 18/2001 formally acclaimed Aceh to own its self-governance in areas of religion and provincial legislation (Feener 2013), which allows the local legislative to use *Shari’a Law* (Islamic Law) in its new legislation. As the *Shari’a Law* is widely used in Aceh and the Great Mosque is considered to be a sacred place, the local community wishes for the development that respects the sacred of its place by not creating a controversial function with taller physical feature than the Great Mosque.

In regards to the proximity to the Great Mosque, the first chosen site, the former department store building, had been vacant for more than a decade. It was to be demolished in 2011, due to the poor structural condition. At the end of 2011, the development of a new 12-story Best Western hotel in this site had been announced to the public. However, in early 2012, the local community rejected the development
by showing their disappointment through expression made in a graffiti found on the fence of the site. The first reason for the rejection was the opinion of the community that the building might lessen the greatness of the Great Mosque of *Baiturrahman* located on the north side of the sites. The results of the interview with the Former Regional Secretary and questionnaires from the local community showed that the cause of the rejection was assumed to be an indecisive agreement between government and local community related to the functions and physical features of the proposed building.

Another site, former Aceh Hotel, had not been in operation since 1997 and the site had been vacant due to a fire in 2001. After the fire, there was an issue about the development of an International “Novotel Aceh Hotel” in this site as mentioned by *Bustanul Arifin*, former minister of cooperatives (AtjehCyber 2013). Columns were built on the site, until the development was ceased after tsunami disaster in 2004. Since the disaster, no improvement had been done to the site and the only ruins left are the columns. Subsequently, those columns had been painted in many colors and had been used by the local community for photo shoots and art events, such as poetry performances.

Due to their location in the city center, these two abandoned sites are considered to be strategic locations for the city growth, both socially and economically. However, no developments had been done to the sites. The reasoning for these phenomena is assumed to be the closeness to a sacred place, which brings up the restrictions and regulations that have to be adhered to.

Accordingly, this research posits a central question: “How the abandoned spaces with specific issues can be revitalized in relation to the continuity of cultural identity and place familiarity by providing the functions that complies with the context, regulations, and culture?” From this central question one can derive a number of specific and subsidiary questions:

1. As the proposed sites are located in the center of the city close to the sacred place, the *Baiturrahman* Mosque, how can we combine the function of the sacred place of the mosque with
the new proposed functions through rethinking about the typology of Islamic cities combined with the collective memories of the society towards the sites and their city?

2. In regards to Aceh government intention to make Banda Aceh a destination place for tourism and the strategic location of the sites which complies with this intention, how can the new proposed functions act as a gathering place both for local community and tourists which allow the activities across the cultural boundaries? How can a new proposed function be created as a middle ground solution between the local community and the government disagreement problem towards the sites?

3. As many developments have been done in the Islamic cities, such as the Gulf and Arab world that create an eclecticism style of re-building the historical and important sites for tourism destination, how can the new proposed criteria and parameters address the unified design, not uniform design by merely copy-paste the style and design from the past? How can a proposed functions and design guidelines be addressed that celebrates the value of Acehnese character rather than merely copying the existing style from its surrounding? How can we create criteria and parameters of the buildings that belong to its own era and place while engaging with the context and the history?

4. As the sites had been vacant over the years, why had the sites experienced no development and ended up being unutilized? What factors could be changed to solve these problems?

5. What sustainability factors are to be addressed in relation to the specific issues and contexts with the sites? As Banda Aceh is prone to earthquakes since “it is located in the Sumatra subduction zone in the Sunda Trench” (Shen-Tu, et al. 2014), resiliency of the building shall be addressed, in relation to the environment and social aspect.
In response to these complex problems and questions, this research explores the compatible criteria and parameters with functions that comply with the existence of the sacred aim of the mosque, tourism, and spatial experience and materiality. It considers as an alternative understanding, both rebuilding and revitalization of abandoned spaces in the city center and heritage area in regards to the city context and Islam in Southeast Asian cultures.

The aims of this research are as follows:

1. To contribute as a guideline for decision makers in solving the same problems related to controversial sites with specific issues, in this case, the proximity to the sacred place, the Great Mosque.

2. To examine the misconception of how the Islamic cities revitalize and introduce their heritage area as tourism destination by rebuilding the exact same building style as the past. In other words, utilizing the eclecticism approaches rather than a modern interpretation of history. The result of this research is intended to find a way to revitalize these spaces that addresses a “unified design”, not “uniform design”.

Figure 1.2 Study Challenge Summaries
Source: Analysis
3. To find the middle ground aspects of the conflicts between local community and the government, in terms of redeveloping sites with specific issues, in this case, located in the heritage area, with correlation to the site context and Islam way of life in Southeast Asian culture.

4. To provide an alternative solution on how to integrate the values of the city character within community daily lives into the proposed criteria and parameter approaches, instead of copy-pasting the existing style. This alternative solution can be used as a basic understanding of the way to address the character of the city into the proposed functions and guidelines for decision makers.

5. To provide a proposed functions and guidelines in regards to the sustainability factors. In this case, social and environmental aspects, since the cause of the abandonment was an indecisive agreement between the community and the government regarding the development of the sites and the resiliency factors of the existing building as a result of the earthquake and tsunami disaster in 2004.

1.2 Thesis Statement: Abandoned sites: the Proximity to a Sacred Place

Two abandoned sites located in downtown Banda Aceh have been controversial for decades, due to unclear decisions between government and local community, related to the proper functions to be applied in the proximity to the sacred place, the Great Mosque of Baiturrahman. Aceh is the only province in Indonesia that has authorization to apply Shari’ah Law in its regulations (Feener 2013). It makes the Great
Mosque to be one of the places which draws the intense interest of both from the government and local community. Many regulations and restrictions apply to the sites nearby it, including the height and the activities in the proposed buildings. In relation to community acceptance, collective memories regarding the city and sites is an essential approach to the project, since “it offers an opportunity to enhance the dynamic knowledge of how people know the past and themselves” (Aden, et al. 2009) as an exploration of the place they live, work and play.

Figure 1.4 Hypothesis Diagram
Source: Analysis

1.3 Outline

This thesis is developed on multidisciplinary and cross-cultural research, correlating a wide range of disciplines, including architecture, urban planning, collective memory studies, heritage, and local community way of life. In order to address a better way to revitalize abandoned urban spaces in the proximity to a sacred place, the Great Mosque of Baiturrahman. Accordingly, this thesis is structured into Five Chapters, including this chapter, the introduction as Chapter One.

Chapter Two: Research Methods, outline the methodologies and approaches that will be addressed in this research. It utilizes the qualitative and quantitative methods to answer the research questions and achieve the research aims. The qualitative method includes the literature reviews of related theories and precedent studies of the same cases as the study. The quantitative method includes the measurable results of questionnaires and interviews to local community and government officials. It addresses the percentage of
the people choices as to the functions that shall be applied in the chosen sites. Overall, the proposed methods had been done in four phases: Problem or idea, Analysis Phases, Synthesis Phase, and Result.

Chapter Three; Analysis, examines four essential factors that influence the decision making for the proposed function and design criteria in the last chapter. These factors include related theories and precedent studies about traditional and contemporary Islamic cities; site context; city future plans and regulation; and questionnaires and interviews. These theories address the misconception about the generalization of Islamic city structure by the French Orientalists, mentioned by Lughod, 1987. Along with the precedent studies, these theories assist the decision making process by focusing on the essence of the city and tradition, not merely a copy-paste form from the previous sites. Site context addresses the five elements of the city, by Kevin Lynch, in order to get the existing condition of the sites and its surrounding area. It also covers the resiliency of the existing buildings in regards to the earthquake and tsunami after the tragedy in 2004. City future plan and regulations focus on the land use of the sites and any future plans of the government in regard to the city center. The questionnaires and interviews which were completed address the community engagement in order to get collective memories about the city and the sites, which then help shape the proposed functions and criteria of the development of sites. It inquired of the community about what they would like to see in the specific sites. In this chapter, each sub-chapter is synthesized in order to get the results of the analysis that directs the research to the final result of the study.

Chapter Four; Synthesis outlines the overall summary of the sub-chapter conclusions found in the analysis phase. It consists of the data that answers the questions and achieve the aims of the research, which directs the decision making for the proposed functions, and outlines the guidelines for the sites in the Result Phase.

Chapter Five; Results provide the proposed functions of the building, along with the criteria and parameters for the design development. The results of the study will be a guideline for the decision
makers regarding the problem of sites in the proximity to a sacred place, the Great Mosque of Baiturrahman. This chapter also covers the conclusion and discussion for further related research.
CHAPTER 2  METHODS OF PROCEDURES AND THEORIES

This study will be undertaken in downtown Banda Aceh, Indonesia. The proposed sites are an empty lot of a former department store and a former hotel. These sites are located in a historical area across the street from an important landmark and a sacred place of the city, the Great Mosque of Baiturrahman. There are some restrictions and regulations applied to the site, due to its closeness to a sacred place. For instance, the development surrounding the mosque shall not be taller than the mosque minaret (33 m). In 2012, there was a proposed 12-story hotel (42 m), which was considered to be taller than the mosque minaret. It was rejected by the community, since the building was projected to be a rival of the greatness of Great Mosque (Atjeh Post 2012). Moreover, a reason for the rejection was the estimation that the area would become more crowded and cause congestion, which might deter the community worshipping in the mosque. Another specific reason was the development of the Best Western Hotel and Mall would decrease the community revenues in the traditional market, located at the back side of the mosque. These reasons brought challenge to the study, which is to find appropriate functions and guidelines for the development of these sites. The functions and guidelines have to address the connection between the mosque as a landmark and as a sacred place. Since the problem is not only about the physical features, but also includes the socio-cultural factors related to the rejection of the previous proposed function by the local community, this study will elaborate both qualitative and quantitative methods that are summarized in 4 four phases: (1) Problem/Idea, (2) Analysis Phase, (3) Synthesis Phase, and (4) the Results (Figure 2.1). The qualitative methods include the exposure used in Analysis Phase by utilizing related theories and precedent studies; rules and regulations for the sites, contexts in regards to site mapping and resiliency to the climate; and collective memories of the local community obtained through questionnaires and interviews. The quantitative method includes the measurable results from the questionnaires, in relation to the functions that shall be developed for the sites. All aspects analyzed in this study influences the decision making for the development of the sites in terms of suitable functions and design guidelines.
The first phase, the problem formulation, will state the issues and problems in these two sites as mentioned in Chapter 1. These problems will be analyzed in analysis phase by utilizing four essential factors (Figure 2.1):

1. **City Future Plan and Regulation**: consists of two parts: (a) city regulation based on *Qanun RTRW Banda Aceh 2009-2029* and (b) the future city plan for the chosen sites mentioned by former Aceh Governor in his interview with *detikNews*.

2. **Context**: examines the five elements of the city by Kevin Lynch, which consists of (a) districts, (b) paths, (c) nodes, (d) landmarks and (e) edges; along with the resiliency to the climate in regards to earthquake and tsunami disaster, which occurred in 2004. The first factors, the five elements of the city by Kevin Lynch were executed as the mapping of infrastructure to elaborate the image of Banda Aceh city. The map will follow the same values done by (McHarg 1969), utilizing two values: engineering values (related to slope, surface drainage, soil foundation, and other values related to physical features in the site) and social values (related to community values, such as historic, green space (forest), and land. As the topography of the sites are quite
flat and had been used for building, the engineering maps will not be a concern in this study. Instead, the social maps with five elements of the city by (Lynch 1960) will be deeply utilized in assistance with questionnaire results and literature reviews.

This sub-chapter will also cover the typology, both building and material typology in order to get the character of the specific sites. This study is conducted to get a benchmark and sample for the proposed function and design criteria/guidelines for the new proposed design. It, by (Scully 1969) and (Summerson 1998), is considered to be treating architecture as it does not exist in aesthetic vacuum. This method is also supported by (Goldberger 2009) by using Louis I. Kahn statement of using the: “street as a room of agreement”, which conveys the idea of connection between architects and the existing built environment. This analysis will not limit the development of the design criteria, contemporary and new approach style will also be developed in this study. It is presumed to get a sense of time and place for the proposed design, in which the proposed design criteria will represent the time, as well as the character, which belongs to the sites and its era.

In addition, along with the demographic data from Central Bureau of Statistics, the user analysis of the space will also be examined in this sub-chapter.

3. **Related theories and precedent studies** consist of the theories about Islamic cities and the sample of both traditional and contemporary Islamic Cities. These theories argue the misconception of Islamic cities, by French Orientalist, mentioned by Lughod 1987, which create the generalization of Islamic city structures without regard to the particularity of each city character. As a result, many developments in the Arab world and the Gulf tend to rebuild the areas based on how it looked in the past, because they believe that is the way to preserve the history. However, this study is intended to reach beyond utilizing an eclectic revitalization style in order to preserve the history. It is expected to find a proper approach in revitalizing the sites located in the heritage and sacred areas by preserving history through collective memories of the local community. As mentioned by (Miligan 1998), collective memories are one of the ways to preserve the history, by connecting the past with the future expectations, through local community memories of their city
and the sites. It then will help the research to find a better way to create criteria for the design guidelines regarding time and place of site development.

4. **Questionnaires and interviews** assess the memories of the local community in Banda Aceh about the history and explore their future expectation about the city and the site development as a follow-up to the analysis from the theories and precedent studies in the last sub-chapter. These questionnaire and interview methods are intended to explore the connection between people and the places where they live, work and play through their collective memories. As cited by (Borer 2010), the connection between people and places has been learned in term of sociology aspects by (Borer 2006); Brown-Saracino 2004; Gieryn 2002; Lofland 1998; Milestone 2008; Milligan 1998, 2003; Smith and Bugni 2006). These connections are called culture-place relationship (Borer 2006), in which the collective memories influence the physical environment. In addition, according to (Miligan 1998), there are two interactional process in learning the connection between individual and a physical site: “(1) interactional past, or the memories of interactions associated with a site, and (2) interactional potential, or the future experiences perceived as likely or possible to occur in a site.”, which can be studied through questionnaires, participant observation, and interviews.

Using these perspectives, collective memory approach will be utilized through questionnaires and interviews via online and offline methods. The online questionnaires will be spread out through social media, “Google Doc and Facebook” in order to get the perceptions of the site from local community, who have access to the internet. In addition, to get direct response from older people or communities nearby the sites, offline questionnaires and interviews will be conducted in some important locations that have a connection to the chosen sites, such as the The Great Mosque of Baiturrahman, the Great Mosque of Al Makmur, Taman Sari Park, and the Zainoel Abidin Hospital. The main reason for the chosen places for the offline questionnaires is based on the fact that they are the most visited places by the public in Banda Aceh and will provide various answers from diverse perspectives. The specific reasons for each location are as follows:
• The Baiturrahman Mosque is chosen due to its closeness to the site which is across the street. Moreover, in local peoples’ view, the Great Mosque of Baiturrahman is the most important location in Banda Aceh, which represents the city as a whole (Nas 2011). Thus, the perspective from the jama’ah and imam will play important role in creating design guidelines and function to the sites, since the great mosque is considered to be a sacred place in Banda Aceh.

• The Great Mosque of Al Makmur was chosen as it is in my memories; this mosque is one of the mosques that has a larger number of jama’ah in Banda Aceh. In addition, in Islamic religion, there is safari practice, which means the jama’ah will do their worship by moving around from one mosque to another mosque. For example, the safari that had been done by Aceh Government during Ramadhan 2017, which started from the Great Mosque of Al-Makmur and continued to 10 other mosques in Banda Aceh (Shari'a Islamic Bureau of City of Banda Aceh 2017). Both mosques will have the same jama’ah, so that the questionnaires in both mosques will give the same accuracy related to the collective memories of the local community.

• Taman Sari Park is another important location, which is also located across the sites. This park contains a small building, some trees, pools, grass lawns, a paved square, and an additional Bustanussalatin building which is a museum on the north side, which was built since 2016. As (Nas 2011) mentioned in his research, in general, respondents agree that Taman Sari is quite a unique park, since it is used widely by local community, both for events and other refreshing facilities, such as gathering and children playground. It is very crowded, especially during the late afternoon, evening, and weekends. Thus, getting the perspectives from this crowd is considered to be a crucial factor, since the development of the nearby sites will directly influence their comfort and views of the places.

• Zainoel Abidin hospital; is the biggest hospital located in the city of Banda Aceh. This hospital is also an important public facility in the city and it is considered to be one of the places that represents the thought and memories of the local community of their city and the sites.
As the questionnaires and interviews are performed in these four places, it is expected to get collective memories from local community related to the spaces they live, work, and play in.

Considering the importance of the findings from each of the essential factors, the assumption for consumer use percentages is shown in Figure 2.2. The context, along with questionnaires and interviews, have a slightly larger influence on the findings, as it elaborates the data directly from community engagement and the existing condition of the chosen sites. Related theories and precedent studies along with city future plan regulation, help shape the findings based on the on-going Islamic city development in the world, and the future expectation of the government regarding the sites and the city itself. In this analysis phase, each sub-chapter will be synthesized to help direct the decision making at the result phase. The diagram of process of the analysis phase for each essential factor will be provided in the next step, Synthesis Phase.

The next phase, synthesis phase, is the conclusion of the overall analysis from the previous phases. At this phase, all the findings and discoveries related to the chosen sites will be gathered and utilized for the proper proposed functions and design guidelines for the specific sites.
The last phase is the Result Phase, in which the study will reach the final conclusion in terms of the proposed functions to be addressed for the sites, followed by design criteria and parameters that can be utilized as a guideline for the decision makers for future development of the sites and the city center of Banda Aceh.
CHAPTER 3 ANALYSIS

3.1 Introduction - Banda Aceh

Banda Aceh is an old city that was recognized as a highly cultured community in 17th century South East Asia (Lombard 1991) (Waterson 1990). It is located in Aceh province, which was an urban center at the crossroads of world trade (Raap 2009). Like any other civilization, the urban area of the city center takes place along the river, in this case, the Krueng Aceh River. The foremost centers of the community are the mosque and the market, located in the city center and along the river (Raap 2009). The high sense of the “community” in Banda Aceh shows the value of Islamic culture, once mentioned by (Lughod 1987) as one of the values of Islamic city along with “beauty” and “segregation”.

The intense value of Islam in this region makes Aceh one of the provinces in Indonesia that has authorization to use Shari’a Law (Islamic Law) as its religion and provincial legislation. The importance of the community values and Islam in Banda Aceh will influence the decision making in this study.

Figure 3.1 The Location of Banda Aceh
Source: Analysis
3.1.1 Geographical Location

The geographical location of Banda Aceh is between 05º30' - 05º35' north latitude and 95º30' - 99º16' east longitude, which consists of 9 districts, 70 villages and 20 sub-villages with total area of ± 2369.12 sq. mile (± 61.36 km²). Its strategic location, due to its proximity to the countries located at the south side of Asian Continent makes Banda Aceh a gateway of the west side of Indonesia.

The topographical condition (height) of Banda Aceh ranges from -1.47 ft. up to +3.3 ft. (-0.45 m up to +1.00 m) above sea level (asl), with an average altitude 2.6 ft. (0.80 m) above sea level. The shape of the land surface (physiography) is relatively flat with a slope between 2 - 8%. This surface shape signifies that the level of erosion is relatively low, but very vulnerable to puddles, specifically during the occurrence of tides and waves of seawater on the Northern or coastal areas. In macro scope, Banda Aceh and its surroundings topography is the flood plains of Krueng Aceh and 70% of its territory is located at an altitude of less than 16.4 ft. (5 m) above sea level. Upstream of its plains are narrow and bumpy with an altitude up to 164 ft. (50 m) above sea level. This plain is flanked by the steep hills in the west and east, with the height of more than 1640 ft. (500 m), which makes this similar to a cone with its mouth facing the sea.

3.1.2 Demographic Data

Based on the Central Bureau of Statistics data, the total population of Banda Aceh in 2015 is 250,303 people, with the highest rate of age group ranging from 15-19 to 50-54. This majority of this age group is also shown in the questionnaire results, in which the most respondents are from this group age.
3.1.3 Site Location

The chosen sites are located in the center of Banda Aceh at the “Traditional City Center Zone”. They are located across from the Great Mosque and are surrounded by traditional market, park, offices, and residential areas.
3.2 Area History

3.2.1 Atjeh Hotel

Figure 3.4 Old Atjeh Hotel Building (left); the columns left from the ceased development of the former Atjeh Hotel site (right)
Source: (Leumiek 2008)

Atjeh Hotel was the first important hotel located in downtown Banda Aceh. This place is a silent witness of an essential event that influenced the development of Indonesia. One of the native Acehnese who lives in Banda Aceh said:

“For me, this place saved deep memories since this hotel was once a historical hotel in which many important events took place.”

Quoted from the questionnaire result of Al Makmur Mosque (1.1 miles/1.8 km from the Great Mosque) Jama’ah

One of those memorable events was the meeting between the first President of Indonesia, Soekarno and important Aceh figures, including Daud Beureueh and Aceh important figures. On June 16, 1948 (AtjehCyber 2013), Aceh important figures expressed their willingness to donate two aircrafts to the Republic of Indonesia. These aircrafts then became the pioneer of the establishment of RI 01 and 02, which established the most influential flight company in Indonesia, known as Garuda Indonesia Airways (Leumiek 2008).
Another memory of the *Atjeh* Hotel was:

“Atjeh Hotel was a haven place for visitors who came to Aceh at the time of its peak era since it is a strategic place. Visitor spent the night at the hotel and visited the Great Mosque which is located across (it) (north side).”

*Quoted from the questionnaire result of Al Makmur Mosque (1.1 miles (1.8 km) from the Great Mosque) Jama‘ah*

This place is accessible to every tourism destination in Banda Aceh, including a traditional market located at the north side of the Great Mosque and *Taman Sari* Park to the south, and the *Putroe Phang*, a historical park which was a part of the bathing place for the royal palace.

In 1997, after about 100 years of operation, this hotel was closed (there was no valid source about when this hotel was built that could be found). This important hotel was burned down in 2001. According to the interview with former Aceh Regional Secretary, *Teuku Syarifuddin*, the owner of the sites is the consortium of people intending to develop the hotel into an International Hotel, named the Novotel Aceh. This statement was supported by *Bustanul Arifin*, former Minister of Cooperatives, who said that the International Novotel Aceh Hotel will be built on the site (AtjehCyber 2013). For this development, Bustanul proposed to work in conjunction with a big tourism company, Accor Asia Pacific (AAPC) which has 2650 hotel networks in the world. (AtjehCyber 2013)

![Figure 3.5 The Plain Columns -before (left); the Painted Columns-after (right)
Source: (Leumiek 2008) (left); http://v-images2.antarafoto.com/tanah-terlantar-kota-n03nxg-prv.jpg (right)
In the interview, Teuku Syarifuddin mentioned that Bustanul Arifin suggested the development of Islamic Hotel, like in Madinah, in which the visitor can spend the night and worship in the Great Mosque. Teuku Syarifuddin added that the front façade of Aceh Hotel will be preserved, in order to keep the history of the place, and the back site will be extended as shown in Figure 3.6. The project was then ceased and “the sign of its re-development never took place even up to 2008 (Leumiek 2008). The only ruins left from the development were the arrangements of the columns in the site, which after 2004 tsunami disaster, were painted in various colors. Since then, this site is once used as the performance space for Aceh poet, like AA Manggeng and LK Ara. (AtjehCyber 2013)

![Figure 3.6 Former Atjeh Hotel (left); the proposed New Atjeh Hotel (right)](source: (Leumiek 2008))

### 3.2.2 Former Geunta Plaza Site

*Geunta Plaza* was one of the department stores located in downtown Banda Aceh at the east side of the former *Atjeh* Hotel site. This former department store building had been abandoned for more than a decade until it was demolished in 2011. The demolition was done due to the structural condition after the earthquake and tsunami disasters in 2004 (Leumiek 2008). This site was once owned by *PT. Kereta Api Indonesia* (Indonesia Train Company), but then was purchased by a Chinese person from Medan (375 miles/604 km from Banda Aceh) for the new development of International Best Western Hotel at the end of 2011. According to *Teuku Syarifuddin*, this development was accepted by a government official, however, it was argued by Islamic Board of the Great Mosque of Baiturrahman collaborated with
‘Majelis Ulama Indonesia’ (Indonesian Council of Islamic Leader). This rejection was supported by the community as illustrated on the fence of the site (Figure 3.7).

There were two issues related to this rejection. On one hand, a lecturer of the local University mentioned that the political issue played an important role in the development of the new hotel. Although a government official accepted the development of this new project, the political enemies protested about the incompatibility of the hotel on the site. It then provoked the community to reject the development of the project. On the other hand, Teuku Syarifuddin, former Aceh Regional Secretary, mentioned that the reason for the rejection was more than just a political issue. It was also due to the development of the previous hotel located 1.2 miles (2 km) from the chosen sites, in which in its operation was found to deviate from Islamic values such as a bar. However, if looking at the Madinah and Mekkah Hotel, located just next to the Al-Makmur Mosque, these issues seem not to be found. Therefore, further discussion, including four essential factors, should be explored in order to find a proper function to the chosen sites upholding Islamic values and the expectations of the local community.

Related to the further analysis towards the City of Banda Aceh and the sites, the next sub-chapter will explore four essential factors that will influence the development of the chosen sites.
3.3 City Future Plans and Regulation

3.3.1 Future Plans

The chosen sites do not have an updated local master plan. However, there was an idea about the expansion of the area near the Great Mosque mentioned by former Aceh Governor, in his interview with local news corporation in 2015. The municipality plan in “Urban Spatial Plan of Banda Aceh 2009-2029” (“Rencana Tata Ruang Wilayah (RTRW) Kota Banda Aceh tahun 2009-2029”) data shows that the chosen sites are a part of “The Great Mosque District”, which is directed as a tourism area. The Great Mosque District is also an asset of City of Banda Aceh, which shall be protected and preserved by prioritizing the development of “The Old Town Center District”. The Great Mosque is a historic and sacred place in the city center, giving the impression of Nabawi Mosque in Mecca, which makes City of Banda known as Serambi Mekah (Veranda of Mecca) (Municipal Plan, 2009). The details of allowable functions for the Great Mosque District will be explored in Mapping Infrastructure section.

![Figure 3.8 The Districts of Banda Aceh](source: Municipal Plan 2009-2029)

In 2015, Former Aceh Governor, Dr. Zaini Abdullah inaugurated the start of The Great Mosque of Baiturrahman expansion project, which was planned to house various activities that support the function of the mosque as the center of Islam in Aceh (Ariframdan 2015). Zaini mentioned that this project
includes a short-term program, which is the expansion of the Great Mosque itself and long-term program, which includes the land and building acquisition up to the Krueng Aceh riverside. (Fajar 2015). Zaini added the detailed of the long-term expansion program as below:

- West Side: Islamic School which focuses on the Islamic education.
- South Side: Guest House and Convention Center.

Zaini mentioned the guest house will be used for the tourists who would like to learn about Islam while experiencing the beauty of the Great Mosque (Fajar 2015). There are no other sources that mentioned the exact location about this guest house. However, since the proposed two sites are located at the south side of the mosque, these two sites will be assumed to be the location of Zaini’s plan.

Figure 3.9 Governors’ Future Plan Map Analysis
Source: Analysis
• East Side: Media Center focuses on broadcasting the Islamic news and disseminating information about Islam. This location will be directed as the Central Business District with the development of Department Store, Hub, and Gallery for the exhibition.

• North Side: will connect to the Krueng Aceh river and enhance the beauty and the uniqueness of the Great Mosque.

Every part of the long-term project will be managed by the mosque board.

In addition to these future plans, Banda Aceh Sentra Bisnis (BSB) Madani also created plans for the infrastructure development of the city center in Banda Aceh, which includes 4 concepts:

• In the Heart of City; located in the urban core with the integration of city system and Krueng Aceh riverfront.

![In the Heart of the City Map](http://bsbMadani.bandaacehkota.go.id/)

• Transportation; will be passed by central corridor, linked to urban corridors, and looped by circle road. The map shows the purpose connection in the city center, including public transportation route, pedestrian area, and riverfront development. This map supports the government plan to create a tourism destination in this area by enhancing the accessibility in the city center.
Labi-labi is a local public transportation which is a car with side to side seating behind the driver.

Figure 3.11 The Urban Integrated Transportation Map
Source: http://bsbMadani.bandaacehkota.go.id/

- Themes Area; includes the Old China Business District (CBD), New CBD, Traditional Markets, Militer, Trade Centers & Waterfront. According to the map, the chosen sites in this project are directed to be the trade center area, which corresponds to the zoning code.

- Highest-Used and Best-Used; based on the consideration of BSB Madani Committee, the best-used includes Transit Terminal, Retail, Hotel, and Urban Tourism.

Figure 3.12 Themes Area Map (left); Highest-Used and Best-Used Map (right)
Source: http://bsbMadani.bandaacehkota.go.id/
3.3.2 Regulation

1. Division of Zone, Function and Types of Land Use of Banda Aceh City by Urrp Bac’

According to Master Plan NAD-NIAS, 2005, the former Atjeh Hotel and Geunta Plaza site is included in “Traditional City Center Zone”, which is one of the Evacuation Support Areas with the functions of Great Mosque, Museum, and Commercial Area. The land uses in this area are commercial area, cultural area, evacuation buildings, land transportation facilities (such as, bus station), evacuation route, government service center, emergency relief posts, and education facilities area.

Figure 3.13 Physical Zone Development Map
Source: Banda Aceh Zoning Code 2009-2029
2. **Zoning**

Based on the map in Figure 3.14, the projected land use for the former Atjeh Hotel and the Geunta Plaza site is a **Trade Center Area**, which is located in the high density area.

Figure 3.14 Banda Aceh Zoning
Source: Municipal Plan 2009-2029
Zoning Direction of Trade Center Area

Based on the zoning code regulations of Banda Aceh 2009-2029, the zoning directions of the trade center area are divided into three separate functions with the explanation as below:

- **Commercial area**
  
  Purpose:
  - Provides space to accommodate labor in the form of offices, retail, services, hotels, recreation, and community service at the range of both regional and city services.
  - Provides space for the development of social, economic, and culture.

  Permitted building use:
  
  Offices, commercial (retail and entertainment services), other services (health, higher education, telecommunication and information, finance, lodging, business)

- **Housing**
  
  Purpose:
  - Provides mix-used building with commercial area on the ground floor and housing on the upper floor.
  - Provides housing areas that are separated from commercial area.

  Permitted building use: single or multi-family housing with diverse levels of density

- **Green Open Space**
  
  Purpose:
  - Provides space to balance the micro climate, especially in commercial and pedestrian areas.
  - Provides a passive green space as an aesthetic space
  - Provides space for outdoor activities associated with trade and services

  Permitted building use: single or multi-family housing with diverse levels of occupancy
3.3.2 Building Code Summary

<table>
<thead>
<tr>
<th>Zoning District</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter V: The Strategic Determination of Banda Aceh City in 2019</td>
<td></td>
</tr>
<tr>
<td>The Great Mosque District</td>
<td></td>
</tr>
<tr>
<td>Chapter VII: Controlling the Utilization of the Urban Space in Banda Aceh</td>
<td></td>
</tr>
<tr>
<td>Minimum Lot Size and Coverage</td>
<td>Table 7.10 The Settings of the Lot Size and Coverage in Accordance with the Environmental Level</td>
</tr>
<tr>
<td>Trading and services area: 80%</td>
<td></td>
</tr>
<tr>
<td>Offices and public services: 80%</td>
<td></td>
</tr>
<tr>
<td>Maximum building height</td>
<td>At a radius distance of 100 m from the Great Mosque of Baiturrahman fence, the height of building shall not exceed the height of the mosque</td>
</tr>
<tr>
<td>All Setback</td>
<td>C. General Term of Setback</td>
</tr>
<tr>
<td>The setback in the city center area is 6.5 ft. (2 m) due to the limited land area</td>
<td></td>
</tr>
<tr>
<td>Minimum Parking Requirement</td>
<td>Directed to the basement area</td>
</tr>
</tbody>
</table>

Table 3.1 Building Code Summaries
Source: RTRW Banda Aceh 2009-2029

3.3.3 Sub-Conclusion

By studying the municipality plan, including Building Code (RTRW Banda Aceh 2009-2029), along with former Aceh governor statements, and BSB Madani plan, it is clear that the city center of Banda Aceh is directed to be the tourism destination with the Great Mosque of Baiturrahman as the center of the activities. The municipality’s vision takes into account the whole area as an integrated development that supports the city center as the center of Islam and community in the region. In the future scenario, the development in the city center is seen as an element that connects the expansion of the mosque and surrounding up to the Krueng Aceh riverfront. The proposed plans by BSB Madani related to the transportation and area themes promote a great opportunity to establish cultural related activities, specifically related to Islam and Aceh traditions in the area.
The municipalities’ vision to enhance the community and Islam matched with the theory about Islam in Banda Aceh, mentioned by Raap, 2009. According to Raap, the center of community in Banda Aceh is a mosque and a market. This, along with the building code of Banda Aceh 2009-2029, which indicates the land use of the chosen sites as the trade center, directs the development of the sites to be a social space within the community as the center of the activities.

In addition to the land use, the existing areas also have three separate functions, mentioned in the Building Code of Banda Aceh 2009-2029: commercial, housing and open spaces. The north, east, and west sides of the sites house commercial areas with housing at the second floor and retail at the ground floor. To the south, the area is occupied by offices and several open spaces that have been used as community parks.

Figure 3.15 Rules, Regulations, and Future Plans Summaries
Source: Analysis

Overall, the analysis of the regulation and future plans, along with the theory of the city of Banda Aceh by Raap 2009, direct the future development of the chosen sites to be the space that houses Islam and
community as the center of activities. The exact functions proposed from the former Aceh Governor for the south side of the mosque, which is assumed to be the chosen sites, are the Guest House and Convention Center that are intended to support the activities in the Great Mosque and its surrounding. The direction of the development is assumed to be a cultural-related activity space, which addresses the need of the community, both for tourists and local community.

3.4 Mapping Infrastructures

In this chapter, the chosen sites and its surroundings will be analyzed to provide an overall picture of the existing conditions that influence the development of the project; in terms of district with rough functions, overall infrastructure, and location of important places.

The overall elements discussed in this study are referred to 5 elements of the city, proposed by Kevin Lynch (1960), such as districts, paths, edges, nodes and landmarks.

3.4.1 District

The district mapping (Figure 3.16) is created to give a sense of a connection between the chosen sites with the overall functions in the surrounding areas. Banda Aceh is a small and compact city with concentrated and dense areas. The area can be divided into two main districts: (1) Cultivation Area District and (2) Protected Area District (Figure 3.14). Protection Area District consist of protected open space and cultural heritage areas. Cultivation Area District includes nine districts: tourism, harbor, trade and service, fishery, office, housing/residential, waterfront, and other use. The sites are located in the dense area known as the “Heritage/Traditional City Center” with the land use of “trade and services”. This area has some restriction in terms of regulation related to its closeness to a sacred place, the Great Mosque of Baiturrahman. According to Banda Aceh Building Code 2009-2029 (RTRW of Banda Aceh 2009-2029), this area is planned to undergo a transition in the future which has a connection in terms of functions that support the existence of the Great Mosque.
The organization of the city center area in the map is the existence of the mosque as the urban core with the connectivity with a traditional market (bazaar); heritage buildings and places; and parks and governmental area. The urban sprawl from the city center is marked by the commercial area along the main street following by the residential in the Intermediate and Neighborhood Street.
3.4.2 Proximity

The proximity map was created to give a sense of activities that take place in the area surrounding the sites. It helps to study how the consumer uses the spaces. It also captured the facilities provided in the area. All of this information is essential in determining a proper functions and activities to be placed in the chosen sites. It can be whether new facilities are requested but are not yet provided in the area or facilities that support the existing activities as a continuity of the on-going events nearby the sites.

Figure 3.17 Proximity Map
Source: Analysis
The proximity map (Figure 3.17) shows that the area surrounding the site is occupied by mixed-use facilities with various activities, ranging from religious activities; community gathering related to public events, sport, and having a meal; and business in relation to commercial activities and offices. However, it lacks a place for public activities in terms of “regular” cultural-related events which offers more intense activity. There are similar cultural events held annually by the government, as a tourism program in the open space nearby the sites, known as a part of “The Light of Aceh Events” in 2017, such as: Banda Aceh Coffee Festival and Aceh Culinary Festival held in May, Aceh International Halal Food Festival in August, *Piasan Seni* Banda Aceh (Banda Aceh Art Gifts Festival) in April, *Putroe Phang* Art and Weekend Show in February-July, and other musical and art performances (Dinas Kebudayaan dan Pariwisata Aceh 2017). These events take place at *Taman Sari* Park (marked red in the map), Blang Padang Park (marked green in the map), and *Putroe Phang* Park (marked yellow in the map). The events are explained as below:

1. **Banda Aceh Coffee Festival**

![Banda Aceh Coffee and Halal Food Festival - Mie Aceh Brochure and Event](https://pbs.twimg.com/media/DAH2jxtUMAIx885.jpg)

Banda Aceh Coffee Festival is one of the events held annually by Banda Aceh Tourism and Cultural Agency as a celebration of coffee tradition. It is a three-day event housing several booths representing traditional and modern coffee making, coffee farmer cooperatives, coffee powder producers, community
of coffee makers and coffee fans, as well as home and large-scale coffee entrepreneurs (Warsidi 2014). In 2017, this event also presented the Halal Food Festival “Mie Aceh” (Aceh Noodles) in which the visitors could sample the special food of Aceh known as Mie Aceh. In addition to the Aceh traditional food event, a musical performance is also presented in this festival.

2. Aceh International Halal Food Festival

![Figure 3.19 Aceh International Food Festival Brochure and Event](https://steemit-production-imageproxy-thumbnail.s3.amazonaws.com)

Aceh International Halal Food Festival is a three-day event held in Taman Sari, Banda Aceh joined by local and international food entrepreneurs, as well as Food and Drug Analysis Agency (LPPOM) MPU Aceh (The Jakarta Post 2017). The first event was held last August 2017 and housed an array of traditional dishes from 23 regencies and cities in Aceh, international delicacies (from Malaysia and Thailand), and a food truck zone. This is a huge event in which the Halal Certification will be discussed with the community.
3. “Piasan Seni” Banda Aceh (Banda Aceh Art Gifts Festival)

![Figure 3.20 Piasan Seni Brochure and Event](https://i.pinimg.com/originals/b1/9d/42/b19d426dbd2182e9681a48d2a2f7b9f.jpg (left); Sheme Photography (right)

“Piasan Seni” is also one of the events held annually by Banda Aceh Tourism and Cultural Agency. It is a three-day event presenting several art events, including an Art Exhibition, an Art Workshop, Cultural Awards, and Competitions (Zulkarnaini 2017). This event is intended to support the creativity and to showcase various works of the artists in Aceh.

4. *Putroe Phang Art & Music Weekend Show*

![Figure 3.21 Putroe Phang Art & Music Weekend Show Brochure and Event](http://3.bp.blogspot.com (left); http://cdn2.tstatic.net/tribunnews/foto/images/preview/20130909_putroe-phang-art-and-music-weekend-show_6074.jpg (right)

*Putroe Phang* Art and Music Weekend Show is an activity created by Banda Aceh Tourism and Cultural Agency every weekend (Sumatera Post n.d.). It houses a traditional dance performed by teenagers and
children from local dance organizations; musical performances from local bands, and other art-related activities.

All of these cultural activities, either weekly or annually held near the sites show the intention of the government to promote the city center as a leisure and tourism destination both for local community and tourists.

Overall, by looking at the proximity map and the events held by the government, public and cultural related activities, like the public market is assumed to be essential to the developed sites in order to create the continuity of the events with other parks located nearby. Moreover, since there is no space found in the area that offer more intense activities for traditional food and handicraft making and selling events, these activities will be one of the functions for future development of the sites. These activities can be placed in the Atjeh Hotel site as a pop-up facility as a continuity of the events occurred in Taman Sari Park located across the sites. These activities can add joy for both local community and tourists, as well as increase the economic viability of the city.

### 3.4.2 Area Movement

Area movement map in the Figure 3.22 shows the overall infrastructure that organized the city center of Banda Aceh, including its heavy and light traffic lines. The main traffic is lead through the main road, from east to west side passing through the street between the Great Mosque and the chosen sites. Along this road, two points, including the north street of the Great Mosque and the junction to the east site are found to be the heavy traffic points. For the traffic in the junction, the municipality is building a new flyover development (yellow line), which is currently under construction. This flyover goes along the street across the junction with 2792 ft. (850,954 meter) length, 57.4 ft. (17.5 meter) width and 18 ft. (5.4 m) height. The development started in 2015 and is expected to be accomplished in 2017. There is no development related to the traffic at the north street of the Great Mosque. It might occur due to the land
acquisition plan in the surrounding mosque by the municipality, but this has not been occurred yet.\(^1\) Parallel to the flyover development, across the bridge above the *Krueng* Aceh River, a new underpass\(^2\) development is also under construction, in order to decrease the traffic in the bridge junction. This underpass is planned to go underneath the street next to the *Krueng* Aceh River.

The overall organization of the movement and new development shows a unique way to direct the heavy traffic from the city center of Banda Aceh. It also shows the accessibility routes, which ease the movement towards the city center.

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\(^1\) The interview result with former Aceh Regional Secretary mentioned that there is ambiguous news about the land acquisition in the surrounding mosque due to the recent change of governor in the city of Banda Aceh.

\(^2\) [https://www.youtube.com/watch?v=oCBxa7VmwS8](https://www.youtube.com/watch?v=oCBxa7VmwS8)
Figure 3.22 Area Movement Map (top); the Underpass plan (bottom left); the Flyover plan (bottom right)
Sources: Analysis (top);
Captured from https://www.youtube.com/watch?v=oCBxa7VmwS8 (left bottom);
http://cdn-2.tstatic.net/aceh/foto/bank/images/flyover.jpg (right bottom)
3.4.3 Paths

The purpose of this research is to discover the connection between the city center and the surrounding site areas with the connection to the public transportation, vehicle and pedestrian paths (Figure 3.25).

This study shows that the city center with a density that is arranged as a traditional urban fabric, looking similar to Rome’, with open paths leading pedestrians all the way up from the city center area to the riverfront at the north. The urban fabric is an organic form which goes along and follows the flow of the river.

Figure 3.22 Urban Fabrics in Rome (left); Urban Fabric in Banda Aceh (right)
Source: http://yuriartibise.com/urban-fabric/ (left); Analysis (right)

There is a very clear distinction between the north and south area of the city of Banda Aceh. While the north area is dense due to the existence of the commercial area, the south area seems a bit more scattered with the existence of Public Park in the middle of heritage and office area. The commercial area along the both sides of the river at the north creates a natural wall as a separation of the district between north and south sides.

The main road named Jalan Banda Aceh-Medan located between the Great Mosque and the chosen sites (shown in yellow line in Banda Aceh map), is the road that takes the heaviest traffic loads of the area by distributing the traffic through the street between the chosen sites. The majority of the transportation used
by Acehnese is cars and scooters. There is also public transportation, which started in 2015, such as buses which serves the area along city center through the university, airport, beaches, and harbor/port. Another local transportation is “labi-labi”\(^3\), which serves more specific areas, such as specific villages in the local area.

The chosen sites are ideally located in the public transportation route, which allows the location to be a strategic and attractive place as a tourism destination in the traditional city center. The location also creates a more sustainable lifestyle for the project, with the increased use of public transportation and pedestrian walkways.

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**Figure 3.24 South Path with the trees along the street (top left); Main Road between the Great Mosque and the chosen sites (top right); the dense path at the north side (bottom)**

Sources: Jamadil Qamar (top);
- https://projectiamalaysian.files.wordpress.com/2012/12/pasar-banda-aceh.jpg (bottom left)

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\(^3\) Labi-labi is a local transportation in Banda Aceh. It is a car with the side-to-side back seat.
Figure 3.25 Path Map
Source: Analysis
3.4.4 Nodes

Nodes are strategic foci, which consist of points of places where different paths meets or cross each other. Nodes include squares, junctions, linear shapes, and central districts. Two types of nodes are observed in this study, including junctions of path (traffic nodes) and concentration of characteristics (square).

Figure 3.26 The yard of the Great Mosque of Baiturrahman (top left); the Blang Padang Park top (right); the new Bustanussalatin building in Taman Sari Park (bottom left); Simpang Lima Monument marked as nodes number 1 in the map (bottom right)

Sources: http://cdn2.tstatic.net/aceh/foto/bank/images/mrb_20170214_195853.jpg (left); http://abulyatama.ac.id/wp-content/uploads/2015/10/blang-padang.jpg (right); Jamadil Qamar (bottom left); https://i.ytimg.com/vi/kc5g1fgmyfA/maxresdefault.jpg (bottom right)

The Great Mosque yard in Figure 3.26 (marked no.2 in the map) is a concentration of characteristic nodes because of its central location and its specific function as Muslim worship place. It has a large yard at the east side, functioning as a meeting and gathering place for citizens and becoming a tourism destination in the city. Another city park which is also a node is marked as number 5 due to its unique character in providing a gathering space for the community. The Blang Padang Park (number 3) is largely used for
sport activity, such as running track and basketball, and entertainment places, such as music concert and exhibition.

An interesting observation in this research is shown by the continuation of the former Aceh Hotel site to Taman Sari City Park, marked as number 4 is another node where the pedestrian paths meet one another. This park houses Bustanussalatin, which began construction in 2016, is a new building located at the north side of Taman Sari Park, right at south side of former Aceh Hotel site. According to T. Samsuar, Head of Environmental Agency, the basic concept of this new building is to enhance the beauty and meet the needs of park facilities\(^4\) (Hayati 2017). It will exhibit the photographs and the history of Aceh. This fact emphasizes the direction of the development of the site to be a cultural-related activity space for the region.

Nodes 1 and 5 are considered as junction of paths, where the traffic from the important streets meet or cross each other. These locations are marked by the monuments with Aceh ornament as the symbol of Aceh character. It shows that the chosen sites are placed ideally in and among the connection points and strategically closed to other important nodes and landmarks nearby.

\(^4\) Quoted from Serambinews.com, Tuesday, January 24, 2016
Figure 3.27 Nodes and Landmarks Map
Source: Analysis
3.4.5 Landmarks

Landmarks are buildings or areas with special character in Banda Aceh. Aceh has three narrative “templates” that frame the collective memories of its citizens: (1) Islam, including the glory of the historical Islamic Kingdom, its location as a core of society, and the role of Shari’a Law, (2) conflict (wars), which represent the thirty years conflict between the Dutch and the municipalities, and (3) disasters, including earthquake and tsunami disasters occurred in 2004, which then shaped the image of Banda Aceh (Dewi 2015). According to these collective memory narratives, landmarks found in the area can be divided into two main categories; (a) historical landmarks, in terms of functions (represent Islam and conflict/war), and (b) visual landmarks in terms of design and location (represents Tsunami disaster⁵).

1. The Great Mosque of Baiturrahman Figure 3.28; considered to be a historical landmark, is located at the heart of city of Banda Aceh. Ur-Rahman, in the Arabic language means the Merciful and is one of the ninety-nine names of God. This name implies that the Great Mosque is the house of God, which is considered to be a sacred place (Raap 2009). This mosque experienced several developments from the first time it was built due to wars and fire which occurred during the colonization era, as well as, during the sultanate era. Like any other mosque in the Prophet Era, it used adaptation in its development (EI 4: 288: 7: 7), the first design of the great mosque adopted the long-established pre-Islamic temple structure (Raap 2009) and the design of Sultanate palace architecture (Hasan 2009). The current architectural style of the mosque is an International style with the accent of Mughal Architecture (Raap 2009). In 2015, the new expansion of the mosque was conducted by the government, with the adaptation of the “electric umbrella” from the Nabawi Mosque in Medina.

⁵ Tsunami disaster had attacked Banda Aceh on December 26, 2004
Figure 3.28 The Transformation of the Baiturrahman Mosque
the *Baiturrahman* Mosque in original East-Indie style 1637 illustrated by Mundy, 1881 (courtesy Banda Aceh Documentation Center), 1936 (from Jongejans 1939) (Raap 2009); 1992-2015 (upload.wikimedia.org); the new *Baiturrahman* Mosque 2015-now (Jamadil Qamar)

2. The *Seulawah* RI-001 Aircraft monument; is located in the southwest side of Blang Padang Park. It is one of the three replicas of the aircrafts located in Taman Mini Indonesia Indah, Jakarta and *Ranggon* Museum, Myanmar (Dwifajariyanto 2014). This monument is evidence of an agreement between the first President of Indonesia, Soekarno with the Aceh consortium at *Atjeh* Hotel, related to the financial assistance towards the purchase of the first aircraft for the state purposes.

Figure 3.29 the *Seulawah* Aircraft Monument (left); Tsunami Museum (right)
Sources: http://static.panoramio.com/photos/large/64703852.jpg (left); bandaacehkotaMadani.files.wordpress.com (right)
3. The Tsunami Museum is a visual landmark that represents the earthquake and Tsunami disaster in 2004. It was designed by Ridwan Kamil (a Mayor of City of Bandung\(^6\)), chosen through design competition in 2007. This museum is the second Islamic symbol after the Baiturrahman Mosque (Dewi 2015). It incorporates the Acehnese value of the geometry form of Aceh, a traditional dance applied to the form of its secondary skin. As Kamal A. Arif, a chief committee of the museum competition, stated that the project will fit with the area only if it brings the beliefs and values of Acehnese (Arif 2006).

4. \textit{Kherkhoff}: is the 1890s Dutch military cemetery located at the south side of the Tsunami Museum.

5. \textit{Putroe Phang} Garden, a part of royal palace garden along with \textit{Taman Sari}, is used as a garden and bathing place for the queen. It was built in the same time as \textit{Gunongan}, during 17\textsuperscript{th} century.

\(^6\) Bandung is located in three-hour driving distance from the capital city, Jakarta
6. A part of Putroe Phang Garden is Gunongan, known as an artificial mountain. It is one of the historical landmarks that were built by Sultan Iskandar Muda who reigned during Aceh’s Golden (Islamic) era around the 17th century (Wessing 1988). Referred to documentations about Gunongan by (Djajadiningrat 1916; Brakel 1975; Kreemer 1922, Lombard 1967; Snouck-Hurgronje 1906), there is no definite description about its origin and function (Wessing 1988). However, based on the popular stories in Aceh, Wessing indicates two diverse functions related to Gunongan origin, such as the place for homesick princess who yearns for the atmosphere in her hometown, Pahang, Malaysia and the place for judgment and execution of criminals. Nowadays, the condition of the Gunongan site is not exactly like when it was built. There were several alterations as the time and the reign changed.

7. Rumoh Aceh Museum; is a traditional Aceh house which functioned as the museum that exhibits the original form of Aceh house and history of Aceh. It is located far to the east along the Krueng Aceh River.

8. Pendopo; located 328 ft. (100 meters) from the Rumoh Aceh Museum, is the house of Governor of Aceh, built with a traditional architecture style.

The overall landmarks in this study show the architecture hierarchy in terms of symmetrical form of their floor plans and elevations, except for the new building, the Tsunami Museum, which is more organic in its form. There is a similarity in the way the buildings are expressed in the area, i.e. through the use of geometric forms. The previous building, such as Rumoh Aceh and Pendopo have more visible geometric
form through the use of the rectangle and triangle form for their main plans and facades. In addition, The Great Mosque of Baiturrahman also uses geometric forms, like rectangular and common onion forms that appear in many mosques around the world. For the ornaments, these three buildings use a geometric and floral arabesque forms that also appears as a main façade of the Gunongan and Pinto Khop at the Putroe Phang Park.

Although the Tsunami Museum has an organic main form, a geometric form is also found in its design, i.e. through the form of its secondary skin, which is derived from the geometric pattern of Aceh traditional dance, Saman Dance.

3.4.5 Site Condition

1. Site Views and Edges

The chosen sites are currently empty lots with no development. The former Aceh Hotel site is filled with existing piles as a result of the ceased development in the site. Former Geunta Plaza site is used as a temporary barracks for the Great Mosque development.
Figure 3.32 Edges and Views Map
Sources: Analysis

Figure 3.33 Krueng Aceh River View to the Baiturrahman Mosque (left); View to the sites towards north (right)
Sources: http://68.media.tumblr.com/b23b14654e7c18e00fc9c754d948c80e/tumblr_inline_n7veamkBLS1s0h9e.jpg (left); Jamadil Qamar (right)
The area on the north side is the Great Mosque of Baiturrahman. The sites are surrounded by commercial area; both a traditional and new market to the north; and residential and commercial to the west. A city park, heritage areas and the new tsunami museum are located in the neighborhood to the south, and the government office to the east. The further northern boundary of the site after the traditional market is facing the river edge, Krueng Aceh River. The strong presence of water stands out as the edge of the location and defining the character of the area.

Figure 3.34 Edges and Views Study
Sources: Analysis (Photos taken by Jamadil Qamar)

Considering its location, which is in the city center and the views to its surrounding, the proposed sites are a strategic location to be developed. The great mosque to the north and the heritage areas to the south create an opportunity to the sites as the gate of the city of Banda Aceh. This gate is intended to be a transition space between the sacred function of the mosque and the secular function of the heritage area.

2. Building Typology

The building typology in the area has a clear division separated by the main road. On the north side, close to the great mosque, is a commercial area, both a traditional and a new market. The only indefinite typology in the north side is the architecture used in the new shopping center, known as “Pasar Aceh”. It
is an old market renovated with modern features through “Revitalization of Pasar Aceh”. The façade of the shopping center is eclectic as it replicates the arch and ornamentation of the Baiturrahman Mosque, which is recognized as Islamic architecture by government (Dewi 2015). Another example of copy-paste architecture is the electric umbrella, replicated from the one in Nabawi Mosque, which is also seen as a model of “ideal” Islamic Architecture by the government.

The area to the east and south are a bit unorganized and fragmented, with no clear profile related to architecture and infrastructure. The building typology varies in shape, from heritage to more futuristic looking buildings. Located in historical area, the New City Hall stands out by itself, with what Derrida called “différance” in his deconstruction theory. Différance means “no more static than it is genetic, no more structural than historical”, such as “by setting some generative point against of view against a structural-taxonomical point of view or vice versa”) (Bass 1982). The typology of this building is literally different from the old office building with prism local roof.

The area to the west of the sites is a two-story mixed-use row building facing the main street. The organization of this area is quite common for the whole town, as seen in the other commercial areas, such as the traditional market in Chinatown located across the river. It places the commercial area on the ground floor, with the residential on the upper floor.

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7 See the government intention related to the Baiturrahman Mosque expansion by Aditya Fajar in detikNews: “Payung ini layaknya seperti yang terdapat di Masjid Nabawi di Madinah, Arab Saudi” (This umbrella is just like the one in the Nabawi Mosque in Medina, Saudi Arabia) (Fajar 2015)
Figure 3.35 Building Typology Analysis Map
Sources: Analysis
Office building typology:
The old government office with pitched roof, ornament in the façade, mostly 2-4 stories
The new government office with futuristic style and metal façade stories

Commercial building typology:
Mostly 2-3 stories
New building with the replication of onion form and ornament from the Great Mosque
Old row building with commercial at the ground floor and living space at the second floor. This is dominated by the flat pitched roof cover with high parapet.

Figure 3.36 The New City Hall (top left); Governor Office building (top right); the New Pasar Atjeh (bottom left); the Old Pasar Atjeh (bottom right)
Sources: http://static.panoramio.com/photos/large/73288251.jpg;
https://c2.staticflickr.com/4/3061/2799450465_5dea992ee6_z.jpg?zz=1;
http://www.bisnisaceh.com/images/web/pasar-aceh.jpg;
Jamadil Qamar

Besides the building typology, Norberg Schulz mentioned another aspect that creates the urban place character, including built environments’ boarders and surfaces, which he called floor shaped by local materials and the way they are laid (Akkelies 2014). Reflecting upon this theory, the building materials in the area surrounding the chosen sites will be explored in the next sub-chapter.
3. **Material Typology**

This chapter explores the material typology that was observed in the nearest context to the site. The 2004 Indian Ocean Tsunami dramatically influenced the changes to Aceh housing culture, which adopted the bungalow type (O’Brien and Ahmed 2014) by using **reinforced concrete, masonry (concrete block and brick), steel framing, and corrugated iron sheets** (O’Brien and Ahmed 2009). These materials are also found in new building developments in Aceh, such as *Pasar Aceh* to the north of the *Baiturrahman* Mosque, New City Hall, the *Bustanussalatin* building and the Tsunami Museum to the south. Even though wood is known as traditional building materials in Aceh, these four materials have been widely used even before the Tsunami, both for heritage buildings and the construction before tsunami due to “the scarcity of the wood”\(^8\). The heritage buildings, such as the *Gunongan* and the *Putroe Phang* to the south and old *Pasar Aceh* Market to the north use brick with cement plaster materials. The *Baiturrahman* Mosque uses the combination of wood in the upper part and brick plaster in the lower part of the buildings. This combination of materials is also found in the old row-building of Traditional Market at China Town located across the *Krueng Aceh* River.

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\(^8\) See the explanation in http://courses.washington.edu/larescue/built.htm#house
Figure 3.37 Material typology
Source: Analysis (Photo of the buildings (left) taken by Jamadil Qamar)
**Sub conclusion**

By looking at the overall infrastructure using five elements of the city by Kevin Lynch, the conclusion of the analysis of the chosen sites is that they are located in the dense area of the traditional/heritage city center district, with the Great Mosque as the urban core and the central location of future development. The sites are the center of the overall movement and development in the city of Banda Aceh, passed by the traffic nodes which travel from the east to the west. The area movement is under construction development with an underpass and flyover far East from the sites to direct the heavy traffic and create accessibility in both directions to the city center. The placement of the sites in the center of important landmarks and heritage areas also provides a great opportunity for pedestrian paths, in addition to the public transportation.

In addition to these, the edges and views analysis from the sites shows a clear separation between north and south functions. The north area houses the sacred function, while the south area provides a more secular function with the open public area as the main place of activity. Besides their opposite functions, these two sides have an activity that connects them, such as the yard of the Great Mosque and the *Taman Sari* Park, both used for open gathering spaces for the public. This public function can be used as a middle-ground activity area that connects the sacred function of the mosque and the secular function of the park, by making the chosen sites to be a transition area or a gate across the cultural boundaries.

Furthermore, the proximity map in Figure 3.38 shows that the chosen sites are surrounded mostly by the traditional and new markets; however, it lacks the public space that offers traditional craft and food, which is what the Acehnese called “Pasar Rakyat”. As its location is in between the sacred function of the mosque and the secular function of the park and other heritage areas, it creates the possibility to provide a “pop-up” public market in the *Atjeh* Hotel site as the addition to the existing column and the continuation of the *Taman Sari* Park.
In addition, as Banda Aceh is known as a highly cultured community, since 17th century (Waterson 1990) (Lombard 1991), the cultural activity seems to fit with the surrounding area. It will create the hierarchy of activity from secular function through the transition of cultural activity of the sites, to the sacred function of the mosque. Through this cultural related activity, people learn and understand about the basic culture of the Acehnese towards the main culture reflected by the Great Mosque.

As for the development of the buildings, in regards to building typology and material typology studies, the proposed building shall use local materials, such as wood, brick with plaster, and steel in order to create unified design and character that match with the surrounding area. The proposed design shall also address the existence of Islam through two values as already utilized in the old and new building in Aceh, including the relationship with Allah and the relationship with human. It can be done through ornament that has Al-Qur’an recitation, a water element, and social spaces such as small park or gathering area.
3.5 Related Theories and Precedent Studies

3.5.1 The Misconception about the Islamic City Structure

Space has its own meaning which conveys its presence in the urban artifact of the city. It represents its time and place in a way that “appreciates” the place of its existence. As mentioned by (Rossi 1984), a city has essential aspects, named urban artifacts, which are characterized by their own history and forms. The same idea proposed by (Jacob 1961), which stated that each city has its own character and uniqueness; it is too complex to be unified in one universal design, like what the modernist wanted to do. It argues the prototype concept of Islamic cities mentioned by French Orientalist, such as (G. Marcais 1940) (W. Marcais 1928), which focused more on the unique forces that created a few Islamic cities by taking out the uniqueness of each city itself (Lughod 1987). They described the morphology of these cities as exclusive features which consist of distinctive urban elements, such as the mosque, bazaar, and Hammam (Dale 2010) (Falahat 2012). This is absolutely the generalization of the idea of a city’s structure, by negating its character and particularity. As mentioned by (Lughod 1987), this phenomena creates a misleading conception related to the generalization of a specific form of city, with a long historic moment, without unpacking the various causes of specific outcomes. This statement is supported by (Rossi 1984), who stated that if the architectural construction in the past had been built recently; it would not have the same value. By any means, the architecture itself can be judged and discussed for its style and form, but it would not yet represent its history (Rossi 1984). For this reason, the new architecture piece, which will be built in the historic area, shall be understood as a part of history, not merely recreating the same architecture style and character from the past.

This phenomenon has occurred recently in many parts of the Arab world, such as Saudi Arabia and the Gulf, in which the redevelopment of the historical area were done by reproducing some patterns of the city buildings that have been identified as Islamic (Lughod 1987). For instance, Al Hisn Museum and Souq Al Shanasiyah in the Heart of Sharjah that were successfully restored to their former glory due to
historical documentation. This, by some critics, is considered to create the sense of an eclectic style (Radoine 2013), which means trying to regain the great achievement of the past by totally imitating the long-ago style and character. Even since the end of the eighteenth century, until the Modern era, eclecticism seems to be accepted in preserving the memories of the city (Colquhoun 1981). The eclectic approach makes the revitalization no more than just replicas of the original buildings that have been showcased in Disneyland, called Epcot World Showcase. It showcases the exact same famous buildings from different countries, which then create a term of the cities to be merely a “product” of architecture in which people can experience the look of the building as they are in their countries, however, these buildings would never convey the same architectural values as the original structures.

This, according to Abu Lughod (1987), is considered to be misleading conception, in which the contemporary context of the Islamic world is not as it used to be. As her statement: “Cities are processes, not products”, Lughod (1987) argues this misconception. In addition, (L. Smith 2006) and (Rossi 1984) stated that the city is created by process, in which includes the collective memories and identities which is found to be different among cities. This, by (Norberg-Schulz 1980) is defined as place which is formed by a distinct character and becomes manifest as an environmental totality, such as buildings and landscapes. Thus, recreating the space in terms of adopting pure architecture from the past shall be reviewed.

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9 The eclectic phenomena of the Gulf will be discussed in the Precedent Study chapter
Considering the perspective of the ongoing phenomena done by urban planners in the Arab world, the ways in which the government of Banda Aceh promotes the theme they called “the modern Islamic city” reveals the same approach in designing the city. Banda Aceh, with the Baiturrahman Mosque, has long been an Image of *Serambi Mekkah/Veranda of Mecca* (Arif 2008) (Reid 2006), which is full of religious nuance, faith, and devotion. The Great Mosque is a central symbol of Banda Aceh, which stands for the overall city, including history, religion, cohesion, culture, recovery, support, and survival (Nas 2003)(Nas 2011). The ways the government approaches the expansion of the mosque is by imitating the electric umbrella in *Nabawi Mosque*. A petition, with more than 300 signatures, regarding this design had been published in protest to the indefinite reason of this design approach (AMI 2015). An interview with a Banda Aceh citizen, mentioned that the development of the mosque is not appropriate with the climate in Banda Aceh and it also negates the existence of green space in the mosque’s yard.

Another case related to the approach of the Aceh government in developing the historical area was the rejection of the purpose International Hotel development in the former *Geunta Plaza* site (the chosen site for this project) in 2011. In the interview, *Teuku Syarifuddin*, former Aceh Regional Secretary, mentioned that the rejection occurred due to what had occurred to previous Hermes Hotel had located about 1.1 miles (1.8 km) from the sites. It is assumed it occurred because the approaches offered by the government seem to not mesh with the memory of the local community about the site. Through the questionnaire findings about the collective memory of local people regarding Banda Aceh, the sample results showed a general lack of interest in the current design proposal.

“*Banda Aceh is known as the veranda of Mecca and it is expected to celebrate the origin of this motto, we do not need magnificent building or an expensive hotel. The most important thing is all the facilities are used properly.*”

*Housewife, 28, female*

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10 Refer to the history of sites in Chapter II
“Banda Aceh is a cultural and Islamic da’wa place which has Shari’a Law value and become the reference of the Shari’a Law.”

Retired, 69, male (quoted from the questionnaire of the mosque)

“Banda Aceh is a historical city, the veranda of Mecca with the implementation of Shari’s Law, which makes it different from the rest of the city in Indonesia. Proud to be Acehnese!”

Government Employee, 42, male (quoted from the questionnaire of the mosque)

Considering the perspectives cited above, it is clear that the cause of the contrary ideas about the development done in Banda Aceh is the collective memories of the local community do not mesh with the design approaches offered by the government. The multi-story hotel might be remarkable in front of Nabawi Mosque, however, what was left in Acehnese memories are beyond just a magnificent hotel, it was a modest hotel where one of an essential history began. It shows in the next result of the community memory regarding the chosen sites.

“(Atjeh Hotel) was a center for an important meeting, as well as a historical place where nations’ recommendation and agreements took place.”

Government Employee, 48, male (quoted from the questionnaire of the mosque)

“Former Hotel Atjeh site is an empty and abandoned land, though it had been a place of the magnificent hotel.

Geunta Plaza site was a department store where the community spent their time for shopping and it made Banda Aceh became alive.”

Government employee, 42, male (quoted from the questionnaire of the mosque)

“Crowded and shopping center”

Government employee, 32, female

“Shopping center and historical hotel”

Government Employee, 34, female
“Strategic place which unfortunately not well-utilized due to indecisive ideas between local community and the owner of the site related to the proper functions that should be built in the site”

Retired, 60, male (quoted from the questionnaire of the mosque)

Based on the memories gathered from the questionnaires, the expectations of the site function of the local community are:

“The building that can strengthen the Islamic values and culture of Aceh.”

Lecturer, 43, female (quoted from the questionnaire of the mosque)

“I missed a green space and playground in the city park. The existing one is full of buildings which make it feel stuffy.”

Midwife, 37, female

“Due to its location in a strategic place with close proximity to the mosque and the city center, if the school was built in the site, it could provide the place for students who learn Al-Qur’an while praying 5 times a day in the mosque. Also, the park can be used as a refreshing area after the activities.”

Library Staff, 21, female

“Atjeh Hotel must be preserved with Islamic concept.”

“(Geunta Plaza is a) Plaza mall that can be utilized as the place for handicraft of Aceh community which represents and introduces Islamic values to the tourist.”

Retired, 69, male (quoted from the questionnaire of the mosque)

“Religious school will create an awareness of who we used to be as an Acehnese.”

Housewife, 28, female

As the input above prove instead of using the prototype structure of the Islamic cities like what urban planners tend to do in the Arab world, the collective memories of the local community and their expectations towards the sites were explored as the design approaches. It, as cited by (Borer 2010) from Wohl and Strauss (1958, 1976) and Loftland (1998), represents the analysis with subjective approaches, which are often ignored in urbanization. Using (Matovina 1997) statement, “While historical treatises often leave readers with a sense of separation from the events related, memory implies a lived experience
that connects us to past generations and events”, which means, the memories will bring the remembrance even in the absence of the object (Spelman 2008). It shows that the memories of the past influence the way people understand the present (Matovina 1997), in which people will engage in acts of collective “impression management” (Goffman 1959), as they elaborate the past and present condition of the place to be then utilized as an imagination of the right type of portrait to be placed in the sites (Borer 2010). These memories are expected to bring back the identity of the city which by (Schneekloth and Shibley 2000), will create sense of belonging of the people to the place, since it is intimate and known.

Instead of copying the physical features of the existing surrounding, this study focuses on the values of Islamic City, such as “privacy, community, and beauty” (Lughod 1987) and the values of the City of Banda Aceh itself.

3.5.2 Case Studies

Values of Islamic City

Banda Aceh is an old city that was recognized as a highly cultured community in 17th century South East Asia (Lombard 1991) (Waterson 1990). The chosen sites are located in this old city area, which is currently undergoing new development after the Tsunami disaster in 2004. In this chapter, the models of Islamic cities, including the traditional and contemporary Islamic cities, will be discussed since it relates to the way people developed the city in the past and how they improve their city in the present. Even
though each city has its own character and uniqueness, as mentioned by Lughod (1987), this study is aimed at learning about how people used to develop their cities and to understand the reason behind the structures applied in each city, along with the factors that cause their failures.

**Traditional Islamic Cities**

The traditional Islamic cities studied in this chapter are intended to show the similarity between the structures of the city in previous times with the chosen sites. In relation to this, the old Baghdad city will be studied in this chapter.

**City of Baghdad**

The city of Baghdad was founded in the 8th century as the capital of Abbasid Caliphate, under Caliph Al-Mansur. It is located 30 km to the north of the Sassanid capital of Ctesiphon, along the banks of the Tigris River. It was intended to be a perfect city with the great mosque (Wazeri 2017) and the Caliph Palace\(^\text{11}\) located in the center of the city (Tskitishvili 1971). It was extended in the form of a circle about 1 km to the supported facilities, known as “the Round City”. The circle was derived from the geometric teachings of Euclid, which had been studied and admired by the caliph. Surrounding the mosque and the palace was an inner garden, which was intended as a royal garden. This circle was then extended to the first ring, protected by an inner wall, which was used as the palaces of the caliphs’ children, royal staff and servants’ homes, the caliphs’ kitchen, the horses’ barracks and state offices. The living quarters and commercial structures were concentrated in a ring between the exterior wall of the city and the second round wall. Like in the prophets’ era, when a ditch was used as the protection of the place in the war session, a moat surrounded the old cities as the fort to protect the city from being attacked.

None of the structures of this great city remained today. The last traces of the city were demolished by Midhat Pasha (Ottoman Governor of Baghdad) in 1870s since he had no interest in preserving the history. He believed that the city needed more supporting facilities, such as educational buildings, hospitals,  

\(^{11}\) Caliph Palace includes the Golden Gate Palace as the caliphs’ residence
granaries, public parks, a water supply system, roads, and bridges, which was not found in the old Baghdad City. These facilities, by (Prevenier 2009), called as ‘public utility, related to social side of the city, including governments, bureaucracy, health care and several facilities providing the infrastructure for the standard of living for local community.

Figure 3.41 The round city of Baghdad in the 10th century, the peak of the Abbasid Caliphate (top left); The city of Baghdad between 150 and 300 AH (767 and 912 AD) (top right); the Baiturrahman Mosque and its surroundings (bottom left); the map of the Great Mosque and its surroundings (bottom right)

Sources: Jean Soutif/Science Photo Library (left); http://www.amusingplanet.com/2016/07/the-round-city-of-baghdad.html (top right); Analysis (bottom left and right)

The Old Baghdad City had a similarity with Banda Aceh in terms of its centralization, growing close to the water source (river), with the great mosque and palace area at the center of the city activities. The only difference was, unlike the new government of the Old Baghdad, who developed the city by demolishing
the existing condition, the Banda Aceh government kept the structures of the city by preserving the leisure area in the city center, which was intended just for sultanate families, to be used for the community purposes, as the government system changed from kingdom to republic. Thus, since both developments Baghdad and Banda Aceh literally have the same intentions, which is for the community, the developments of the chosen sites should also demonstrate a connection with community needs. This is also strengthened by Lughod (1987) idea about the community as one of Islamic city elements that shall be achieved in any developments.

**Contemporary Islamic Cities**

In this chapter, the models of contemporary Islamic cities will be discussed to get a sense of the current needs of new development that can support the existence of the mosque. The research will look deeply at the municipal plan for the future development of the heritage area in the contemporary Islamic cities and the existing condition of the mosque and its surroundings. This study will capture the way the cities develop their heritage areas, with the mosque as the core of the activities.

1. **Heart of Sharjah - City of Sharjah, UAE**

Sharjah is the only Emirate in the UAE with lands fronting on both the Gulf and Indian Oceans (Rab 2013). Sharjah is being chosen as a precedent study for this research because according to (Radoine 2013), it is the most authentic Islamic city among all the UEA cities. Though the city has undergone major urban changes overtime; it possesses a sense of identity through the resilience of its community (Radoine 2013). One of its resiliencies was the intention of preserving the Heart of Sharjah, which includes the restoration of several historic properties, by demolishing some modern buildings near Al Hisn Sharjah. The Heart of Sharjah aims to add attractive places of “leisure and tourism” that further develop the heritage area and enhance the cities’ position in its region (Rab 2013). These intentions have been transformed under the vision and guidance of His Highness, Sheikh Dr. Sultan Bin Mohammed Al Qasimi, as his perspective in the following statement:
“A central element in Sharjah’s cultural expansion has been the desire to retain traditional values and preserve its heritage. H.H. Sheikh Dr. Sultan says, ‘Besides showing visitors our museums, the main goal we would like to achieve from their visit is for them to have a greater understanding of our culture and beliefs.’ Consequently, throughout the Emirate traditional Arab architecture has been maintained, while many of Sharjah’s events and museums commemorate Arab history and art . . . .”


To achieve these intentions, Sharjah undertook several measures to reinforce its identity by creating new monuments, parks, squares, and resorts, Islamic Souq, an archeological museum, a cultural palace, and universities, by incorporating the Islamic and Arabic styles. Though these buildings might be criticized for their eclectic ornamentation, Sharjah was rewarded as “Cultural Capital of the Arab World” by UNESCO in 1998 due to its effort of creating the cultural image to its city (Radoine 2013).

One of the efforts of Sharjah government related to preservation is monuments. This, according to (Murray 2013), is a powerful device in seeking the collective memory, to understand its particular histories and geographies. However, this study does not explore the existence of the memorials and monument of the Heart of Sharjah as stated by Nas (2011), as the awareness of the monuments is not high and is considered to be unimportant in Banda Aceh. It shows from his research when the Acehnese were asked about the important places and buildings, most of them answer, “the heritage areas like Great Mosque and Taman Sari Park,” while just two respondents mentioned the monument. Hence, this study will only explore the important buildings and places in Sharjah.

**Description about Heart of Sharjah:**

**Location:** the Old Heritage and Historical Area in the center of the city, 15 minutes from Dubai, 5 minutes from the Corniche, an hour from Kalba, 10 minutes from the airport, and 15 minutes from Ajman.

**Key dates:** Final completion date (fifth phase) 2025

There are three parts that determine the Heart of Sharjah as below:

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12 Refer to Sharjah Investment Development Authority (Shurooq), www.shurooq.gov.ae
Figure 3.42 Heart of Sharjah Map
Source: Analysis from the interactive map of Sharjah
The Sharjah Heritage Area

The Sharjah Heritage Area is a tribute of Sharjah’s cultural history to celebrate the city as the Cultural Capital of the Arab World by UNESCO. In this area, several significant local traditions will be found, such as handcrafted works of art and objects\(^{13}\) that represents the time when local people relied solely on fishing and pearling, trace of the development of education, currency, and the early postal system.

1. **Al Eslah School Museum**; creates an experience of school life which existed 70+ years ago, one can sit at an old wooden desk in the shaded classrooms, while attending an Islamic school.

   Al Eslah School was established in 1935 and was recognized as the first formal educational institute in Sharjah. It welcomed pupils from all over the Gulf region.

   ![Figure 3.43 Al Eslah School Entrance (left); Al-Eslah interior (right)](https://www.heartofsharjah.ae/al-eslah-school-museum.html)

2. **Bait Al Nabodah**; is a two-story house from 1845, which gives a sense of daily family life and routines of a bygone era. It shows the Gulf Architecture, before the use of technology (air conditioning). The structures are built around a large courtyard, with the walls made from coral, with innovative methods of air conditioning, unique plasters, and wood decorative carvings.

3. **Traditional Games House**; aims to bring traditional games back to life by keeping the memories of the current and future generations. The pictures and models regarding various traditional and popular games.

\(^{13}\) The traditional skills and crafts includes jewellery, costumes, herbal medicine, music, and folklore
games, such as Al-Zaboon and Al-Dahroy, are displayed in this house. Regular performances and workshop for children on traditional sports and games are also conducted at this house.

Figure 3.44 Al Naboodah walls’ system with unique plaster and natural ventilation system (left); Traditional Games House (right)
Source: www.heartofsharjah.ae

4. Sharjah Heritage Museum; is a two-story traditional building, which was originally a merchants’ family home. Adjacent to Bait Al Naboodah, it provides an opportunity to explore the architectural history of Sharjah.

5. Al Hisn Museum; also known as Sharjah Fort, is located at Burj Avenue and was constructed in 1820. It was the official residence of ruling family for over 200 years. It was demolished in 1969; however, it was successfully restored to its former glory based on historical documentation. Nowadays, this building is used for a museum which exhibits past cultural events and social history.

Figure 3.45 Sharjah Heritage Museum (left); Al-Hisn Museum (right)
Source: www.heartofsharjah.ae (left); http://static.gulfnews.com (right)
The Souq (Market) Area

1. **Souq Al Arsah**; might be the oldest marketplace in the UAE. It provides a feeling of walking along the alleyways designed with solid wooden doors, coral brick walls, and hanging lanterns.

2. **Souq Al Shanasiyah**, which used to be one of the oldest and most vibrant Souqs in the whole region. This Souq were built in accordance with its geographical surveys which revealed the foundation of the old Souq. With the instruction from His Highness Sheikh Dr. Sultan bin Muhammad Al Qasimi, Member of the Supreme Council and ruler of Sharjah, the reconstruction was an achievement through the intention of the Sharjah Investment and Development Authority (*Shurooq*) to develop touristic and economic aspects of Sharjah.

![Souq Al Arsah Alleyway (left); Souq Al Shanasiyah (right)](source)

3. **Souq Al Saqr**; is an authentic old bazaar which runs along the Sharjah Creek. It is also known as Souk Mohammed Bin Saqr and is used to be a home of clothes and gold trading.

4. **Old Souq**; provides a feeling of traditional architecture in an Emirate dotted with modern buildings. It is a narrow street offering the shoppers hunting for a good bargain and is filled with the unique air fragrance obtained from the burning oud (incense) from the perfume shop. This Souq is a 25-year old Souq complex which consists of the oldest mosque in the city, retails, shopping center and many attractions that will appeal to the visitors.
The Sharjah Arts Area

The Sharjah Arts area encompasses a handful restored traditional houses, as well as an 18th century mosque. It is home to Sharjah Arts Museum, Sharjah Art Center, Bait Al Serkal the Sharjah Art Gallery, and the Emirates Fine Arts Society and the Special Art Center. Examples of the arts area are:

1. Sharjah Art Museum; is the largest museum in the region, housing both contemporary and permanent collections, including paintings of 18th and 19th century artists and portraits.

2. Regional Arts to a Global Community; Located in the area is the Bait Al Serkal, which built in the 19th century and the home of British Commissioner for Arabian Gulf. It was then transformed into the first hospital of Sharjah in 1960s. The restoration took place between 1993 and 1995 and currently, it
houses the Sharjah Art Foundation with many art facilities, such as the Art Café, which serves the local cuisine.\footnote{See Universe In Universe website (http://u-in-u.com/art-destinations/sharjah/art-spaces/bait-al-serkal/)}

Located nearby, artisan galleries are the \textit{Obaid Al Shamsi} house, with a yard that has been converted as the space for disabled people to practice and exhibit their art.

By not over-generalizing the structure of Islamic cities\footnote{Refer to Abu Lughod statement about the generalization of Islamic city structure without defining the uniqueness of the city.} related to Sharjah, it is clear that the factor which creates the city image of Sharjah is the intention of its municipal and community to create leisure and attractive tourism destination, while preserving the sense of identity as an Islamic city. This intention is also found in Banda Aceh government, who would like to introduce its tourism destinations to the visitors. For this reason, the idea of utilizing the character of daily activities of the local community in the development by Sharjah government will be implemented in the chosen sites.

2. \textbf{The \textit{Al Makmur} Great Mosque Area}

The \textit{Al Makmur} Great Mosque is located 1.1 miles (1.8 km) from the The Great Mosque of \textit{Baiturrahman}. The location is also considered to be the center of the city. The \textit{Al Makmur} Mosque is being chosen in this study because it is located in the same city with similar and different factors compared to the Great Mosque area. The similarity of these two mosques is its location that is traversed...
by the Krueng Aceh River. The difference between these two mosques is the mosque typology and the facilities available around it. Thus, the comparison in terms of its existence, typology and its influence to its surrounding can be discussed.

The Al Maknur mosque, built in 1979, is one of the Great Mosques in Banda Aceh. This mosque was founded with financial support from the local community.\textsuperscript{16} The architecture of the first mosque design was similar to typical traditional mosque in Aceh. However, Razali, an Imam\textsuperscript{17} of the mosque, stated that this mosque was totally destroyed due to the earthquake and Tsunami disasters in 2004. Since then, the rebuilding and renovation of the mosque were done with the grants from Oman Government.

According to Razali, there is no history related to the mosque, the location of the mosque itself used to be a government employee complex. The first design of the mosque was done by a person from the capital city until the Oman Government took over the renovation after the Tsunami. It then makes the design of the mosque similar to the mosque found in Turkey. From the imam statement above, it is clear that the development of the area around the mosque grows as the existing functions, which is it used to be government employee complex. This premise is supported by the existence of many government buildings and residential homes in the surrounding area.

1. Residential

Residential development surrounds the mosque. To the north and east, the residential area is known to be a wealthy neighborhood, where many government employees, entrepreneurs, retired people, and other affluent people live. To the south is the residential area that is mostly occupied by people working at the Zainoel Abidin hospital, located on the main street across the mosque.

To the east part of the mosque is the Ratu Safiatuddin Park, which holds a cultural event once every 10 years. The events include traditional house exhibitions from all over Aceh, along with its traditional food and tools, folklore, cultural exchange events (such as from Turkey), and other events.

\textsuperscript{16} \textit{Refer to Directorate of Islamic Affairs and Sharia Development, Ministry of Religious Affairs of the Republic of Indonesia website (http://simas.kemenag.go.id/index.php/profil/masjid/4195/)}

\textsuperscript{17} \textit{Imam} is the person who leads prayers in a mosque


related to Aceh traditions. These events brought people from all over Aceh and were always crowded in every season. At the corner of the park, the Ratu Safiatuddin Monument stands above the step stair foundation, which is utilized as the skateboard arena by the Aceh youth. It is a unique way of using the space, by creating leisure activity that is considered to be an essential function in relation to the chosen sites. These interesting facts help this study to find one of the functions that can support the existence of the mosque.

![Ratu Safiatuddin Park; Zainoel Abidin Hospital](http://2.bp.blogspot.com/-PlbAm8tJgY4/Ta78DuyLarI/AAAAAAAAAIM/Zn60FuLRqQQ/s1600/IMG_0016.jpg)

Source: [http://2.bp.blogspot.com/-PlbAm8tJgY4/Ta78DuyLarI/AAAAAAAAAIM/Zn60FuLRqQQ/s1600/IMG_0016.jpg](http://2.bp.blogspot.com/-PlbAm8tJgY4/Ta78DuyLarI/AAAAAAAAAIM/Zn60FuLRqQQ/s1600/IMG_0016.jpg)

2. Service Facilities

The mosque is also surrounded by essential facilities, like government offices, schools, an orphanage, a stadium and a hospital. The school to the northwest is an Islamic school, used as the place to learn the Qur’an and courses related to Islam. This school is located in the same yard as another mosque located nearby. In muslim world, mosque is not merely used as a worship place, it houses many events, such as place to learn Qur’an and Islamic courses (Islamic school), socio-economic activity (such as mosque cooperation), Islamic Big Day Events, and other activities related to community and Islam.

Another important facility found nearby is Dr. Zainoel Abidin Hospital, which is the biggest hospital in Banda Aceh.
3. Commercial

*Al-Makmur* Mosque is visitor-friendly place since it is located next to the Mekkah and Madinah hotels. This closeness creates accessibility for the visitor to worship at the mosque while experiencing the beauty of this place and its surroundings. Additionally, the commercial area, including supermarkets, restaurants, and coffee shops are located nearby.

![Figure 3.51 Madinah and Mekkah Hotel](http://helloacehku.com/wp-content/uploads/2015/09/1.hotel-madinah.jpg) (left); Miftahul Jannah (right)

Overall, the conditions of the mosque and its surroundings offer a delightful atmosphere, not only for the visitors but also for the local community. It offers a full-package ambiance providing easy access to important places within walking distance.
Figure 3.52 Al Makmur Mosque and its surroundings map
Source: Analysis
Acehnese Values – Image of the Banda Aceh City

In this sub-chapter, the existence of the buildings that represent the image of the city of Banda Aceh will be explored in order to understand the Acehnese values within the building typology. There are three buildings that are assumed to be important in Banda Aceh, such as The Great Mosque of Baiturrahman which represents Islam; the Rumoh Aceh which represents tradition; and the Tsunami Museum which represents the remembrance of the lost in the earthquake and tsunami tragedy of 2004. Regardless of their representations, these three buildings contain Islam in their form and meaning.

![Image](image_url)

Figure 3.53 Acehnese Values
Source: Analysis (Photos of the buildings (right) were taken by Jamadil Qamar)

The traditional Islamic city has three important elements, including: (1) community, (2) privacy, and (3) beauty (Lughod 1987). (1) Community means that Islam values the social relationship between human and human (حبل من الناس) as it values the relationship between human and Allah (حبل من الله). These relationships are shown both in Acehnese daily lives and the way they create buildings. (2) Privacy means, beside its high social value, there is separation of sexes, which influences the spatial organization in Islam. This separated spatial organization was found widely in the old Islamic cities, such as in the
mosques and houses. (3) In terms of beauty, Islamic architecture has widely used ornamentation, such as geometric forms, as a part of their design element. Geometric forms, by (Critchlow 1976) (Dabbour 2012), are interpreted based on mathematical and proportions that represents the heart of Islam. Islamic pattern and geometry are the products of sacred science: “an objective view of the ‘created order’ that embraces a theocentric perspective, that is, a Creation with a Creator (Critchlow 2004). The geometric is one of the most powerful patterns of the sacred art, which creates an infinite imagination in people minds and the most beautiful proportions that possess the abstraction and the capacity to express the spiritual truth (Dabbour 2012). It consists of the floral and geometric motifs in arabesques, as well as Islamic Calligraphy inspired from the verse of Qur’an (Othman and Zainal-Abidin 2011), which can be found in the Great Mosque of Baiturrahman and Rumoh Aceh.

Figure 3.54 Geometric patterns of the Baiturrahman Mosque (left); the Bustanussalamatin (center); and the Tsunami Museum (right)
Source: Jamadil Qamar

The influence of geometric patterns is very strong in that if they are associated with a present time, they appear contemporary and long lasting (more than 10 years) (Chorbachi 1989). This method is assumed to be utilized by Ridwan Kamil, an architect of the Tsunami Museum, who created the geometric patterns from the movement of the Acehnese traditional dance into the secondary skin pattern of the museum.
1. The Great Mosque of Baiturrahman – Islamic Values

One of the building representations of Islam in Banda Aceh is seen in the Baiturrahman Mosque, which is not authentic due to several expansions and reconstruction projects after war, conflicts and disasters. However, “for local Authorized Heritage Discourse (AHD), the Cultural and Tourism Board, and local experts, the mosques, regardless of their material and authenticity, and tsunami debris, regardless of its age, are heritage” (Dewi 2015)

There are several aspects in the Baiturrahman Mosque that reflect Islamic values, such as:

Interaction with Allah:

(1) **Inscription Programs**: can be found throughout the building, such as in the circular inscription dominating the central spaces of the ceiling, containing Surah 112 meaning “The Unity”. This is considered to be not only the essence of the Qur’an since the unity and oneness of Allah is the core of Islam, but also differentiated Islam from Christianity (during Dutch colonization), which is represented by a trinity (Raap 2009).

![Figure 3.55 Inscription at the ceiling in the Baiturrahman Mosque (left); interlaced screens of the Baiturrahman Mosque (right)](Images)

Sources: (Raap 2009) (left); Jamadil Qamar (right)

(2) **Mashrabiyya**: is the interlaced screens, used to keep the privacy of the users while providing the flow of air to the building. This element is widely found in the Middle East construction, such as in Fathy’s design at New Gourna.
(3) **Decorative Program:** can be found in window screens, verandah railing, columns and many parts throughout the building. The lower parts of the window screen is derived from Egyptian patterns of the French culture, while the upper parts evoke European metalwork with the floral arabesques pattern (Raap 2009). The capital and the column used the vegetal motifs while the cast iron railing of the verandah adapted the geometric pattern containing squares and octagons. The overall decorations in the mosque were adapted from many styles across the globe, since the architect who designed the mosque based it on his experiences and what he had seen during his journey to the other parts of the world.

(4) **Water elements:** Islam has a long tradition incorporating fountains in gardens. As mentioned by Raap (2009) cited from Grabar (1978), the fountains and pools form a metaphor of paradise, which is described in the Qur’an as a garden with running water.

The water element is also found under the stairs of the entrance of the Great Mosque, which is used by people to wash their feet before coming inside the mosque. It shows the idea of being clean, known as *thaharah* by the prophet, so that we have a clean body before entering the mosque.

![Figure 3.56 the Pond in front the Baiturrahman Mosque (left); the Water Element under its Stair (right) Sources: Jamadil Qamar (left); Analysis (right)](image)
Interaction with human:

As mentioned in last subchapter “Nodes”, the Baiturrahman mosque has a large yard, which acts as a characteristic node of the city due to its central location as a core of the urban fabric and specific function as Muslim worship place. This yard houses praying and gathering activities for the local community.

2. Rumoh Aceh - Tradition

Aceh traditional houses were wooden constructions raised on posts, supported by natural stone (Nas and Iwabuchi 2008). It was raised about 2.5 m from the ground in order to deal with the frequent floods (Arif 2015). This space is also widely used for interactions with neighbors and a play area for the children.

Due to its construction using no nails, named “pasak” construction (stake system)\(^{18}\), space, and ornamentation(Arif 2015), Rumoh Aceh is known to be an earthquake resistant house and able to survive up to 200 years (Husin et.al. 2003). The anatomy of Rumoh Aceh follows the treatises by Vitruvius in “The Ten Books on Architecture” about the relationship between the human body and architecture. It is illustrated by Leonardo da Vinci, and shows the perfect proportion of human body. In Rumoh Aceh, this theory is shown as the clear definition of the head, body and foot parts of the construction as shown in the picture below.

\[\text{Figure 3.57 Human Proportion by Leonardo Da Vinci (left); Rumoh Aceh Proportion (right)}\]

\[\text{Source: http://www.davincilife.com/vitruvianman.html (left); (K. A. Arif 2015) (right)}\]

\(^{18}\text{Pasak system (stake system) is a way to connect every element in construction by inserting one element to another hole of another element and locking it with peg (Arif 2015)\)}
There are several concepts in *Rumoh Aceh* Architecture, which reflects the Islamic values of Acehnese:

**Interaction with Allah:**

1. Qiblah\(^{19}\) (Arif 2015) direction; which means the house is extending towards qiblah, to the westward reflecting the efforts of the Acehnese to build an imaginary line with the Ka'bah in *Mecca* (Arif 2015). The entrance of the house is not located in the west side, though in the east or in the middle part either at the north or south side, so it does not interrupt the person who is praying;

![Figure 3.58 the Entrance of the *Rumoh Aceh* (left); Mashrabiyya function (right)
Sources: Analysis](image)

2. Separation; includes the following:

   - Mashrabiyya elements (Arif 2015); the opening used in *Rumoh Aceh* is jalousies in the walls, like in Saudi Arabia and Fathys’ design in Egypt. It shows Islamic culture to keep woman’s *aurat\(^ {20}\)* which allows girls to look outside while preventing the outsiders from looking inside;

   - Sexes Separation; shown in the spatial organization of *Rumoh Aceh*. It has different parts for male and female both in rooms and entrances separation.

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\(^{19}\) Qiblah is the direction of prayer towards *Mecca* in Islam. In Banda Aceh, it is facing west side

\(^{20}\) *Aurat* is the part of the body that should be covered by a woman in social interaction.
(3) The jars (Arif 2015) under the entrance; represents the culture of cleaning up before entering the house. As in the Baiturrahman mosque, which has a ditch under the entrances, it represents being clean, known as thaharah by the prophet.

Interaction with human:

(1) Lower door head at the entrance; allows the guest to automatically bow to the house owner as a demonstration of respect and politeness in Aceh culture. The entrance is lower than the actual door in other contemporary houses in Aceh.
(2) Social; shown by the use of the space underneath the house as public space, such as a kids’ play space and a gathering space with neighbors, while functioning as air circulation to the space upstairs.

3. Tsunami Museum – Remembrance of the Lost

The Tsunami Museum is the way government of Banda Aceh commemorates the tragedy in 2004. It is intended to convey the traumatic stories of survivors into the architecture. However, Ridwan Kamil, an architect of the museum, recognized that the architecture cannot be used to compensate the trauma (Dewi 2015). It is supported by the Bonder (2009) that instead of compensating for the public trauma, architecture can be used to establish a dialogical relation with the events to help with the process of understanding. This understanding is the way of Ridwan Kamil approached the design of the museum through his indirect interpretation. As mentioned by Dewi (2015), he created dark tunnel with water falling through the wall for people to feel the tsunami, special place to remember, and a bridge to interpret the bright future ahead. Ridwan Kamil also incorporated Islamic value and tradition into the design as mentioned below:
(1) **Islamic values:** The Islamic elements found in the museum design are Al-Quran recitation and name of Allah written on the top of the chimney in one of the rooms at the museum. In addition, Ridwan Kamil, the architect, incorporated traditional dance movement, known internationally as *Tari Saman* to the secondary skin of the museum. He captured the movement-like waves of the dance and implemented it in a geometric pattern. This design is assumed to also address the symbol of Islam which widely uses the form of geometry.

![Image of the Pond at The Tsunami Museum; Allah's name written at the top of the chimney; the philosophy behind the secondary skin of the Tsunami Museum](https://pbs.twimg.com/media/CFCDXICW8AAZrrS.png)

Source: Jamadil Qamar (left); https://pbs.twimg.com/media/CFCDXICW8AAZrrS.png (top right); Analysis (top left)

(2) **Tradition:** Kamil incorporates the *Rumoh Aceh* architecture into the museum design by creating a house on stilts for the ground floor, called escape hill. It is a hill-shaped garden, intended to be one of the escape spaces, in case of the disaster while providing public space with water elements for visitors.
Sub-Conclusion

The conclusion of the theories about the Islamic Cities is that city is a “process”, not a “product” (Lughod 1987). It argues the misleading conception of the prototype concept of Islamic cities by French Orientalists who claim the exclusive features in the Islamic cities, without looking deeply at the cities’ uniqueness that is characterized by its own history and forms. This prototype concept creates the reproduction pattern of the old cities that is claimed to be Islamic in contemporary development, called eclecticism. These phenomena currently occurred in Arab countries and the Gulf. Learning from these phenomena, instead of looking at the physical features of the old cities, this study explored:

(1) The value and meaning of the city through the collective memories of the local community in order to connect the past event with the present regarding the future expectation. These memories and expectations of the local community of Banda Aceh will be explored in the next subchapter, Questionnaires and Interview.

(2) The values of the traditional Islamic Cities by Lughod, 1987, include community, beauty, and privacy. These values were likely found in the precedent study and the study of the Acehnese Value in the next chapter.
Figure 3.64 The Values of the Traditional Islamic City by Lughod  
Source: Analysis

Through these theories, the new architecture expression which will be built in the historic area shall be understood as a part of history, not merely re-creating the same architecture style and character from the past.

The precedent studies in this research are intended to investigate the theory of the Islamic cities mentioned above. It includes the values and character of the cities, both the old and contemporary Islamic cities. The Old Baghdad city has a similar characteristic with the old Banda Aceh as its proximity to the water sources (river), with the mosque and palace as the core of urban activity. The only difference between the two cities is the Old Baghdad used “demolition” in order to enhance the facilities for the community needs; while the Banda Aceh government used “preservation” in transforming the private facility of the palace to be a community space even though the look of the place is not exactly the same as when it was built. The Old Baghdad city provides a perspective on the importance of the community needs and privacy in Islam.

Both the Heart of Sharjah and the Al Makmur Mosque analysis deliver the functions that should be addressed in order to create a “tourism destination” within the mosque by “preserving the heritage values and local community daily lives”. However, this study will not be influenced by the demolition of the new building in re-creating the heritage Sharjah with the new functions for the heritage tourism desitination. This study will only take the essence of values that are developed within three case studies.
3.6  Collective Memories

In this chapter, the collective memories of the local community about their city and the sites will be explored in order to understand the past events through present regarding the future expectation about the proper functions and activities to be developed in the chosen sites. The collective memories were assessed in two ways: questionnaires and interviews.

3.6.1 Questionnaires

The questionnaires results both from online and offline methods reached 458 respondents with 352 online respondents and 106 offline respondents, with coverage of 36 respondents from two Great mosques (The Great Mosque of Baiturrahman and The Great Mosque of Al Makmur); and 70 respondents from the Taman Sari Park (across the sites) and the hospital\(^{21}\) which were considered to be “the street questionnaires”. The scope of the results obtained from the questionnaires includes a diverse age group, backgrounds and occupations; and the collective memories of local community regarding the chosen sites and their city.

The age groups are classified as: 18-25, 25-39, 40-60, and above 60 years old. Most respondents of the age group from 18-25 and 25-39 were attained from the online methods, while 40-60 and above 60 were mostly from the offline methods. This was assumed to occur because most internet users are young people. In terms of background and occupation, both methods reached a diverse group of respondents, such as Imam, students, lecturers, government employees, housewives, security, and doctors. Compared to the offline questionnaire, the online methods give more variations to the group classification, since Facebook is widely used by people from different backgrounds.

The last factor to be explored in this study is the collective memories of the local community, including their memories regarding the meaning of Banda Aceh and the sites. This session also covers the

\(^{21}\) The chosen hospital for this research is Dr. Zainoel Abidin Hospital which is located close to The Al Makmur Mosque about 1.5 miles (2 km) from the sites). This is the largest hospital in Banda Aceh located in the city center.
expectation of the local community regarding the proper functions and programs to be addressed in this study. The functions offered in the questionnaires included:

1. School; as a place to learn about Qur’an (Islamic Holy Book), Tahfidz\textsuperscript{22}, and Fiqh\textsuperscript{23}
2. Art Gallery; as a place for creativity and hobbies
3. Coffee Shop/Café
4. Restaurant
5. Park (as a part of \textit{Taman Sari} (City Park))
6. Mall
7. Hotel
8. Housing/Apartment
9. Mixed-use Building (commercial area on the ground floor and apartment in the upper floors)
10. No development
11. Others. This choice gave a freedom for the people to choose what they think would be appropriate to the site other than the functions mentioned above. Most people suggested the development of the spaces that has a direct connection and highly support the existence of the Great Mosque, such as parking garage for the mosque visitors, a museum about the history of Aceh, or a library related to Islamic culture.

The functions given above are assumption in this research in regards to the possible functions and activities that can support the existence of the Great Mosque. The limitation of the functions given in the questionnaires was intended to create a scope of functions so that the answer from the respondent would be more focused.

Through the suggestion of the proposed functions asked in the questionnaires, the comparison results based on diverse age group, education, and occupation are discussed below:

\textsuperscript{22} A method of memorizing Al-Qur’an
\textsuperscript{23} Learning about Islamic Law as a way of life.
1. **Online and Offline Questionnaire Result**

The questionnaire results below are categorized based on the place the questionnaires were shared, including a mosque, online, and on the street. The mosque results include two mosques (the Great Mosque of *Baiturrahman* and the Great Mosque of *Al Makmur*) in the area, which is about 1.1 miles (1.8 km) driving distance from each other. The questionnaires shared in both mosques were intended to get the data from the regular visitors at the mosques. It actually focused only for the Great Mosque since it is located across from the sites. However, *Al-Makmur* Mosque was also chosen because people in Banda Aceh tend to go to several mosques to do their worship. Since these two mosques are considered to be the most popular mosque in Banda Aceh, the data taken in both mosques might represent the regular visitor of the Great Mosque of *Baiturrahman*.

![Figure 3.65 The Comparison between the Online and Offline Questionnaire Results](image)

*Source: Analysis*

The results of these questionnaires were obtained mostly from age groups ranging from 25-39, 40-60, and above 60 years old. Respondents were from different backgrounds and occupations, ranging from employee to retired. These questionnaires were also completed by members of mosque board and parking attendants at the mosque.

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24 This part is explained in Chapter 2 Theory and Methods
Based on the most selected functions chosen by the public through online questionnaires and offline questionnaires (in the mosque and in the street); School, Art Gallery, and Park were the most frequently selected functions that people would expect to see on these sites. Out of the three functions, the school reaches the highest request of the three options. However, there are slightly different results in the choices of Art Gallery and Park, in which online questionnaires show Art Gallery as the second most popular choice by the public, followed by the Park. Meanwhile, the mosque and the street questionnaires show a Park as the second most popular option followed by the Art Gallery. Other than those three functions chosen by public, the other functions indicated slightly different results.

2. The Questionnaire Result based on the Age Group Range

The chart below shows the questionnaire result based on the age group range from the community in Banda Aceh, ranging from 18-24, 25-39, 40-60, and above 60 years old. The most respondents were from age group of 25-39 years old gathered mostly from the online survey.

![Figure 3.66 Questionnaire Results (Age Group)](source)

Source: Analysis
As the chart shows, a school was also the most selected functions by the public, while Park and Art Gallery takes the second and third places in 25-39 and above 60 age groups. The results showed reverse feedback for the rest of the age groups.

3. The Questionnaire Result based on Respondents’ Level of Education

The chart below shows the questionnaire result based on the education level of the Banda Aceh community, which ranges from High School, Graduate to Doctorate levels. The result also shows that the school was the most chosen function out of other functions for all education levels. Other two most chosen functions following the School were an Art Gallery and Park with slightly different result between each education level.

![Figure 3.67 Questionnaire Results (Education)](source: Analysis)

4. The Questionnaire Result based on Gender

The chart demonstrates the result based on the gender of the community. It also shows that School had the highest number of requests followed by Park and Art Gallery for both female and male participants. Other functions got slightly different result among each function.
In addition to the graph result from the questionnaire, the collective memories from local community of Banda Aceh related to Banda Aceh are as below:

“(Banda Aceh) is a “home” where I grew up.”

Retired, 53, Male (quoted from the questionnaire of the mosque)

“(Banda Aceh is place) that offers the peace of worship, free from hypocrisy and excessive splinting.”

Retired, 67, Male (quoted from the questionnaire of the mosque)

“(Banda Aceh) is Madani25 city with the majority of muslim community. It is also known as Shari ‘a city.”

Lecturer, 29, Female

“(Banda Aceh is) a comfortable city for studying and growing up (a city that is full of memories).”

Teacher, 27, Female

“(Banda Aceh is) a city that gives a lot of meaning to my life. My family, friends and natural beauty will never be forgotten.”

Private Employee, 25, Male
“Banda Aceh is a piece of memories that cannot be separated from the life of Acehnese because this had been a place where the sultan lived. It represents the life, culture and dignity of the Acehnese because it had once been the center of a great empire.”

Dentist, 27, Male

“Banda Aceh is a point where culture was born out of Islamic values and is united like blood and flesh.”

33, Female

Related to the chosen sites:

“Shopping center and historical hotel (the icon of the city in past time).”

Entrepreneur, 33, Male

“Aceh Hotel is a mysterious place since it had been in zinc fence for a long time, while Geunta Plaza is the place for playing and the first modern department store in Aceh.”

Teacher, 25, Female

“Former Aceh Hotel:
Every time I passed by the site, it feels like I saw lollipops since my kid always says the same thing. It seems like I get influence from my kids’ perspective.”

Architect, 32, Male

“Disappointed and the development should be done to the site in order to become Acehnese income assets.”

Lecturer, 28, Male

Related to the future expectation of the site development, local communities were asked: “What they would like to see in the chosen sites? and Why?”. The responses are shown below:

“School, because I would like to see Banda Aceh to grow and develop with the balance values of education, social life, and trade.”

Mosque board, 43, Male (quoted from the questionnaire of the mosque)

“School, Art Gallery, and Park, because it creates a useful public space for community.”

Lecturer, 28, Male
“Hotel, in my view, creating a hotel which closes to mosque or around the mosque will create a crowded atmosphere of jama’ah from the tourist outside the city, .... For example, in Mecca, and the closest example is The Great Mosque of Al Makmur, which is surrounding by hotels and this mosque has always been full of jama’ah.”

Student, 22, Female

“Art Gallery and Museum of Islamic Development in Aceh, to support the development of tourism in Aceh, especially around the Great Mosque of Baiturrahman.”

Private Employee, 26, Male

“School, Art Gallery, and Park, because it is close to the mosque, so there should be no a building with excessive spree or unreligious nuances. Another factor is the Acehnese are known with or more inclined to the Islamic activities.”

Security, 25, Male

“No development, because it has long been no indication of the growth and development.”

Retired, 65, Female (quoted from the questionnaire of the mosque)

3.6.2 Interview (with the regular visitors of Al-Makmur Mosque, located 1.1 miles (1.8 km) driving distance from the site)

The results of the interviews in this section are collected from the interviews with the Al Makmur Mosque visitors, Former Regional Secretary of Aceh and quote from Former Governor of Aceh in detikNews.

As the regulation of the site stated that the development shall not be more than two-story building, another regular visitor of the Al-Makmur Mosque added that the proposed hotel does not have to be high story building; it can be one-story building, but keep the appreciation of Islam and the mosque.

Regular the Al Makmur Mosque Jama’ah, Male

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\textsuperscript{26} detikNews is one of divisions from DetikCom, which contains news and events. DetikCom is an online news and article website based on Indonesia.
Teuku Syarifuddin mentioned that Bustanul Arifin, former minister of cooperatives, suggested the development of Islamic Hotel like in Madinah, in which the visitor can spend the night and do worship in the Great Mosque. Teuku Syarifuddin added that the front façade of Aceh Hotel will be preserved in order to keep the history of the place and the back site will be extended. This statement was also supported by former governor of Aceh, Zaini Abdullah in his statement in detikNews about the long-term plan of the expansion of Baiturrahman Mosque. Zaini mentioned that the south side of the mosque will be developed as the center of Islamic activities by building the convention center and guest house. He stated that: “For the tourists who want to learn about Islam or would like to experience the beauty of the mosque and the city of Banda Aceh, they can stay at the guest house and all units will be managed with Islamic management systems.” Zaini also mentioned about the intention to expand the west side of the mosque to be education center focused on Islam. He added: “For our children who want to learn about Al Quran or become a Hafidz, they can learn at that education center. The best teacher will be chosen from other Islamic School in (Banda Aceh).”

However, Teuku Syarifuddin added about the doubt of the realization of these former governors’ plan since the change to new governor occurred in 2017.

Acquired from the interview with Teuku Sayrifuddin, Former Regional Secretary of Aceh in addition to the interview with Zaini Abdullah, Former Governor of Aceh, by detikNews.

27 It is assumed to include the chosen sites since it is located at the south side of the mosque.
The overall result from the questionnaires shows that the community chose (1) School; related to a place to learn Al Quran, (2) Park; the green space as the continuation of the Taman Sari Park located at the south side, and (3) Art Gallery; related to place for creativity and hobby for every age group; as the most functions that they would like to see in the proposed sites. These three answers direct the proposed function of the site to be cultural-related activity area with the purpose of tourism destination because they reflect the culture and way of life of the local community. One of the reasons the local community chose school, park and art gallery because it is a combination of functions that creates a useful activity for
the community. These three functions, by the majority of local community, are also understood to be activities that reflect their culture, which most of them said as the city where culture was born out of Islamic values and grows like blood and flesh, and cannot be separated from one another. The local community also emphasized the character of Banda Aceh as a Shari’a city where everything in the daily life is related to Islam. The local community also mentioned about the relation between three activities; while school can be used for people to learn about Al-Quran, the park can be used for relaxation after all the activity done. Then, art gallery can also be used as the place where the creativity and hobbies of local community blend together as a reflection of culture so that it supports the tourism aspect in Aceh.

One of the most interesting findings was the answer of the mosque board member about the reason why he chose school as the activity that shall be provided in the chosen sites:

“School, because I would like to see Banda Aceh to grow and develop with the balance values of education, social life, and trade.”

Mosque board member, 43, Male (quoted from the questionnaire of the mosque)

He mentioned three values which will bring back the memories of Banda Aceh from the past. Banda Aceh is a high-cultured community in the 17th century (Waterson 1990) (Lombard 1991), where the center of the community was born out of mosque and market (Raap 2009). In Islam, the mosque is a place where the civilization begins and it also happened in the Great Mosque of Banda Aceh. It was once used as a school for scholars from across the country to learn about Islam. These educational activities continue until now as the Imam from across the country come to visit Banda Aceh, for example in Ramadhan month in order to lead a prayer and give ceramah (Islamic speech).

In relation to the trade, unlike any other part of the world, Islam was established in Indonesia through trade instead of conquest (Raap 2009). As a part of Indonesia, specifically in Sumatra island where the east-west trade routes meet, Islam in Banda Aceh grew peacefully trough the exchange of the goods from Sufi from Saudi Arabia and India. Thus through the balance of these three values: education, social life,
and trade, Banda Aceh is expected to feel glory of its past through the value of Islam as the culture and way of life of the local community.

In regards to trade culture, one of the respondents also mentioned about the needs of “Pasar Rakyat”, which means public market, where hand crafts and traditional foods can be made and sold. The sites are surrounded by traditional markets, however, from the proximity map, it was found that it currently lacks of the activity that provides the culture and hand craft from the local community. Thus, bazaar area can be added as a pop-up activity to the park area in the Atjeh Hotel Area. This bazaar area can also be used as a place to sell the local product created from the art gallery in the department store site. These activities then create the connection between the two proposed function in these two sites.

Thus, all functions gathered from the questionnaires matched with the interview results with Teuku Syarifuddin, the Former Regional Secretary of Banda Aceh, which stated the intentions of the Former Aceh Governor to expand the Great Mosque. The Former Aceh Governor planned for the proposed functions of “Convention Center and Guest House” at the south side of the Great Mosque, which is assumed to be the chosen sites. As a relation to the questionnaire result, the convention center could be used as a cultural center that houses the school and art gallery while the bazaar could be blended use as a pop-up activity in the park.

Moreover, instead of the controversial issue about the proposed hotel in the site in 2011 and only 4% of the respondents chose the hotel development in the sites, the proposed guest house function by the former governor seems to fit with the cultural center and the park and the cross country activity during Ramadhan month. As Imam will come several times in a year, having a place to stay close to the mosque and other heritage and cultural areas will create more accessibility to these areas. This idea also came from one of the questionnaire results in which, the referenced same purposes related to a place to stay with the proximity to the mosque and other heritage areas was desired.
In addition, this facility will also be available for other tourists from different cultural backgrounds. Banda Aceh is one of the cities in Indonesia where every religion lives peacefully with respect towards one another. Indonesia admits five major religions as a part of daily lives, including: Islam, Protestant, Catholic, Buddhism, and Hinduism. Thus, as an Islamic city, having a core of activities that provide both Islamic culture and Aceh tradition as a part of daily lives would make the city becomes worthwhile place to visit both for Muslim and people from across cultural boundaries. People will come because it offers the uniqueness of the city through the culture instead of eclectic style of physical feature which has different meaning since it is just a product, not a process.

3.7 Climate

3.7.1 Wind Conditions

Banda Aceh is located near the ocean which creates the unique temperature variations. Figure 3.70 for Banda Aceh shows the amount of hours per year the wind blows from the indicated direction. It illustrates the summary of the highest wind speed over the year which reaches 17 mph per year and blows from Southwest to Northeast. This wind direction indicates that Banda Aceh has a characteristic a strong west wind, which shall be counted as a design consideration. Outdoor spaces would be highly affected by the wind and need to be planned to give users a pleasant experience of both environmental and spatial qualities. Moreover, related to indoor environmental qualities, the west opening is considered to be important for cross ventilation system while in the same time needs to be planned to avoid the direct light and glare of afternoon sun from entering the building.
Figure 3.70 The Summary of Banda Aceh Wind Rose Chart (left) and Wind Speed Diagram (right)
Source: (Meteoblue 2017)

3.7.2 Sun Conditions

As a result of its close latitude position of Banda Aceh to the equator with lat. 5°33'00"N and lon. of 95°19'12"E, the sun conditions and sun paths creates almost the same pattern with slightly different angles all the year.
Figure 3.71 Banda Aceh Sun Path
Source: (Gaisma 2017)

Figure 3.72 The Average of Daytime and Nighttime in Banda Aceh
Source: (Gaisma 2017)
The upper two graphs show that the temperature is different over the year in Banda Aceh, which reaches > 86°F for the highest and > 64°F for the lowest temperature. The graphs indicate that the temperature is quite stable with slightly changes over the year. The essential issue shown in the graphs is the large different of the temperature during the night and days in Banda Aceh. It shows that Banda Aceh tends to be extremely hot during the day and cold at night. This fact provided a strong argument for recognizing the importance of climate information into any design solution. The design shall address the need of cross ventilation system during the day while maintaining a moderate temperature at night.

Regardless of its high temperatures during the day, the graphs indicate that Banda Aceh’s climate is dominated by overcast conditions with high level of precipitation, especially during May through November.
These extreme conditions shall be addressed in the design which indicates the use of resilient materials which can remain effective even with the extreme temperature changes that occur every year.

3.7.3 Earthquake and Tsunami

Indonesia is located along the Pacific Ring of Fire, known for its possibility to produce some of the strongest earthquakes in recorded history, a 9.1 magnitude quake caused a devastating tragedy in on December 26, 2004, called Sumatra-Andaman earthquake (Shen-Tu, et al. 2014). The effect of the strong earthquake uplifted the ocean floor, resulting in the most destructive tsunami in recorded history ranged from 13-128 feet (4 to 39 meters), and causing damage throughout the Indian Ocean affecting 12 countries with Aceh Province as the most damaging region at that time. (Cluff 2007)

Many buildings, mostly houses, were destroyed by being swept inland and out of the sea. Traditional construction, which known to be resilient for earthquakes could not resist the tsunami forces (Cluff 2007). Cluff noted that the most part of the houses left from the tragedy were the concrete floor slabs and extensive piles of timber. The most resilient construction left after both forces were the well-constructed steel frame series of industrial structures, such as the *La Farge* Cement Plant located right in front of the sea, southwest of Banda Aceh (Cluff 2007). Another resilient building structure mentioned by Cluff that still stood after the tsunami forces was a typical mosque located at the south of Banda Aceh. This was due
to the tremendous quality of the concrete construction. Most building utilized the load-resisting system through the use of steel-reinforced concrete frames along with domes and open arches that resisted the damage from the tsunami forces (Cluff 2007).

Based on the resiliency of the construction left after both earthquake and tsunami forces, from Cluff’s inspection, the steel-reinforced concrete framing is an essential construction system option to be utilized for any solutions of this study. Another new way of rebuilding a resilient building is through the use of the damper insulator system as a part of the foundation construction. This construction is utilized for one of the new campus buildings located in the University of Syiah Kuala, located about 4.6 miles northwest from the Great Mosque of Baiturrahman.

Sub Conclusion

Banda Aceh has its own restrictions for building design due to its likelihood of being flooded or damaged by earthquake. The most important design consideration regarding climate in Banda Aceh is the risk of earthquake damage, particularly of the magnitude occurred in 2004 which caused tsunami forces that brought a huge damage to the city. For these reason, some design criteria and parameters shall be addressed, such as placing the ground level higher than the street level to protect the building from flood and use of the steel reinforcing concrete framing for building construction as a response to the earthquake and tsunami forces.

Regarding solar orientation and wind direction, other criteria and parameters would need to be addressed. For instance, the orientation of the building made in such a way to address cross ventilation as a response to tropical climate conditions, and roof angle pitch to address the high precipitation, and etc.
CHAPTER 4 SYNTHESIS

4.1 Overall Summary

This chapter will cover the overall summary from the sub conclusions noted in each subchapter in Chapter 3, Analysis. The summary will direct the finding towards the proper proposed functions, design criteria, and parameters through four essential factors: (1) regulation and future plans; (2) mapping infrastructure (context) based on five element of the city by Kevin Lynch and resiliency to the climate; (3) related theories and precedent studies; and (4) questionnaires and interviews.

The overall summary shows that the proposed sites are located in a strategic location and should be developed to create a better impact to their surroundings. There are some challenges for the sites including its close proximity to a sacred place, The Great Mosque of Baiturrahman, however, this would not restrain the development of ideas leaned towards proper functions and set guidelines for the sites. The flexibility of the ideas will surely be developed since in Aceh, Islam is not merely a religion; but rather, it is “a way of life”, a part of a culture. This fact is shown in the samples of the questionnaire results below:

“Banda Aceh is a point where culture was born out of Islamic values and is united like blood and flesh.”
33, Female

“(Banda Aceh) is Madani city with the majority of muslim community. It is also known as Shari ’a city.”
Lecturer, 29, Female

As Islam is an integral part of the culture in Aceh and due to the close proximity of the sites to the Great Mosque, a development of the sites is considered to be related to the growth of the city center with Islam as the core of the urban fabric and community. This assumption is supported by the statement of the former Aceh Governor about his ideas of the expansion of the Great Mosque by doing the land acquisition for the surrounding area of the Great Mosque. His intention was to create the center of the city as a place for the development of Islam and community. This statement was supported by Former Regional Secretary, Teuku Syarifuddin in his interview which mentioned about the same ideas. He stated
that the former Governor intend to develop the city center as a tourism place where everyone can visit and experience the culture in term of Islamic way of life and community daily activity.

This intention matches with the theories of Banda Aceh mentioned by (Waterson 1990) and (Raap 2009). Banda Aceh is known as a highly cultured community since 17th century (Waterson 1990) with mosque and market as the center of the community (Raap 2009). There is one more function that transformed from a private place to a community area in Banda Aceh, which is a “park”. Like in the Old Baghdad City, which dedicated the city center (consist of mosque and park) as a private area for the kingdom activities, the parks in Banda Aceh located at the south side of the sites were used to be a private space for the kingdom daily life. For instance, the Putroe Phang Park and Gunongan were used to be a bathing place for the Queen of Iskandar Muda. However, as the government changed from kingdom to republic, unlike the old Baghdad City government, who demolished the overall existing city to create more infrastructure for the community, such as hospital, school, etc., Banda Aceh government transformed the kingdom park to be a public space in which the local community and tourist can experience the historical area or events which sometimes are created in the space. Thus, from the analysis of theories and events occurred near the chosen sites, there are three important features that influence the movement of the city center in terms of Islam and community, which are “mosque, market, and park”.

However, features of the sites are not the focus on this study as referred to the misconception of the prototype of Islamic cities portrayed by French Orientalist about the exclusive features in the Islamic cities that leads into the eclecticism way of re-building the cities in the Arab World and the Gulf (Lughod 1987). Like in the Heart of Sharjah, the rebuilding of the historical building tend to reproduce the same patterns, even the same forms as it was built in the past through well-documented pictures about how the buildings look like in the past. For example, Al Hisn Museum that was demolished in 1969 and was successfully restored to its former glory due to the availability of historical documentation. This way of rebuilding the historical area leads to the understanding of the city as a “product” that can be reproduced for the future development.
Conversely, another theory argued about this understanding, in which city has an essential aspects (uniqueness) characterized by its own history and forms (Jacob 1961) (Norberg-Schulz 1980) (Rossi 1984) (Lughod 1987). As mentioned by (Rossi 1984), even if the architectural construction of the past had been re-built in the present time, it would never have the same value. It would merely be like the Epcot Center in Disneyland where many famous buildings from many countries are showcased, but they do not hold the same meaning as the real buildings. The visitors can appreciate the structures and the features of each building, but the feeling would never be the same when they see the original one. This value leads to the understanding of “city” is a “process”, not a “product” (Lughod 1987), in which it were built based on its “own history” and “uniqueness”.

Taken as a whole, in terms of uniqueness, these theories and phenomena lead this study to focus on the values of the Islamic Cities and Banda Aceh itself, instead of the physical features. The Islamic city values include three aspects, such as privacy, community, and beauty (Lughod 1987) while the values of Banda Aceh includes “Relationship with God” and “Relationship with Human”. These values derived from the previous features captured in the study of the image of Banda Aceh, which consists of three features; “mosque, market” (Lughod 1987), and “park”. These three functions will be developed to be two separate functions; “the sacred function” of the mosque as a result of the “relationship with Allah” and “the secular functions” of market and park as a result of the relationship with human. The mosque creates the relationship with Allah as Islamic way of life is used widely in Banda Aceh while the park and market are the spaces where people meet and socialize with each other which foster the relationship with human. These values, along with context analysis (five elements of architecture and resiliency to the climate) lead the study to create the supposition of proposing a “unified design” and not a “uniform design”.

Furthermore, in terms of preserving the historical values of the community, the collective memories method using the questionnaires and interviews were developed as stated by (Miligan 1998) that it can connect the past event and to the future expectations of the community towards the sites and their city.
Uniqueness – Values of Banda Aceh

The uniqueness of Banda Aceh is the value that has been learned from the context of the city including mapping the infrastructures through five elements of the city as noted by Kevin Lynch, such as through district, paths, nodes, edges, and landmarks and resiliency to the climate (especially for earthquake and tsunami forces).

The district mapping of the city center shows that Banda Aceh is a compact and small area which separated to be several areas; residential, heritage/traditional city center, educational area, harbor/fishery, commercial, services/office areas. Based on Banda Aceh Building Code 2009-2029, the chosen sites, which are located in the city center is considered to be “Heritage/Traditional City Center” Area which leads the future development to be the functions that support the existence of the Great Mosque. This intention matches with the character of the community in Banda Aceh that makes Islam to be more just a religion; it is a part of the culture. Besides Islamic culture and activities, the district mapping also covers the proximity of its infrastructure to the surrounding area, which shows broader activities occurred in the park and market nearby. The activities consist of: praying, gathering, business, meal, shopping, sport, residential, and public events. Public events are the most captivating factors shown in the proximity maps as they illustrate other aspects of the culture in Banda Aceh. From this analysis, the parks nearby the sites, like Taman Sari Park, Putroe Phang Park, and Blang Padang Park host many cultural events in terms of weekly, monthly, and annually and they tend to draw large crowds to the city center. The events include: traditional dance performance which takes place in the Putroe Phang Park every weekend, Coffee Festival at the Taman Sari Park and other cultural events that takes place at the Blang Padang Park. Most of these activities are the part of the government plan aimed to increase the tourist trade in Banda Aceh. These activities show the intention of the government to create the city center as tourism center with the blend of both Islamic culture and Acehnese tradition. Thus, cultural-related activities are assumed to be a good fit to the chosen sites.
Starting from the “cultural-related activities”, another specific question arises: “what kind of activity that will be fit with the chosen sites?”

A possible answer then came from the analysis of the Banda Aceh Building Code 2009-2029 which mentioned the zoning of the chosen sites is to be “Trade Center and Services” with allowable functions for offices, trade center, hotel, and public services. The purpose of this zoning allocation is to improve the economic, social and cultural aspects of the city center. This finding, along with the proximity map analysis, brought the conclusion of the most-frequented activities likely to occur include worship as it closes to the Great Mosque, eating and shopping, as it closes to the traditional and new market; and gathering which includes enjoyment of the cultural events as they take place adjacent to the parks.

Firstly, for the mosque activities, the proximity map shows that besides the worship activities, there are other activities that have been done regularly every year at the Ramadhan month, in which Imam comes from Saudi Arabia or other Middle East region in order to lead the prayer or teach children and adults to remember the Qur-‘an. However, there are not enough facilities that provide a place for the visitors to stay overnight which connects directly with the Great Mosque providing and provide an easy access for the imam and visitors, similar to the one that can be seen in the Great Mosque of the Al Makmur (located 1.1 miles (1.8 km) from the Great Mosque). The Al-Makmur Mosque has hotels nearby, located adjacent to it, and is just separated by the distance of one building. These facts were also supported by the questionnaires results from the local community when they were asked about what kind of functions they would like to see in the sites and why? One of the examples shows:

Hotel, in my view, creating a hotel which closes to mosque or around the mosque will create a crowded atmosphere of jama’ah from the tourist outside the city, .... For example, in Mecca, and the closest example is The Great Mosque of Al Makmur, which is surrounding by hotels and this mosque has always been full of jama’ah.

Student, 22, Female

Another similar response was expressed in questionnaire from the Al-Makmur jama’ah when they were asked about the memories of the chosen sites. One of the answers demonstrates this sentiment:
“Atjeh Hotel was a haven place for visitors who came to Aceh at the time of its peak era since it is a strategic place. Visitor spent the night at the hotel and visited the Great Mosque which is located across (it) (north side).”

*Quoted from the questionnaire result of Al Makmur Mosque (1.1 miles (1.8 km) from the Great Mosque) Jama’ah*

Referred to the controversial issues which arose during the proposed hotel development in the Geunta Plaza sites and the questionnaires results that show only 4% of the respondents that choose a hotel as the future development for the sites, a hotel seems to not fit with the ambiance and the expectation of the local community. However, the regular activities occurred in the Great Mosque leads to a conclusion to provide a “place to stay” overnight in the sites. It might not be a hotel, it could be a guest house where *imam*, students, or other visitors can stay while experiencing the historical place and the cultural in the city center of Banda Aceh. As a result, it will create direct access to the mosque and helps bring back the memories of the community towards the peak era of the former *Atjeh* Hotel.

Additionally, another activity that is seen to be essential for the development of the sites related to the sacred function of the mosque is place to remember Qur’an for the children and adults. It is mentioned in the questionnaire results, in which Islamic School was thought to be beneficial to 37% of the respondent. When the respondents were asked about why they choose Islamic school as the proper function to the sites, some of the responses are expressed as follows:

“(A) School, because I would like to see Banda Aceh to grow and develop with the balance values of education, social life, and trade.”  
*Mosque board, 43, Male (quoted from the questionnaire of the mosque)*

“(A) School, Art Gallery, and Park, because it closes to the mosque, so there should be no building with excessive spree or unreligious nuances. Another factor is the Acehnese are known with or more inclined to the Islamic activities.”  
*Security, 25, Male*

Based on the cross-data analysis above (as it relates to the sacred function of the Great Mosque), a “place to stay overnight” and “place to learn Qur-‘an” are the most proper functions to be developed in the
chosen sites. These two functions are expected to create a better place for both local community and visitors to experience the Islamic way of life in Banda Aceh.

Secondly, contrary to the sacred function of the mosque; the market and park activities are more secular in nature. The analysis shows that the activities in the parks including gathering, having meals, sport, and cultural events would be beneficial. Out of all activities occurred in the park, the cultural events are the most intimate events that represent Acehnese tradition, such as traditional dance, coffee and halal food culture. Therefore, activity related to art/culture seems to be a good fit for the chosen site. This fact is supported by the questionnaire results when the respondents were asked about what they would like to see in the chosen sites, the answers show:

“School, Art Gallery, and Park, because it creates a useful public space for community”

Lecturer, 28, Male

“Art Gallery and Museum of Islamic Development in Aceh, to support the development of tourism in Aceh, especially around the Great Mosque of Baiturrahman.”

Private Employee, 26, Male

These answers support the premise to create the “place for the art” in which people can learn and create a handcraft to be then sold in the “pop-up” public market. Public market was chosen to be a supported function for the place for the art since the sites are located close to traditional and new market, though the proximity map shows that there is no market nearby the sites that provide the on-site handmade or handcraft souvenirs. These two functions are expected to bring a new color for the sites in which local community and tourist can experience the Acehnese tradition by doing on-site activities. These activities are worth-to experience since they serve exclusive involvement for both local community and tourists, instead of buying mass product from other countries such as China. These art-related activities are expected to create the continuity of the on-going cultural events occurred in the nearby parks.
The continuity of the on-going cultural events is shown in the study of the Nodes and Edges of Banda Aceh city center.

The study of the edges tells about the views and functions in the surrounding sites, which shows the proximity to the sacred function of the Great Mosque (north) and the secular functions of the residential and commercial (west); office area (east); and park (south). The most interesting part of this study is the edges created at the south and north sides, in which two contrast functions; sacred and secular meaning of the city, are located. These facts create an opportunity to the site as the gate of the city of Banda Aceh since The Great Mosque of Baiturrahman is the most iconic building in this region. This gate forms the transition spaces from the secular function of the parks to the sacred function of the mosque.

![Figure 4.1 Edges and Views of the Chosen Sites](source: Analysis (Photos on the right taken by Jama'il Qamar))

Despite its differentiation, both functions have similarity in terms of activities occurred in the sites, which is "gathering". In the nodes study, both spaces are included as "square", in terms of the concentration of characteristics. The Great Mosque of Baiturrahman has its own uniqueness due to its central location and specific function as Muslim worship place. It has a large yard at the east side, which is widely used as
gathering space by the local community and one of the tourism destinations in the city. Nowadays, this yard is also used for praying and a gathering space as marble floor tiles has been installed since 2015 due to the number of jama’ah, which could not be accommodated within the walls of the mosque itself.

The Taman Sari Park shows similarity in terms of its function. As (Nas 2011) mentioned in his research, in general, respondents agree that Taman Sari is quite a unique park, since it is used widely by local community, both for events and other refreshing facilities. Farther southeast from the Taman Sari Park, there is another park called the Putroe Phang Park which is also widely used as a gathering and cultural events space by local community.

For these reasons, as one of the sites is located in these nodes lines as shown in Figure 4.2; it is important to create functions that can accommodate the continuity of these nodes as well as create an interconnection between the sacred function of the Great Mosque and the secular functions of the park.
through the similarity of the character of each space, which is “gathering and cultural-related activities” spaces or functions.

Overall, based on the data analysis above, the proper functions to the sites shall create an interconnection between “the sacred function” of the Great Mosque and “the secular functions” of the parks and market nearby. The data shows that the most proper functions to be addressed are a “place to stay overnight” and a “place to learn Qur’an” as relation to the sacred function of the Great Mosque and “space for cultural-related activity events” that accommodate “gathering space as relation to the park function and “place to shop” that offer the exclusivity of handcraft souvenirs and traditional food as relation to the market function.

**Criteria and Parameter Study**

Several studies in this research, including building typology and study of the surrounding landmarks show the tendency of Banda Aceh government in adopting eclectic as a way of rebuilding buildings, which is also widely used in the Arab World and The Gulf. Another interesting finding from this study was the new Mayor Office Building, which was re-built after being destroyed by the earthquake and tsunami forces in 2004. This building was designed differently from its surrounding, which were filled predominantly by heritage buildings. The essence of the office building, like the entrance in the front façade, has a pitched roof as a response of high precipitation of the area and the shape of the building which is used to be a slim building for easy cross-ventilation system were not found in this building.
The new Mayor Office Building was designed with its own architectural language including side entrances, an unusual façade, and wide shape. The only element that is assumed to be an effort of the architect to show the Acehnese values is the use of the onion shape at the roof (derived from the Great Mosque elements). Known as a veranda of Mecca, this element is assumed to be a way to show the Islamic architecture in the building. This approach is also widely used by the government, for instance, the onion shape at the façade of the new Atjeh Market. However, instead of representing the value of Islamic architecture, this element becomes more like an ornament which has no function to the building except as ornament. The onion shape in the Mayor Office Building is just a turned-around element at the top of the roof without any function, as is the opening element in the new Atjeh Market, which can be just a rectangular shape like what have found in the old Atjeh Market located nearby.

This way of rebuilding the existing building shows the tendency of Aceh government to adopt the Islamic Architecture into the design by copy-pasting the elements that are, to them, meant to represent the Islamic values of the city. As this approach creates no values to building elements, this study is more focused on
the elements related to their function and how those elements engage with the context of the city, in terms of the image or the values of the city and the climate. Important landmarks in terms of important buildings are used in order to find a tangible implementation of the architecture hierarchy in the buildings that shape the city character.

There are three building that were studied in this research as their values shape the image of the City of Banda Aceh, such as: (1) The Great Mosque of Baiturrahman that represents Islamic values, (2) Rumoh Aceh (Aceh Traditional House) that represents the tradition of Acehnese, and Tsunami Museum that represents the Remembering of the Loss of the earthquake and tsunami in 2004. All the architecture in those three buildings embody the combination of all three values with the strong essence of Islamic values, which is considered to be “way of life” of the local community based on the data analysis above. The most intimate findings about the Islamic values found in those buildings were the way each building conveys the terms of “interaction with Allah (العدل من الله)” which represents the Islamic values of the building and “interaction with human (العدل من الناس)” which represents tradition as an open and friendly community.

Firstly, all three buildings convey the similarity of Islamic values as the result of the interaction with Allah which is through a water element and geometric patterns.

1. The water element means *thaharah* (cleanliness) in Islam, in which people have to keep cleanliness. This water elements’ purpose is showed up significantly in *Rumoh Aceh* and the Great Mosque as it is used for cleansing before coming inside each building. The Great Mosque has water elements like a “ditch” under the stair while *Rumoh Aceh* has water in the jar under the entrance stair to be used as a cleaning element. Tsunami Museum also has water element in the pond at the public space under the main building which has different purpose as the one in *Rumoh Aceh* and the Great Mosque. However, this water element is also a part of Islamic values because
it is widely used in every garden or courtyard in Islamic buildings as a cooling element to counter the high temperatures of the region.

2. Geometric patterns are the product of sacred science (Critchlow 2004) that reflects the most powerful patterns of the sacred art expressing the spiritual truth (Dabbour 2012). It consists of the floral and geometric motifs in arabesques, as well as Islamic Calligraphy Qur’an (Othman and Zainal-Abidin 2011), which are found in the Great Mosque and Rumoh Aceh. The Tsunami Museum shows a unique implementation of the geometric patterns. Ridwan Kamil, the architect, brought patterns of a traditional dance, Saman Dance into geometric patterns installed as a secondary “skin” of the building. In a similar way that Ridwan Kamil implemented the geometric pattern into the building he designed; these same ideas could be addressed in the criteria and parameters of the chosen sites.

Besides two similarities in implementing Islamic values with regard to Acehnese values, these three buildings also applied the traditional Islamic values mentioned by Lughod, which consist of three elements:

1. **Community**: in relation to gathering spaces provided in each building. The Great Mosque has a grand yard for praying and gathering for the community while Rumoh Aceh and Tsunami Museum utilize the area under the main building as a gathering area.

2. **Beauty**, is shown from the geometric and floral elements used in each building

3. **Separation**: in relation to gender separation is just found in both the Great Mosque and Rumoh Aceh, which shows from different entrances for both man and woman in the Great Mosque and separation of rooms in both buildings. The Tsunami Museum is more open for both genders since it has slightly different function. This is because it is closer to the public facility like a gathering place or park where open spaces are provided for everyone. However, regardless the openness of the Tsunami Museum, the norm of Islamic design is still incorporated in the building. The Tsunami Museum has Light of God room in which the name of Allah is written at the top of the
chimney, so that when people look up above, they will feel the deep feeling of Islam in their hearts.

Besides the Islamic values, those three buildings also convey tradition as the result of the interaction with humans which is shown from the social spaces provided in each building. Rumoh Aceh and the Tsunami Museum show a similarity of the social spaces, which are located under the main buildings since the design of the Tsunami Museum is derived from the traditional house. The Great Mosque also has a large social space in form of the yard located at the east side.

The unique value found study is the third value, Remembering the Lost represented by the Tsunami Museum as the remembrance to that catastrophic tragedy. Besides this function, the Tsunami Museum is also planned as an escape building as a precaution for potential future events. This fact shows the effort of the government to create a building that engages with the climate as Aceh is one of the provinces in Indonesia that is prone to natural disaster, such as earthquake and flooding. Since the region not only has high temperatures, but also the high humidity in the range of 70%-80% makes the heat feel even worse. For these climate issues, most buildings in Banda Aceh utilized the passive methods to cool down the temperature inside of a building.

In regards to the high temperature, the Great Mosque, Rumoh Aceh and the Tsunami Museum utilizes this passive system by providing a cross ventilation system into the building. Both Great Mosque and Rumoh Aceh apply the same approach through the use of mashrabiyya as the opening that allows the wind flow inside and outside the building. Another similarity in dealing with high temperatures is shown in the house on stilts designs of the Rumoh Aceh and the Tsunami Museum that allows the wind circulation under the main building, which thus cools it. Water elements in the Great Mosque yard and the Tsunami Museum pond also help in cooling down the outside temperature.

Moreover, as a response to flood, the three buildings were built higher than the road level. Rumoh Aceh and Tsunami Museum are built on stilts while the Great Mosque is built on ten steps of the stair to the
entrances (6 inches per step). As for a response to the earthquake, both the Great Mosque and the *Rumoh Aceh* were proven to withstand the high waves in 2004. The unique “pasak” construction (stake system) of the *Rumoh Aceh* structure with wood as a main material without the use of nails adds the strength of the structure of *Rumoh Aceh*. However, as wood is a scarce material in Indonesia, the local community used different construction in order to respond to earthquakes, such as the use of steel reinforced concrete system. This method of construction shall be addressed in the criteria and parameters leading to the development of the chosen sites.

As the building typology study brought the values of the city and community through the design and the elements used in the building, another approach to reach the “the unified design” by using the local materials, such as wood, brick with plaster or steel and concrete in order to create the continuity of the face of the street in which the building or space will be developed.

**Conclusion**

![Diagram](image)

Figure 4.4 Analysis Study Summaries
Source: Analysis

As for the development of the building, in regards to building typology and material typology studies, the proposed building shall utilize local materials, such as wood, brick with plaster, and steel in order to create unified design and character that match with the surrounding area. The proposed design shall also
address the existence of Islam through two values as already used in the old and new building in Aceh, including relationship with Allah and relationship with humans. It can be done through ornament that has Al-Qur’an recitation, water elements, and social spaces such as small park and gathering place.
CHAPTER 5 RESULTS

5.1 Proposed Functions

Based on the overall research presented in this study, many considerations came in line related to the proper functions that can be developed in the chosen sites. They include municipal plans for future development, the expectation of the local community, and analysis map towards the Baiturahman Mosque and its surrounding that show in the Table 5.1. In addition, the considerations also refer to the strict regulation regarding its closeness to the great mosque, its tradition, history, and local climate.

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>FUNCTIONS</th>
<th>INTENTIONS</th>
<th>PROPOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective Memories (questionnaires and interviews)</td>
<td>Place to learn Qur’an</td>
<td>Create functions that connect to the Great Mosque</td>
<td>Former Geunta Plaza Site: Cultural Center; including the functions of place to learn Qur’an, place for art, and place to stay overnight.</td>
</tr>
<tr>
<td>Local Community</td>
<td>Place for art</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place to gather</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place to stay overnight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Plan(^2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former Aceh Governor</td>
<td>Place to stay overnight</td>
<td>Tourism</td>
<td>Former Atjeh Hotel Site: Open Space Including the functions of place to gather, place to shop (particularly for traditional handcraft for souvenir and traditional food), and place for art.</td>
</tr>
<tr>
<td>Municipal Land Use</td>
<td>Trade Center and Services</td>
<td>Create functions that connect to the Great Mosque</td>
<td></td>
</tr>
<tr>
<td>Analysis(^3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mapping and history</td>
<td>Place to stay overnight</td>
<td>Tourism and place to learn about Aceh tradition and Islam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place to shop (handcrafts)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place for art</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place to gather (held cultural events as a continuity of the existing events occurred in the parks nearby)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Not many people considered hotel as the proper functions to be built in the site, however, the interview result with Al Makmur jama’ah about the needs of hotel in order to ease the access for the tourist while going to the Great Mosque of Baiturrahman will be considered in design approaches

\(^2\) Assumption from the former governor statement with the detikNews (local news)

\(^3\) The zoning direction of the office area refers to 3.3.1

Table 5.1 Purpose of Functions
Source: Analysis
Based on the findings above, the most appropriate functions to be built in the former Geunta Plaza site is a Cultural Center as place to learn Qur’an and place to explore the youth creativity in terms of art and place to stay overnight for students and tourists. Hence, the tourists can learn about Islam while experiencing the beauty of the Baiturrahman Mosque, heritage area, and local community daily life. The Atjeh Hotel site will be utilized as an open space offering place to shop for the handcraft souvenirs and traditional food. This open space has a connection with the multifunctional building in terms of art-related activity. For instances, the art products created in the art space at the Multifunctional Building will be sold in the open space, much like an activity occurred in a bazaar area. Both sites are intended to act as a gateway, rich with culture and tradition, which connect the Great Mosque to the north and the park to the south.

Figure 5.1 Purpose Function Diagram
Source: Analysis
Instead of recreating the old spaces to be a tourism areas like in Sharjah, the approach of this study include the premise of using local memories to understand the tradition and history for the possibility of creating the future development that can be utilized for local community and tourism area.

1. User Group

Indonesia is the most populous Muslim country in the world with Banda Aceh as one of the cities that use Sharia Law as a way of life. However, it does have diversity as Banda Aceh is rich with culture and tradition. The proposed project that consists of A Cultural Center and Open Space is intended as a cross-cultural gathering place both for the local community and visitors; ranging from children to elders. This complex includes architecture which represents openness when people can learn about Aceh tradition and Islam as a way of life.
2. **Program**

**Cultural Centre – Former Geunta Plaza Site**

The cultural center is intended for a new social meeting venue for both local community and tourists, which houses various activities for Islamic and cultural purposes. It houses a space for local community, including children to elders to learn about Qur’an, languages and creative arts and other cultural-related activities. There are three main activities that will be developed in the cultural center based on the analysis and synthesis studies in Chapter 3 and 4:

- **Place to learn Qur’an;** houses “Islamic School” for the community and tourists to learn about Islam and Qur’an. The activity will include remembering and reciting Qur’an and lecturing.

![Figure 5.3 Reciting Qur’an](https://i1.wp.com/ceramahmotivasi.com/wp-content/uploads/2017/04/hafidz-quran.jpg)

Source: https://i1.wp.com/ceramahmotivasi.com/wp-content/uploads/2017/04/hafidz-quran.jpg (left);
http://www.fondsecran.eu/a/get_photo/464383/2560/1600 (right)

- **Place for Art;** houses “Art Gallery” the local community to learn about Acehnese handcraft, like batik (a method of producing colored designs on textiles by dyeing them), handmade bags with Acehnese motif and pottery. Another activity to be learned in this space is cooking of traditional food.
• **Place to stay overnight**: is a small-scale hotel, more like a “guest house” in which students from other cities or countries stay while learning about Islam and Qur’an either in daily basis or in *Ramadhan* month. This guest house will also house the tourists who would like to experience Acehnese tradition and culture.

These three main activities are separated into specific areas that represent each function, time of use per day, and number of people to be accommodated.
## Cultural Center Program

<table>
<thead>
<tr>
<th>Areas</th>
<th>Functions</th>
<th>Time of Use (per day)</th>
<th>Number of People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>Offices spaces for administration, staff and small hub</td>
<td>All day</td>
<td>3</td>
</tr>
<tr>
<td>Conference Area</td>
<td>Multipurpose area for meeting, conference, and lecture. It consists of several rooms that can be combined to be a large space. It also can be leased as wedding venue and other activities. The area has concerns of spatial, acoustic, and technological qualities.</td>
<td>All day and night¹</td>
<td>100-500</td>
</tr>
<tr>
<td>Art Gallery</td>
<td>A large area, which also has a function as a lobby of the building. It exhibits the handicraft created by local community in the creativity area.</td>
<td>8 am – 10 pm</td>
<td>100-500</td>
</tr>
<tr>
<td>Creativity Area</td>
<td>An area that is a part of the Art Gallery and is used for Art Making and Cooking</td>
<td>8 am – 6 pm</td>
<td>30-50</td>
</tr>
<tr>
<td>Library</td>
<td>Literature area, such as history of Aceh, as well as computer facilities and learning hub.</td>
<td>8 am – 12 am</td>
<td>30-50</td>
</tr>
<tr>
<td>Common Area</td>
<td>Two separated areas for leisure activities for students, community and tourists. It also contains a small café. It has a connection with kitchen from creativity space and service areas.</td>
<td>8 am – 10 pm</td>
<td>10-30</td>
</tr>
<tr>
<td>Service Areas</td>
<td>A mechanical area that consists of storages, sanitary areas, kitchen.</td>
<td>All day and night</td>
<td>10</td>
</tr>
<tr>
<td>Guest Areas</td>
<td>An accommodation to stay overnight for students and visitors, which consists of sleeping facility with single bed, double bed, king size bed, and family with two bedrooms. All facility is furnished with working desk, closet, bathroom, and kitchen</td>
<td>All day and night</td>
<td>30</td>
</tr>
<tr>
<td>Parking</td>
<td>Underground Parking for users and staff will be provided in under the cultural center site. It will consist of regular parking and ADA parking.</td>
<td>All day and night</td>
<td>As needed (refer to building code)</td>
</tr>
</tbody>
</table>

¹ Area will be used all day and all night, especially in Ramadhan month when the night time is always full of activity and energy.

Table 5.2 Cultural Center Program
Source: Analysis

### Open Space (former Atjeh Hotel Site)

The open space is a public space that is intended for students, local community, and visitors as a leisure area. It will be provided with paved paths leading to three main activities; the Great Mosque to the north, the proposed cultural center to the east, and the existing park to the south. Different pavement treatments for pedestrian crossing facility will also be provided to lessen and slow the traffic towards the street.
leading to those three main activities. The activities in the open space are separated into two main categories:

- **Place to shop:** provides a pop-up facility that houses bazaar activities for the handcrafts and traditional food made in the proposed cultural center at the former Geunta Plaza site. This activity creates connectivity between the proposed cultural center and the open space as well provides exclusive experiences both for local community and visitors to learn about Acehnese tradition and way of making the traditional food and handcraft rather than buying the mass product from China.

- **Place to gather:** create a continuity of gathering activities trend occurred in the *Taman Sari* Park to the South and the Great Mosque yard to the north as well as provides a leisure area for local community and visitors after doing their activities in the proposed cultural center.
Offering an exclusive experience of shopping the handcraft and traditional food while experiencing on-site craft making activities, the area will consist of several flexible booths in the west and east site for bazaar area with a landscape in between the two sides. The landscape acts as a gate that connects the Taman Sari Park with the Baiturrahman Mosque to the north. The existing painted columns of the Atjeh Hotel located in the proposed landscape will be preserved as the remembrance of the existence of the 50-year old historical hotel.

Another important element for this open space is outdoor lighting, such as the low light poles and on-pavement light that will be used to define the direction of the paths.

**Open Space Program**

<table>
<thead>
<tr>
<th>Areas</th>
<th>Functions</th>
<th>Time of Use (per day)</th>
<th>Number of People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booths</td>
<td>Operable space for bazaar purpose located at the wings of the site with landscaping in between.</td>
<td>8 am – 12 am</td>
<td>100-300</td>
</tr>
<tr>
<td>Park</td>
<td>A public area with landscape design for leisure and gathering activities</td>
<td>All day and night</td>
<td></td>
</tr>
<tr>
<td>Bike Rack</td>
<td>Outdoor bicycle parking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste Storage</td>
<td>Closed shed for the waste</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 Open Space Program

Source: Analysis
5.2 Compatible Criteria and Parameters

Compatible criteria and parameters are a basis guideline derived from the analysis and synthesis phase which is intended to assist the future design concepts of the chosen sites, particularly in Banda Aceh context. The compatible criteria and parameters include the following:

Functional Connection

Figure 5.8 shows the functional connection between the proposed functions and the existing functions. The existing functions include the sacred function of the Great Mosque and the secular functions of the park and market, which are blend with the proposed functions through the activities offered, pathways, and water element.

1. **Activities**: activities offered in the proposed sites are separated into two main functions as results of the existing functions, such as those viewed as sacred and secular. As a response to the sacred function of the mosque, which is related to Islam and worship, the activities offered in the chosen site are Place to learn Qur’an (Islamic School) where students learn about Islam and Place to Stay Overnight (Guest House) where visiting Imam and students or visitors can stay while having a direct connection with the mosque. These activities reach the peak in every Ramadhan Month in which many scholars and Imam come to Banda Aceh in order to lead the prayer or teaching the method to learn Qur’an.

Figure 5.8 Cultural Connections between Two Sides
Source: Analysis
As a response to secular functions of the park and market in the surrounding area, the proposed activities include place for art (Art Gallery) in which people will learn about Aceh traditional Art Making to be then sold in the Place to Shop (Bazaar Area). Another proposed activity is gathering as the continuity of the gathering activity in the existing park and the Great Mosque yard. This gathering activity will be provided by a small park with a rich landscape design. The existing painted column of the ruins of the Atjeh Hotel will be preserved as a part of the small park design leading the pathway from the Taman Sari Park to the Great Mosque.

2. **Pathways:** different pathways in three main roads will be provided as a crossing facility for pedestrian. This way of paving also create an indirect connection between one place and others. The different paving elements will be provided in the street between the two sites, the street between the Taman Sari Park and the chosen sites, and between the Great Mosque and the chosen sites.

3. **Water Elements:** the sites are located in the node line of specific characters of three places including the Great Mosque, the Taman Sari Park, and the Putroe Phang Park. All three places have similarity in terms of having water element each site. Water is an element that is widely found in Islamic building since it conveys cleanliness. Thus, water element like fountain will be placed in the small park as the continuity of the nodes from the existing places.
Figure 5.9 The Continuity of the Nodes Result
Source: Analysis
Figure 5.10 Functional Connection Diagram
Source: Analysis
The overall scale in the chosen sites shall be reflected in that they should not compete with the volume of the Great Mosque and the adjacent building in the south, west and east sites.

According to municipal regulation, the maximum building height of the chosen sites shall not exceed the height of the Baiturrahman Mosque.
Flow

The building complex and the surrounding area shall address the open public space by providing the smooth flow of bike route and pedestrian walkways.

**Collaborative but Privacy Approach**

The building design should have a connection with the surrounding area by allowing the people inside the building to see out while creating private spaces.
Parking

The area is intended to be a pedestrian area and all parking shall be placed underground (refer to Banda Aceh Building Code).

Separation

Create separation for some areas or room if possible, such as for the common room, so women can keep their privacy during their free time.

Climate-Related Design

1. **Construction**: based on the analysis results, Banda Aceh is prone to earthquake and had experience one of the worst tsunami and earthquake forces in the history, therefore the proposed design shall address an appropriate construction that is proven to be earthquake resistant. In Banda Aceh case, the steel-reinforced concrete of the new building and the wood construction of the Aceh traditional House are considered to be earthquake resistant constructions. Thus, implementing those constructions are suggested for the proposed sites.
In addition, as floods is also one of the environmental concerns in Banda Aceh, creating a building that is higher than the street level is recommended for the proposed sites. The approach can be done by creating a high entrance with many steps, like the Great Mosque and the surrounding offices or by creating the house-on stilts design like in the Rumoh Aceh and the Tsunami Museum building.

2. Material Use: as the proposed sites located in the tropical region, wood and brick with plaster are widely used in the existing buildings. Wood materials cool down the interior from the high temperature on the outside. Brick with plaster material have a slight drawback compared to the wood materials when the temperature reach to the peak of the season because it saves the heat during the day and release it during night time, which makes the temperature inside the building higher. However, the study shows that it is acceptable to use both materials with the balance implementation of a cross ventilation system.

3. Cross Ventilation System: as the high temperature dominates the area, the cross ventilation system is one of the approaches that are widely used in the existing building surrounding the area. Thus, it is suggested to implement the cross ventilation system to the proposed sites. For example, by the use of mashrabiyya or jalousies as the openings. High ceiling is also a good way to cool down the inside temperature.

4. Building Form: Banda Aceh has almost the same patterns of the sun direction all the year with the same amount of day and night time since it is located close to the equatorial line. For these reason, it is better to follow the way of the Rumoh Aceh was built, which has a long façade facing north and south sides so it lets the buildings having many openings while keeping the interior protected from direct sunlight.

Geometry

The geometry in the design will be provided in the building ventilation system, like the use of mashrabya in Middle East. This system is also functioned as a device that protects women from being seen from the
outside by allowing them to observe the outside world in privacy. It represents the use of Islamic value into the design.

**Design Criteria**

- The design of the chosen sites shall reflect the function of the mosque as a sacred place through the functions provided, however, it still allow for secular spaces.
- The transition between the secular and sacred places shall compromise with the sacredness.
- The gender segregation in the cultural center shall address the collaborative activities while keeping the privacy among the genders in equal qualities.
- The spatial quality shall address and reflected in the simplicity of the material use.
- The park and bazaar area shall have connectivity with the mosque.

**5.3 Discussion/Conclusions**

This research examines the ways of approaches to the revitalization of the abandoned sites located in the strategic area with applied restriction of the regulation and contexts, particularly in an Islamic culture within Southeast Asia. It goes over the on-going phenomena that create a “city is a product” in the Arab World, the Gulf, and even Banda Aceh Government by utilizing the eclecticism as a way of approach in revitalizing the heritage areas as mentioned by (Colquhoun 1981); it seems to be accepted in preserving the memories of the city. To do this, the statement of a “city is a process” (Lughod 1987) has been expanded to the implementation of the real issues in specific sites, in this case Banda Aceh. Instead of using the tangible elements, like existing styles, elements, and details, this study observes the context and history of the city and sites through three essential aspects, including community engagement; government future plans, rules and regulations; and contexts (that explore five elements of the city by Kevin Lynch and climate as the study of the resiliency to the earthquake and tsunami forces occurred in 2004) with the assessment of the theories and precedent studies.
The study of four essential aspects helps in decision making to the criteria and parameters for a further design process. These ways of approaches explore the whole process of the city that answers the question of “why it looks like that” instead of “what elements and styles that creates the values of the city?”

Community engagement unveils the collective memories, which is one of the ways to preserve the history by connecting the past with the future expectations through local community memories towards their city and the sites. Five elements of the city illustrated through mapping of the infrastructures cover the image of city of Banda Aceh and its values, in this case, Islam as a way of life. Another context study, resiliency to the climate, help the decision making in creating a criteria and parameters that address a proper construction which engage with the specific natural phenomena in the area. Governments’ future plans, rules, and regulations address the intention of the government in developing the city center in regards to the regulations and restrictions that should be applied to the sites. Theories and precedent studies helped to analyze those three aspects in terms of the on-going debate about the way to rebuild the heritage areas.

The overall factors assisted this study to preserve the cultural values of the city and the sites.

Taking the case study of two sites in Banda Aceh located across the sacred function of the Great Mosque and the secular functions of the parks and markets, those essential factors help create a cross-cultural way of approaching these sites as it studied the overall character of the city and the sites.

Therefore, this research provides significant contributions to the debates over what constitutes a good reuse of the abandoned sites located in the city center and heritage area with specific conditions, in this case, the closeness to the Great Mosque and how to revitalize it in order to create identity for the spaces and maintain familiarity to the community.

Through this study, familiarity does not necessarily mean about the form, but about the familiarity with the activities and spaces that engage with the surrounding areas.

Overall, this thesis proposed a methodology to bring back an abandoned site back to life in relation to environment and socio-cultural issues through context study of the sites and community engagement. It
provides a framework that could be adopted on a society-wide basis, as a means to address the investigation of an abandoned site. This is an inclusive methodology that can be used in many different contexts, even though cultural differences will exist and lead to other research. Thus, modification of approaches is required to identify potential ways of dealing with other site specific context.
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Appendix I: the Questionnaires for the visitors of the Baiturrahman Mosque, the Al-Makmur Mosque, the Taman Sari Park, and the Zainoel Abidin Hospital

THESIS QUESTIONNAIRES ABOUT TWO EMPTY SITES ACROSS THE GREAT MOSQUE

My name is Ria Purnama. I am currently enrolled in the Master of Architecture Program at Rochester Institute of Technology. I am doing my thesis about the development that we should do for two sites located across the Great Mosque in Banda Aceh. These two sites have been vacant for years and no development has been done for the improvement of the sites. The first site is the former Aceh Hotel building which burned down several years ago and the second one is the Former Department store, Guenta Plaza.

Therefore, I would like to ask directly for people in Banda Aceh area about what they would like to see in the sites. It will be a great development of the sites since it is located in the city center.

This study will explore the compatible criteria and design by community engagement approach in design development.

These questionnaires will take about 15-20 minutes to fill in. Please take your time and I really appreciate your help!

Sincerely,
Ria Purnama

* Required

Site Location
1. Age *

2. Sex *
   Mark only one oval.
   - Female
   - Male

3. Education *

4. Occupation *

5. What does Banda Aceh mean for you? *

6. What is your memories about the two sites (former Geunta Plaza and former Aceh Hotel) accross the Great Mosque? *

Fomer Aceh Hotel Site
7. What do you want to see in these locations? (you can choose more than 2 options) *

Check all that apply:

☐ School (Religious School for learning Al Qur’an/Islam/Tahfidz)
☐ Gallery (as well as Youth Center for Creativity)
☐ Coffee Shop
☐ Restaurant
☐ Offices
☐ Park (as a part of Taman Sari Park)
☐ Shopping Mall
☐ Hotel
☐ Mixed-use building (commercial area in the ground floor level, apartment in the upper levels)
☐ No development
☐ Other: __________________________

8. Why did you choose the option(s)?

________________________________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________________________
Appendix II: the expert interviewed

1. Former Aceh Regional Secretary, Teuku Syarifuddin interviewed on July 2017 in Banda Aceh.