

**THE AESTHETIC VALUE OF HISTORIC MONUMENTS IN ISLAMIC  
HERITAGE: An Assessment of the architectural patterns of the Algerian  
Great Mosque of Nédroma.**

**Master Thesis**

**Architectural and cultural heritage**

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## ***CHAPTER I***

### **1. Abstract:**

This objective of the research is mainly about the aesthetic values and to try to determine the methodologies used for evaluating the heritage values of historical monuments, while the aesthetic value is considered one of the most significant characteristics of Islamic architectural heritage.

The study would be based primarily on a theoretical basis that deals with aesthetic values and judgments. This part presents and compares the different values in order to be able to identify the limits and characteristics of aesthetic values. In addition, it illustrates the principles of aesthetic criticism of architecture and the different types of aesthetic judgment, in particular the subjective, objective, and relative modes. Following this, the paper presents a general overview of the definition and the style of Islamic Architecture, while this latter contains several classifications and types that would be discussed as well. It defines the architectural elements of the visual compositions in order to obtain a grid of criteria that provide the ability to objectively assess the aesthetic value of the monument chosen as a case study.

Moreover, the evaluation of the aesthetic value of the great mosque of Nédroma, which is preceded by a historical and architectural description of the monument, gave the ability to understand the richness of the architectural and aesthetic language used in the building, through the verification of the various predetermined criteria in the overall shape and in the different interior and exterior elements of the mosque. Finally, the research shows the opinion of the hypothesis that says the objective evaluation of the aesthetic value of a historic monument consists in establishing a set of criteria mostly based on the principles of visual composition.

### **2. Contextual Overview and Problem Statement:**

In Algeria, there is a remarkable lack in terms of tools and scientific products for the determination and study of these values either at the administrative level or at the didactic level. This has had repercussions not only on the operations of classification and the management of the historical heritage but also on the quality of the safeguarding operations and the protection of its authenticity. In particular with the richness and diversity of the heritage portfolio of Algeria, where the share of Islamic heritage constitutes the majority. Therefore, the main focus of this research is to define the concepts and methodologies used for assessing the heritage values of historic monuments while aesthetic value is considered one of the most important



characteristics of Islamic architectural heritage. Thus, the research will be based firstly on a theoretical foundation that addresses several concepts such as aesthetic values, aesthetic judgments, and Islamic heritage. In addition, there are several elements and principles as visual aesthetic compositions that would be used in order to evaluate the aesthetic values of the monument chosen as a case study - the Great Mosque of Nédroma-.

**Keywords: - the aesthetic value - the aesthetic judgment - Islamic Heritage - The architectural elements of the visual composition - the Great Mosque of Nédroma- Algeria.**

### **3. Reasons for choosing the theme:**

Monuments and Islamic heritage art are considered one of the most aesthetical design styles and the embodiment of an aesthetic vision. In this sense, the civilizations associated with a belief or a religion are identified through their places of worship. Thus, architecture and Islamic art are systematically associated with those mosques that have become by nature or circumstance the essential expression of the different dynasties. The considerations mentioned above were the reason to choose as an object of study the great mosque of Nédroma, while it is one of the three masterpieces of the Almoravid dynasty in Algeria. This is a monument classified in the national list of historic sites and monuments. However, it has not benefited from research and an in-depth study to determine its heritage values, in particular its aesthetic value. Furthermore, religious monuments play always an important role in our life where people see them as Holy places that should be preserved and valued and that is why I have chosen the mosque as a building for the case study.

### **4. Study objectives:**

The research is part of a reflection that aims to highlight several concepts:

- The different types of aesthetic values and judgments, and the principles of aesthetic judgments.
- To define the architectural elements of the visual aesthetic compositions.
- An assessment and evaluation of the architectural patterns of the Algerian Great Mosque of Nédroma.

## **5. Research Questions:**

The problem of the study shall be addressed by answering the following research questions:

- what are the different types of aesthetic values and judgments?
- What should be considered for an objective evaluation of the aesthetic value of a historical monument, in this case, the great mosque of Nédroma in Algeria?

## **6. Research hypothesis:**

It has been always not an easy task to give precise instructions and criteria to clarify whether the monument contains the aesthetic values needed to make it valuable. Therefore, the research hypothesis would be:

As an architectural work, the objective evaluation of the aesthetic value of a historic monument consists in establishing a set of criteria mostly based on the principles of visual composition.

## **7. Research Methodology**

The research will be based on **two essential parts: the theoretical research phase and the diagnosis phase**. Therefore, there will be a **deductive and inductive approach**, while the deductive approach will focus on specific observations such as aesthetic values and judgments and obtain a general conclusion, and the inductive approach in the research shows and analyses data about the mosque of Nedroma and gives the opinion about the hypothesis mentioned above.

The first part consists of the constitution of a documentary base relating to the subjects treated. Most of this first stage of the research will be devoted to reading a corpus of documents relating to the themes of historical and Islamic monuments and their heritage values, aesthetics and aesthetic judgment, and visual composition. Books, memoirs, articles, etc., will be used to determine these concepts. The use of the history of the topics covered will give the opportunity to set up a theoretical basis allowing the understanding of the different mutations and the development of an evaluation system, in order to design the best.

Collecting data and the necessary information about the great Algerian mosque occupies an important role in the second phase. This will illustrate the architectural patterns and the characteristics of the mosque of Nédroma.

## ***CHAPTER II***

### **1. Introduction:**

There have been theories discussing criteria by which to evaluate artworks; see for example the concise exploration of "Some Theories of Aesthetic Judgment" by Harold Osborne in *The Journal of Aesthetics and Art Criticism* Vol. 38, No. 2 (Winter, 1979), pp. 135-144. If for instance beauty has been taken as a criterion by which to determine if any artwork whether it is good artwork, we would be inclined to ask: Is beauty something objective? This is not a trivial question and Kant worked hard to show that beauty (or taste) is not (entirely) subjective. Therefore, this chapter illustrates the different values that can be attributed to a heritage object and more specifically to historical monuments. Among these values, there will be the aesthetic value which is a significant type in this research. However, the aesthetic term itself still remains ambiguous. This ambiguity arises from the absence of a clear and stable definition of beauty that is the object of aesthetics.

Bearing in mind that the perspective of this research is theoretical and architectural, it is first necessary to define and understand the concepts relating to aesthetics from a philosophical and scientific point through the evolution of this term. Therefore it will guide us to go deeper into a definition and description of aesthetics in architecture. In addition, to examine the different modes of aesthetic judgment and more specifically aesthetic judgment in architecture.

### **2. The values (heritage) definition:**

Value contains a large number of interpretations and it could be found within several domains such as ethics, philosophy, economics, mathematics, etc. The values embodied in cultural heritage are identified in order to assess significance, prioritize resources, and inform conservation decision-making. It is recognized that values may compete and change over time, and that heritage may have different meanings for different stakeholders. In addition, the heritage value of a site, building, or object lies in its cultural significance, which is a combination of historical, symbolic, spiritual, aesthetic, and social values (cf. Sable & Kling 2001; Throsby 2001, 84–85).

Alois Riegl is credited with developing Ruskin's concept of 'voicefulness' into a systematic categorization of the different values of a monument. In his 1908 essay *Der moderne Denkmalkultus* (The modern cult of monuments) he describes the historical value, artistic

value, age value, commemorative value, use-value, and newness value. Riegl demonstrates that some of these values conflict and argues that they may be culturally contingent.<sup>1</sup>

### **3. Types of values:**

Classifying values has always been a complicated task since there is no hard and fast rule to classify values as they are closely interlinked. Some of the important values are as follows.

- **Personal Values:** It is personal to an individual both in terms of their possession and their use. It is a desire and cherished by the individual irrespective of his social relationship. These values make a person good for himself like ambition, cleanliness, and discipline.

- **Family Values:** Family as a social institution is based on certain universally defined value systems that are nurtured and cultivated within a family system.

- **Social Values:** It refers to certain behaviors and beliefs that are shared within specific cultures and social groups. These values are good for society and form the basis of the relationship of an individual with other people in society such as courtesy, charity, and civic duty.

- **Aesthetic Values:** this type will be an important part of this research. It seeks to emulate the beauty of the Divine through the arts. Things and activities which give joys of beauty are aesthetic values like beauty, taste, and architecture.

- **Cultural Values:** Cultural values are the standards of what is acceptable or unacceptable, important or unimportant, right or wrong in society. It gives importance to preserving cultural practices, ceremonies, traditions, etc. which might be threatened by the materialistic culture of modern times such as hospitality, social order, and tolerance.

- **Trans-cultural values:** Values that are similar in practice among different cultures throughout the whole world. These can be categorized as universal values since these values are followed across cultures.

- **Moral Values:** These values constitute attitudes and behavior that society considers essential for co-existence, order, and general well-being. It enables an individual in making a distinction

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<sup>1</sup> Stanley Price, Nicholas, et al. . Historical and Philosophical Issues in the Conservation of Cultural Heritage. Getty Conservation Institute. pp. 18–21, 69–83.

between right and wrong and good and bad. Fairness, justice, and human dignity are examples of this type.

- **Ethical Values:** Ethical values are a set of moral principles that apply to a specific group of people, professional field, or form of human conduct. These values presuppose moral courage and the power to act according to one's moral convictions even at the risk of financial, emotional, or social security. These relate to our personal behavior with our fellow beings. All moral values are also covered under ethical values.

- **Spiritual Values:** refers to the process of reflecting on non-material dimensions of life and acquiring insights into personal experiences. They affect the individual in his relations with himself and are concerned with the realization of the 'Self' and being one with 'Divinity'. Some examples are truth, beauty, goodness, etc.

- **Intrinsic Values:** They are the ends in themselves, not the means for achieving some other end. In the hierarchy of human values, these values stand at the highest place and are superior to all other values of life like goodness, beauty, happiness, and bliss.

- **Instrumental Values:** These are such values that are useful in deriving some other benefit through them such as economic gain or an increase in status. A subject is said to have instrumental value when it is pursued, not for its own sake but for some ends beyond itself such as education for success in life, and political power to do public service.<sup>2</sup>

#### **4. Aesthetics and the philosophy of art -origin and definition- :**

The word aesthetic is derived from the Ancient Greek αἰσθητικός (aisthētikós, "perceptive, sensitive, pertaining to sensory perception"), which in turn comes from αἰσθάνομαι (aisthánomai, "I perceive, sense, learn") and is related to αἴσθησις (aísthēsis, "perception, sensation"). Aesthetics in this central sense has been said to start with the series of articles on "The Pleasures of the Imagination", which the journalist Joseph Addison wrote in the early issues of the magazine The Spectator in 1712.

The term aesthetics was appropriated and coined with new meaning by the German philosopher Alexander Baumgarten in his dissertation *Meditationes philosophicae de nonnullis ad poema pertinentibus* (English: "Philosophical considerations of some matters pertaining to

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<sup>2</sup> InsightsIAS Headquarters, Nanda Ashirwad Complex. TYPES OF VALUES. 01.06.2022.  
<https://www.insightsonindia.com/ethics-integrity-and-aptitude/human-values/types-of-values/>

the poem") in 1735 Baumgarten chose "aesthetics" because he wished to emphasize the experience of art as a means of knowing. Baumgarten's definition of aesthetics in the fragment *Aesthetica* (1750) is occasionally considered the first definition of modern aesthetics. Thus, aesthetics is a branch of philosophy that deals with the nature of beauty and taste, as well as the philosophy of art (its own area of philosophy that comes out of aesthetics). It examines aesthetic values, often expressed through judgments of taste.

However, aesthetics covers both natural and artificial sources of aesthetic experience and judgment. It considers what happens in our minds when we engage with aesthetic objects or environments such as viewing visual art, listening to music, reading poetry, experiencing a play, or exploring nature. The philosophy of art specifically studies how artists imagine, create, and perform works of art, as well as how people use, enjoy, and criticize art. Aesthetics considers why people like some works of art and not others, as well as how art can affect moods or even our beliefs. Both aesthetics and the philosophy of art ask questions like "What is art?" "What is a work of art?" and "What makes good art?" that it would provide a good perspective to understand.

Scholars in the field have defined aesthetics as "critical reflection on art, culture, and nature". In modern English, the term "aesthetic" can also refer to a set of principles underlying the works of a particular art movement or theory (one speaks, for example, of a Renaissance aesthetic). Based on Barnett Newman clarified that some separate aesthetics and the philosophy of art, claiming that the former is the study of beauty and taste while the latter is the study of works of art. But aesthetics typically considers questions of beauty as well as of art. It examines topics such as artworks, aesthetic experience, and aesthetic judgments. Some consider aesthetics to be a synonym for the philosophy of art since Hegel, while others insist that there is a significant distinction between these closely related fields. In practice, the aesthetic judgment refers to the sensory contemplation or appreciation of an object (not necessarily a work of art), while artistic judgment refers to the recognition, appreciation, or criticism of art or artwork.<sup>3</sup>

## **5. Aesthetics values and architecture:**

Aesthetic value is the value that an object, event, or state of affairs (most paradigmatically an artwork or the natural environment) possesses in virtue of its capacity to elicit pleasure (positive

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<sup>3</sup> Insights as Headquarters, Nanda Ashirwad Complex. TYPES OF VALUES. 01.06.2022.  
<https://www.insightsonindia.com/ethics-integrity-and-aptitude/human-values/types-of-values/>

value) or displeasure (negative value) when appreciated or experienced aesthetically. It has been always a remarkable issue when it comes to evaluating the Aesthetics judgment, especially in architecture where there are several factors that could be considered such as the origin and the function of the monument, the culture of the society, and mostly the aesthetic qualities and categories that play an important role to provide the value of the building. <sup>4</sup>

## **6. The beauty in architecture:**

“The field of art is as vast as the beauty. However, beauty is the manifestation of order. Regardless of the domain, secular or religious, in which it is produced, the order is beautiful and its expression is worthy of tempting the genius of the artist. Beauty is one of the most enduring themes of Western philosophy, going all the way back to Vitruvius’ three laws of architecture: firmitas, utilitas, venustas (solidity, utility, beauty), while opinions have diverged a lot on determining what is beauty and is it an image or perception and also its relationship or not with utility. <sup>5</sup>

According to Zaki Naguib Mahmoud, beauty falls into two distinct types’ free beauty and conditional beauty. Free beauty is to perceive only the composition without it occurring to the mind what is wanted as functions for instance geometric decoration in Moorish art. On the other hand, conditional beauty is the measurement of what the object presents as functions for example the beauty of the human body and the beauty of construction. This latter view may resolve the controversy between those who believe that pure form is the measure of beauty and those who see that the measure of beauty is the success of achieving an intended end. In summary, this is the difference between subjectivity and objectivity of beauty, emphasizing what Plato mentioned: "beauty is not based on matter itself, but in the idea which formed matter. <sup>6</sup>

In addition, to define architectural beauty, one should consider what Alberti <sup>7</sup> mentioned, and he is one of the great polymath humanists of the Quattrocento. He is at the same time a philosopher, painter, mathematician architect, and theoretician of arts,

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<sup>4</sup> Levno PlatoAaron Meskin. 2014. Aesthetic Value. DOI: [https://doi.org/10.1007/978-94-007-0753-5\\_3349](https://doi.org/10.1007/978-94-007-0753-5_3349)

<sup>5</sup> Show space. December 19, 2017. THE CASE FOR BEAUTY IN ARCHITECTURE. <https://www.slowspace.org/beauty-in-architecture/>

<sup>6</sup> Hamouda, Olfet Yahia. Theories and values of architectural aesthetics, Cairo, Edition Dar Elmâarif, 1981, p 190.

<sup>7</sup> Alberti, Leon Battista. (1404-1472) was an Italian Renaissance writer.

cryptography, and linguistics. He has written a treatise about architecture “De reAedificatoria” and here is the quote from the relevant passage:

“What beauty and ornament consist of, and what they differ, the mind can perhaps obtain a better picture of itself than words can explain. Without going any further, beauty defines as that harmony between all the parts of a body, according to a precise law, so that nothing can be added, taken away, or altered without risking compromising it.”<sup>8</sup>

De Botton writes regarding this as well: “The buildings we admire are ultimately those which, in a variety of ways, extol the values we think worthwhile — which refer, that is, whether through materials, shapes, or colors, to such legendary positive qualities as friendliness, kindness, subtlety, strength, and intelligence. Our sense of beauty and our understanding of the nature of a good life are intertwined.” (De Botton, Alain, *the Architecture of Happiness*).<sup>9</sup>

## **7. The aesthetic judgment:**

With regard to the projection of aesthetic values onto works of art (being beautiful or unattractive), the study of how it is done first requires an understanding of what is aesthetic judgment and aesthetic criticism. For Stolnitz,<sup>10</sup> to judge a work of art is to evaluate its quality or its mediocrity, and critical judgment consists in “finding reasons to reaffirm the judgment of value or to carry it out”, so the expression “it is ugly!” or “it’s beautiful!!” is not a critique of the work, however, the critique begins by asking the question “Why did we say that?” Or is this work really ugly or beautiful? », and some think that aesthetic criticism is the launching of a judgment on the work of art.

Immanuel Kant isolated two fundamental necessary conditions for a judgment to be a judgment of taste subjectivity, and universality (Kant 1790/2000). Other conditions may also contribute to what it is to be a judgment of taste, but they are consequential on or predicated on, the two fundamental conditions. In this respect, Kant followed the lead of Hume and other writers in

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<sup>8</sup> ALBERTI, L.B., *De Re Aedificatoria* (1487). trans. English J. Rykwert, N. Leach, R.Tavernor: *On the Art of Building in ten books*, Cambridge, MIT, 1988, chapter II of book VI.

<sup>9</sup> Show space. December 19, 2017. *THE CASE FOR BEAUTY IN ARCHITECTURE*. <https://www.slowspace.org/beauty-in-architecture/>

<sup>10</sup> STOLNITZ, Jerome. *Aesthetics And Philosophy Of Art Criticism: A Critical Introduction*, Boston, Édition Houghton Mifflin, 1960, p.558



the British sentimentalist tradition (Hume 1757/1985).<sup>11</sup> Therefore, aesthetic judgments could be classified according to their nature into two types judgment of taste and judgment of knowledge (critical), while they may be categorized according to the source of judgment into three modes subjective judgment, objective judgment, and relative judgment.

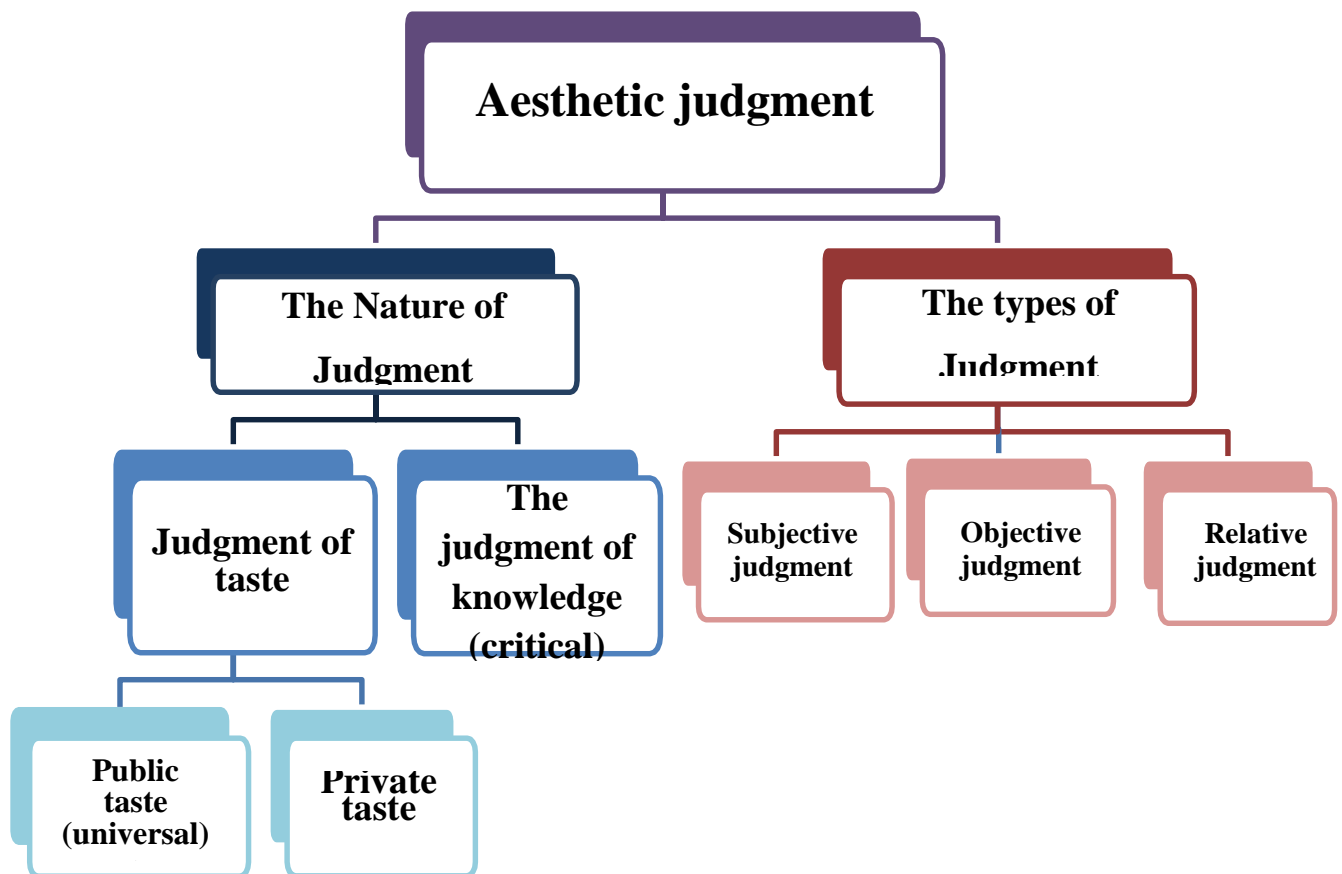


Figure 1: The nature and types of judgment. Source: author.

<sup>11</sup> Nick Zangwill. Aesthetic Judgment. First published Fri Feb 28, 2003; substantive revision Mon Jan 28, 2019. Stanford Encyclopedia of Philosophy. <https://plato.stanford.edu/entries/aesthetic-judgment/>

## **7.1. The Nature of Judgment:**

According to the nature of the judgment, there are two categories firstly the judgment of taste, and secondly the judgment of knowledge or criticism.

### **7.1.1. Judgment of taste:**

Concerning taste and aesthetic judgment, people's critical judgments are different because their tastes are diverse, so "taste" is classified under subjective aesthetic judgments. Thus, a question arises on the beauty of the beautiful and the ugliness of the ugly. Does taste differ because of a reason in the object submitted to judgment or because of a reason in the taste itself?

Philosophers do not contain a direct answer to this question. But some philosophers like Krishnamurti think there are two types of taste here.

#### **7.1.1. A. Public taste (universal):**

This taste varies from one person to another (for several reasons, including variation in tasting skills and aesthetic experience). This taste conforms to public subjective and personal concepts, and judgments here are emotional and relative.

#### **7.1.1. B. Private taste:**

It is the aesthetic taste that judges the pure aesthetic value, linked to the thing, and it obtains the unanimous opinion because it is objective and it adopts the general rules of the art, and the judgments here are rational and absolutes.<sup>12</sup>

### **7.1.2. The judgment of knowledge (critical):**

It is the legitimate judgment that is objective (through analysis). For instance, the study of the music themes, the key, the harmonic construction, and the movements, of the historical context makes it possible to judge the work of art objectively (despite the common objection which consists in saying that to analyze a work is to destroy the pleasure). Very often, the interest in work is born with the analysis. However, art aims to communicate itself by addressing the sensitivity of the individual even if he knows nothing about art.

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<sup>12</sup> KRISHNAMURTI Jiddu, "the taste and appreciation of beauty", Éditions Bartillat, 1998, p.52-53.

## **7.2. The types of judgment:**

Aesthetic judgments contain three main types.<sup>13</sup> They could be summarized as follows:

### **7.2.1. Subjective aesthetic judgments:**

This judgment depends on the essence of determining aesthetic judgments while taking into account individual differences in these judgments. So beauty is not in the object, but in the mind of the recipient (beauty is in the eye of the beholder).

### **7.2.2. Objective aesthetic judgments:**

This category is based on a set of objective criteria and characteristics of the object. If it reaches them, it is beautiful without any participation of the essence.

### **7.2.3 Relative aesthetic judgments:**

This type of judgment is considered a mixture of the two previous types. It benefits from the positive aspects of both at the same time where it is linked to the objective characteristics of the object on the one hand and to the subjectivity of the individual on the other.

## **8. The principles of aesthetic criticism of architecture:**

There are three types of principles on which the critic bases himself in his aesthetic evaluation of an architectural work, which can be summarized as follows:

### **8.1. Principles of subjective aesthetic criticism:**

The judgment here is made on the basis of the experience through which the receiver passes when he aesthetically appreciates a work. The reviewer or judge talks about his own feelings towards this work; when he feels enjoyment, he judges the work as "beautiful", and he judges it as "ugly" when he has no feeling of enjoyment. So subjective aesthetic judgment is based on the attribution of proper qualities in the self and the judging brain to things to judge them as beautiful or ugly.<sup>14</sup>

This judgment is generally based on certain propositions:

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<sup>13</sup> Djelabi. C. A., "Form and Beauty: Formal Properties, Its Measures and the Influence of Its Changes on the Degrees of Aesthetic Response", doctoral thesis, Baghdad, Department of Architecture, University of Technology, 1998, p 21.

<sup>14</sup> STOLNITZ, Jerome. Aesthetics and philosophy of art criticism: a critical introduction, op-cit, p.219.

### **8.1. A. The functional principle (usage):**

This principle concerns the influence of the use or functional value of a work of art on aesthetic value. But some researchers find the feature unnecessary in a judgment of beauty and even that the work can lose its beauty if it becomes functional.<sup>15</sup>

"Architecture is an art that cannot exist without containing a function. Parker sees function as important in the aesthetic perception of artwork and architecture, while Hegel sees function as unimportant in aesthetic judgment and the concept of independent architecture existed before it was functional"<sup>16</sup>

### **8.1. B. The educational principle:**

It is that the beauty of an art work is based on the knowledge and educational profitability that ensures this task. Opinions differ regarding the aesthetics of architecture and the educational role it presents.

### **8.1. C. The moral (ethical) principle:**

It depends on morals and sometimes religion. The aesthetic judgment varies from one person to another. Moreover, in architecture, the aesthetic evaluation from a moral or religious point of view influences the objectivity of the judgment.

### **8.1. D. The historical principle:**

The judgment here is influenced by the emotional feeling and preference of the past and all that is ancient and preferred over all that is modern. And with regard, the architectural evaluation of historical works that date back to certain periods of civilization could be subjective (no matter how fair) to the existence of a pre-sympathy or aversion to this period.

### **7.1. E. The psychic principle:**

This means that the judge's psychic state influences the judgment of work either by attraction or aversion, and it encompasses several theories. The most important is the theory of psychic interdependence where the spirit of the judge will be in the image of the work of art and the distinction between subjectivity and objectivity will disappear. Also, the concept of artistic empathy where the positive emotion "the beautiful" is when there will be enjoyment, and the negative emotion "the ugly" is in the aversion of the self.

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<sup>15</sup> Ismail, Azzeddine, "aesthetic principles in criticism, Presentation, interpretation and comparison", op-cit, p 41.

<sup>16</sup> Chokr, E. A., "theories of aesthetics and its applications on Arab-Islamic architecture", Doctoral thesis, Baghdad, department of architecture, University of Baghdad, 1989, p 15.

### **8.1. F. The social principle:**

The aesthetic value of an artwork is determined through its connection with the subsisting conditions of life, which determines the behavior of society towards works of art. The individual accepts those who interact with his desires (political, economic, ethical, and all social phenomena) and he refuses those that separate him from subsistence life. And for this, the social principle brings together the functional, educational, and ethical criteria because the social theory is broader and links art and life in all its manifestations and consequently the concept of aesthetics expands. And as far as architecture is concerned, the adoption of functional and usable aspects to achieve noble social objectives does not mean that its results must enjoy a high aesthetic value, but it can be quite the opposite.<sup>17</sup>

### **8.2. The principles of objective aesthetic criticism:**

The current judgment (beauty or ugliness) is based on the characteristics of the thing itself, where the beautiful or the ugly appear according to general external concepts of beauty and ugliness, namely the search for the elements of the beauty. Even on the basis that these elements are themselves necessary ends to distinguish it from ordinary things. It is therefore a purely aesthetic basis and it seeks the objective general laws and rules governing the aesthetic relations between these elements that ensure aesthetic pleasure. It combines these elements of two general concepts.

**A - Rhythm:** it includes the system of equality, balance, correlation, and redundancy.

**B - Aesthetic Relations:** it covers the concept of unity in diversity and a set of theories of philosophers such as Hegel and Gestalt theory.<sup>18</sup>

### **8.3. The principles of relative aesthetic criticism:**

It is based on the objective beauty of the form on one side and the inherent beauty in the receiver self on the other side. It is also based on the laws, rules, and principles of formal aesthetics, and represents the compromise between the two previous principles.<sup>19</sup>

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<sup>17</sup> Ismail, Azzeddine, "Aesthetic Principles in Criticism, Presentation, Interpretation, and Comparison". op-cit, p 92-96.

<sup>18</sup> Ismail, Azzeddine, "Aesthetic Principles in Criticism, Presentation, Interpretation, and Comparison", Baghdad, Edition A.C.G, Ministry of Culture, 1 986, p 113.

<sup>19</sup> Johnson, Paul-Alan. "THE THEORY OF ARCHITECTURE, Concepts, Theme, and Practices", New York, Edition Van Nostrand Reinhold, 1993, p402.



- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| A. The functional principle (usage) | the laws                             |
| B. The educational principle        | the rules                            |
| C. The moral (ethical) principle    | the principles of formal aesthetics. |
| D. The historical principle         |                                      |
| E. The psychic principle            |                                      |
| F. The social principle             |                                      |

Figure 2: Types of principles of aesthetic criticism in architecture. Source. Author.

## **9. Conclusion:**

It could be drawn from this chapter that there are many kinds of values that could apply nowadays since there are no clear instructions and orientations especially when it comes to aesthetic judgments. However, the sensations and particular aesthetics that the element or an object gives to the human mind are mostly considered. In architecture, architectural aesthetics can be divided into two:

1. Formal aesthetic: this is what results from the relationships between the components of the form that can be summarized in the following laws and principles: unity and homogeneity, variety and contrast, balance, rhythm, proportion and scale, meter and regulating line, and simplicity and complexity.
2. Symbolic aesthetic: it is that which links a component or an architectural element to a specific idea or representation.

Concerning the aesthetic judgment in general, there are two natures of judgment the judgment of taste which is based on subjectivity, and the judgment of (critical) knowledge. In addition, there are three main types of aesthetic judgment (subjective, objective, and relative) that depend on the source of aesthetic emotion. The criticism of architectural aesthetics is based on a number of principles that can also be classified according to three types (subjective, objective, and relative). Finally, these judgments and their concepts would give us the measure of concretization of the aesthetic side of work whether it is beautiful, unattractive, or sublime according to the criteria and general rules.

## ***CHAPTER III***

### **1. Introduction:**

This chapter shows architectural elements of the visual components that are mostly used where these concepts have a relationship with Islamic architecture and could define the building details such as the mosque. In addition, there will be a brief description of multiple notions such as Islamic architecture and its classifications based on models and quotes from authors. Therefore, this will give an understanding of the characteristics of aesthetic values and judgments like the mosques.

### **2. General overview of the definition and style of Islamic Architecture:**

Islamic architecture refers to a style of architecture that was created as a physical manifestation of the principles of Islam by the Mohammedans (people of Islamic faith) in the 7th century, a tradition that continues to the present day. The building that is most frequently associated with Islamic architecture is the mosque or Muslim place of worship.

However, Islamic architecture encompasses both secular and religious buildings, including everything from large-scale mosques, fortresses, palaces, tombs, and public buildings such as schools to smaller-scale structures including fountains, public baths, and domestic structures. In addition, some characteristics of Islamic architecture were inherited from the pre-Islamic architecture of that region while some characteristics like minarets, muqarnas, arabesque, Islamic geometric motifs, pointed arch, multifoil arch, onion dome, and pointed dome developed later. However, early Islamic architecture was influenced by existing styles such as Roman, Byzantine, and Persian architecture. As Islamic architecture spread from the Middle East throughout the world, specifically to places such as Asia, it was influenced by Chinese and Mughal architecture.

Islamic architecture in parts of Europe is a version of Islamic architecture that was developed by the North African Muslims who conquered the Iberian Peninsula and many surrounding Western Mediterranean islands and developed the style over hundreds of years of reign. Many prominent examples of this style can be found in Spain. In the mid-19th century,



a revival movement included the work of Catalan architect Antoni Gaudí, whose work was highly influenced by the Islamic style in Spain.<sup>20</sup>

### **3. Islamic Heritage architecture -classifications and types-**

Islamic ornament is the use of decorative patterns in Islamic art. They can be broadly divided into:

**A- The arabesque** uses curving plant-based elements.

**B- The geometric patterns** with straight lines or regular curves.

**C- The calligraphy**, consists of religious texts with a stylized appearance, and it is used both decoratively and to convey meaning. However, all three often involve elaborate interlacing. The three types of ornament are often used together. In addition, Islamic decoration contains a significant influence on European decorative art forms, especially Western arabesque.<sup>21</sup>

**There are many classifications and types of Islamic decoration, but the most prominent are as follows: Geometric decoration, plant decoration, animal motifs/decoration, and finally written decoration.**

**3. 1. Geometric patterns:** They depend mainly on geometric drawing according to mathematical and geometric rules, and they are formed from drawings and various geometric shapes. In addition, the geometric shapes in which the geometric motifs are drawn are the circle or oval ellipse, as well as the square and rectangle, as well as the triangle, polygon, star shapes, and helix. In the past, the painter used a ruler, a leg or a pergola (a tool for drawing circles), a protractor (a tool for measuring angles), and a notebook for squares, to be able to easily draw geometric decorations.<sup>22</sup>

**3. 2. The plant decoration:** depends on quoting their form from plants and their components of leaves, stems, stems, and buds, and their interweaving and branching.

The art of plant decoration is called by some specialists the art of securitization because it depends on drawing modified leaves as a recurring basis in the plant decorative unit.

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<sup>20</sup> KRISTIN HOHENADEL. Updated on 02/04/22. What Is Islamic Architecture? <https://www.thespruce.com/what-is-islamic-architecture-5120474>

<sup>21</sup> Bouaissa, Malikka .27 July 2013. "The crucial role of geometry in Islamic art". Al Arte Magazine.

<sup>22</sup> NIMIRA DEWJI. July 8, 2016. Geometric patterns in Islamic art emphasized unity and order. <https://ismailmail.blog/2016/07/08/geometric-patterns-in-islamic-art-emphasised-unity-and-order/>



Figure 3: Images if the plant decoration 06.05.2022. <https://www.eskchat.com/article-16460.html>

**3. 3. Animal motifs/decoration:** was not used much in Islamic civilization, and it relies in its form on the form of animals and birds to express situations or provide symbolism to express courage, struggle, or strength.



Figure 4: Images if the Animal motifs/decoration examples 06.05.2022.  
<https://www.eskchat.com/article-16460.html>

**3. 4. The written decoration** was associated with the Kufic calligraphy in particular because the Kufic calligraphy depends on its writing on straight lines and circles with some modification. IT are the decorations resulting from the overlapping of Arabic letters according

to the rules that govern the type of calligraphy, and Muslims have been very creative in this color of written decoration.<sup>23</sup>



Figure 5: Tiles with some calligraphy in the courtyard of the Süleymaniye Mosque in Istanbul (Turkey). . 06.05.2022. <https://www.eskchat.com/article-16460.html>

#### **4. Islamic decorations shapes:**

The four basic shapes from which the more complicated geometric patterns are constructed are **circles, squares, or four-sided polygons, the star pattern derived from squares and triangles inscribed in a circle, and the multi-sided polygons**. Although the sources for both the shapes and the intricate patterns already existed in late antiquity among the Greeks, Romans, and Sasanians in Iran, geometric ornamentation reached a pinnacle in the Islamic world.

The circle – which has no beginning and no end and thus symbolizes infinity – was considered to be the perfect geometric form; therefore, in mosques, where a wealth of the geometric patterns can be found, one could contemplate the infinite nature of God simply by looking at the walls or the ceilings. However, the complex patterns found on many objects comprise a number of different shapes and arrangements, allowing them to fit into more than one category.<sup>24</sup>

<sup>23</sup> Types of Islamic decorations. June 12, 2022. <https://www.eskchat.com/article-16460.html>

<sup>24</sup> <https://ismailmail.blog/2016/07/08/geometric-patterns-in-islamic-art-emphasised-unity-and-order/>

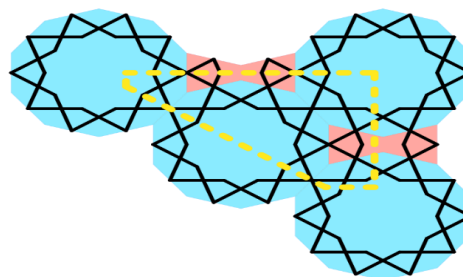
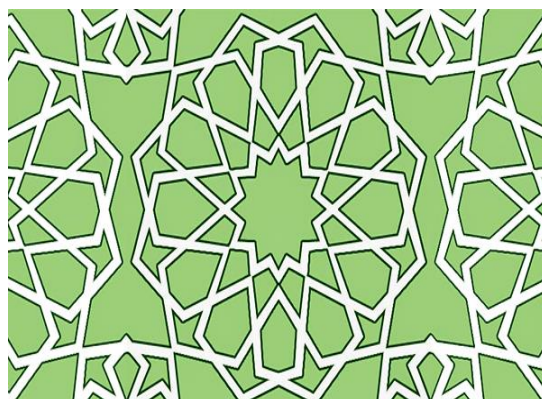


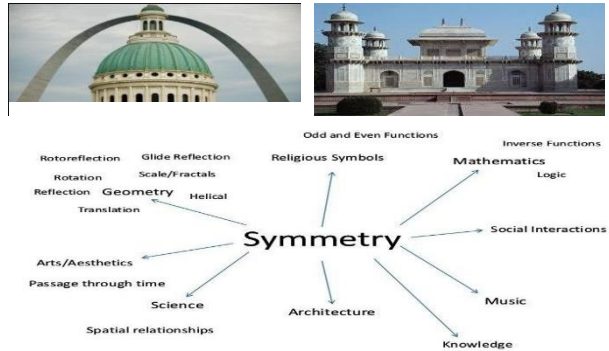
Figure 6: Images show the Shapes of some Geometric decorations. 06.05.2022.  
<https://www.eskchat.com/article-16460.html>



## **5. The architectural elements of the visual composition:**

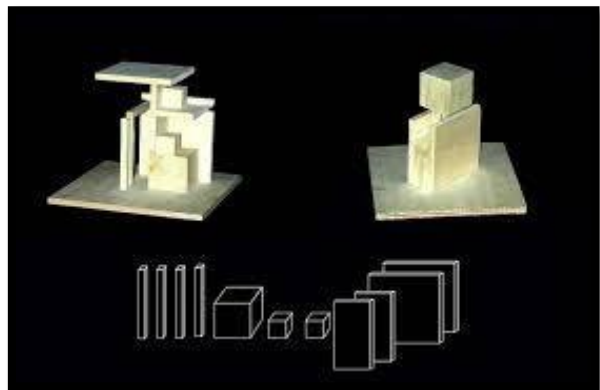
There are several principles of visual compositions used in architecture design. These principles are very common in Islamic architecture. Therefore, here are some important key points that would give a brief explanation of these concepts that would be used for the assessment of the mosque elements in the next chapter.

**Symmetry:** It reflects shared forms angles across a central line or points called the axis. Basically, components that mirror each other across an axis are symmetrical.



**Figure 7: Image showing the symmetry**

**Mass and space:** A state in which various form a satisfying and harmonious complete and nothing is out of proportion or unduly emphasized at the expense of the rest.



**Figure 8: Image showing visual Mass and spaces**

**Proportion:** is the relationship of one object to another or one part of an object to its other parts of the entire. Also, the proportion does not rely on a known size.

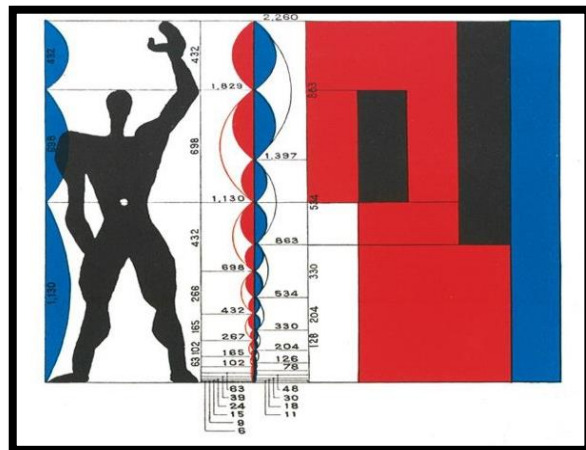


Figure 9 Le Corbusier - The Modular Man

**Balance:** It could be defined as the concept of visual equilibrium. Similar to our physical sense of balance, like attempting to stand on a ball, opposing forces within a composition generate visual stability.



Figure 10: Image showing the balance concept.

**Rhythm:** It is the repetitive use of one or more design elements to generate a sense of organized movement. This leads the eye to follow a visual link across the space.



Figure 11 Image showing the rhythm

**Contrast:** It is the difference between objects in a composition, usually from varying sizes, textures, colors, positions, shapes, and orientations. This principle can create a feeling of depth within two or three-dimensional compositions.



**Figure 12: Image showing the contrast**

**Unity:** It is the relationship among the elements of a visual that helps all the elements function together. Unity gives a sense of oneness to a visual image. In other words, the words and the images work together to create meaning.



**Figure 13: Image showing the unity**

**Repetition:** It is the implementation of the same colors, elements, etc. throughout the design. The principle can be used to create a pattern or repetition of an object or symbol in an art piece.



**Figure 14: Image showing the rhythm**

**Decoration:** It is something that is added to a building or any other structure to improve its aesthetical value and appearance for example light effects, some ornaments, colors, etc, and this type is very popular in Islamic architecture.<sup>25</sup>



**Figure 15: Use of aesthetics as decorative elements**

## **6. Conclusion:**

The architectural elements of the visual composition contain several diverse categories as has been seen in this chapter. However, these concepts have been used a long time ago and they could always be developed further by new designs, technologies, cultures, etc.

Moreover, Islamic architecture was a significant object in this chapter while, it is a centuries-old category of architecture that is rooted in the principles of Islam. The striking sculptural forms and often dazzling ornamental detail that characterizes Islamic buildings include some of the most awe-inspiring built structures on Earth. However, Islamic architecture is a vast domain that contains many types and classifications, and it has a remarkable influence on western societies' architecture as well.

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<sup>25</sup> Architecture Composition. 25.06.2022. <https://www.archisoup.com/architecture-composition>.



# Chapter IV

## **1. Introduction:**

This chapter will focus on the evaluation of the aesthetic value of the great mosque of Nédroma, where this case study is a representative example of a religious building not only in the region of Tlemcen but in all of Algeria, inherited from the period Almoravid and subsequently experienced a large number of extension and renovation operations. It is mainly a question of objectively evaluating the aesthetic value of the monument that was classified as a historical monument in 1912. The assessment will be based on the criteria defined in the previous chapters of the case study.

In order to analyze the great mosque of Nédroma and address its aesthetic aspects, I did an analytical approach which consists in analyzing the monument in two parts: the exterior composition and the interior composition. Each one will be analyzed by adopting the most complete and effective method of formal analysis. However, before starting the analysis, it was relevant to give a historical overview of the city of Nédroma and the foundation of its great mosque. Moreover, an architectural description of the mosque to understand the morphology of the building and to determine the different elements of its composition.

## **2. History and location of the city of Nédroma:**

Algeria formally known as the People's Democratic Republic of Algeria is an independent state located in North Africa on the Mediterranean coast. Its capital city is Algiers and is located in the northern region of the country. It is the largest country in Africa and the tenth-largest in the globe.<sup>26</sup> The current population of Algeria is around 45 million.<sup>27</sup> The architecture of Algeria encompasses a diverse history influenced by a number of internal and external forces, including the Roman Empire, Muslim conquest of the Maghreb, French colonization, and movements for Algerian independence.<sup>28</sup> In addition, Algeria is divided into 58 wilayas (provinces), since December 18, 2019. Among these provinces is Tlemcen which is a cultural area that contains the Great Mosque in the city of Nédroma.<sup>29</sup>

The city of Nédroma was built on the reverse side of Jebel Filaoussene by the great Kalif Abdelmoumen Ben Ali in 1150 on the ruins of a Berber city. It welcomed many Andalusian immigrants driven out by the Reconquista (Spanish women). It became an important textile center in the 16th century.

It is a town staged on the flanks of the djebel Filaoussène between 400 and 500 m of altitude on a green site watered by important water sources where the blue, white, green, and brown houses form an enchanting setting. This city has kept its medieval appearance as a city of Western Islam well, within the center-west, dominating the surrounding houses from above, the minaret of the Great Mosque. A small square "Tarbiâa or rectangle" - around which open an old Moorish bath, an annex of the mosque, and the souks, whose narrow streets end there - gives a little air to this religious building and this district center which also took the name of Tarbiâa: "district of Tarbiâa". Other smaller mosques and other oratories are found in various parts of the city; but one hardly distinguishes them from the other houses, because they have no minaret or only a very low minaret, barely dominating the mosque.

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<sup>26</sup> A Short History of Algeria. 07-2022. <https://www.studycountry.com/guide/DZ-history.htm>

<sup>27</sup> Algeria Population. 07-2022. <https://www.worldometers.info/world-population/algeria-population/>

<sup>28</sup> Kobis, Rafat (2018-01-20). "al-Madīnah or la ville? An architectural & urban "clash of civilizations" – the example of the city of Algiers"

<sup>29</sup> "Journal Officiel Algérie - [www.joradp.dz](http://www.joradp.dz). December 18, 2019. pp. 12–15.



Figure 16: Location of Tlemcen and to the town of Nédroma. Gilbert GRANDGUILLAUME. 15/11/2011.<https://che1951.skyrock.com/>



Figure 17: Nédroma, view from the West after the drawing by Dr. V.erdalle.Source: <http://en.wikipedia.org/wiki/File:Nedromapanorama.jpg>

### **3. The great mosque location and creation:**

Great Mosque (Arabic: الجامع الكبير) or the Great Mosque of Nedroma (Arabic: الجامع الكبير بندرومة) is a historic mosque in the city of Nedroma, about 77km from Tlemcen, Algeria. The mosque was founded in 1145 and contains the earliest surviving Almoravid minbar.

The great mosque of Nédroma is located in the center of Medina, precisely in the heart of a district called Tarbiâa<sup>1</sup>. The district represents the economic and social center of the medina from which several roads and alleys diverge which lead to the gates of the city.

There are four main areas around the Grand Mosque:

In the north-west the district of Ahl Es-Souk, in the north-east the district of El-Kharba, in the south-east the district of Beni Zid, and in the south-west the district of Beni Affane .And close to the great mosque, there is directly behind the mosque on the northeast side a bath "Hammam El-Bali" with an old bakery and old houses that surround it.<sup>30</sup>

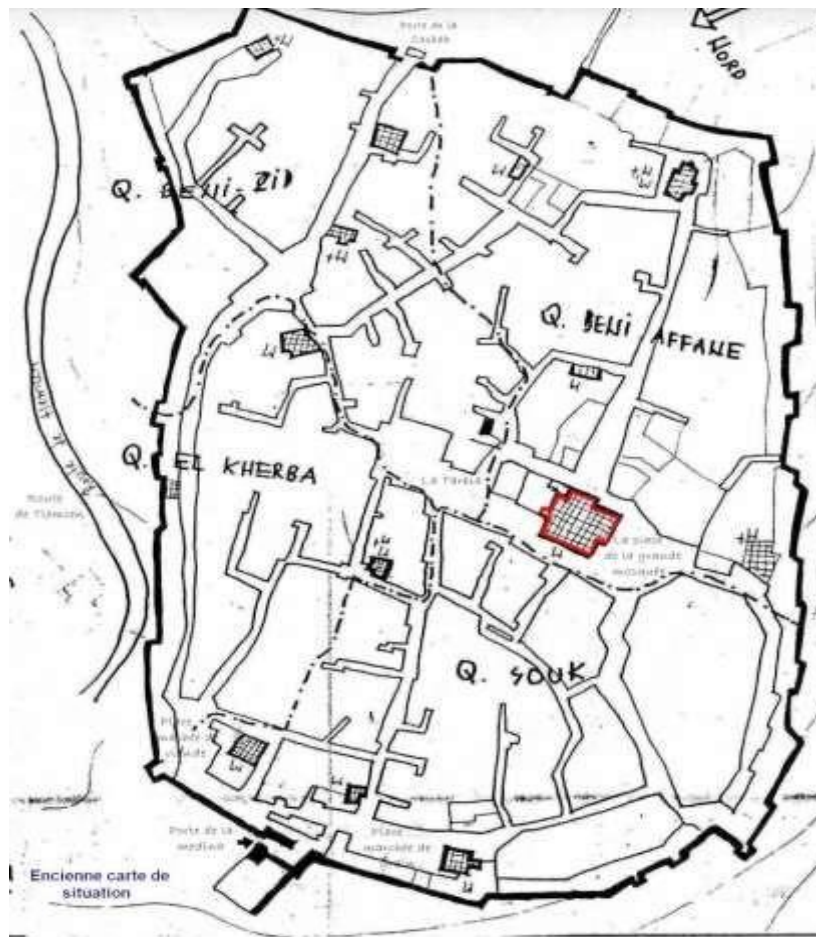


Figure 18: Map location of the Great Mosque in the medina. Source: A.P.C Nédroma Archive.

<sup>30</sup> Museum with no Frontiers. Retrieved January 9, 2018.

#### **4. The great Mosque Architecture:**

The mosque as with the other Almoravid religious buildings of the same era follows a similar construction plan. The plan consists of a rectangular sahn <sup>31</sup> in the middle surrounded by walls and a nave perpendicular to the qibla wall. The prayer hall contains nine naves distributed to the south of the central nave. Three naves are connected to the short side of the sahn and form a gallery. The longest side of the sahn runs parallel with the qibla wall and the gallery encloses it.

The mosque is consisting of rectangular shaped and is covered with a roof of tiled slopes which are parallel to one another. The central roof is slightly wider and ends with a cross vault above the mihrab. The horseshoe arch rests on the pillars which divide the naves. The mihrab does not contain any decorations. The minaret did not exist initially and was added later in 1348 according to the scripture available inside the prayer hall.<sup>32</sup>

#### **5. The architectural description of the mosque:**

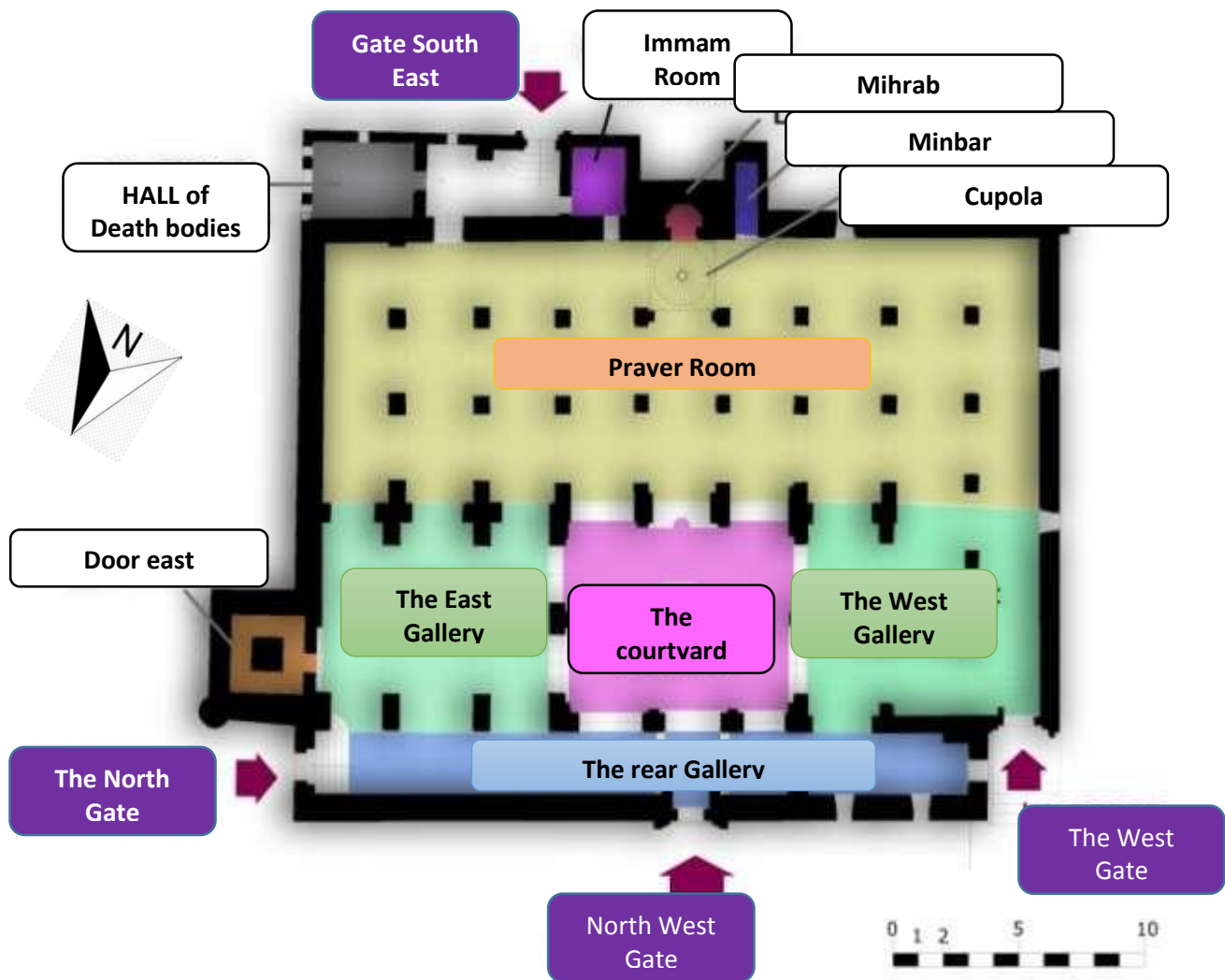
The Great Mosque of Nédroma also has a rectangular shape with a width of 30.14m and a depth of 18.75m. However, the rectangular form is very popular in Algerian mosques.

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<sup>31</sup> A sahn ( Arabic word ) is a courtyard in Islamic architecture, especially the formal courtyard of a mosque

<sup>32</sup> Museum with no Frontiers. Retrieved January 9, 2018.

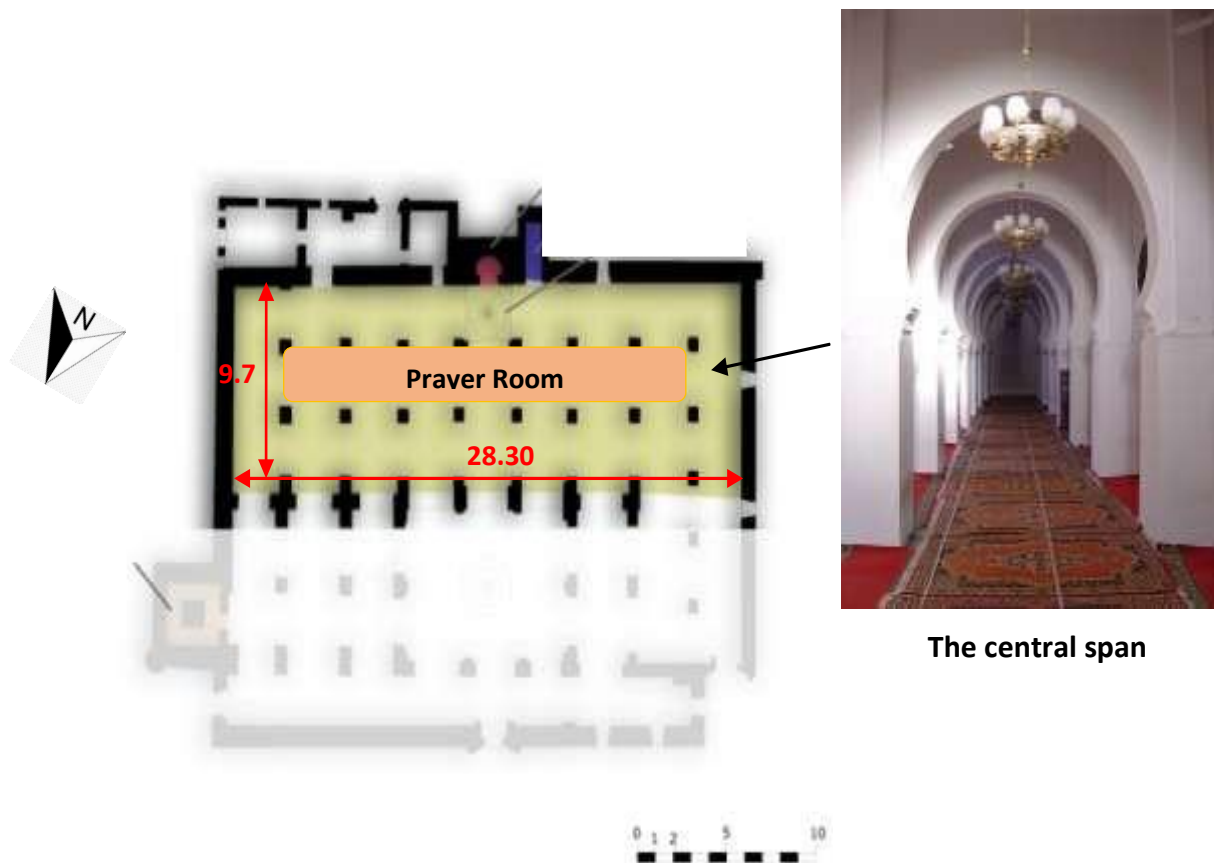




**Figure 19; the plan of the great mosque.**

### **5. 1. The prayer room:**

The prayer hall occupies the southern part of the mosque. It has a rectangular form of 28.30m wide and 9.70m deep and composes an area of 274.51 m<sup>2</sup>. Furthermore, it consists of nine naves perpendicular to the wall of the Qibla supported by eight rows of pillars. However, the central nave is wider than the other naves at 2.63m, while the others do not exceed 2.53m.



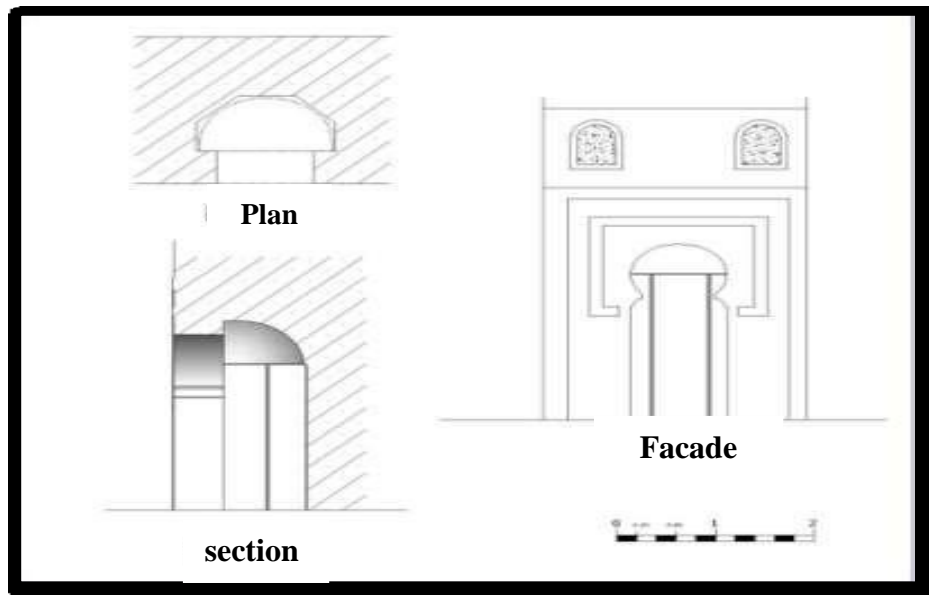
**Figure 20: plan of the prayer hall.**

### **5. 1. 1. The Mihrab:**

The second element related to the Koranic word is a simple concave niche, dug in the wall of the qibla <sup>33</sup>, precisely in the middle to indicate the qibla direction. In addition, The Mihrab was built with the same material as the wall, its form is an almost semi-circular niche that penetrates the wall of the Qibla on the axis of the central nave, and its facade is having a horseshoe arch form without any ornamentation except for its interior corners that are decorated with simple geometric shapes in green color, the lower part of the Mihrab takes the form of a pentagon while the upper part is curvilinear surmounted by a small dome, the two parts are separated by a small cornice of green Zlij tiles, it surmounts the wall of the Mihrab two false skylights one on the left and the other on the right.<sup>34</sup>

<sup>33</sup> The qibla (Arabic word) is the direction towards the Kaaba in the Sacred Mosque in Mecca - Saudi Arabia-.

<sup>34</sup> Lucien Golvin, Essay on Muslim religious architecture, T1, Generalities, KLINKSIECK Edition, 1970, p66.



**Figure 21: plan, section, and facade of the mihrab.**



**Figure 22: the central nave and the mihrab.**



**Figure 23: the arc of the mihrab.**



### 5. 1. 2. The Minbar:

The Minbar is an element of the oral transmission (teaching in the broad sense) for the discourse (khutba) <sup>35</sup>on Friday. The first minbar was a wooden stool that was made by the prophet to serve as a pulpit for preaching.

The original Minbar of the Great Mosque of Nedroma is in the form of steps leading to a pulpit with a backrest. It remained standing until 1889 according to C. de Mauprix<sup>2</sup>, while the backrest and cheeks currently remain in the Algiers Antiquities Museum. <sup>36</sup>



**Figure 24: the back side of the minbar of the great mosque of Nédroma. Source:**  
<http://www.musee-antiquites.art.dz>.

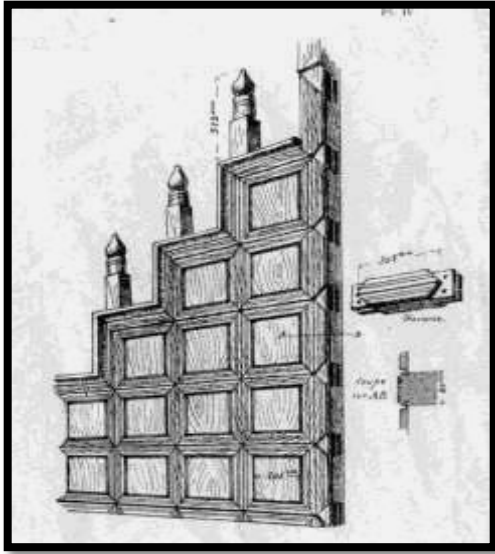
### 5. 1. 3. Minbar pulpit

As G. Marçais<sup>1</sup> points out, each of them consists of a sturdy frame, made up of uprights and crosspieces fitted at right angles, the spaces of which are filled with square panels as in the pulpits of the Umayyad Mosque in Medina and the Andalusian mosque in Fez.

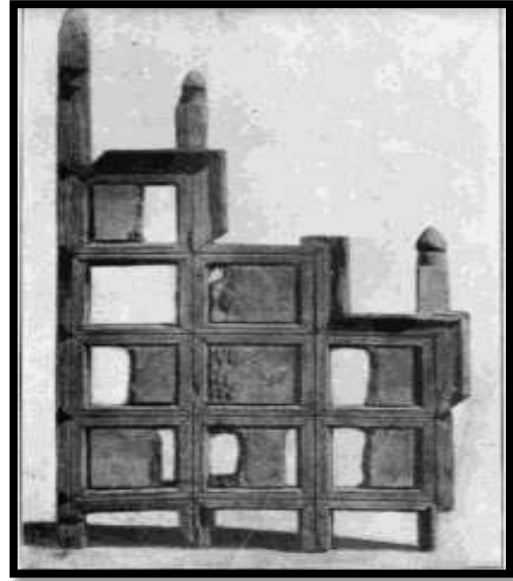
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<sup>35</sup> Khutbah (Arabic word) serves as the primary formal occasion for public preaching in the Islamic tradition

<sup>36</sup> BOUROUIBA R., Muslim Religious Art In Algeria, Algiers, Edition ENAG, 2011, p122.



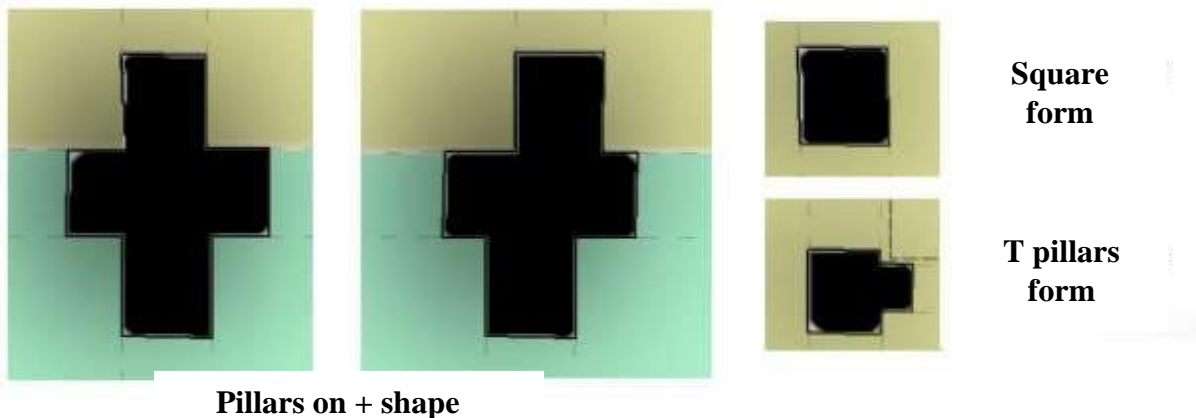
**Figure 25: The drawing restores the minbar of the great mosque. Source: MARÇAIS G. “The pulpit of the great mosque of Nédroma”, op-cit.**



**Figure 26: the rest of the pulpit of the minbar found by Mauprix. Source: MARÇAIS G.**

#### **5. 1. 4. The pillars:**

These architectural elements are very significant for the realization of large buildings, including mosques. Their first roles are to support the load of the ceilings and the reinforcement of the walls, they were also used to support the arches, they are generally ornamented which is not the case for the mosque of Nédroma. As we also notice the absence of columns in this mosque where all the posts are in the form of pillars. Furthermore, most of the pillars contain a square form (75cm x 70cm), while the rectangular pillars do not exceed three. In addition, there are irregular-shaped pillars, (+) shaped in the third row of the prayer hall and (T) shaped in the central nave directly before the Mihrab. The total number of pillars in the great mosque of Nédroma is thirty-seven (37), the prayer hall consists of twenty-four pillars divided into eight pillars by three rows.



**Figure 27: the shapes of the pillars in the great mosque of Nédroma.**



**Figure 28: A (T) shaped pillar in the prayer hall**

### **5. 1. 5. The arches:**

The arch is an important element in Islamic architecture and there are several types of arch. However, there is only one type of dominating arch in the entire mosque, which is the pointed horseshoe arch with the exception of a semicircular horseshoe arch in the north facade of the courtyard and the arch of the mihrab.



**Figure 29: the arches of the north facade of the courtyard.**

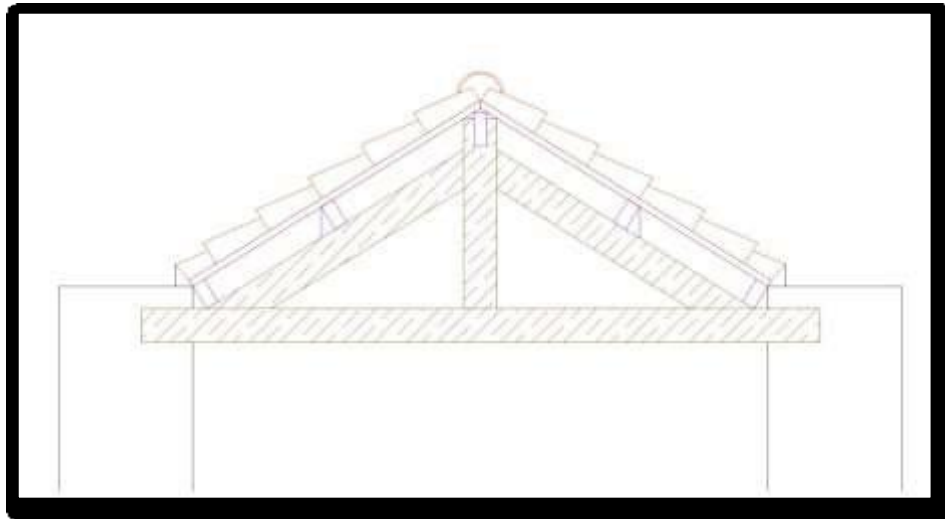


**Figure 30: the arches of the first span.**

### **5. 1. 6. The roofs and domes:**

The great mosque of Nédroma is covered by a roof in the form of a salient triangle with a rectangular base covered with Moorish tiles.

Moreover, the roof is supported by a primitive wooden framework composed of five purlins and simple trusses and it contains two crossbowmen and a central punch joined by a simple tie-beam that rests directly on the walls.



**Figure 31: Details of the framework.**

**Regarding the cupolas, there are two cupolas in the mosque of Nédroma:**

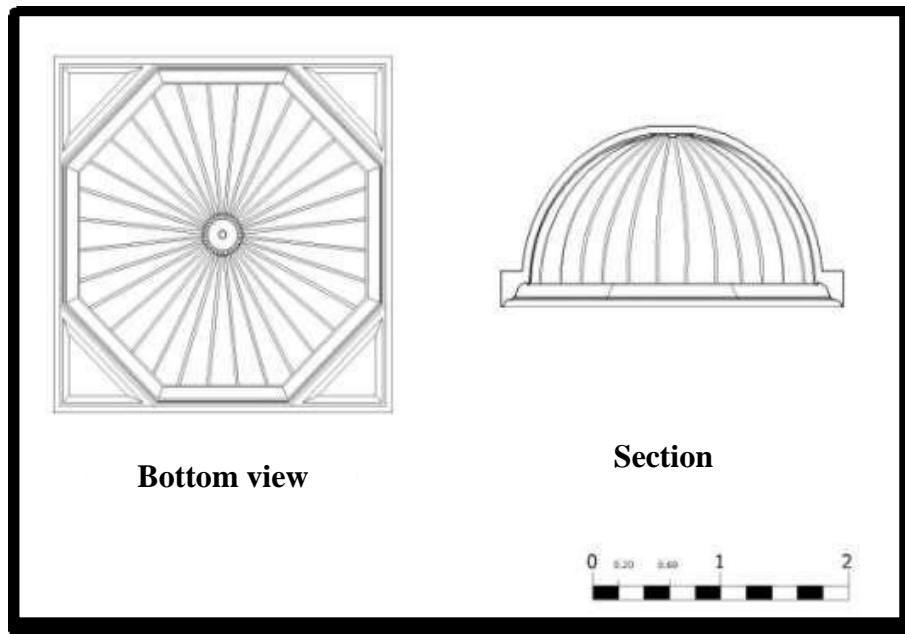
#### **5. 1. 6. 1. The dome in front of the Mihrab:**

It should be noted that it does not represent the original dome of the mosque and it is a dome that was rebuilt in the restoration operation in 2002, based on the probability of the existence of a dome that was in front of the mihrab and which may have been removed with the roof repair operation in 1970. Due to the lack of data on its original shape, the design office took as a model the dome of the mosque of Sidi Brahim in Tlemcen in Algeria.

This dome is made up of three parts:

- The first part is in the form of a square space, and it is the frame that contains the dome.
- The second part is having an octagon from inside the square, while it is the transitional part between the square and the circular shape of the dome. The octagon generates four corners in the form of a triangle.

-The third part has a half-spherical shape constructed by plaster and it is decorated by thirty-two linear protrusions that converge towards the center and thirty-two pieces of green mosaic that are organized in the shape of a star to form the core of the dome.



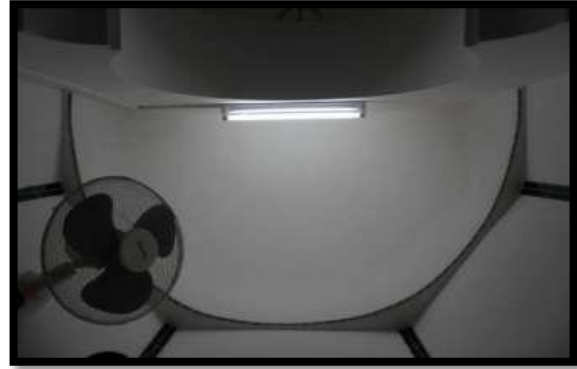
**Figure 32: section and bottom view of the cupola.**



**Figure 33: photo from below the dome with the chandelier.**

### 5. 1.6. 2.The dome of the Mihrab:

The Mihrab has an octagonal base. However, it does not contain any decorative elements.



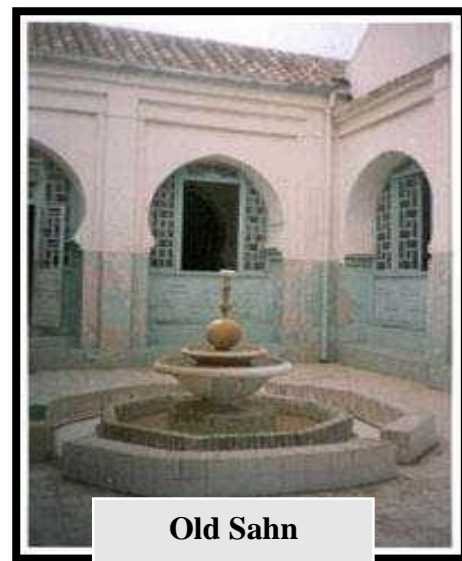
**Figure 34: The dome of the Mihrab**

### 5. 2. The courtyard (Sahn):

It is an open space that is usually found in the middle of the mosque and linked with the prayer hall and the galleries. The courtyard of the Nédroma mosque has a rectangular shape of about 9.10m in length and 7.24m in width. The floor of the courtyard is covered by white and gray marble like most courtyards in mosques, and in the center of the courtyard, there is a fountain inside an octagonal basin for ablution, while it is made of the same material as the floor covering. In addition, the courtyard is surrounded by three broken horseshoe arches on the south side that separate it from the prayer hall, on the east and west side, two broken horseshoe arches on each side while on the north side there are two broken horseshoe arches and a semicircular horseshoe arch that is open onto a longitudinal gallery which represents the rear of the mosque.

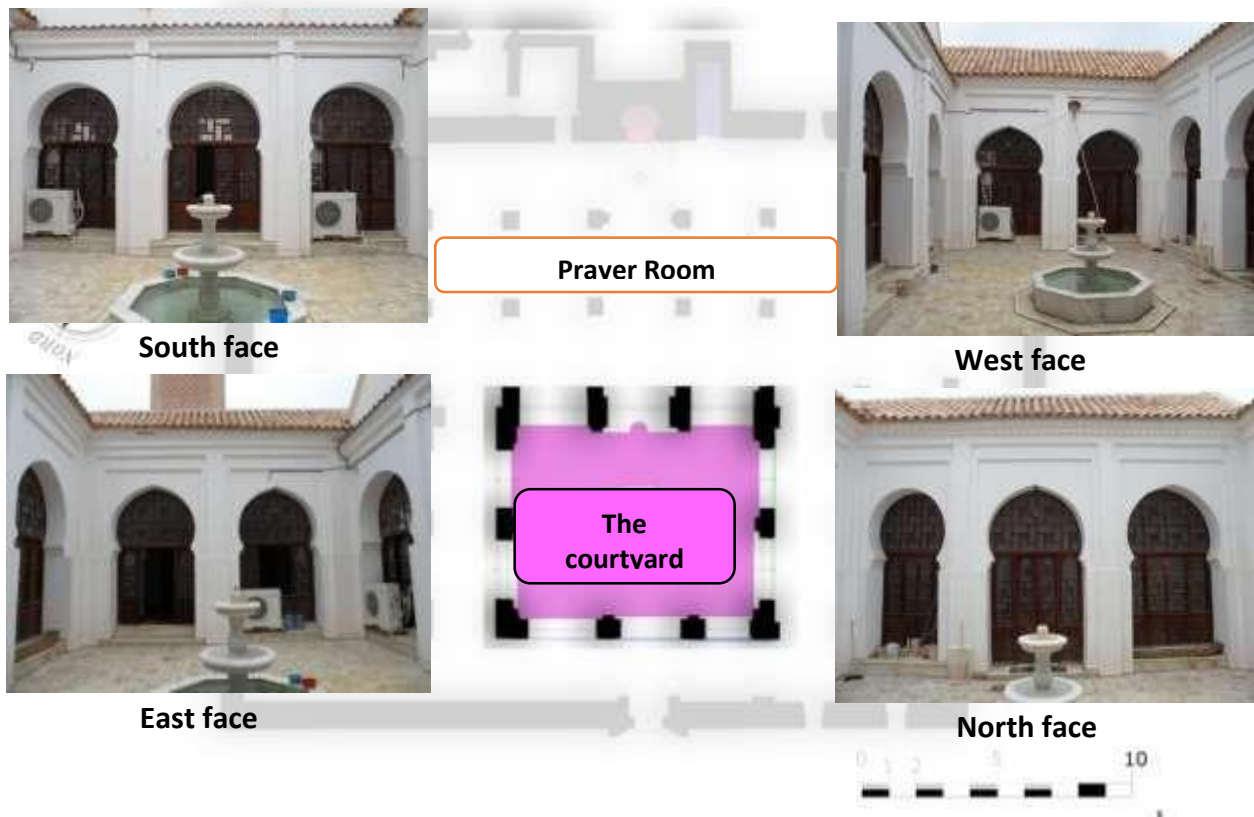


**Figure 35: the courtyard fountain.**



**Figure 36: the position of the fountain before the restoration of the mosque.**





**Figure 37: the plan of the courtyard with its different faces.**

### **5. 3. The galleries:**

#### **5. 3. 1. The side galleries:**

There are two side galleries in the mosque of Nédroma, one on the east side and another on the west side, they represent the extension of the six side naves of the prayer hall. The eastern gallery extends to the wall of the northern facade of the mosque with three bays while the western gallery expands to the northwest door and space which was fitted out as a prayer hall for women with only two spans. The two galleries are open to the courtyard by two broken arches.



**Figure 38: view of the east gallery.**

### 5. 3. 2. The rear gallery:

It is a longitudinal gallery extending over the north facade's entire length. The north door divides it into two parts, the west part was made as small prayer rooms for women before the last restoration operation.



Figure 39: view of the rear gallery.

## 5. 4. The Minaret:

The minaret is one of the most important architectural elements in the mosque, it is usually a high tower rising above all other buildings. Its purpose was once to provide a high point for the muezzin for the call to prayer (adhan).<sup>37</sup>

The minaret of the great mosque of Nédroma is considered the last minaret that was built during the reign of Beni Abdel-oued, and it was constructed back in 1348/749H as mentioned in the epigraph engraved on a marble table of 0.40 m wide and 0.48 high, it is embedded in the northeast wall of the mosque to the right of the minaret door. Moreover, the epigraph stated that the minaret was funded by the people of Nedroma and built by Muhammed Al-Shisi in fifty days.

**5. 4. 1. The location:** The minaret is placed in the northeast corner. This characteristic of placing the minaret in the northeast corner imitates the Almohads<sup>38</sup>. They had put them in the northeast corner of the Kutubiya, the Qasba, and Seville mosques.

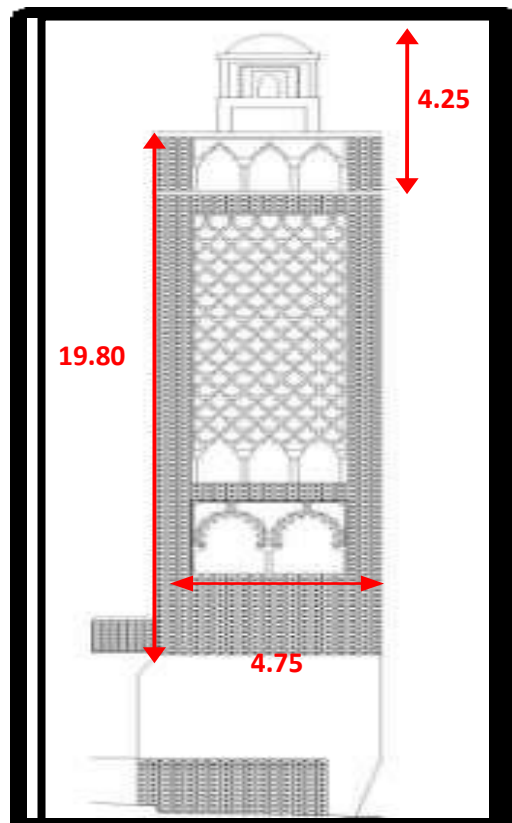
**5. 4. 2. The design:** The minaret has a two-storey quadrangular shape; a tower and a lantern. The tower has approximately 4.75 m wide and 19.80 m in height, keeping the exact dimensions of all the heights. The terrace is accessible by a staircase of 99 risers which turn on a central core, while the lantern has a height of 4.25m and a square base of 2.05 m sides.<sup>39</sup>

<sup>37</sup> It is traditionally called in Arabic five times a day to the muezzin's call to communal prayer.

<sup>38</sup> People who profess the unity of God.

<sup>39</sup> Salah BEN GARBA, The Andalusian-Maghrebin Minaret In The Middle Ages, Algiers, SNAI edition, 1986, p86.





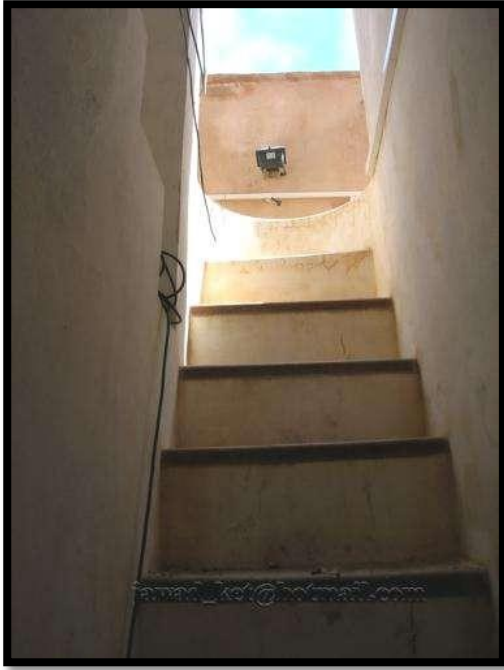
**Figure 40: the silhouette of the minaret.**

#### **5. 4. 3. The structure:**

The platform of the minaret is accessed by means of a staircase that turns around the central core. These stairs are covered with creeping cradles framed by two groined vaults (figure 84).

Interior dimensions and number of steps:

- Interior side 2.78m.
- Side of the central core 1.26m.
- The Total number of steps is 102 (99 without counting the three access steps).
- Number of steps per end 5 except the first end which has only four.
- Width of steps 0. 82 m.



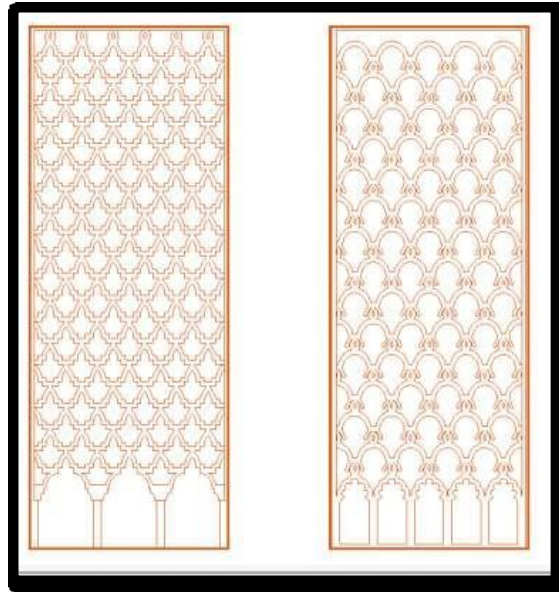
**Figure 41: steps and access to the minaret terrace. Figure 42: the creeping ridge vaults covering the staircase.**

**5. 4 .4. The decoration:** The minaret is like all Zianid minarets and those built by the Almohades, decorated on all sides. With small, very narrow openings, in the form of loopholes.

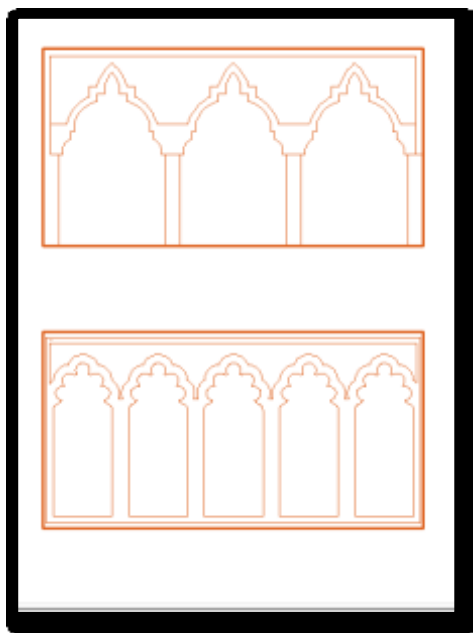
#### **The decoration of the main tower.**

The tower facade is decorated with diamond-patterned panels, characteristic of all Zianid minarets and used for the first time by the Almohads in the lantern of the Kutubiyya in Marrakech.

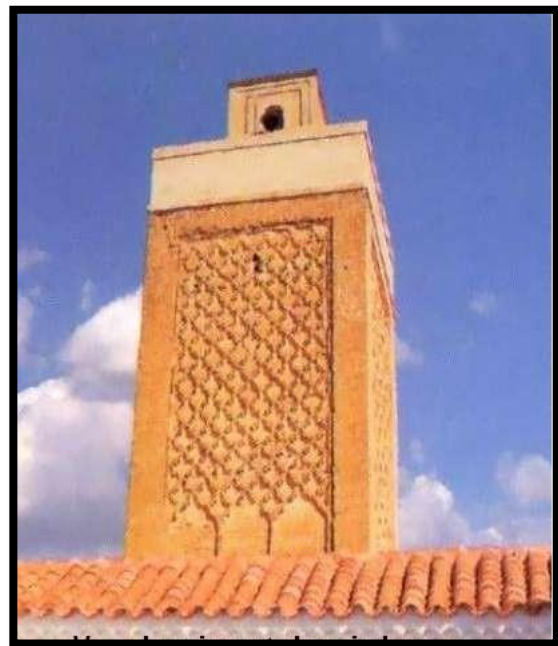
The particularity that is found in the minaret of the great mosque of Nédroma is that the decoration of the east and west tower facades is different from that of the north and south faces. And each of its faces is adorned with three panels.



**Figure 43: the ornamentation of the diamond panel in the four facades.**



**Figure 44: the two types of the top panel.**



**Figure 45: view of the minaret before its Restoration Source: El-Mouahidia Association.**

#### 5. 4. 5. Lantern decoration

The lantern is decorated with a broken horseshoe arch inscribed in a rectangular panel. The latter is framed by a frieze of green earthenware mosaic that descends to the lower level of the arch. It is surmounted by a green earthenware cornice. This decoration is the same on all sides of the lantern. In addition, the lantern is topped with a cupola without a finial. It should be noted that the decoration of the lantern before the 2002 restoration operation was in the form of smooth faces pierced by a semicircular arch on all sides.



**Figure 46: view of the lantern.**

**5. 5. The doors and access:** The great mosque of Nédroma has four access doors of different sizes and shapes.

##### 5. 5. 1. The northwest gate:

It is the main door placed on the axis of the mihrab and it is in the form of a pointed arch, 1.20 m wide. It is framed from the outside by a round horseshoe arch while the latter was inscribed in three recessed rectangles, and the whole is topped by bands and fourteen corbels covered with tile. The exterior framing assembly is made of relatively new solid brick and finally, the door was restored during the restoration operation in 2002.



**Figure 47: The northwest gate**

### 5. 5. 2. The North gate:

It is on the right of the minaret, it is in the form of a pointed arch and is more closed than the other arches with a width of 1.08 m. In addition, it is framed from the outside by two half-columns on both sides which start from the level of the fallout of the arch and it is capped by headbands covered with the tile.



Figure 48: The north gate

### 4.5.3. West Gate:

It was known as the Women's Gate, it is also in the form of a pointed horseshoe arch framed from the outside by another larger pointed arch.



Figure 49: The west gate

### 5. 5. 4. The southeast gate:

It is known as the Imam's Gate. It is quite simple compared to the other doors in terms of ornamentation, while it contains only a pointed horseshoe arch framed from the outside by two recessed rectangles.



Figure 50: The northwest gate

## **5. 6. The Windows:**

The prayer hall is lit by three small rectangular-shaped windows, two are on the west wall and the other is on the south wall.

There are also other windows that illuminate other parts of the mosque, they are as follows:

- Four windows that end in a semicircular arch, illuminate the western part of the rear gallery, two on the south wall and the other two on the west wall one above the other.
- Two windows ending in a semi-circular arch for the Imam's room (El-Maqsoura).
- Another window for the airlock of the southeast door.
- Three windows in the room are reserved for the prayer of the dead.

## **6. Analysis of the exterior composition:**

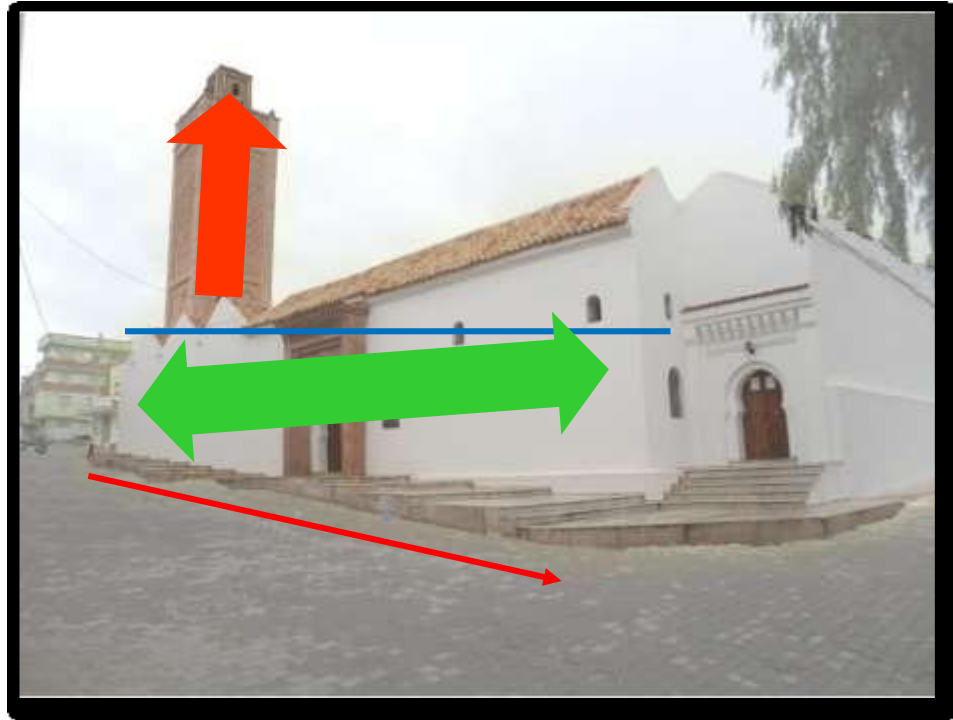
### **6. 1. The overall shape:**

#### **6. 1. 1. Unity and Variety:**

##### **6. 1. 1 .1. The form:**

The unity is manifested in the general exterior composition through the following elements:

- the regularity of the general shape is relatively rectangular except for the south facade which presents an irregularity through the minbar niche and the Imam's bedroom with the airlock and the room reserved for the prayer of the dead.
- The regularity of the shape of the roof presents a certain horizontality despite the rugged nature of the site.
- The unit is relatively dynamic with the hierarchy in the vertical direction of the composition and the slope which creates certain dynamite in the unit of the mosque.



**Figure 51: the dynamic unit of the north facade.**

#### **6. 1. 1. 2. The contrast:**

The contrast could give a good shape and structure for the overall design. The contrast could be noticed in the exterior composition by:

- The clear opposition between the verticality expressed by the minaret and the horizontality expressed by the rest of the mosque, at the level of the general form.
- The contrast between the curved form of the arcades at the level of the minaret and the openings and the rectilinear and acute forms of the roof and the rest of the components.
- Regarding the properties of the surface that covers the construction, there is also a harmonious contrast in color and texture, which produces influential energy on the aesthetic perception of the building:
  - The texture, between the high roughness surfaces expressed by the decorative detail of the minaret and the access doors on the one hand, and the smooth surface of the plaster that covers the rest of the building.





**The rigorous color and texture of the brick**



**White color and smooth texture**

**Figure 52: contrast between colors and textures.**

### **6. 1. 1. 3. Dominance:**

- The dominance of the mass of the minaret over the rest of the mosque by its height that it is equal to 5 times the height of the prayer hall.
- The dominance of the solid over the void in the exterior envelope of the building, where the void is expressed only by the small openings and the access doors on the four facades.
- The dominance of the color of the terracotta on the surface of the minaret and the roof tile. Thus, the dominance of whitewashed color and smooth texture over the entire exterior surface of the monument.

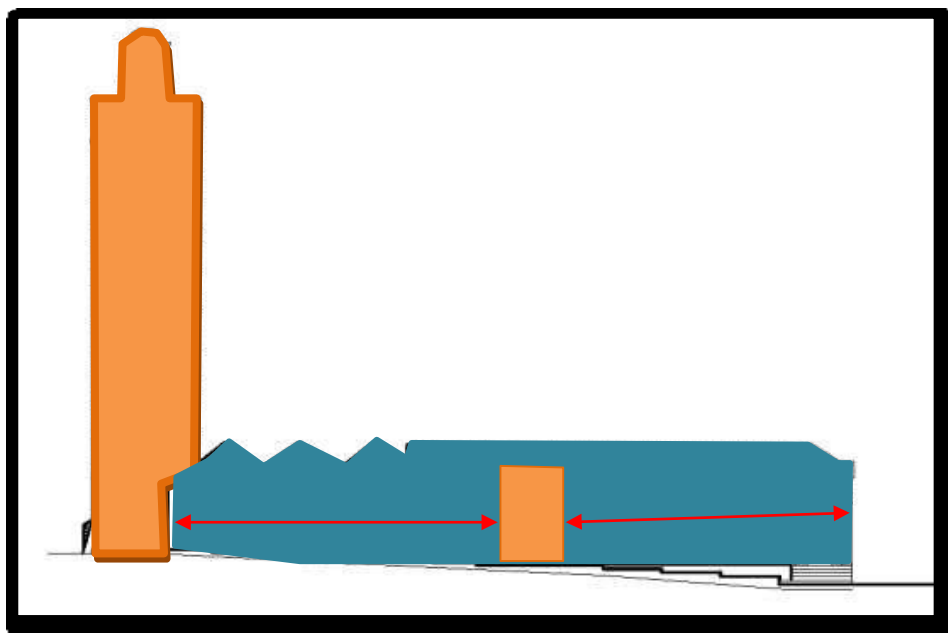


**Figure 53: a general view of the north facade.**



### 6. 1. 2. The balance:

Regarding the balance in the exterior composition, there is an informal balance expressed by the dominance of the mass and the verticality of the minaret as an important focal point on one side and the horizontality of the facade on the other side. However, the position of the northwest door in the center gives a certain balance to this facade by dividing it into two parts. Another informal balance is noticeable in the colors and textures of the tile and brick elements that are relatively dark and harsh against the white color and smooth texture of the rest.



**Figure 54: the balance of masses in the north facade.**

### 6. 1. 3. Rhythm:

The mosque composition presents the use of rhythm on several levels:

- a repetitive rhythm of the purlins of the roof, it is a varied repetition on all the facades of the monument with the change of the length and the orientation of the purlins.
- a toned rhythm of the color of the brick which is repeated on the northwest door, the tile, and the minaret with a difference in the saturation of the color.
- a varied repetitive rhythm of the windows on the different facades which have practically the same shape with the same opening surface, but which do not respect the distances. Except for a window that is to the left of the west door with the same shape, but with larger dimensions.

-a mixed repetitive rhythm of the access doors, while the repetition of the same shape and dimensions of the pointed arch with the change of the exterior decoration.



**Figure 55: Pictures showing the rhythm**

## **6. 2. Analysis of secondary elements:**

In addition to the aesthetic values presented by the overall exterior composition of the Great Mosque of Nedroma, the elements that form this composition also present aesthetic values as distinct elements:

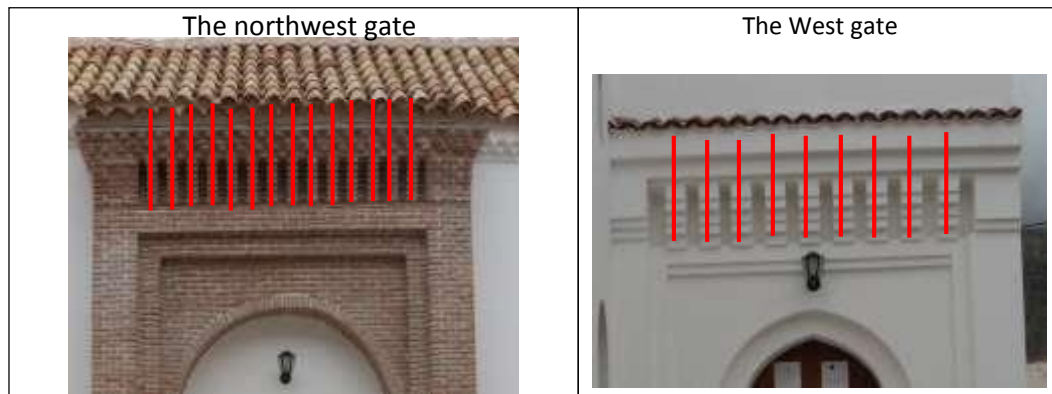
### **6. 2. 1. The accesses:**

The four accesses of the monument have a dynamic unity expressed by the rectangular frame that adorns them with the dominance of the arch shape positioned in the center. Furthermore, they possess a formal balance expressed by perfect symmetry with respect to a central axis.



**Figure 56: unity and balance in gates.**

An identical repetitive rhythm could be noticed in the bands of the north-west and west doors expressed by the repetition of the corbels.



**Figure 57: the rhythm in the door strips.**

### **6. 2. 2 The minaret:**

In addition to its participation in the unity and variety of the overall shape of the mosque, the minaret has a regularity of form with the dominance of fullness and verticality that give it a dynamic unity accentuated by:

- The homogeneity of the brick color.
- The contrast between the rigorous texture of the brick surface and the high roughness texture caused by the decorative protrusions in the form of arcature and diamond panels.
- The alternating repetition of the decorative panels on the four facades of the minaret, keeping the same dimensions and changing the patterns inside the panels, where the patterns in the east and west facades are different from the north and south facades which generates a variety in unity.

## The measurements:

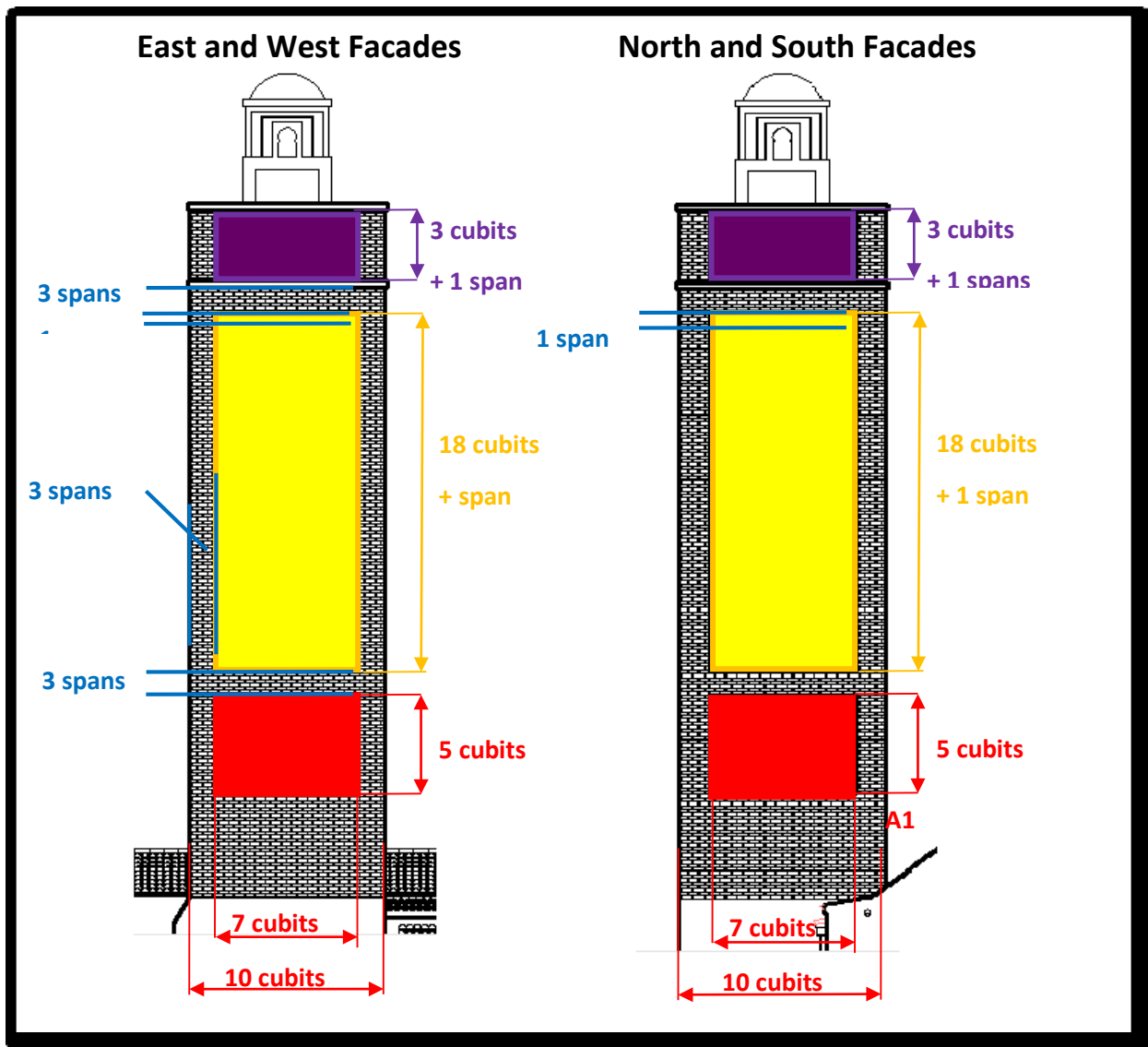


Figure 58: The analysis of the measurements of the minaret provides a better understanding of the component's homogeneity.

### **6. 3. The evaluation of the exterior composition:**

The analysis of the exterior composition of the mosque allowed us to dwell on the aesthetic richness that characterizes the exterior envelope of the building while it is noticeable on two levels:

#### **The first part:**

With regard to the overall form, its aesthetic richness is drawn from the unity and variety that are expressed by the regularity of the form, supported by the contrast between verticality and horizontality and the contrast of colors and textures. In addition, the dominance of the minaret by its height and its richness of ornamentation. Thus, there is a phenomenon of informal balance between the mass of the minaret and the facades and likewise between the different colors and textures used complemented by a varied repetitive rhythm of the openings and roofs. As far as the proportions are concerned, the analysis of the external form revealed some remarkable Doric and dynamic proportions at the level of the facades and the arrangement of the various elements.

#### **The second part:**

The architectural elements that make up the external form of the mosque have an undeniable aesthetic richness, whether in the proportions, unity, balance, and rhythms explicitly expressed in the access doors or in the minaret which presents the aesthetically richest element in the entire building.

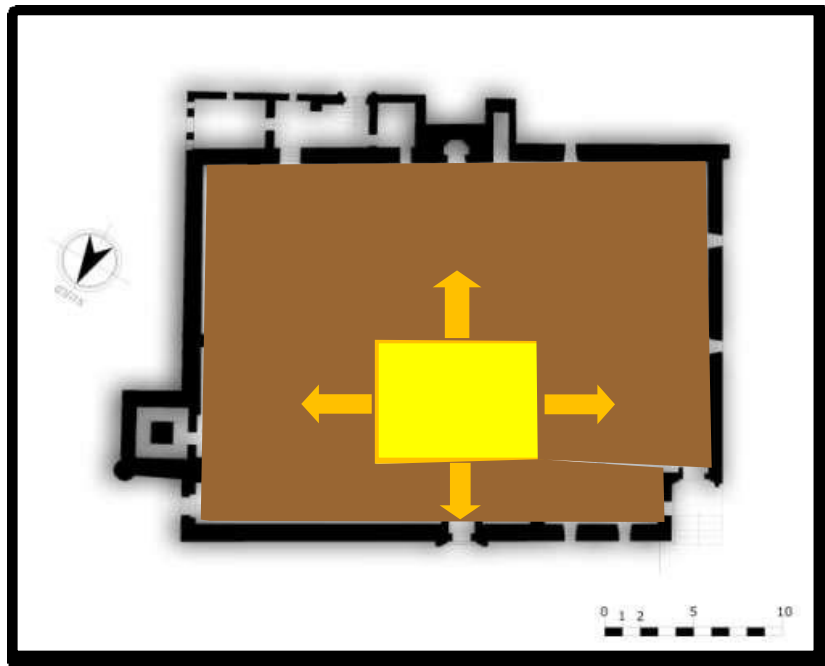
### **7. Analysis of the interior composition:**

#### **7. 1. The overall form:**

##### **7. 1. 1. Unity and Variety:**

Despite the existence of some deformations that are not easily identifiable and they are most likely due to the various extension and redevelopment operations that the mosque has experienced over time. The regularity of the interior shape reinforces the unity of the interior space.

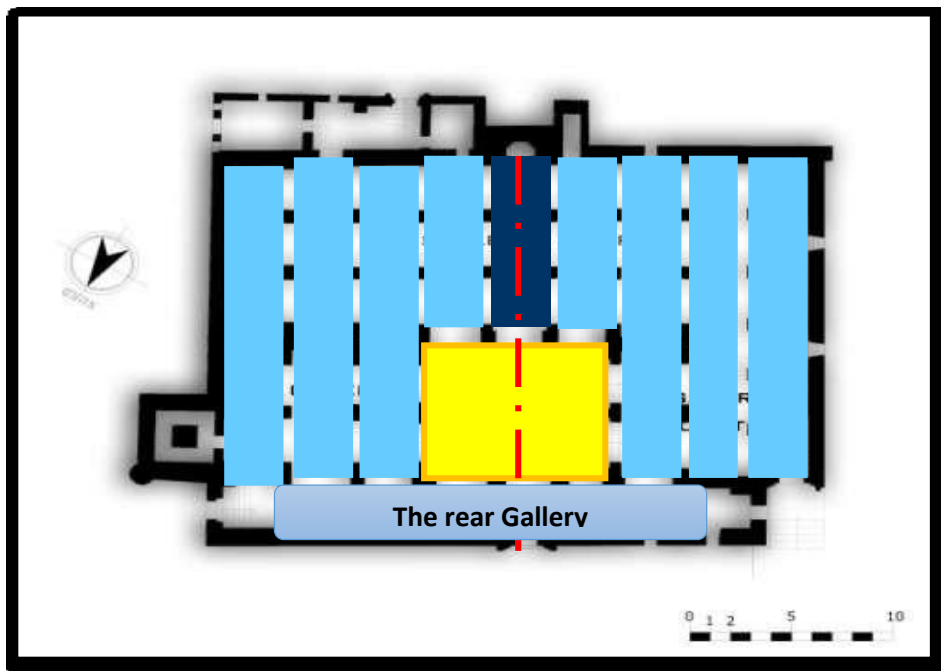
The courtyard is the center of interest in the interior space of its central position, while the central nave which constitutes a fictitious axis that stretches from the courtyard to the mihrab is considered to be the center of interest in the space of the prayer hall. Moreover, the strengthening of the unity by the contrast that exists between the uncovered courtyard with high luminosity and the prayer room and its galleries covered relatively in the dark.



**Figure 59: the centralisation of the courtyard.**

### **7. 1. 2. The balance :**

In terms of balance, the axis of the central nave constitutes the axis of symmetry between the western part and the eastern part, where it passes through the center of the courtyard and divides the rest into two parts. Furthermore, each part contains four naves perpendicular to the wall of the Qibla. This symmetry generates a formal interior balance despite the asymmetry of the rear gallery.



**Figure 60: formal balance in interior space..**

### 7. 1. 3. Rhythm:

The arrangement of the arcs with their pillars in the prayer hall produces a laminar and compound rhythm where there is an overlap of two stable repetitive rhythms in two directions. On one side the arches are organized linearly on both sides of the nave, while on the other side the arches are organized linearly on the axis of the bay as the images show.

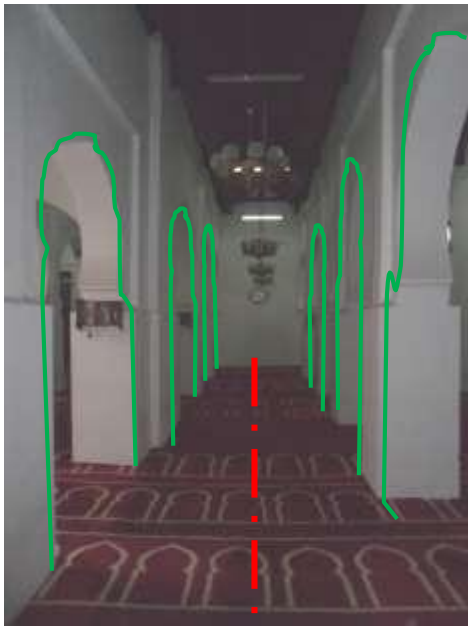


Figure 61: stable repetitive rhythm in the nave.

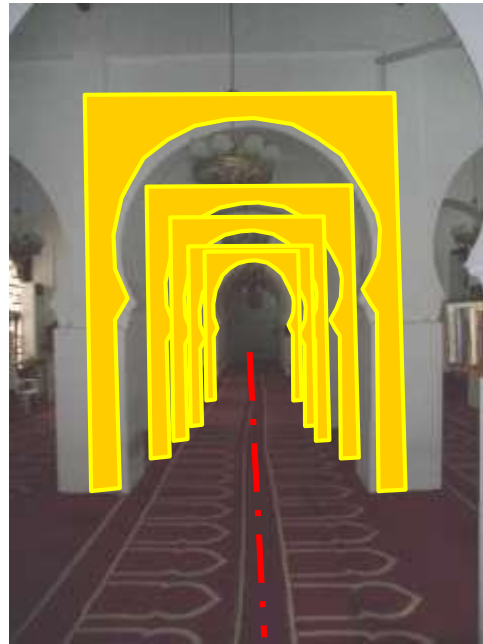
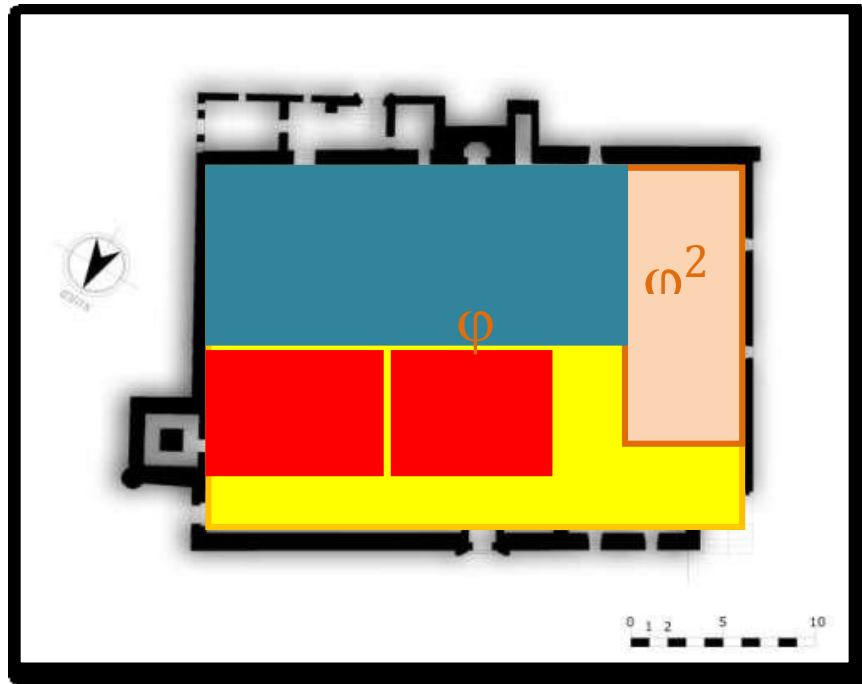


Figure 62: stable repetitive rhythm in the span..

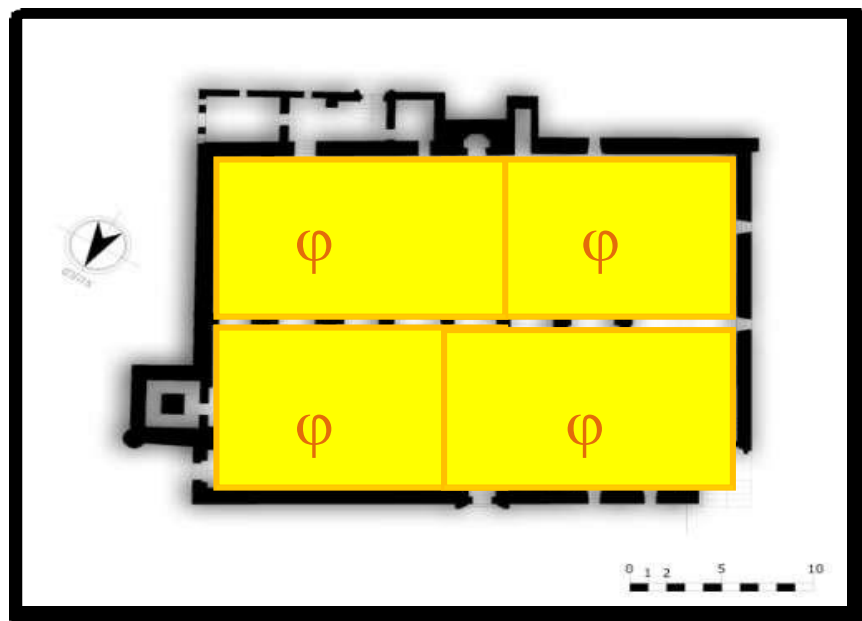
### 7. 1. 4. Scale and proportions:

The dynamic symmetry method is being chosen in order to properly analyze the proportions of the mosque. This method is based on the analysis of the different geometric shapes in two main stages:

- 1st stage: Consists of the probable use of a number of dynamic rectangles for covering and scanning general surfaces.
- 2nd stage: The harmonic subdivision of the covering rectangles into rectangular surfaces of different dimensions linked by continuous proportional relations. This harmonic division is based on the reuse of identical surfaces inside the covering surfaces and its first subdivisions. These similar surfaces will be brought together once the diagonals and perpendiculars projected from the vertices of the different rectangles determined or obtained have been drawn gradually.



**Figure 63:** the analysis of the proportions in the plan of the mosque.



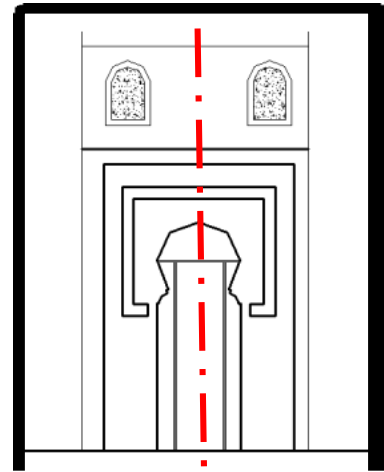
**Figure 64:** covering the plane with four rectangles.



## 7. 2. Analysis of secondary elements:

### 7. 2. 1. The wall of the Mihrab:

Formal balance is expressed by symmetry  
wirespect to a central axis.



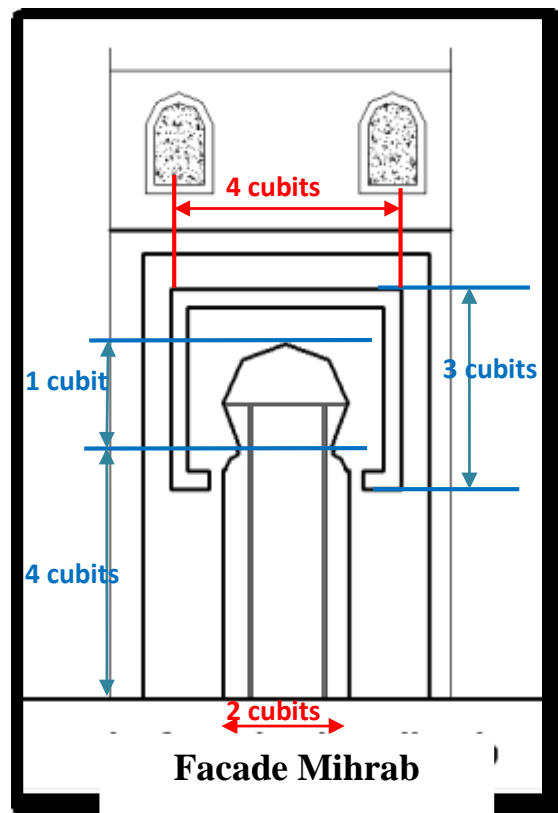
**Facade Mihrab**

figure 65: symmetry in the façade of  
the mihrab.

### Scale and proportions:

There were several renovations to the mosque. Therefore the measurements which were used in the building construction are not the same as now. However, the current measurements used here are from the middle Ages.

- The cubit = 0.47cm.
- The measurements between the pillars are 5 cubits + 1 span up to 6 cubits.
- The facade of the mihrab presents measurements that are connected with the units of measurement of the middle Ages.

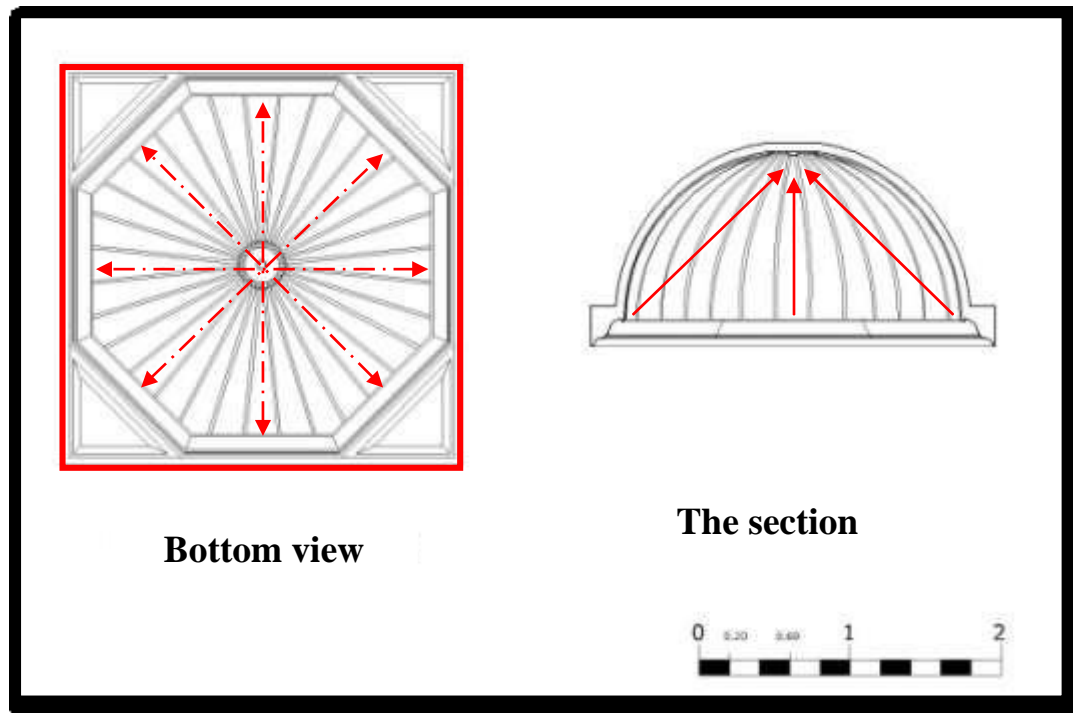


**Facade Mihrab**

Figure 66: measurements of the facade of the  
mihrab.

### 7. 2. 2. The dome:

Dynamic unity and rhythm in the dome.



**Figure 67: dynamic unity and rhythm in the cupola.**

### 7. 3. The evaluation of the interior composition:

The analysis of the interior composition of the mosque allowed us to reveal many formal qualities that influence aesthetic perception. These qualities could be approached on two levels:

#### **The first part:**

The first level is that of overall form, where unity and variety are expressed through the regularity of form. In addition, the courtyard presents the main center of interest in the interior space, then, the mihrab and the central nave which present a secondary center of interest that dominates the prayer hall. This unity is completed by the almost formal balance that characterizes the prayer hall and between the two side galleries, and by the strong intensity of the compound rhythm produced by the repetition of the arcades throughout the prayer hall. When it comes to proportions the analysis of the interior shape has revealed many remarkable, Doric, and dynamic proportions as well.

## **The second part:**

The architectural elements that form the interior shape of the mosque also possess many considerable aesthetic qualities, whether in the proportions and scale of the arcades and wall decoration of the mihrab or the dynamic unity of the radio-centric and repetitive rhythm in the dome.

## **8. Conclusion:**

The overview of the architectural specificities of the great mosque of Nédroma showed the reasons that made it a remarkable monument in the region. In fact, the building occupies an essential place in the Algerian heritage since it is one of the three religious monuments inherited from the Almoravid era on Algerian territory, in addition to that it attests to several renovations and extensions from its foundation until today, while these specificities and characters reflect a great architectural richness whether in its exterior or interior decoration. As a result, from the analysis and evaluation of the monument, the following assessments could be noticed:

- Regarding the overall shape of the mosque, it has been found that the aesthetic criteria are available for interior and exterior mosque composition whether for unity and variety, balance, or rhythm.
- With regard to the secondary elements, we noted a great richness and diversity of ornamentation of each component with the appearance of aesthetic criteria more explicit than in the overall form.
- The aesthetic value of the great mosque shows the diversity of the composition principles used consciously or unconsciously and the richness of the architectural elements while being part of an order and overall unity, in the mosque's interior and exterior

Finally, in terms of the conservation of the aesthetic value of a historical monument that is classified in the national list of historical monuments and sites, there is an important question that arises on the authenticity of its aesthetic value with regard to the architectonic elements added during of its last restoration in 2002 such as the central door on the axis of the mihrab, the cupola in front of the mihrab restored according to the model of another mosque without graphic or historical reference and the displacement of the fountain in the courtyard from its original position..

## **CHAPTER V**

### **General conclusion**

The research was divided into several related chapters and it has clarified mainly the concept of aesthetic values and their judgment and tried to show their definitions and types while it has focused on the architectural elements of the visual compositions and presented an overview of the style and definition of Islamic Architecture. Moreover, the assessment of the Algerian Great Mosque of Nédroma played a significant part in this research paper. Therefore, in order to answer the research questions and test the hypothesis mentioned above: As an architectural work, the objective evaluation of the aesthetic value of a historic monument consists in establishing a set of criteria mostly based on the principles of visual composition. I approached this research as follows:

**The first chapter consisted of a research proposal for the theme and the reasons for choosing it. In addition, it showed the research steps starting from the study objectives, then research questions, and the hypothesis of the paper while explaining the methodology used for the study.**

**Secondly, the research deals in the next chapter with the concepts relating to aesthetics from the philosophical and scientific points of view through the evolution of this term. Thus, we examined the different modes of aesthetic judgment and more specifically the aesthetic judgment in architecture. However, It has been seen that the notion of aesthetics has not ceased to evolve and expand over time, moving from simple questions about beauty to a science with its own subject and method. This science has developed the different types of judgments relating to aesthetics, where a distinction has been made between the judgment of taste based on the effect of the object on the subject and the judgment of knowledge based on the analysis of the object in relation to universal criteria and principles. This led us to the different types of principles of aesthetic judgment adopted in architecture, namely; the principles of subjective, objective, and relative judgment. Therefore, it has been noticed that the subject of aesthetic values is too broad to be covered in detail since there are many sources talking about this issue without providing clear criteria at the end and sometimes the writer gives an overview of aesthetic values then he would change his point of view by the time based on several points such as new researches, knowing other perspectives, and sometimes the effect of the surrounding environment on how is aesthetic values being treated. However, the subjective, objective and relative aesthetic criteria play always an important role here. In addition, the visual composition is a significant part that could be an essential factor for the judgment of the beauty of a monument, while that are other aspects that change depending on the building itself. For**

instance, the mosque is a religious monument that Muslims would mostly consider a beautiful construction, and this judgment is based on tradition and emotion first because the mosque here is a holy place then the beauty of the building comes next. However, other monuments could obtain their beauty judgment based on other factors like historical, political, social, and physical judgments

The third chapter was about the architectural elements of the visual composition where it has been noticed that they contain several categories. However, these concepts have been used a long time ago and they could always be developed further by new designs, technologies, cultures, etc. In addition, Islamic architecture was a significant object as well while it is a centuries-old category of architecture that is rooted in the principles of Islam. The striking sculptural forms and often stunning ornamental detail that characterizes Islamic buildings include some of the most awe-inspiring structures on Earth. However, Islamic architecture is a vast domain that contains many types and classifications, and it has a remarkable influence on western societies' architecture as well.

The case study of the great mosque of Nédroma was presented in the fourth chapter where it has been focused first on the history and location of the city of Nédroma, and a description of the great Mosque and its architecture. Thus, I have tried to give through this description the characteristics, specificities, and components of each element of the mosque.

In order to assess the aesthetic value of the monument, the research did essentially illustrate the principles and criteria highlighted in the previous chapter that was used to assess the aesthetic richness of the interior and exterior composition of the mosque, starting from the overall shape to the detail of the elements of the composition.

- The exterior composition: with regard to the overall form, it is characterized by an implicit appearance of unity through the regularity of the form and rhythm within the repetition of certain elements such as the openings and the roof. While the balance is clearly expressed by the verticality and dominance of the minaret and the horizontality of the rest of the mosque.
- The interior composition: unlike the exterior composition, the unity, balance, and rhythm are more explicit through the regularity of the form and the dominance of the courtyard by its position and by its luminosity which reinforces the unity, and the symmetry in relation to the axis of the central nave which engenders a formal balance and the multidirectional rhythm created by the repetition of arches and posts.

## **The research results and hypothesis:**

Indeed, the evaluation of the aesthetic value of historical monuments begins first of all by understanding the importance of this operation in the conservation of the architectural heritage, which represents a key stage in the recognition of the heritage, its classification, and preservation of its authenticity.

It is an operation that must take into account the characteristics of aesthetic value as a universal value and which depends on an evolving notion and which can be subjective.

For this purpose, one must resort to a set of objective criteria that depends on the object itself. However, the aesthetic judgment of an architectural object can be in the different subjective, objective, or relative forms depending on the issue to be addressed.

As an architectural product that falls within the visual arts, the aesthetic value of the monument depends on its formal aesthetic quality which can be judged by the degree of appearance and the richness of the principles of visual aesthetics in its composition, namely, unity and variety, balance, rhythm and scale and proportion.

In the evaluation that we have approached relating to the aesthetic value of the great mosque of Nédroma, this being based on the criteria of judgment established according to the principles cited above; we found that the monument is endowed with a considerable and diversified aesthetic richness whether in its exterior composition or in its interior composition and whether in its overall shape or in the elements that compose it.

The results obtained from this evaluation showed us the ability of the approach adopted based on the principles of visual composition to highlight and highlight the aesthetic richness of the mosque and the determination of the elements that participate in it in order to preserve them and keep their authenticity, **this confirms the initial hypothesis, where it was assumed that the objective evaluation of the aesthetic value of a historic monument consists in establishing a set of criteria based mostly on the principles of visual compositions. However, there are other criteria that could be an additional determination for the monument's aesthetic value as it was mentioned.**

## **Recommendations and research perspectives:**

Our research on the evaluation of the aesthetic value of historical monuments is not complete, there are still other aspects to be addressed and developed among them:

- The survey tools used in the survey operations of the various plans, elevations, and details of the monuments remain to be developed in order to have a better recording of the information which will allow a good reading and analysis, in the light of photogrammetry.
- Other parameters relating to the aesthetic value remain to be developed and undertaken in deeper research and on a larger scale with regard to the samples, such as the parameter of style and the origin of the architectural elements.
- The conservation of the aesthetic value of historical monuments is not limited to its evaluation, but it requires the development of a tool for safeguarding and conserving its authenticity.
- Enjoying and drawing inspiration from historical monuments involves further research that relates the aesthetic value and the architectural elements used in them to architecture in its modern context.
- Any research on the evaluation and recording of the other values of historical monuments would be a scientific plus and support for the conservation of these values.

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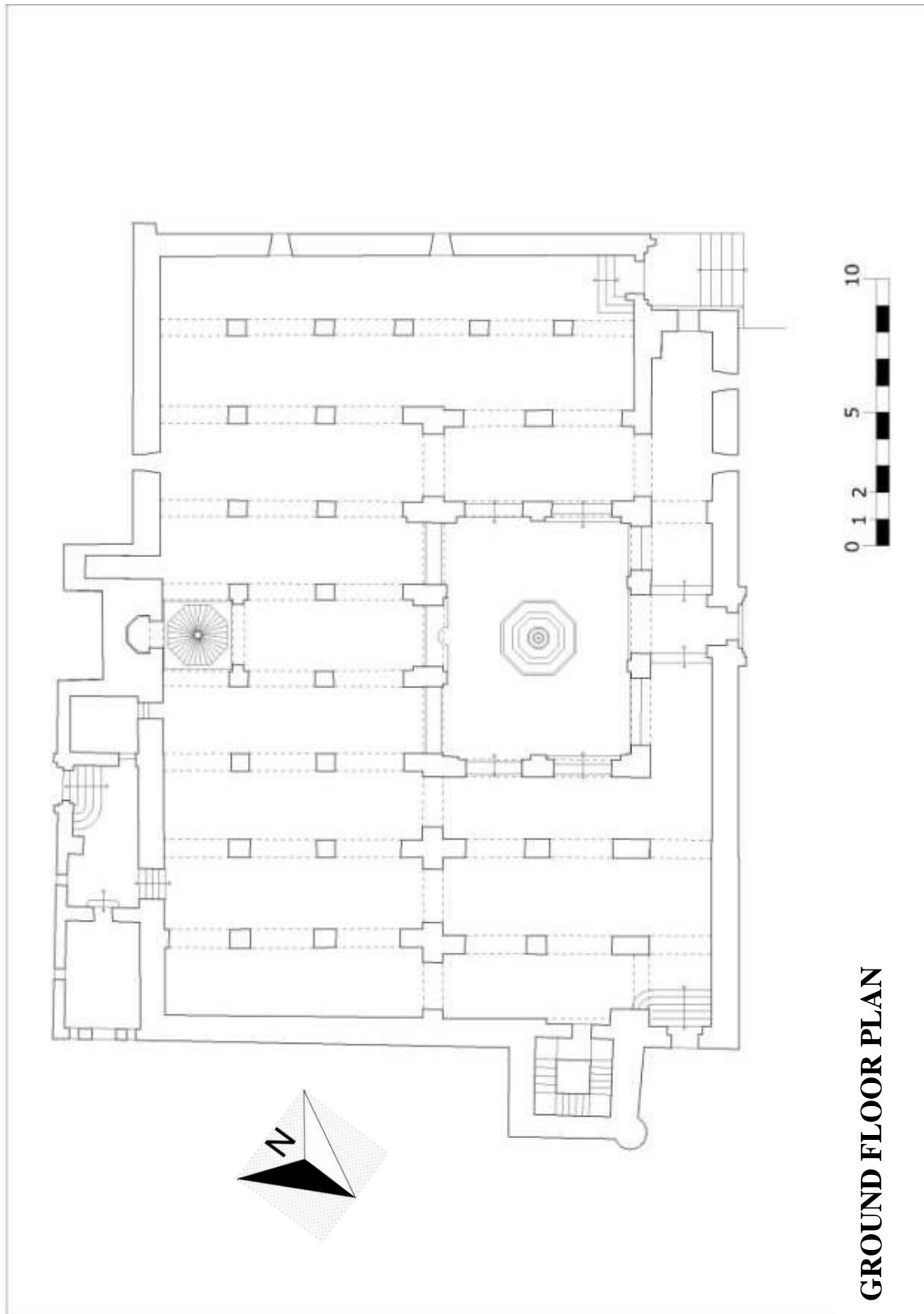
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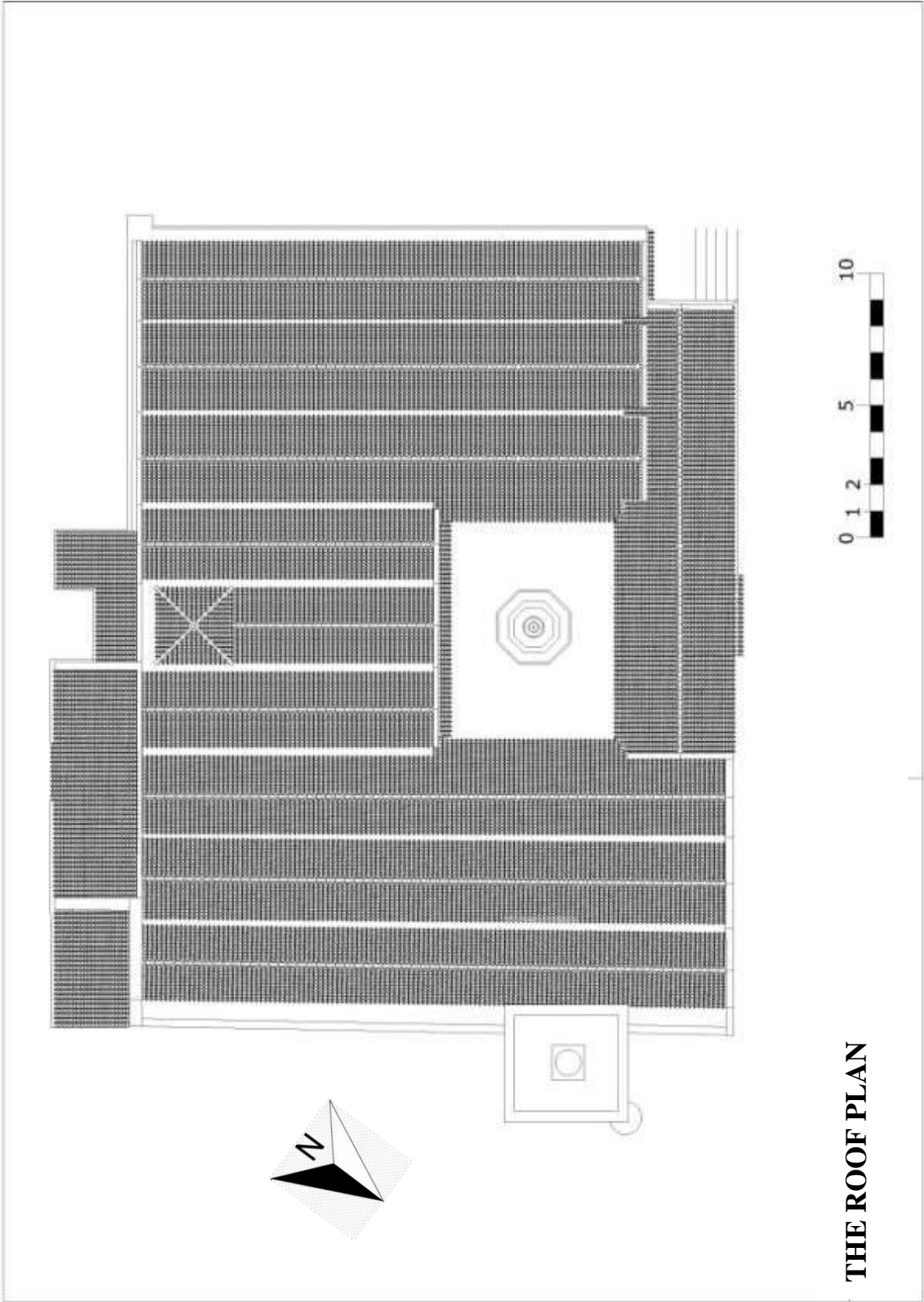
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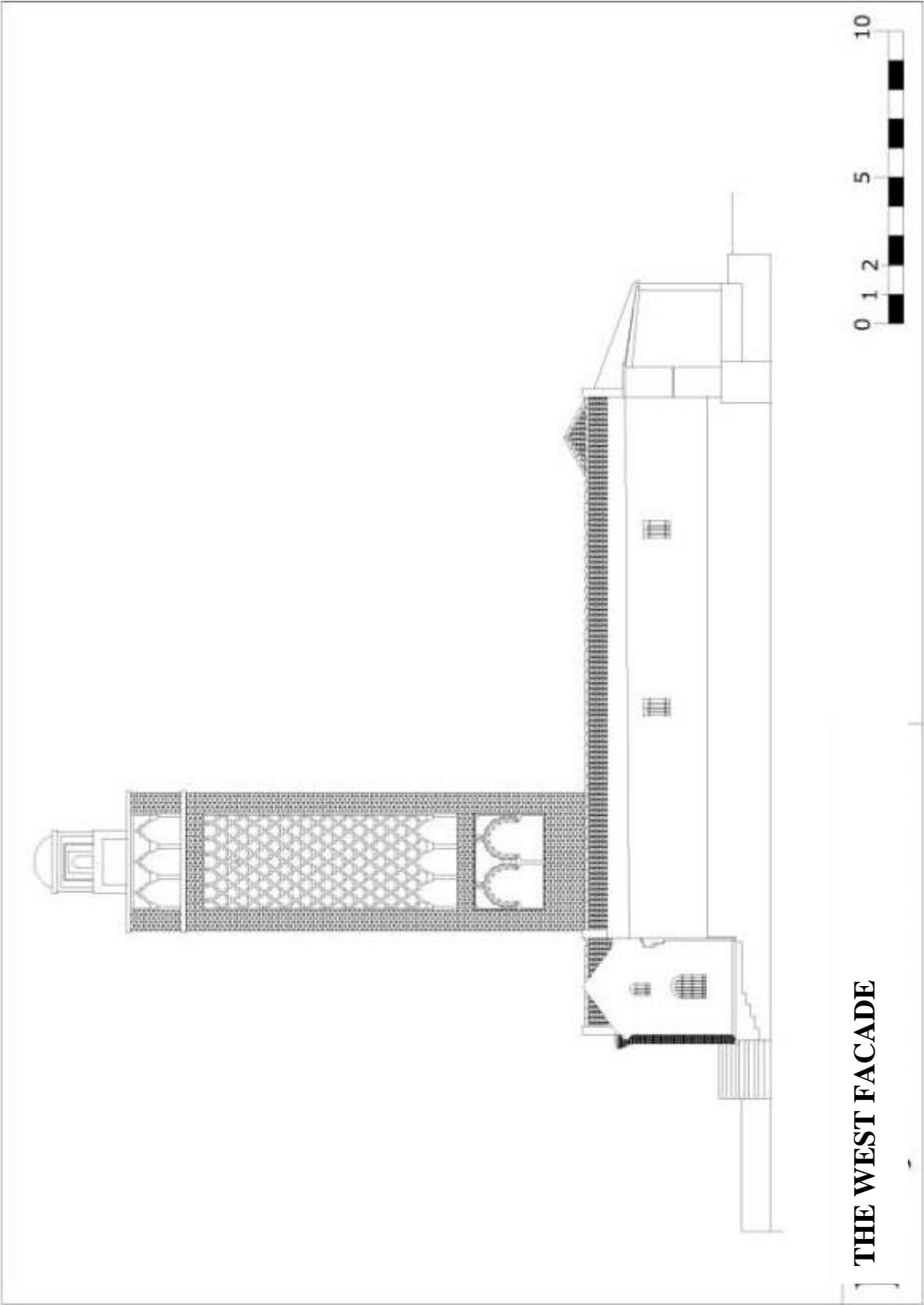
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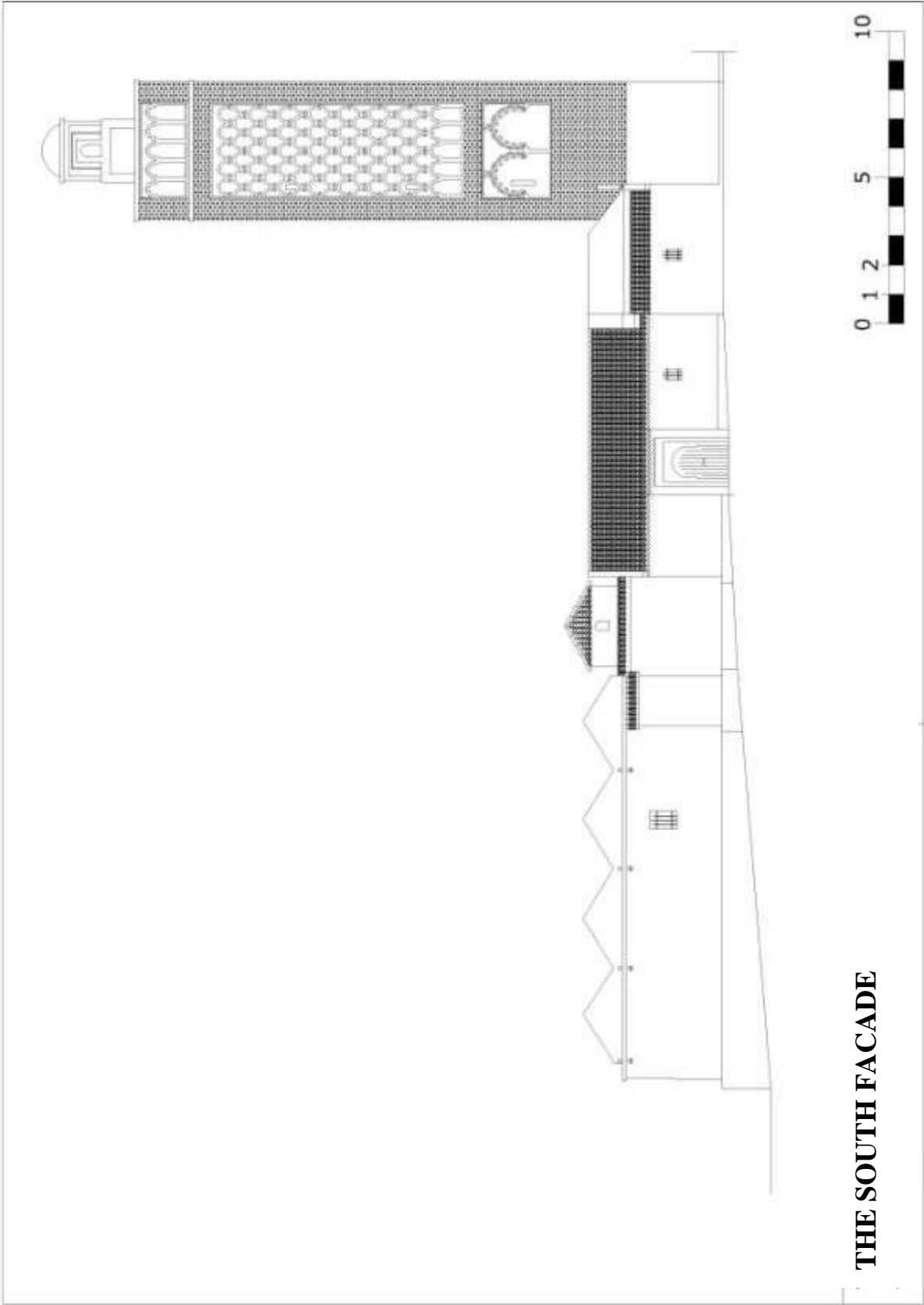
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## Appendices

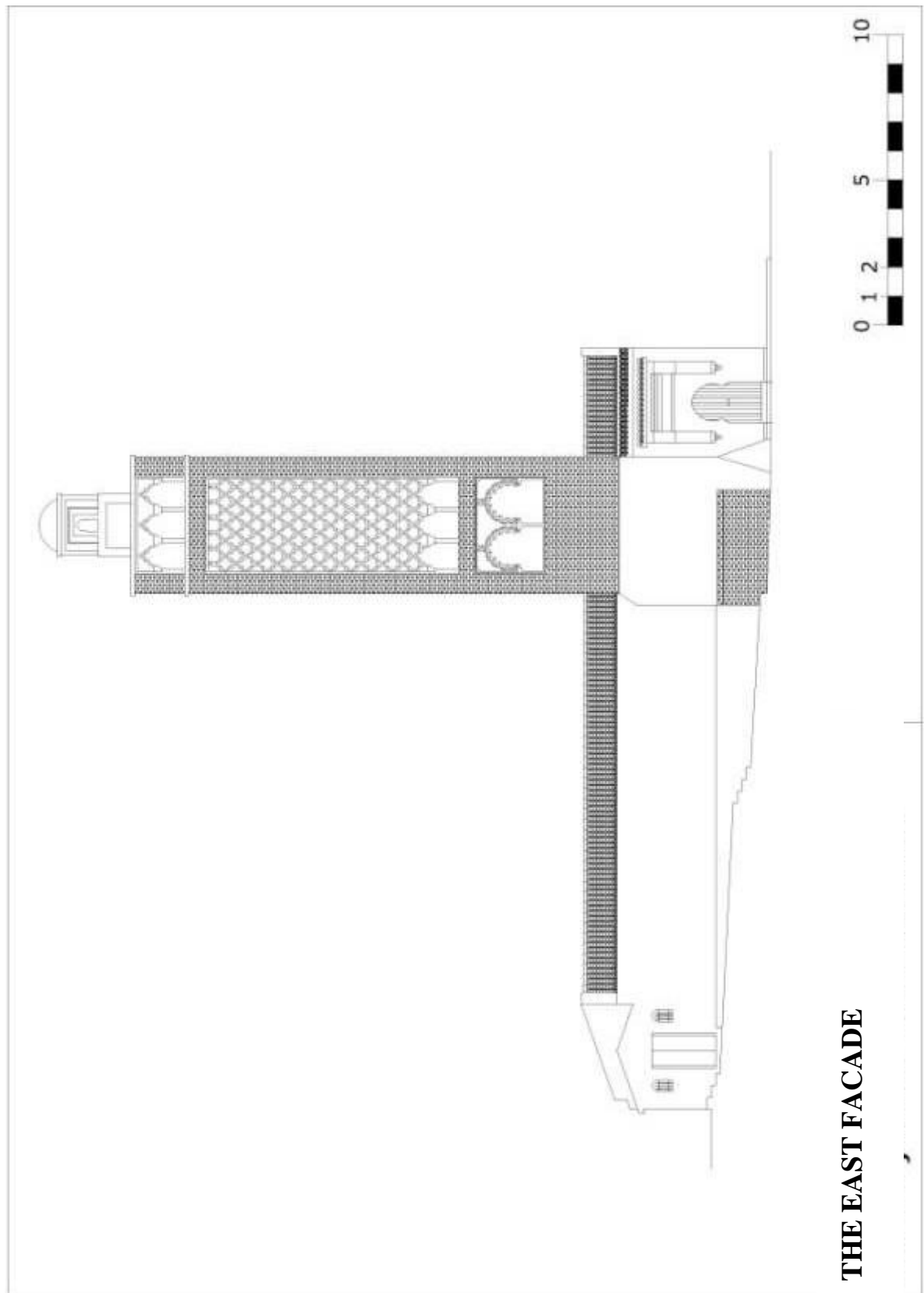


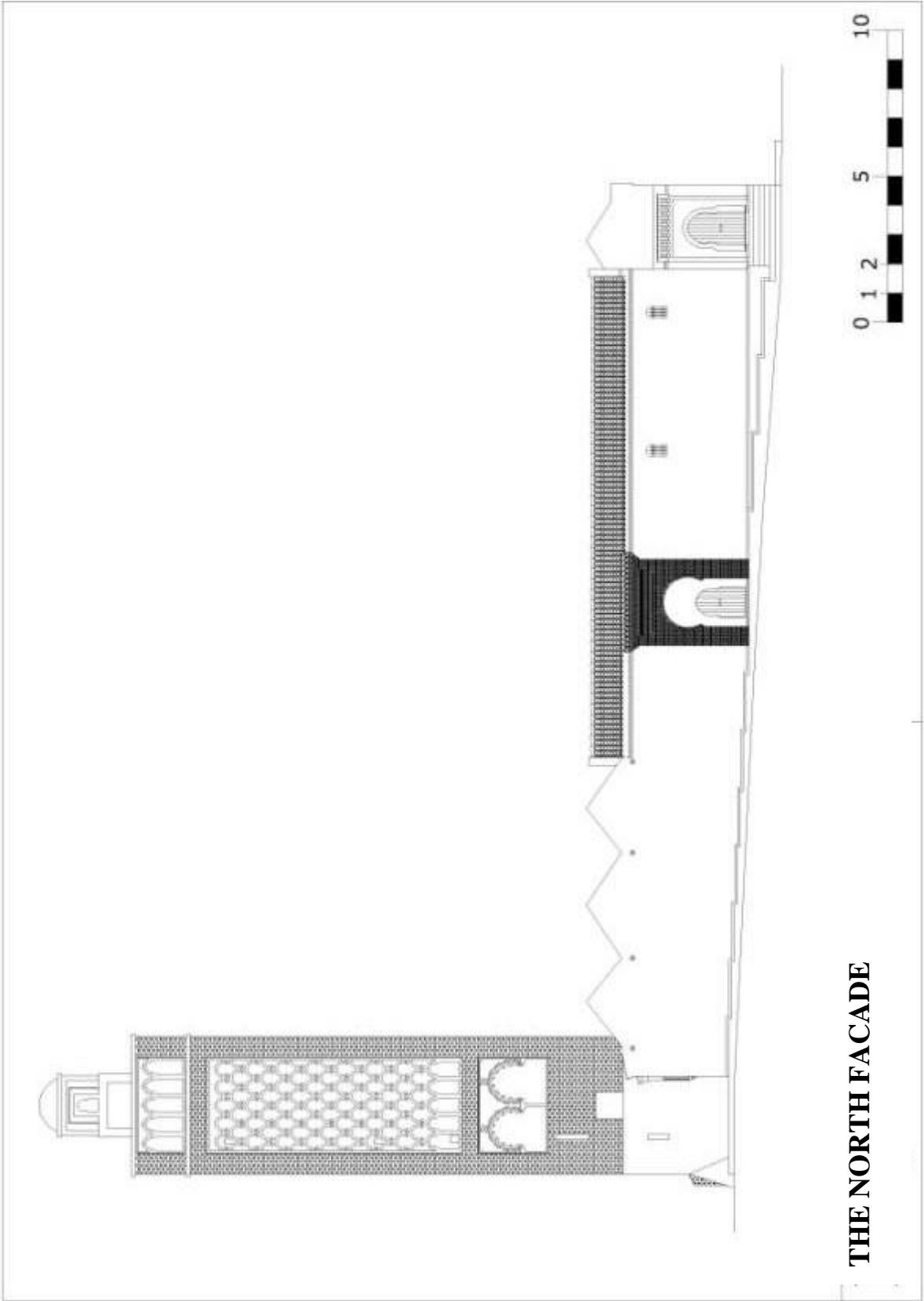






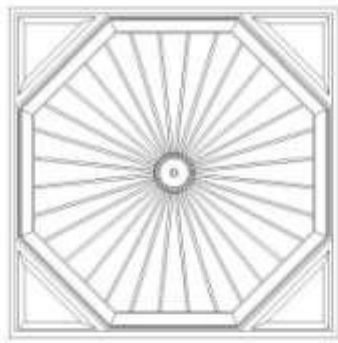
**THE SOUTH FACADE**





**THE NORTH FACADE**





**BOTTOM VIEW**



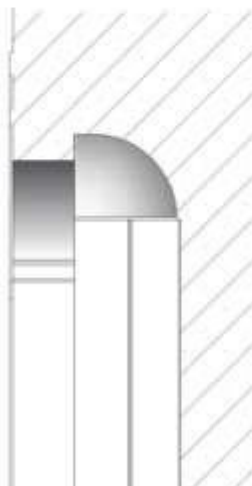
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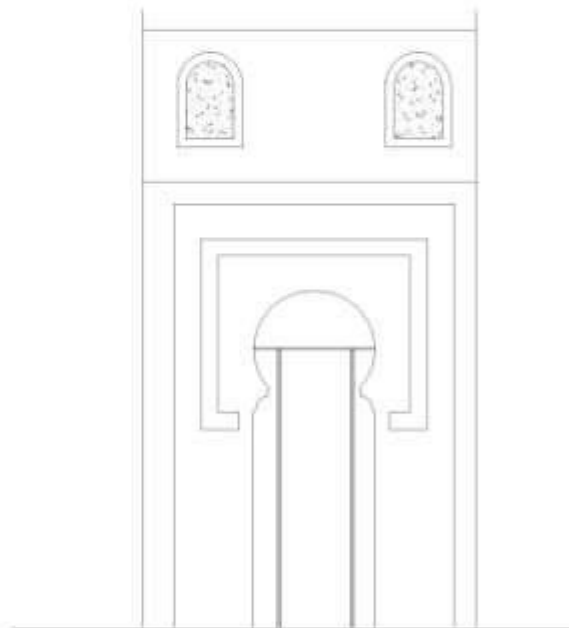
## THE DOME



**PLAN**



**SECTION**



**THE MIHRAB FACADE**



## THE MIHRAB

