

## Murals of Ahmed Bey Palace in Constantine: drawings of the city of Cairo and Alexandria as a model

جداريات قصر أحمد باي بقسنطينة من خلال لوحتي مدينة القاهرة والإسكندرية

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### Abstract :

The art of mural painting dates back to ancient times where primitive humans used cave walls to express their thoughts. Over time, this art form evolved into architectural ornamentation used to decorate the walls of palaces and homes. These decorations were executed on various materials such as stone, wood, marble, and gypsum. The Ottomans widely used the fresco technique in their decorations, including Ahmed Bey, who built a palace in the city of Constantine, the capital of the Eastern Province under his rule. He worked on decorating it with the best and most exquisite materials and ornaments, making it a unique architectural masterpiece in Algeria, rich in various architectural ornamentation elements, including the fresco technique, which we have attempted to elaborate on in our paper by studying a model of mural paintings that represent the drawing of cities. We attempted to understand their meanings and significance, and found that they covered a large part of the palace walls and were characterized by a high degree of precision.

**Key words:** Architectural ornamentation; gypsum; fresco; Palace of Ahmed Bey; Constantine.

### الملخص

يعد فن الرسومات الجدارية من أقدم الأمور التي اهتم بها الإنسان منذ القدم حيث استعمل الإنسان البدائي جدران الكهوف للتعبير عن ما يدور في خاطره، وبمرور الأزمنة تطور هذا الفن فأصبح ما يعرف بالزخارف العمائرية التي لجأ لها الإنسان لتجميل جدران قصوره ومنازلها، حيث نفذت هذه الزخارف على مواد متنوعة كالجص الذي نقش عليه بالحفر البارز والغانر والمائل ورسم عليه بالألوان المائية أو يعرف بالفريسكو هذا الأسلوب الذي ذاع استعماله عند العثمانيين من قبل السلاطين والأغوات والدايات والبايات، وأحمد باي كغيره من الحكام شيد قصرا في مدينة قسنطينة عاصمة بايلك الشرق، وعمل على تزيينه بأنفس المواد وأجملها وأروع الزخارف فجعله تحفة معمارية غنية بمختلف العناصر الزخرفية المعمارية بما في ذلك استعمال أسلوب الفريسكو، والذي حاولنا أن نعرض عليه في ورقتنا هذه من خلال دراسة نموذجي لوحتي مدينة القاهرة والإسكندرية المرسومة بالقصر سعيا منا لإبراز سماتها ومعرفتها دلالاتها، حيث وجدناها تغطي جزء كبير من جدران القصر إضافة إلى تميزها بدرجة عالية من الدقة والإبداع وغنية بالرموز والدلالات.

**الكلمات المفتاحية:** الزخارف العمائرية؛ الجص؛ الفريسكو؛ قصر أحمد باي؛ قسنطينة.

## **Introduction**

After achieving stability within the Islamic Caliphate and expanding their territory through numerous conquests outside of the Arabian Peninsula, Muslims became interested in architecture and its arts. This was particularly evident as they reached the Levant and Persia and became enamored with the prevailing architectural style in these regions. During the Umayyad period, Muslims developed a unique style and art that combined indigenous Arabic art with the art of the lands they conquered, all while adhering to Sharia law. They built mosques, palaces, and houses with an Islamic character and adorned them with architectural decorations featuring Islamic elements. The Muslims excelled in the art of tiling, which became known as "tawriq," and they also distinguished themselves by using Arabic calligraphy to decorate walls, ceilings, and columns. This artistic evolution continued during the Abbasid Caliphate, which saw a period of renaissance and prosperity. Islamic decorative arts continued to evolve with each subsequent caliphate, culminating in the distinctive Ottoman style. Ottoman rulers, governors, and dignitaries throughout the empire were particularly interested in constructing and decorating architectural structures, especially palaces.

Algeria was among the countries that were under Ottoman rule, and its rulers cared deeply about constructing and decorating palaces, such as the private palace of Hajj Ahmed Bey in the capital, Constantine. The palace was embellished with various precious materials like ceramics, marble, and alabaster. All decorative elements were executed in geometric, botanical, calligraphic, animal, and human motifs and were applied to different materials such as marble, ceramics, wood, and plaster. The latter was utilized to create highly distinctive decorative elements directly carved into the walls, in addition to the techniques of molding and engraving. However, the most prominent technique used in decorating the palace was painting the walls with watercolors, also known as frescoes. Most of the palace walls were adorned with stunningly beautiful drawings, such as botanical, geometric, calligraphic, animal, and human motifs, as well as architectural landmarks and features.

These landmarks and features were depicted by the artist, Hajj Yusuf, who illustrated Ahmad Bey's pilgrimage journey by drawing the most prominent cities and stations that he passed through. These paintings and drawings were among the most beautiful and prominent architectural decorations applied in the palace, captivating and impressing visitors with their stunning beauty. This was especially true given the artist's exquisite style of drawing and his careful selection of appropriate colors. Through this paper, we aim to study two models of these drawings, namely the ones depicting Cairo and Alexandria, and shed light on their most prominent features and characteristics, as well

as how closely they match actual landmarks. Additionally, we will examine the most important codes used by the artist to identify these landmarks.

### **study hypotheses**

Through the previous inquiries, the following hypotheses can be drawn:

- The two paintings were characterized by a high degree of accuracy in drawing, due to the painter's experience and skill, as well as the high quality of the materials used in both the composition of the drawing surface and the colors used.
- There is a significant similarity between the drawn features and the real features that belong to that era.
- The artist used some codes in his drawings to indicate certain features or places.

### **Objectives of the study**

- To appreciate the various Islamic monuments in Algeria that belong to different historical eras.
- To study the Ottoman architectural ornamentation in the city of Constantine.
- To highlight the beauty of fresco painting on gypsum with watercolors.

### **Study methodology**

The research methodology adopted in this study includes the historical and descriptive-analytical methods. This involves collecting and analyzing information sources and subjecting them to study, in addition to describing and analyzing the drawings in detail. Through this methodology, researchers can comprehensively analyze the paintings and understand the historical and artistic context in which these artworks were created.

### **1- Islamic ornamentation**

Islamic ornamentation refers to the decorative motifs used in architecture and art, whether they are carved in gypsum, stone, wood, marble, or other materials. Islamic ornamentation in architecture and art has been given special and continuous attention, resulting in high quality, precision, and diversity. Muslim artists put continuous effort into this field when they carved wood, carved doors, crafted metals, drilled stones, engraved gypsum, painted ceramics, worked with marble, and other various techniques. These efforts have led to an exceptional level of craftsmanship and beauty in Islamic ornamentation(Rizk, 2000, p. 131).

### **2- Islamic ornamentation elements**

#### **2.1- Plant-based ornamentation**

Plant-based ornamentation refers to any decorative ornamentation that is based on plant elements, such as stems, leaves, flowers, and fruits. These ornamentations can take on various shapes and forms, whether they are naturalistic or abstracted from nature in a way that departs from their original form, (Adly H. M., 2011, p. 135). In Islamic art,

plant-based ornamentation is considered one of the most prominent features that illustrate the Muslim artist's departure from representing nature and imitating it. This is in response to the religious beliefs and guidelines, and in their creativity, Muslim artists reached a level of excellence that had not been reached before. To the extent that this type of Islamic ornamentation has been given various names such as "Arabesque," "Arabic Riqq," or "Arabic Turuq." The artist used plant elements as decorative elements far removed from their original form. Therefore, we see only curved or twisted lines from branches and twigs, connected to each other, forming shapes with limitless possibilities (Rizki, 2015, p. 84).

### **2.2- geometric ornamentation**

In Islamic art, geometric ornamentation is another prominent feature that reflects the Muslim artist's innovative spirit. It is presented in a beautiful artistic form that was not seen before. The Muslim artist did not invent geometric shapes but excelled in dividing these known shapes, creating various ornamentations that demonstrate their mastery of geometry, (Marzouk, 1965, p. 185). Geometric ornamentation has become a fundamental element of Islamic ornamentation. Muslim artists did not only focus on simple geometric shapes such as triangles, squares, rhombuses, pentagons, and hexagons but also excelled in creating complex geometric compositions with multi-sided star shapes. Muslim artists mastered this type of ornamentation and focused on innovation and complexity in their designs. These intricate geometric patterns are often repeated and interlaced to create mesmerizing and intricate designs. (Zaki, in Islamic arts, 1938, pp. 29-32)

### **2.3- Human and animal ornamentation**

During the early Islamic period, the depiction of human and animal figures in art was strictly forbidden for fear of a return to pre-Islamic idol worship. However, such depictions became increasingly prevalent in Persia and India, and later in Egypt and Syria during the Fatimid and Ayyubid eras, as well as in other Islamic societies. In some regions, such depictions were confined to specific areas. For example, in the Fatimid period, decorative motifs in pigeon houses featured birds and other animals. In the Andalusian region, human and animal figures adorned palace ceilings, depicting princes returning from hunting trips with their meticulously drawn horses on a background of gold. Nonetheless, the use of human and animal figures in Islamic architecture remained relatively rare and was gradually replaced with plant-based and geometric ornamentation that better aligned with Islamic values and principles. (Mahdi, 1993, pp. 25-26). However, this type of ornamentation cannot be attributed to Islam, as there are numerous authentic hadiths that prohibit the depiction of living beings. Such

hadiths warn of severe punishment for those who engage in such practices, as they are considered a form of idolatry that may lead to the worship of the image itself.

#### **2.4- Calligraphic Decorations**

Islamic civilization was distinguished from other civilizations by many characteristics, including its unique decorative element, the Arabic calligraphy. It represents a complete artistic work with various elements. Countless examples of calligraphic decorations can be seen on the entrances, windows, domes, minarets, and other architectural elements. They take various artistic forms and styles, some of which are ornamental and others are static. Arabic calligraphy has more than a hundred known styles, the most commonly used of which are Kufic, Thuluth, Naskh, Ijazah, Tawqi, Signature, and Persian calligraphy. (Waziri, 2000, p. 97).

#### **3- The Concept of Mural Art**

Mural art is a form of visual art executed on walls or ceilings using various types of coverings to create a sense of distance, movement, texture, shape, and visual imagery, as well as a sense of extensions resulting from the formation of these elements. It also serves the construction needs of architecture and is one of the aspects of cultural heritage. Therefore, mural paintings represent one of the oldest and most sophisticated traditions in the history of humanity and art. They have proven to be an excellent medium for conveying ideas, and have served as a means for the first humans to express their thoughts and emotions. (Al-Rubai, 2006, p. 34)

Mural art is one of the fields of visual arts, which involves painting on walls for various purposes. It may be representational or symbolic, or purely aesthetic. Generally, mural art is associated with the human psyche and is used to express deeper emotions and ideas that draw upon a variety of motivations and references. Religious themes have played a prominent role in mural art, with religious figures and iconography being a major subject matter. Mural art has been an influential and powerful means of expression, serving as a reflection of the times and a vehicle for social and political commentary. (Mohammed, 2008, p. 09).

Therefore, it can be said that mural art is one of the oldest and most profound forms of art that has been used by primitive humans as a means of communication with their peers or to express their innermost feelings through such engravings drawn on cave walls. This art form has evolved over time and has been used by various civilizations and cultures for different purposes and interpretations, as well as using different materials. Humans have used mural art to decorate, embellish, and beautify the walls of their homes, palaces, and other buildings with drawings that carry aesthetic, symbolic, and religious meanings. These artworks were executed on various materials, such as stone, marble, wood, and plaster.

#### **4- The art of photography in Islam**

Regarding the depiction of inanimate objects such as plants, mountains, trees, buildings, and geometric shapes, there is a clear and explicit ruling in Islam that it is permissible and there is no harm in doing so. However, when it comes to the depiction of human and animal figures, there is a difference of opinion among scholars. For example, Ahmed Abdel-Razzaq Ahmed divides these differences between forbidden, disliked, and allowed depictions, where he sees that some depictions are permissible according to Islamic teachings, (Ahmed, 2006, p. 40) Similarly, Zakī Muḥammad Ḥasan believes that the prohibition of depiction came at the dawn of Islam out of fear of using it as a means of worship or seeking intercession with God. However, later on, many scholars have issued fatwas stating that scientific depiction does not contradict the teachings of the Islamic religion (Zaki, Arts of Islam, 1948, p. 164), and the simplicity and avoidance of luxury that prevailed in the early days of Islam did not encourage the carving of statues or painting of images, (Zaki, In Islamic Arts, 2012, p. 28).

However, we see the prohibition of human and animal depiction in Islam, as there are seventeen hadiths narrated about the prohibition of depiction, and the artist who creates such images is threatened with severe punishment on the Day of Judgment, as in the hadith narrated by Abdullah ibn Mas'ud that the Prophet, peace be upon him, said: "The most severely punished people on the Day of Resurrection will be the image-makers." (Narrated by Bukhari, 5950; Muslim, 2109). However, the ruling of prohibition of depiction is lifted in cases where the head is erased, as stated by the Prophet (peace be upon him) in the hadith: "The picture that has a head is like a living being." (Reported by Al-Bukhari and Muslim). These and other hadiths confirm the prohibition of depiction in Islamic teachings, not just its dislike.

These hadiths and others confirm the prohibition of image-making in Islamic religion, not just its disapproval. However, the prohibition is lifted in the case of headless images, as the Prophet, peace be upon him, said, "The image is only prohibited if it has a head." (Narrated by Ahmad, 4/554) Abu Dawud, At-Tirmidhi, and An-Nasa'i also narrated with a good chain of transmission from Abu Hurayrah that the Messenger of Allah, peace be upon him, said, "Jibril came to me yesterday and said, 'I was prevented from entering upon you because there were statues at the door, and in the house there was a curtain with images on it, and there was a dog in the house. So, cut off the head of the statue at the door so that it will be like a tree, and cut the curtain into two parts to make two pillows to sit on, and let the dog go out, that's why human or animal imagery has not reached the same level of sophistication and mastery in the art of Muslim photographers, unlike Arabic calligraphy and Arabesque art."

## **5- The plaster**

Gypsum is a mineral that is widely distributed and occurs in thick layers in sedimentary rocks along with salt and evaporite deposits. It comes in two main varieties: a shiny white crystalline form and a reddish rock-like form. Gypsum is abundant in nature and is known as selenite when it is in its raw form, and as transparent stone or gypsum when it is crystallized (Adly H. M., 2011, p. 75), Gypsum is also used as a layer of plaster to cover the surfaces of interior walls and building ceilings, making them more resistant to air and giving them a smoother surface finish. Plastering is the process of applying the gypsum layer to these walls, and when it is applied to exterior walls it is referred to as rendering. (researchers, 1999, p. 398)

### **5.1- The history of plaster use**

Gypsum has been used throughout history by ancient civilizations for casting natural parts of the human body. For example, the Egyptians and Greeks used it to create masks and casts of human faces and bodies. In Egypt, gypsum was used to cast a mask for the deceased so that the soul could recognize its body upon returning. In Mesopotamia, gypsum was used to cover mud and stone buildings and was then decorated with carved plant and geometric motifs. Muslims also used gypsum in the decoration of mosques and palaces, covering walls and ceilings with botanical, geometric, and linear elements, and coloring them with multiple colors, (Sharaf, 2002, p. 79) Islamic architecture has been known to use gypsum in construction and decoration since the Umayyad period, as seen in the western palace of Al-Hirah in the 2nd century AH/8th century CE. Its use continued in the Abbasid era during the 3rd century AH/9th century CE, as seen in places such as the city of Samarra in Iraq and Ibn Tulun Mosque in Egypt, (Rizk, 2000, p. 64) Indeed, the use of gypsum in decorating religious and civic buildings in Samarra was so widespread that gypsum decoration became a hallmark of this Abbasid capital (Zaki, Islamic Art In Egypt: From The Arab Conquest To The End Of The Tulunid Era, 2017, p. 57) afterwards, this industry spread to North Africa, as seen in the Qarawiyyin Mosque in Fez, Morocco, during the 6th century AH/12th century CE. From there, it spread to Andalusia, where it reached new heights of precision and perfection in the facades of the Alhambra Palace in Granada during the 7th century AH/13th century CE. Islamic architecture is full of magnificent examples of gypsum decoration, including Kufic calligraphy, botanical motifs, and geometric designs. (Rizk, 2000, p. 64)

### **5.2- The most important industrial methods for using gypsum in wall decoration:**

#### **A. Direct carving on the walls**

This method is performed by directly carving on the gypsum after emptying and smoothing the wall surfaces. Then, it is refined by sculpting after the gypsum has dried. The design here is flat and summarized in a way that decorative shapes appear as if they

are on one level, free from the mechanical spirit that dominates decorations made by molds. Most of the decorations that are used by this method are calligraphic. (Shehata, 2008, p. 63)

### **B. Molding technique**

The molding technique is used in creating gypsum decorations by making molds from gypsum or clay that have protruding designs that are opposite of the desired final decorations. When these molds are affixed to the wall and gypsum is poured inside, the gypsum takes the shape of the mold to produce accurate and detailed final decorations. Gypsum molds come in various sizes and shapes that are suitable for the space and desired design. (Judy, 2007, p. 84)

### **C. The perforation method**

This method is limited to the decoration of dome and minaret windows. For windows, a mold is usually made for a repeated pattern of many units according to demand, so they appear on the walls as evenly aligned and similar. If the pattern is not repeated, the artist has to create a single model to break it while extracting the desired window. This is the positive model, and this method follows the previous casting method, but with decorative elements created by perforation.

## **6- The concept of fresco**

"Fresco" is an Italian word that means "fresh," and it is a method of painting on walls that was mainly practiced in Italy from the 14th to the 19th century. One of the main reasons for resorting to this type of mural is its magnificent appearance, reasonable cost, and long-lasting duration. To create a fresco painting, a wall is prepared with one or more layers of rough gypsum, which represents the surface on which the artist applies a drawing with a red pigment called "sinopia." This serves as a draft for the mural before transferring its designs. Then, the lime gypsum is applied over the area to be worked on, provided that this paint is new and wet, to execute the painting on it with watercolors before it dries. Therefore, the artist prepares the area that can be completed in a day, i.e., before the gypsum dries. (Murray & Murray, 1996, pp. 189-190).

### **6.1 The steps to execute a fresco**

- ✓ Prepare the wall to be painted by washing and cleaning it thoroughly.
- ✓ Prepare the lime, which is the most important material in preparing the surface, by burning calcium carbonate ("lime carbonate") at a temperature of approximately 800°C to 1000°C to produce alive lime.
- ✓ Extinguish the lime by spraying it with water, producing the slaked lime, which is used to prepare the mortar for the fresco and to prepare the colors.
- ✓ Extract the lime paste by placing a quantity of it in a basin submerged in water, stirring it, and leaving it to settle while changing the water several times for about a



week. This results in the coarse particles settling on the bottom, while the lime paste floats to the surface, which is the material used in the mortar for the fresco. The lime paste remains usable for only four months.

- ✓ Prepare the base coat mortar, which consists of sifted lime (lime paste) and clean sand that has been sifted using a sieve with an opening size of 1.5 mm. Mix the lime and sand in a ratio of 1:2 (lime:sand), then apply the base coat mortar to the wall and let it dry for three weeks. Wash the wall after applying the base coat to ensure that it is free of impurities and salts.
- ✓ Form the finishing coat mortar, which is the surface directly painted on by mixing the sifted lime and pure white sand that is free of impurities and dust, after washing it thoroughly with water and drying it. Mix the lime paste and sand in a ratio of 1:2 (lime paste:sand) until it becomes a mortar that covers the surface to be painted on. It is possible to cover the wall with four layers of mortar, each layer being at least 2.5-3 cm thick, with each layer applied on top of the previous one before it dries to ensure good adhesion. Then, let the mortar dry for about eight hours.
- ✓ After preparing the surface and allowing it to dry, the design is transferred to the wall using a transparent sheet with the design drawn on it in natural size. The design is then pierced or punctured with a pin or a special tracing wheel, and the sheet is placed on the designated area. Then, a bag filled with colored earth is rubbed over the sheet to allow the color to seep through the holes. This method is called "pouncing." Another method is to tap on the holes with a thin iron or wooden tool to leave an impression on the mortar. (Qadah, 2006, p. 88)
- ✓ After transferring the design, the coloring process can begin. The surface of the mortar should be firm but reasonably damp, not too soft that it makes it difficult for the artist to paint on, nor too dry that the color cannot penetrate the surface. Therefore, it is recommended to moisten the wall with water before applying the finishing coat mortar. It is also important to consider the size of the transparent sheet, making sure it covers the area that can be completed in one day of work. The design should also have subtle transitions without clear dividing lines that would spoil the overall appearance of the painting. The lines should be within the boundaries of the elements to avoid visible divisions. (Qadah, 2006, p. 88)

#### **6.2- Difficulties faced by artists when performing frescoes**

- Drawing bold lines quickly with paint and racing against time before the plaster dries.
- The artist must be extremely accurate when painting, as there is no way to correct mistakes on the wall painting, while also considering the transparency of the colors, especially with water-based paints.

- The fragile ground on which the artist leans on when painting on high walls, as well as poor lighting conditions.
- The artist had to hold the painting brush in an extended arm for hours at a time, leading to famous artists complaining of back pain while painting on walls, not to mention the drops of paint that can fall into their eyes during the process.(Johnson Geraldine, 2005, p. 10).

### **7- The Palace of Ahmad Bey**

The Palace of Ahmad Bey, also known as Dar El Bey,(VAYSSETTES, Hanina, la vierge de Constantine, 1873 , p. 21) took ten years to build from 1826 to 1835. It is located next to the Souk El Ghzel Mosque and is surrounded by four streets: Al-Quds Street from the south side, and Sayyaf Muhammad Street from the West, and Boulqab Mustafa Street from the north and Rue du 12 Mai 1956 to the east. It is also adjacent to the Sidi El Houas Square to the south, (Dahdouh, Constantine city during the Ottoman era, 2010, pp. 394-395) Ahmad Bey's desire to build a residence worthy of his position was the main reason for the construction of this palace. He commissioned the Italian merchant Schiaffino to import columns, marble slabs, ceramic tiles, and other materials from Italy, (Mercier, 1903, p. 380) More than a thousand white marble columns were imported from Italy (Régis, 1880, p. 130).

The columns were imported through the port of Bona and transported by mules and camels to Constantine (FÉRAUD, 1877 , p. 05), The palace consists of four wings arranged in a sloping square, with the exterior of two wings dedicated to horse stables. In the center of the palace, there are three separate square gardens, one of which contains a marble basin with a diameter of 10 feet that was brought from Tunisia in 1835 (Schlosser, 2007, p. 75).

The Palace of Ahmad Bey is considered one of the most luxurious and magnificent Ottoman palaces in Algeria. It covers an area of 5,609 square meters, with three floors on the eastern side and two floors on the western side. The main entrance is located on the southern side and leads to a courtyard that surrounds the palm garden. On the eastern side, there is a wing dedicated to Fatma, and on the western side, there is the orange garden and the harem section consisting of five halls and rooms for servants. The palace also includes a section for fish breeding, a laundry section, a court section, Fatima's room, Aisha's room, and the Bey's headquarters. In total, the palace has 22 rooms and four courtyards, including the palm and orange gardens. (Dahdouh, Islamic monuments in Constantine during the Ottoman period, 2015, pp. 97-98).



### 7.1- Founder of the palace

Ahmad bin Muhammad Al-Sharif bin Ahmad Bey Al-Qoli was born in 1784 in Constantine. His father was Turkish, and his mother was Algerian, originally from Biskra (Redjel, 2016, p. 15). Ahmad memorized the Quran and learned Arabic grammar, horse riding, and combat. He performed the Hajj pilgrimage when he was young and held various administrative positions until he eventually reached the position of Bey, (Touali, 2012, p. 16).

Ahmad Bey was the last Bey of Constantine to rule over the eastern province from August 1826 to October 1837, (VAYSSETTES, Histoire de Constantine sous la domination turque de 1517 à 1837, 2002, p. 228) he succeeded Bey Muhammad Manamini bin Khan (Gaid, 1978, p. 88), whose rule was known for the deterioration of law and order and the oppression inflicted by the Turkish authorities,(Ibn Al-Antari, 2009, p. 90).

Therefore, it became necessary to appoint a strict and capable man, and Hussein Pasha appointed Hajj Ahmad for the task (Vayssett, 2010, p. 243) During his rule, the city of Constantine was embellished and turned into a large construction site for about four years (Boumahla, 2010, p. 95) However, when the French colonialism entered Constantine on October 13, 1837, Ahmad Bey fled south with his knights and fought against the French in different areas in the eastern region of Algeria until he was forced to surrender in June 1848 (Filali, 2017, p. 228) He was then exiled to Algiers, where he died in August 1850 and was buried in the cemetery of Abdel Rahman El-Tha'alibi (Khalfallah & others, 2014, p. 70).

## **8- The artistic and descriptive study of the architectural drawings and elements in the palace**

The walls of the Ahmed Bey Palace are decorated with a multitude of murals, with decorative themes ranging from botanical, geometric, calligraphic, human, and animal motifs, as well as some symbols. However, the most widespread murals are those of landmarks and architectural elements, which cover a vast area of the palace's walls. There are different stories and sources about the idea of drawing these landmarks. Some attribute these murals to Ahmed Bey's desire to depict his pilgrimage journey by drawing the most important cities he passed through, including Mecca and Medina. Others believe that these murals were the idea of the artist Hajj Yousef, who traveled to Egypt and learned from the most skilled painters in this field. Meanwhile, another group sees the idea behind these murals as external influences, and that this type of art spread in many Ottoman palaces during that period, and Hajj Yousef copied these murals while putting his own personal touch on them. Despite the different opinions and perspectives, it is certain that these murals are archaeological treasures and highly sophisticated works of art. As soon as a visitor enters the palace, they find these murals covering the walls of the main entrance arcade overlooking the palm garden.

### **8.1- Cairo City Painting**

The painting depicts the city of Cairo, starting from the right wall of the main entrance arcade overlooking the Palm Garden in a way that makes it seem like a ship floating on the surface of the sea. The painting starts with the "Ismail's sons castle", as documented above it, where the castle is depicted as the stern of the ship, confirming its nature as a fortified castle with its surrounding walls, and the presence of four towers equipped with cannons, directed in different directions. The buildings in the drawing appear in a harmonious form, with highlighted windows and some doors, in addition to many domes and two minarets, which are likely to symbolize a mosque. The drawing also includes many drawn swords behind some of the buildings, which may represent a market or a weapons factory, or indicate a large number of soldiers and guards.

Based on this drawing, we can conclude that the most likely hypothesis is that this castle is a representation of the Citadel of Saladin in Cairo, due to the similarity between them in the general features, such as the prominence of the minarets and even the drawing style that suggests to the viewer that this castle is built on top of a mountain, which coincides with the Citadel of Saladin, which is built on top of the Mokattam Mountain. In addition, this castle is depicted with a flag flying in the center of which is a crescent, which may symbolize the seat of government. This supports our hypothesis if we know that Muhammad Ali Pasha used this castle as his seat of government during his reign. Moreover, he was known for his great interest in building a strong army, as he

built a factory for weapons and cannons. Perhaps the drawn swords and cannons represent this factory.

On the left side of the Citadel of Ismail's sons, another monument is depicted with the name of Sultan Hassan. It consists of several harmonious buildings drawn in the same style as the previous ones, with a massive structure featuring multistory pencil-shaped minarets and many domes of different sizes, suggesting that this monument represents a large mosque with several annexes. This leads us to the hypothesis that this painting represents the Mosque, Madrasa, and Mausoleum of Sultan Hassan in Cairo, especially considering its proximity to the Citadel of Saladin. Moreover, there is a significant resemblance between the realistic image of this monument and the drawing, both in terms of its shape, minarets, and domes, and in terms of its prominence among the buildings. To the left of this painting, another monument is depicted, consisting of several buildings. In the center of these buildings stands a prominent mosque with several doors, featuring three pencil-shaped minarets and two domes of different sizes. In the middle of the mosque, a tomb is depicted with the name "Hasanin" written above it, surrounded by latticed windows, indicating that it represents a mausoleum enclosed by Mashrabiya screens. It is likely that this drawing is a variation of the Imam Hussein Mosque in Cairo. Comparing the real image of the monument with the drawing, we find a significant similarity, especially in terms of the shape and number of minarets and domes, as well as the presence of the tomb of Imam Hussein in the mosque.

Adjacent to the mosque on the left-hand side of the painting, there is a drawing of another large mosque with numerous minarets and domes drawn in the same style as the previous one. We believe this drawing to be a representation of Al-Azhar Mosque, which is one of the most famous mosques in the Islamic world. Following this section, there is a drawing of a city with the words "Ancient Egypt" written above it. This city is one of the neighborhoods located to the south of Cairo, and its landmarks are depicted clearly, comprising a collection of buildings that are stacked and arranged. The smaller buildings are shown in the foreground, while the larger ones are drawn in the background. Some minarets and domes are visible behind these buildings.

This city includes many of the Coptic structures in Cairo, in addition to the oldest mosque in Africa, which is the Amr Ibn Al-As Mosque. In addition, the Nile River is depicted in blue, surrounding the entire painting from the far right and extending beyond it. Small and medium-sized boats with and without sails float on the river.

The area between the landmarks and the river is filled with rows of trees along the banks of the Nile. In general, this painting is shaped like a ship, with the dark orange color used to depict the ground, while white is used to color the landmarks, and black is used to draw their borders. Some colors stand out, such as the use of dark orange to

color some windows and domes, and the use of black to color the large doors. The painting features a great number of domes and minarets, which vary in shape, including the bulbous, rectangular, cylindrical, and polygonal styles.

Additionally, the painting shows a variety of balconies and lintels, which all end with crescents and finials. This diversity depicted in the painting reflects the various architectural styles left behind by the different conflicts and dynasties that ruled Egypt. The most striking feature of this painting is the way the buildings are attached to each other, with many different types of windows, ranging from small rectangular ones to larger vertical ones, and simple double-leaf doors. The domes are also depicted in various sizes without much detail. The buildings are separated by drawings of trees, while the smaller structures are shown in the foreground, facing the Nile. Some buildings are depicted with multiple stories.

It is noteworthy that the artist did not only draw the domes, but also depicted the tiled roofs in many of the landmarks, as seen in the buildings on the opposite bank of the Nile, which are depicted in similar shapes. Above the painting, there is a strip of flowers depicted in a sequence with their leaves and stems, and folded and twisted curtains hanging from colorful blue and white ropes. The dominant orange color in the painting gives it a radiance and clarity, making it visually striking. Additionally, there are some inscriptions written in the Naskh script on some of the buildings, especially the famous ones such as "Qal'at Awlad Isma'il" "قلعة أولاد إسماعيل" "Sultan Hassan" "السلطان حسن" "Hasanin" "حسنين" and "Ancient Egypt" "مصر العتيق".

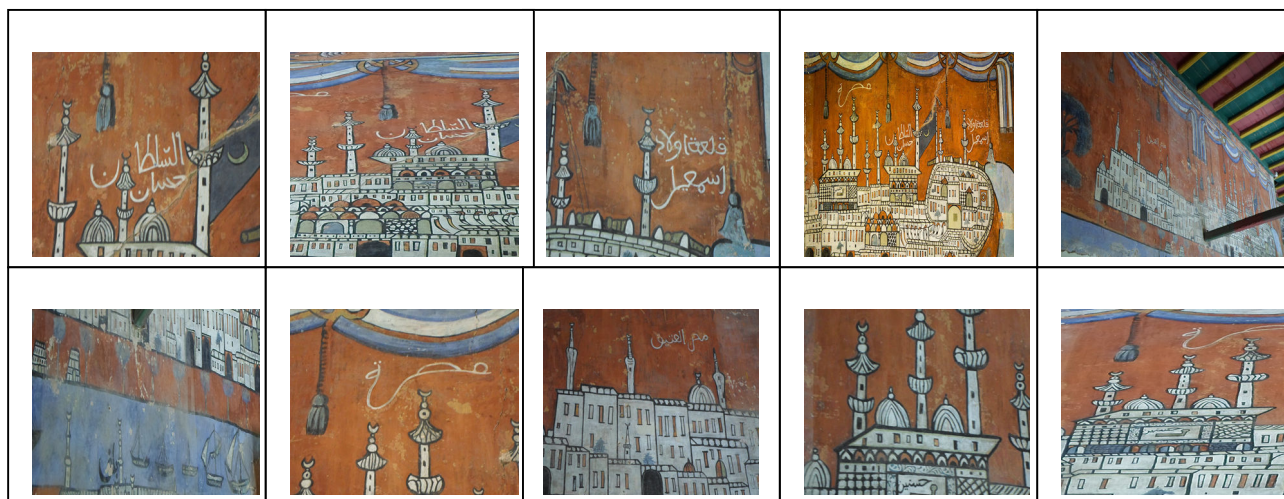


Figure 02 represents a series of images showing different aspects of the Cairo drawing in the palace of Ahmed Bey.



The city of Alexandria is one of the cities depicted on the walls of Ahmed bey's palace. Among the landmarks shown in the painting is the Column of Pompey, which was built on a hill and is depicted on the far right of the painting. The column represents the location where the Serapeum temple was built during the Ptolemaic era, and it is one of the most famous historical landmarks in Alexandria to this day. In addition to the Column of Pompey, the majority of the painting represents the eastern harbor in its semi-circular shape, with a prominent castle and its large walls, which is the Qaitbay Castle. The painting also depicts the Abu al-Abbas al-Mursi Mosque with its finely detailed domes and multi-tiered minaret, as well as the Imam Al-Bawisri Mosque, which faces the Abu al-Abbas al-Mursi Mosque and has a similar architectural design.

The painting also depicts the windmills installed at the seaside, with the inscription "Arhawan al-Rih" written in Naskh script in front of them. These windmills are a representation of the Mandara and Montaza windmills that were built by Muhammad Ali Pasha. The light blue sea is illustrated with a fleet of ships of different sizes and multiple sails, colored in black and white. Additionally, some small boats are also depicted. The painting also shows the Alexandria lighthouse with a colorful flag in white, featuring a crescent, and a palm oasis on the coast with dark blue color. The phrase "Iskandar" is written above the painting to indicate the name of the city. Overall, the painting shows the city of Alexandria in a cohesive group of buildings characterized by many windows, perforated shutters, doors, and multiple floors, with flags and banners flying atop the buildings. The painting also shows windmills near the coast, and numerous commercial and military ships belonging to the fleet.

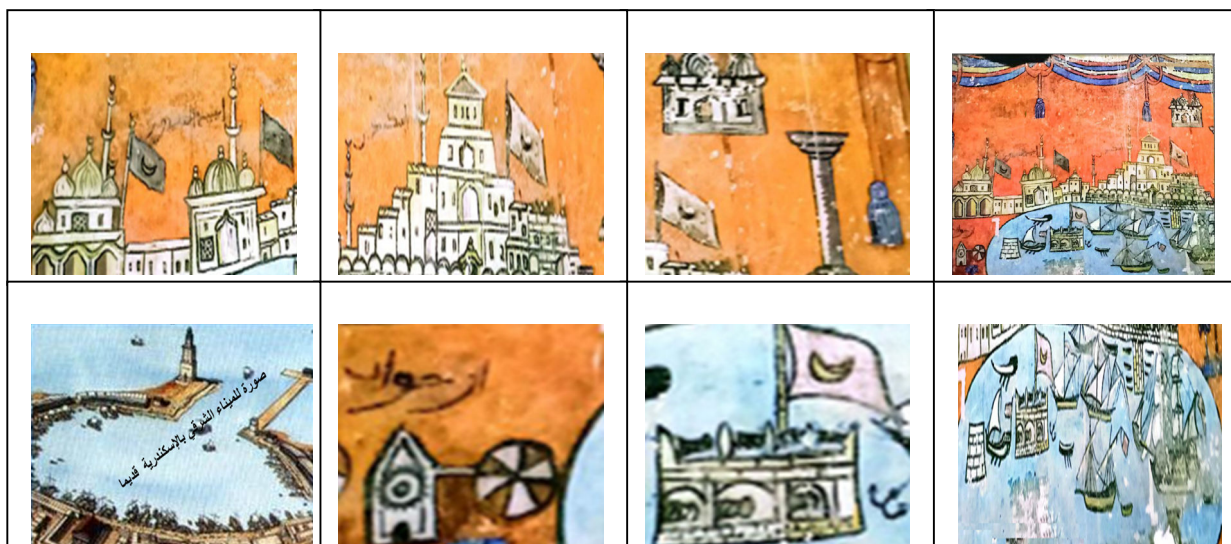



Figure03 represents a series of images showing different aspects of the Alexandria drawing in Ahmed Bey's palace.

In addition to the two paintings studied, Ahmed bey's palace is adorned with many other paintings that depict his journey to Hajj, starting from the city of Constantine, passing through many cities such as Algiers, Tunisia, Libya, and finally arriving in Mecca and Medina. The artist demonstrated great skill and craftsmanship in depicting each city with its unique natural features and architectural character. Moreover, the artist highlighted the most important and famous landmarks in each city so that the viewer can easily recognize the cities through their landmarks. The artist also wrote the names of the landmarks and cities, and drew symbols that indicate a specific city or landmark, which we found during our study.

### **9- Results of the study**

- ✍ The amount of space covered by frescoes in Ahmed Bey Palace, where a large part of the palace walls were painted with frescoes, indicates the Bey's love and inclination towards this type of decoration.
- ✍ The diversity of decorative themes executed in frescoes, where the artist resorted to all decorative themes such as geometric, botanical, calligraphic, human, animal, and even the decoration of architectural elements and architectural drawings.
- ✍ The drawings of the cities that were painted in frescoes in Ahmed Bey Palace embody his visit to various countries and cities during his pilgrimage, starting from Constantine, his seat of government, and reaching the Holy Land, passing through many countries such as Tunisia, Libya, and Egypt.
- ✍ The artist used a diverse range of colors in coloring the floors of the drawings and landmarks, especially in the Cairo and Alexandria paintings, which made them eye-catching and attracted all visitors to the palace. The artist's intelligence in using dark orange as a background for his paintings made the coloring of the landmarks with any other color makes them prominent and clear.
- ✍ Most of the paintings on the walls of the palace were kept in their original form and color for a period of about two centuries, which indicates the professionalism of the artist in preparing the primary materials for painting and his accuracy in using the measuring tools in the correct way, except for some drawings that were damaged due to natural or human factors.
- ✍ The drawings of landmarks and architecture were characterized by a high degree of accuracy, where the artist drew each city according to its urban character in that period, highlighting the most important landmarks in each city in a professional manner that indicates the skill of this artist.
- ✍ There was a great match between the landmarks drawn in the painting and their shape in reality, especially when referring to the description of these landmarks during that period when Ahmed Bey visited them.



 The artist used some codes and signals to identify the drawn landmark, such as drawing a shrine inside a mosque and writing the name "Hussein" above it as an indication of the Imam Hussein Mosque in Cairo, and drawing many swords and guns behind each other as an indication of a weapons and guns factory built by Muhammad Ali Pasha during his rule of Egypt, and other codes.

### **Conclusion**

In conclusion, we can say that Haj Ahmed Bey worked on constructing a palace that rivaled the most famous and magnificent palaces of that era. He imported the finest materials and hired the best builders and artists. He brought in the artist Haj Yousef, who specialized in decorating the palace walls with watercolor frescoes. It was a masterstroke, as he produced artistic paintings that adorned the various walls of the palace with various decorative elements such as botanical, geometric, and calligraphic designs. The most beautiful and magnificent of these were the drawings that depicted some of the cities that Haj Ahmed Bey had visited, especially since this type of decoration was not well-known in Algeria. However, it is important to note that a significant portion of these gypsum "fresco" decorations and drawings have been damaged. Despite preserving their shape and color for nearly two centuries, it is necessary to take care of this unique type of decoration and to maintain and restore it according to the scientific and artistic conditions that would preserve its artistic, historical, and archaeological value. After all, this palace embodies an important historical era in the history of Algeria.

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