



***Ceramique decoration on Hamadi buildings
–an artistic archaeological study-***

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Abstract

The Muslim artists were interested in decorating The walls and floors of the buildings they constructed from an early period. These valuable antiquities Remain a reflection of the high aesthetic achieved by Islamic art in general and architecture in particulare.

Ceramic tiles were one of the decorative materials used in adorning buildings, whether for Wall cladding or paving. Flooring is one of the most important physical evidences of architectural decorations on various structures and is among the most important craft industries that have attained a significant position, Its uses in decorating buildings have varied .Its use developed greatly in the Islamic Maghreb during the Hammadid period ; as the Hammadids derived this art from the regions neighboring their state. They were creative in its design, giving it an artistic characteristic and a Hammadid imprint , Thus, it became one of the basic decorative features in the decoration of Hammadid buildings in that period.

Keywords. *Ceramic tiles -architectural decoration-Hammadi era – Middel Magherb- Islamic art*

Introdiction:

The Central Maghreb region is considered one of the Islamic metropolises whose borders extended from Tlemcen to Bejaia. It was known for the succession of several important Islamic periods over it . The Hammadid period is considered one of the most prominent periods that lasted for about a century, due to the various architectural structures it left behind that still exist to this day. The rulers and princes of the Hammadid state used several methods and materials to decorate their facilities on the external and internal facades; It exploited various materials from stones, marble, plaster and architectural ceramics. The latter is considered among the great innovations that Muslim potters and craftsmen were guided by, as well as among the applied arts and decorative crafts that are most widely used and widespread in the Islamic Maghreb.

In the field of architecture, the Banu Hammad left various monuments in both the citadel and Bejaia, their second capital, through the prominent monuments of the Hammads dating back to their era ; It bears witness to their innovation, innovation and unparalleled development in many architectural and artistic aspects. Which suggests that they have played a major civilizational role in the history of Algeria? It was prosperous in various fields to the point that it resembled some other cities in the East. This is despite its location in rugged natural terrain, far from the cultural centers of the time. However, the Hammadids knew how to create a cultural position for themselves among contemporary civilizations such as the Abbasid Caliphate and the Fatimid state.

This research paper seeks ti delve into the artistic architactural aspect practiced by the Hammadi artistin general and the citadle in particular.The latter contained various applied arts. For this reason ;we shed light on the cruciform –shaped ceramic tiles that adorn the floors and walls of building,whether civil or religious , as they are among the most important and prominent architectural ceramic proudacts, where these tiles were used According to specific rules aimed at creating a kind of integration between the art of construction and the art of decoration. In light of these data , we pose the following research problem : What are the sources of these tiles ?What are the most important decorations and themes that they contain and are embodied on them ?

1.Historical roots of architectural ceramics in Central Maghreb :

The ceramic industry has been known since ancient times, as it came to meet the daily needs of man in those eras, It was characterized by its simplicity and lack of cecoration, However this industry developed with the passage of time and the development of human life¹. As fir Islamic civilization ceramics knew great importance ; as its industry reacherd the height of its development, It occupied the forefront among other indutries and this is due to the great need for it. Since its production in the Islamic world was very large, ceramic products varied between those associated with daily life, such as utensils and others and those related to architecture, Such as ceramic tiles their shapes, manufacturing methods and decoration methods varied².

Ceramic tiles are considered one of the important decorative elements in islamic architecture, as they were used in all types of religious and civil buildings. This type of industry was known by sereval names. There are those who call it architectural mosaic or the them zellige in the Maghreb and Andalusia, or it is called Kashani in the islamic East³. All of these terms have a similar meaning, as their general concept is ceramics that are used in the field of architecture. As for the use of ceramic tiles in the Islamic Maghreb, it was known before the Hammadi era, and this is through the influx of its manufacture through the cityof samarra during the Abbasid Caliphate (132-656 AH/ 750-1268 AD). It initially appeared during the Aghlabid rule of the city of Kairouan in Africa (221 AH/836 AD). Metal ceramics entered Kairouan through two craftsmen in the second half of the third century AH, i.e. the year 262 AH, according to the chemical analysis of samples of the ceramics squares that decorated the facade of the mihrab. Uqba bin nafi Mosque (photo1). It proves that it was manufactured from two different primary materials, as these craftsmen brought with them a sample of metallic ceramic squares to present to Prince "Abu Ibrahim Ahmed" The rest of the pieces were manufactured in kairouan ;the process of consolidating the architectural metallic ceramic technique in Africa was confirmed by some discoveries in the Kasr al-Bahr in Barkada⁴, where their number is approximately 139 or142. They are considered among the oldest tiles dating back to the Aghlabid period, and the methods of these ceramic tiles fit perfectly with the style of the Samarra style , The rich decorations and great diversity in the designs of the tiles of the Kairouan Mosque indicate the extent of Iran's superiority in the manufacture of ceramics with a metallic luster⁵.





Fig.1.faced of the mihrab uqba bin nafi Mosque in Kairouan

As for the pottery on Qal'at Bani Hammad" 454- 398 AH / 1152 -1007 AD which was a prominent industrial site in that period , as archaeological research and excavations . French researchers at the beginning of the 20th century AD; Similar to "Georges Marcais" who points out that the Hammadi architects responsible for supervising and monitoring the building and construction work carried out undoubtedly using baked or fired clay in the various buildings constructed in the castle ⁶.

Which indicates the existence of a ceramic pottery industry made by experienced local craftsmen And high taste, they were influenced by the designs and elements of the squares of the Aghlabid period . According to him, this is due to the pieces of the ceramic mosaic found by researcher "Golvan" in the ruins of Al-Salam Palace. It is worth noting that these architectural ceramics were used by the Normans* later, they used them as decorative architectural elements In their facility especially in the palaces of the city of Balrama in Saqlya⁷ .

2. Descriptive study of Hamaddid architectural ceramics:

Technical card01:

Inventory No: I.CA 18

Name of the masterpiece: Ceramic tile

History : Hammadid period .

Material : : architectural porcelain .

Sizes : L: 15 cm/H: 15 cm/ .

Thickness : 3.5 cm .

Industry technology : molding – cutting .

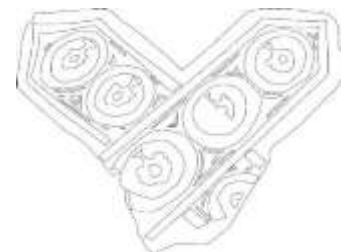
Decoration style : lacquer and metallic luster .

Function : architectural -decorative

Location : : Beni Hammad Castle .

Conservation place : National Public Museum of Setif .

Conservation condition : good .



Description : the piece is part of a ceramic tile made of red clay A cross-shaped shape that ends with sharp points made with mold technology ; decorations are carried out on the surface of the piece . Geometric shape represented by indigo bluecolored circles on an emerald green ground , in addition to decoration. the plant drawn inside the circle, which consists of severely modified five-

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lobed leaves. the piece was painted with a metallic luster. this piece alternates with the eight-pointed star plates in sometimes . what is observed is that the piece is cracked on both sides and is not integrated .

Technical card 02 :

Inventory number : : I.CA 17 .

Name of the masterpiece :ceramic tile

History : Hammadid period .

Material : architectural ceramic . Sizes : L: 37 cm/ H: 37 cm .

Thickness : 3cm .

Industry technology : molding – cutting .

Manufacturing technology : mold-cutting .

Decoration style : lacquering – glazing

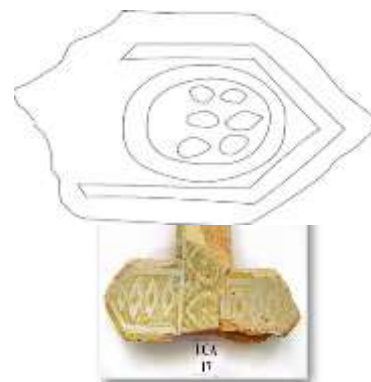
Function : architectural– decorative

Location: Beni Hammad Castle.

Conservation place : National Public Museum of Setif .

Conservation condition : good .

Description : part of a ceramic slab with a cruciform shape consisting of three vertices , made of red clay ; it contains geometric decorations represented by rhombuses hollowed out from the inside it was painted repeatedly along the surface of the tile , incorporating the halves of the double palm fans are also painted in a repetitive manner , in the white on an emerald green ground decorated with metallic luster .



Technical card 03:

Inventory No: I.CA 15.

Name of the masterpiece: Ceramic tile

History : Hammadid period .

Material : : architectural porcelain .

Sizes : L: 13.4 cm / H: 6 cm .

Thickness : 3.5 cm .

Industry technology : molding – cutting .

Decoration style : lacquering – glazing.

Function : architectural -decorative

Location : : Beni Hammad Castle .

Conservation place : National Public Museum of Setif .



Conservation condition : good .

Description : part of a hexagonal ceramic tile , but half of its parts are completely damaged The piece has traces of breakage and cracks , done in the brush and coloring style, which appear on the surface . The geometric decorative piece represented by the braid is painted in white paint on a gold ground inside a pentagonal frame, it is decorated with shiny metallic



Technical card04:

Inventory No: I.CA 08.

Name of the masterpiece: Ceramic tile

History : Hammadid period .

Material : : architectural porcelain .

Sizes :H: 7cm / H: 10cm .

Thickness :2.5 cm .

Industry technology : molding – cutting .

Decoration style : lacquering – glazing.

Function : architectural -decorative

Location : : Beni Hammad Castle .

Conservation place : National Public Museum of Setif .

Conservation condition : poor .



Description: It is a hexagonal ceramic tile, decorated with geometric motifs. The circle and

the points within it; It is executed in a regular manner using the style of painting with a brush , it is repeated on the surface of the piece, and is interspersed with the floral decoration on the sides of the circle . It consists of halves of double and single palm fans, painted with white paint on the ground Buttery green .

Technical card 05 :

Inventory No: I.CA 05.

Name of the masterpiece: Ceramic tile

History : Hammadid period .

Material : : architectural porcelain .

Sizes :L: 6cm / H: 6cm .

Thickness : 3. cm .

Industry technology : molding – cutting .

Decoration style : lacquering – glazing.

Function : architectural -decorative



Location : : Beni Hammad Castle .

Conservation place : National Public Museum of Setif .

Conservation condition : good .

Description: It is part of a ceramic tile made by a hexagonal mold. And what we notice about The piece is that some of its parts were broken, which distorted the beauty of its shape. It was decorated with geometric elements represented by rhombuses executed in a coloring style and repeated on the surface of the piece, it is found on both sides of the Lozenges, a floral decoration made up of half-curved palm fans, painted in white on a ground Emerald green.

Technical card 06:

Inventory No: I.CA 20.

Name of the masterpiece: part of a Ceramic tile

History : Hammadid period .

Material : : architectural porcelain .

Sizes :L: 16.5cm / H: 15cm .

Thickness : 3.5 cm .

Industry technology : molding – cutting .

Decoration style : lacquering – glazing.

Function : architectural -decorative

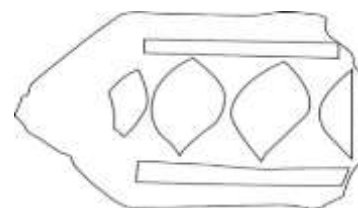
Location : : Beni Hammad Castle .

Conservation place : National Public Museum of Setif .

Conservation condition : good .



Description: It is an unintegrated piece of a cruciform ceramic slab finished with prominent heads. It is sharp and made using the molding technique from red clay. The piece contains the inscription decoration represented by : the leafy Kufic script, and this is what we notice through the letters that end with modified leaves, they have drawn the decoration in the style of coloring is represented by the word “Yemen”, which is repeated on the surface of the tile in a manner Alternating, they are painted with a metallic luster, and the decoration was executed with white paint on a gilded ground And shiny, and enhanced by the floral decoration represented by the halves of single palm fans.



3. The Technical archaeological study of the architectural ceramics in the castle:

Hammadid architectural decorations were distinguished by their absence of pictorial subjects , as the artist knew Al-Hammadi , with his exceptional genius and cleverness, how he prints his works and embodies them on his clay products . Through it was designed with an aesthetic touch and a special artistic flair, as that aesthetic view was evident in the elements. The decorative techniques he used with skill and skill , most of the decorations were executed on architectural ceramics with a feather including its use :

3.1. decorations Geometric : decoration has been known since ancient times that preceded Islam. Its use was only on a limited scale, in addition to its drawings that suggest poverty in the imagination. It reached the height of its development in the Islamic decorative arts through the use of this material by Muslim artists. genre in their various artistic products, and they excelled in it until it became one of the basic elements in the decorative system since the Umayyad era⁸ , and this creativity did not come by chance, but was achieved thanks to His knowledge of scientific engineering .

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In Hammadi architecture, it took on special importance, as it was represented by the various geometric shapes that it played an important role in Hammadiya decoration, whether on the facades of the minaret or even on the walls or floors. Palaces, and we find that they have the other elements and sometimes become one of the elements The main area covering the ceramic tiles area; The decoration, painted in one color was used , some of them are in multiple colors, and in all of these types, the decoration is printed, including :

3. 1. 1. The circle : The circle occupied a large area in the decoration, and it is the geometric location of the group. An infinite number of points at a fixed distance from a fixed point called the center of the circle, which symbolizes the sun. And the sky and infinite unity⁹ , and it is one of the most important shapes that were widely used in the decoration of tiles Ceramics in the castle; It was the main subject along with floral decoration and sometimes Individually. and through the models studied, we have two types of circles, with a dotted shape in the middle , it separates the outer frame from the central filling in the form (-A-) and the second type, which is interspersed with floral leaves Axis (form-B-) .

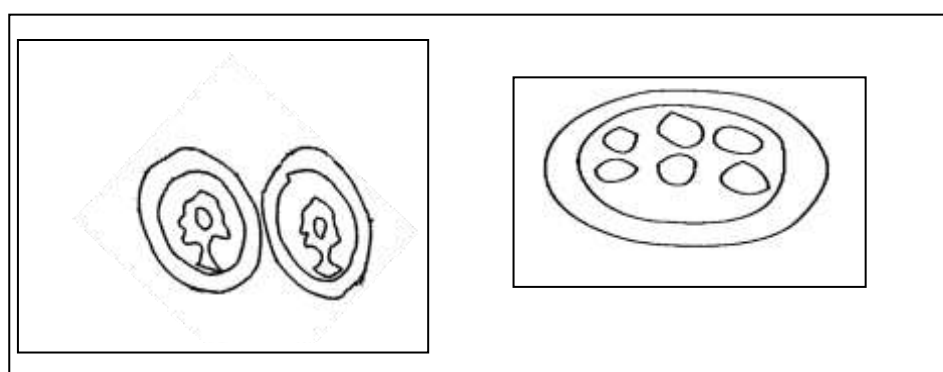


Plate.1. Circle shapes on Architectural ceramic Piece(researchers work)

3. 1. 2. Polygons : They were used in various sizes and shapes to form decorative elements that the walls and floors of Hammadid buildings are decorated with simple spindle shapes that are often they come in close-knit series and are rarely single or spaced apart , it means there are spaces between the spindles . It is found on ceramic tiles of two types . The first has an open shape in the middle and surrounds it . A group of simple half- palm fans, As for the second form , it is closed and stitched between the chains have some bent and modified stems. (Plate 02 C- D).

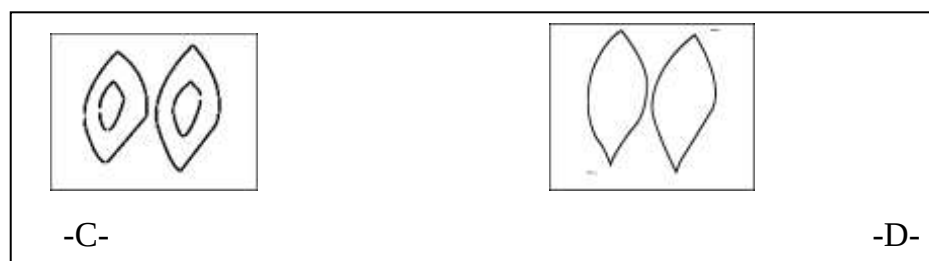


Plate.2. Polygons shapes on Architectural ceramic Piece(researchers work)

3.1.3. Braids : The braid, also known as braids , was used as a main decorative element on the surface of ceramic tiles , which means each braided strip consisting of a complete circle linked by two semicircles . The two sides are in three centers on one line, with two opposite directions , each of which is a sector of one half . A circle whose sides end with a straight line ¹⁰ . This type of braid has previously been used on ceramics .

Located in Andalusia , which dates back to the 4th century AH - 10 AD, specifically in Medina Al-Zahra and the

Alhambra Palace in Granada , (Plate 03: E) .

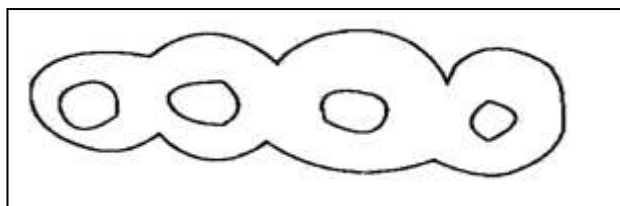


Plate. 3. Braids shapes on Architectural ceramic Piece(researchers work)

3.2. Written decorations : The artis-Hammadi followed the same approach followed by artists in the East. A large place is devoted to the Al inscriptions on various materials such as stone , marble, plaster, and wood ceramics had the best luck due to the Hammadids' interest in decorating it using calligraphy . Kufic, and it can be said that the purpose of using writings on Hammadi ceramics was not the purpose including recording the name of the maker, the name of the owner of the antique, or the date of manufacture . Rather, they are words Repeated advertising .

3. 2.1 Leafy Kufic script : It is the script that attaches floral decorations to the end of its letters . Fans and their halves, and are usually issued by the letters of standing or lying letters and the endings of letters . And the words that the artist Al-Hammadi repeated on the ceramic tiles represented by the word “Yemen” “Photo 02”, and its use prevailed in most of the buildings in the castle , whether in ceramic tiles or even in the antiquities above the arches of doors and niches , such as those found in Constantine and Bejaia .



Fig.2. Written decorationon shapes (researchers work)

3.3 . Floral decorations: The field of floral decoration in Islamic arts is considered one of the important fields . In which the Muslim artist toured and created various plant forms that took on the natural forms to Abstraction and distance from nature in response to the teachings of the Islamic religion.

It means every adornment or decorative ornament that relies in its design on plant elements such as stems and leaves . Flowers and fruits, and Hamadi floral decorations are considered a continuation of the characteristics of Aghlabid art influenced by In turn, with Abbasid art; Which avoids excessive luxury, which led to the emergence of a new style in the decoration is characterized by clarity, mastery and simplicity .

3.3.1. Palm fans : Palm fans played an important and prominent role in architecture and applied arts. In the middle Islamic period, despite its widespread use in the Islamic Maghreb And Andalusia, but it was very scarce on Hammadi ceramics, some of which were delicately painted and some of which were drawn rather rough . We find it in two types :

3.3. 1.1. Simple semi-fans : These are fans consisting of half a leaf, and they are either extended or Screwed, with slight curves in the shape of the letter (L) or a question mark (?),and is composed of a base It has the shape of a cup-shaped or crescent-shaped, perforated bud. As for the body, it is twisted in the form of an inflated spiral that ends With sharp ends that are slightly or sharply wrapped around themselves¹¹. This type

is found on shop models. Studies have been conducted, but they are few compared to the second type . (Plate 04: Figure-1-).

3.3.1.2 Half of the double fans : The double fans consist of the acanthus leaf, which is t consists of two nearly equal lobes that end at a sharp angle, and the double propeller is derived from the propeller the simple one with more elongation and greater flow but with the same curvatures¹² , and these fans were found on the surface of ceramic tiles alongside geometric decoration and sometimes with decorations (- Written. (Plate 04: Figure-2).

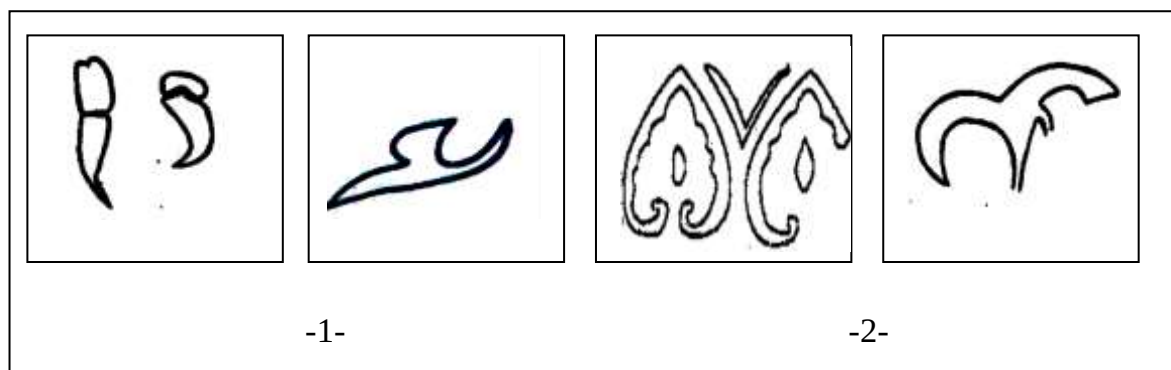


Plate.4. Floral decorations shapes (researchers work)

4. Shapes of Hamadi architectural ceramic tiles:

The architectural ceramic pieces in the castle were distinguished by their diversity in terms of shapes of ceramic tiles. Muqarnas, windows, or geometric shapes of square, triangle, hexagon, and pentagon. Not to mention the eight-pointed, twelve-pointed or sixteen-pointed star, in addition **to the cruciform shapes**. Which is the subject of the study. As for the paints, they used the colors that were prevalent in the country. The majority are olive green, golden, and reddish-brown . As for the elements The decorative elements are dominated by geometric and floral elements, and it is believed that they have oriental influences. It dates back to the periods of Seljuk ceramics, and the best evidence of this is the tiles that decorate the niches and the facade. . South side of minaret ¹³.

It used ceramic tiles with cruciform shapes , whose design is based on equal crosses (Croix de Saint André) . The sides have a triangular end and are called the Cross of Saint André. Exhibited in the Islamic Art Hall of the National Public Museum in Setif . In multiple places of Hammadid buildings, and since these previously mentioned tiles were found lying on the floor of the hall For Al-Manar Palace, so we do not know exactly where it was used, whether it was used to pave the floors or was used . As a decoration to cover the walls ¹⁴. According to Bourouiba , the floor of the Hammadi halls was furnished¹⁵. It is made of cruciform ceramic with interlaced ceramic squares , but it is decorated with lustre . The precious metal suggests that it was used to cover the lower parts of the walls and not for paving floors .

Knowing that the cruciform shape and its manufacturing technique do not differ from the well-known ceramic tile techniques , after preparing the clay dough , it is placed in metal or wooden molds, and after the first firing process the potter applies metallic paints in order to implement the decorations to be drawn on the surface of the pieces . This form is limited to decoration only, but it also extended to the planning of the Hamadi buildings that came.

its houses match this shape. If this indicates anything, it indicates the religious tolerance of the Hammadids. Those who did not abstain on the use of the cross, a symbol of the Christian religion¹⁶ .The general design of these tiles . Ceramic , one of the designs that was common in Islamic decoration, especially on tiles Ceramics in Iran and its surrounding areas.

In general, the general features of ceramic tiles can be summarized as follows :

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-Architectural ceramic tiles were characterized by a variety of shapes, such as squares, rhombuses, and shapes of Star , but we devoted cruciform shapes for this study, and in terms of colors such as green the color is white and golden, and it has influences mostly influenced by the Samarra style .

- It supports the idea of the development of the ceramic industry by makers and craftsmen.

- The multiplicity of decorative themes in Islamic arts adopted by the artist Al-Hammadi, which dominated the decorative scene in Hamadi antiquities in particular.

- All Kufic writings were executed on ceramic tiles made of embossed material using the coloring method.

-All writings were free of dots and syllables, which is a characteristic of the 5th and 6th century AH .

- The integrity of most of the writings, their harmony, and the good description of their words, and this indicates the experience and skill of the Hammadi artist .

- The Kufic inscriptions on the tiles can be considered the beginning of the transformation in the formation of the Kufic script from simple Kufic . It plays a functional role , creating a lush coffee with an aesthetic dimension by introducing artistic methods using floral decorations .

5. CONCLUSION :

We conclude from the above that the ceramic tiles with cruciform shapes that were used on the Hamadi architectural installations , they are dominated by the character of renewal in appearance , as the artist preferred Al Hammadi values diversity and innovation over stagnation and tradition in his applied arts . Thus , we can consider it a castle Al-Hammadi as one of the brightest episodes in the history of the Middle Maghreb in particular, so that it remains firmly established . In front of the artifacts of time and a physical witness to the effects of the Hammadids who were credited with their manufacture and decorated it with this picture .

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