

Egyptian Journal of Archaeological and Restoration Studies

An international peer-reviewed journal published bi-annually



www.ejars.sohag-univ.edu.eg

Original article

INSCRIPTIONS ON THE GATES OF CITIES AND KASBAHS IN MOROCCO IN ALMOHAD AND ALAWITE ERAS: A COMPARATIVE VISUAL STUDY

Aglan, A.

Islamic Archaeology dept., Faculty of Archaeology, Sohag Univ., Sohag, Egypt E-mail address: ameraglan@arch.sohag.edu.eg

Article info.

Article history:

Received: 8-5-2022 Accepted: 28-10-2022

Doi: 10.21608/ejars.2023.305196

Keywords:

Kasbahs Gates Inscriptions Visual dimension Military architecture Morocco

EJARS – Vol. 13 (1) – June 2023: 161-183

Abstract:

Military architecture in the Islamic west is evidence to the ingenuity of design, planning and the link between form and function in Islamic architecture in general and in the West in particular. These buildings were not rigid fortresses, castles and gates. Rather, the Muslim inscriber placed on it floral and geometric decorations and the inscriptions in particular, that draw the atention of who pass by or enter it, with its religious and Foundation texts that represented a reflection of the political life in these eras. Therefore, this study focuses on the inscriptions on the gates of the cities and Kasabahs of Morocco in Almohad and Alawite Eras in terms of the visual aspect of these inscriptions in form and content, where the visual study is one of the most important modern studies in the field of archeology, whether from an architectural or even a technical point of view.

1. Introduction

Since the early Islamic era, Muslims have been clearly interested in inscriptions and their implementation on Islamic buildings. Islamic art has excelled in other arts using calligraphy or decoration because the Arabic script is the most matching decoration due to its unique artistic features [1]. The importance of inscriptions on buildings has not been limited to decoration and dating. Instead, inscriptions denote a message the owner wants to deliver to their viewer or receiver. Thus, achieving the objective or message of the inscription is easy to see, read, and understand by the contemporary or future reader based on the culture and events of the era [2]. In the Islamic west, inscriptions were implemented on many types of buildings, such as city gates and kasabahs. The first and last thing the arrival or leaver of the city or kasabah used to see was the gate. Therefore, the founder focused on the inscriptions that deliver signifycance or messages to the reader to be delivered to the largest number of people. Inscriptions were the most important and successful media to communicate with the public because mass media were few. Inscriptions on the buildings of the Islamic West have received the attention of researchers who conducted extensive studies to document, register and read them. However, most previous studies addressed the form of inscriptions in terms of aesthetics, which is important in studying the types, forms, features, development, and introduction of scripts. Others tackled content within the cultural and historical domains regarding the information related to contemporary events and cultural aspects in relation to systems, administration, jobs, titles, dominant religious spirit, and economic or political and military situations. Undoubtedly, this approach is highly important because of the signs denoted by inscriptions and the social culture and

thought, development of the content from time to another, especially in the titles and public and private positions. In contrast, modern archaeological approaches have been interested in studying inscriptions within their archaeological and visual domains more differently and broadly than architectural studies, taking into account that inscriptions deliver a message via content to the viewer or recipient. Therefore, achieving the main objective or message of the inscription should be easy to see, read, and understand by contemporary or future readers. Based on contemporary culture and events, a person grasps the message of the inscription and links its content with those events. A future recipient reads, interprets, and understands the message based on the history and function of the building and the history of the founder. Hence, implementing these inscriptions to facilitate visual perception and illustration to deliver the message has become highly important in interpreting the history and cultural domains of the building. Linking the content and form of the inscription basically relates to the objective of delivering the message. Thus, studying inscriptions visually is a new dimension that helps achieve several objectives related to the monument, era, history, founder and his titles and functions, contemporary events, contemporary techniques, and development of scripts used in these inscriptions [2]. Some archaeological studies have adopted this approach in studying inscriptions. For instance, Othmān, M., conducted a study entitled "'Adwā'a ğadida 'ala alketābāt fī al-'ātār al-'islāmīa" (New perspectives on inscriptions on Islamic monument simplementation and formation methods) [3] to explore the methods of inscriptions on fixed architectural monuments and movable artifacts. This study tackled the functions and aesthetics of inscriptions visually. Abū rehāb, M., conducted a study entitled "Derāsa fī maḍmūon al-noqūš al-ketābīa 'ala 'amāīr al-'Ašrāf al-S'adīen be al-maġreb" (A study on the content of the inscriptions on the buildings of the Sharifian Saadi dynasty of *Morocco*) [4], he presented the contentsof the inscriptions on the Saadian buildings in Morocco, and its meanings and media messages. Mohamed, Abdulah, conducted a study entitled "al-Noqūš al-ktābīa 'ala al-'ātār al-me'mārīa fī d-gāhera fī 'ahd osrat Qalawūn" (Inscriptions on architectural monuments in Cairo during the Qalawun dynasty- a visual archaeological study) [2]. This study was one of the most important and detailed studies on inscriptions from a visual perspective. 'Abū Šanab carried out a study entitled "Derāsa basarīa le-šāhed gabr 'abi Qāsem al-zleğy b-Tunis" (A visual study of the tombstone of Abu Kassem Al-Zelliji in *Tunisia*) [5]. Applying this new approach that expands, deepens, and enriches the literature on inscriptions archaeologically and visually, the present study is entitled "Inscriptions on military architecture in the Morocco- a visual study applied to some city gates and kasabahs". Since the earliest times, the far west countries utilized the Arabic letter on buildings and establishments as a decorative element and a tool for conveying religious, historical, poetic, or other discourse and ideas. Thus, the implications of inscriptions on the Moroccan buildings varied in terms of scripts, letter forms, and implementation methods [6].

2. Inscriptions Documentation

2.1. Inscription on the Aknaou (Agnaou) gate in Marrakesh

- Founder and date of construction: 'Abd al-Mu'men ibn 'Alī, (542AH/1147 AD) [7].
- **Text type**: Qur'anic verses.
- **Embossing Material**: Stone.
- **Implementation method**: High-relief.
- **Font Type**: Kufic.
- Inscription formation: A band surrounding the entrance to the gate from three directions.
- **Text of the inscription:** "I seek refuge in Allah almighty of the devil, in the name of Allah, the merciful, the most

merciful, God bless our prophet Mohammed, In peace and security, enter them (in paradise), we shall remove all rancor from their hearts, and as brethren they shall recline on couches face to face, There, no fatigue shall smite them, nor shall they ever be driven from it" [8], fig. (1-3).

"أعوذ بالله العظيم من الشيطان الرجيم، بسم الله الرحمن الرحيم، ولله على محجد، ادخلوها بسلام الله على محجد، ونزعنا ما في صدور هم من غلٍ إخواناً على سرر متقابلين، لا يمسهم فيها نصب وما هم منها بمخرجين".

"'A'ūzo bellah al-'azīm men al-šaītan al ragīm, besam ellah al-raḥman al-raḥīm, ṣalla allah 'ala moḥamad, 'Edḥolohab&alām āmenīn, wanaza 'na ma fī soḍūrehm men gel 'eḥwana 'ala sororen motaqāblīn, la ymasohom fiha naṣab wama hom menha bemohraǧīn".



Figure (1) Shows Agnaou gate in Marrakesh



Figure (2) Shows Agnaou gate; details of the inscriptions



Figure (3) Shows Agnaou gate; extracting the inscription

2.2. Inscription on the gate of Kasbah of Oudaya in Rabat

- Founder and date of construction: Abu Yūsef Yaʻqūb al-Manṣūr, (593A. H/1197A.D) [9,10].
- **Text type:** Qur'anic verses, and religious statements.
- **Embossing material**: Stone.
- Implementation method: High-relief.
- **Inscription formation**: A band surrounding the entrance to the gate from three directions.
- Font Type: Kufic.
- **■** Text of the inscription:
- External façade: "I seek refuge in Allah almighty of the devil, In the name of Allah the merciful, God bless our prophet Muhammad and his family and peace and recognition, "Indeed, we have opened for you (prophet Muhammad) a clear ope ning, that Allah forgives your past and future sins, and completes His favor to you, and guides you on a straight path, and that Allah helps you with a mighty help, it was He who sent down tranquility into the hearts of the believers so that they might add belief upon belief. To Allah belong the armies of the heavens and the earth. Allah is the knower, the wise" [11], fig. (4 & 5).

"أعوذ بالله من الشيطان الرجيم بسم الله الرحمن الرحيم، صلى الله على سيدنا مجد وآله وسلم تسليما، إنا فتحنا لك فتحاً مبيناً ليغفر لك الله ما تقدم من ذنبك وما تأخر ويتم نعمته عليك ويهديك صراطاً مستقيماً وينصرك الله نصراً عزيزاً هو الذي أنزل السكينة في قلوب المؤمنين ليزدادوا إيماناً مع إيمانهم ولله جنود السموات والأرض وكان الله عليماً حكيما صدق الله العظيم".

"'A'ūzo bellah men al-šaītan al-ragīm, besam ellah al-raḥman al-raḥīm, ṣalla allah 'ala moḥamad wa'āleh wasalam tasalīma, 'ena fataḥana laka fataḥan mobīna leyaġfer laka allah ma taqadem men zanbak wama ta'aḥer wayutem ne 'mataho 'alik wayahdikṣeratan mostaqīma wayanṣurak allah na-ṣran 'aziza hwa alazī anzal al-sakinah fī qolūb al-mo'menīn leyazdado 'imanan ma'a

'imānehem walellah ğonūd al-samāwāt wa al- 'arḍ wakān allah 'alīman hakima, ṣadaq allah al- 'azīm".



Figure (4) Shows Oudaya gate; external façade.



Figure (5) Shows Oudaya gate; inscriptions details.

Some inscriptions were duplicated at the top of the gate's façade in overlapping decorative arches. They read: "Alshukr Li-lah Wahdau" (Thanks to Allah alone) was duplicated four times, and "Almulk Li-lah Wahdau" (Dominion belongs to Allah alone) was duplicated three times, fig. (6).



Figure (6) Shows Oudaya gate; details of phrases inside the archways.

• Internal façade: "I seek refuge in Allah almighty of the devil, In the name of Allah the merciful, god bless our prophet Muhammad and his family, Allah is the greatest, "Believers! Shall I direct you to a commerce that will save you from a painful punishment? You shall believe in Allah and His Messenger and struggle for

His Way with your possessions and yourselves. That is better for you, if you but knew. He will forgive you your sins and admit you to Gardens underneath which rivers flow, and to fine dwelling places in the Gardens of Eden. That is the mighty triumph. And other things that you love, victory from Allah and an opening that is near. (O Prophet Muhammad) give glad tidings to the believers", fig. (7 & 8). [12].

"أعوذ بالله من الشيطان الرجيم بسم الله الرحمن الرحيم وصل الله على سيدنا مجد و على اله صلى الله على مجد و . الله أكبر (يا أيها الذين أمنوا هل) أدلكم على تجارة تنجيكم من عذاب أليم تؤمنون بالله ورسوله وتجاهدون في سبيل الله بأموالكم وأنفسكم ذلك خير لكم إن كنتم تعلمون يغفر لكم ذنوبكم ويدخلكم جنات تجرى من تحتها الأنهار ومساكن طيبة في جنات عدن ذلك الفوز العظيم وأخرى تحبونها نصر من الله وفتح قريب وبشر المؤمنين".

"'A'ūzo bellah men al-šaītan al-ragīm, besam ellah al-raḥman al-raḥīm, wa ṣalla allah 'ala ṣīdna moḥamad wa 'ala 'āleh ṣalla allah 'ala ṣīdna moḥamad wa, allaho akbar (yā 'aīoha elazin 'āmano hal) 'adolakom 'ala teğarah tonğīkom men 'azab 'alīm to 'amenon bellah wa rasoleh watoğahedūn fī sabīl allah be 'amwalekom wa 'anfoskom zalk ḥayr lakom en kontom ta 'alamon yağfer lakom zonobakom wayodhelkom ğanāt tağrī men taḥteha al-'anhār wamsāken ṭīebah fī ğanāt 'adan zalk al-fūz al-'azeīm wa 'oḥra toḥbonaha naṣr men allah wafataḥ qarīb wabašer al-mo 'menīn".



Figure (7) Shows Oudaya gate; internal façade.



Figure (8) Shows Oudaya gate; inscriptions details

Some inscriptions were duplicated at the top of the gate's façade. They read: "Allah Wahdau" (Allah is one) was duplicated seven times, and another phrase was duplicated six times, fig. (9 & 10).



Figure (9) Shows Oudaya gate, phrases details of inside the archways.

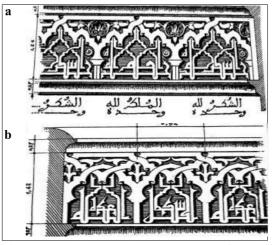


Figure (10) Shows Oudaya gate; extracting the phrases (*After: Caillé*, 2006).

2.3. Inscription on Al-Rawah gate in Rabat

- Founder and date of construction: Abu Yūsef Yaʻqūb al-Manṣūr, (593A.H/1197 A.D) [13].
- Text Type: Qur'anic verses.Embossing Material: Stone.
- **Implementation Method:** High-relief.

- Font Type: Kufic.
- Inscription Formation: A band surrounding the entrance to the gate from three directions.
- **Text of the Inscription:** "I seek refuge in Allah Almighty of the devil, In the name of Allah the merciful. God bless our prophet Muhammad and peace and recognition, "You are the best nation ever to be brought forth for people. You order honor and forbid dishonor, and you believe in Allah. Had the people of the book believed, it would have surely been better for them. Some of them are believers, but most of them are evildoers. They will not harm you except a little hurt. And if they fight against you, they will turn their backs. Then they will not be victorious", fig. (11 & 12) [14].

"أعوذ بالله من الشيطان الرجيم، بسم الله الرحمن الرحيم، صلى الله على مجد و(سلم تسليما) كنتم خير أمة أخرجت للناس تأمرون بالمعروف وتنهون عن المنكر وتؤمنون بالله ولو آمن أهل الكتاب لكان خيراً لهم منهم المؤمنون وأكثر هم الفاسقون، لن يضروكم إلا أذا وإن يقاتلوكم يولوكم الأدبار ثم لا ينصرون".

"'A'ūzo bellah men al-šaītan al-ragīm, besam ellah al-raḥman al-raḥīm, ṣalla allah 'ala moḥamad wa(salam tasalīma) kontom ḥaīr 'omah 'oḥreğat le al-nās ta'morūn be al-ma'rūf watanhūn 'an almonkar wato 'menūn bellah wallao 'āman ahl al-ketāb lakān ḥayran lahom menhom al-mo'menūn wa'aktarahom alfāseqūn, lan yaḍorūkom 'ella 'aza wa'en yoqātlūkom yūalokom al-'adbar toma la yūnṣarūn".



Figure (11) Shows Al-Rawah gate in Rabat



Figure (12) Shows Al-Rawah gate; details of the inscriptions

2.4. Inscriptions on Al-khames gate in Meknes

- Founder and date of construction: Al-Maūla Ismaʿīl ibn ʿAli, (1098 A.H/ 1687 A.D).
- **Text type:** Establishment texts in the form of poetic verses.
- **Embossing material**: Zellige.
- Implementation method: peeling.
- ☐ **Inscription formation**: A straight band at the top of the entrance to the gate, fig. (13).
- Coloring: The inscriptions were implemented in black.
- Font Type: Moroccan Thuluth.
- **Text of the inscription:** They include three lines of poetry, suggesting that the builder of the gate was Sultan Ismail Al Alawi in 1098 AH.

أنا الباب السعيد سموت فخراً / سمو البدر في الفلك السعيد

"'Ana al-bāb al-sa'ed smot fhran / Semū albder fī al-falak al- sa'ed"

سنا مو لاي إسماعيل يبدو / على ذاتي المنوطة بالسعود

"Snā mulāī `Isma`īl yabdo/ʿAla zatī almanoṭa b-as`ūdī"

ففي وقت سعيد بناني/وورخ نشأتي "جود المشيد" "Fafī waqet sa 'ed bnānī / Wa wraḫ "naš 'atī "ǧawd al-mašīed"

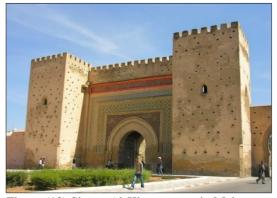


Figure (13) Shows Al-Khames gate in Meknes.

2.5. Inscriptions on Al-Mansour gate in Meknes

- Founder and date of construction: 'Al-Maūla 'Abdulah ibn Isma'īl, (1144 A.H/1732 A.D).
- **Text Type**: Establishment texts in the form of poetic verses.
- **Embossing Material**: Zellige (porcelain).
- Implementation Method: Peeling.
- **Inscription Formation**: An inscription band occupies the entire top of the gate's façade.
- **Coloring:** The inscriptions were implemented in black.
- Font Type: Moroccan Thuluth.

Text of the inscription: Starts with Alhamdulillah (thank god), and pray at prophet Muhammad, then, contains of sixteen verses of poetry praising sultan Abdullah and indicates that he built the gate in 1144 A.H, fig. (14-17).

الحمد لله وحده، وصلى الله على سيدنا مجد، الذي لا نبى بعده

"Al-hamdu li-llah wahdahu, wa-ṣalla llahu 'ala sayyidina Muhammad, Alladi la nabiyya ba'dahu"

طلعت مطالع سعدها أبر اجي/و أضاء في فلك الجمال سراجي

"Tala'at maṭali'u sa'diha abrāǧī/waaḍa'a fi falaki al-ǧamāli sirāǧī"

وحللت من أوج المعالي صهوة/تسمو على الصهوات والأراج

"Wa-ḥalaltu min awği l-ma'ali ṣahwatan/ tasmu 'ala l-ṣahawati wa-l-ārāği"

بوجود من أحيا الوجود وجوده / وأناره بسراجه الوهاج

"Bi-wuğūdi man aḥya l-wuğūda wuğū-duhu/fa-anarahu bi-sirağihi l-wahhaği" من شاد بالنصر العزيز قواعدي/وأدار بالفتح المبين رتاج

"Man šada bi-l-naṣri l-'azizi qawa'idi/ wa-adara bi-l-fatḥi l-mubini ritaği" بيت النبوة والخلافة والعلا/كهف الضعيف وغنية المحتاج

"Baytu l-nubuwwati wa-l-hilafati wa-l-'ula/kahfu l-da'ifi wa-gunyatu l-muḥtaği" مو لاي عبد الله من أضحى به/الإسلام معقود اللوا ماأناح

"Mawlāy 'Abdu Allahi man adha bihi/lislamu ma'quda l-liwa wa-l-tāği" ملك يطاع محبة ومهابة/فتجئ في زمر وفي أفواج
"Malikun yuta'u maḥabbatan wa-mahabatan/fataği'u fī zumarin wa-fī afwāği"
في كل صالحة له أثار توفيق/تنادي باسمه وتناجي
"Fī kulli ṣalihatin lahu ataru tawfiqin/
tunadi bi-'smihi wa-tunāği"
فنظر وقس ما غاب عنك بما ترى/هذا قياس صادق

"Fa-nzur wa-qis ma ġāba ʿanka bi-ma tara/hada qīyasun ṣadiqu l-intāǧi" هل ورخت مثلي "دمشق" أم وشت/صنعي يداً صنعاء في دبياج

"Hal warraḥat mitli "Dimašq" am wašat/ ṣun ʿī yada ṣan ʿā ʾa fi dibaği" أم خُصت الإسكندرية بالذي/يصفون من عمد ومن أزاج

"Am ḥuṣat al-Iskandariyyatu bi-lladi/
yaṣifuna min 'amadin wa min azaği"
أم في الملوك نظير مو لانا الذي/هو للعباد كفاية الأماج
"Am fi l-muluki naziru mawlāna lladi/
huwa li-l-'ibadi kifayatu l-amāği"
فالله يبقيه لرحمة خلقه/ولغيثها بالصيب الثجاج
"Fa-llahu yubqihi li-rahmati ḥalqihi/wali-ġaytiha bi-l-ṣayyibi l-tağğaği"
والله يبقي دينه بوجوده/بادي المعالم واضح المنهاج
"Wallahu yubqi dinahu bi-wuğudihi/
badi l-ma,alimi wadihu l-minhāği"
ونوافل الخيرات تجبى نحوه / من مغنم و هدية و خراج
"Wa-nawafilu l-ḥayrati tuğba naḥwahu/
min maġnamin wa-hadiyyatin waḥarāği"

وتحية المولى السلام تحفه/مسكية النفحات والأراج "Wa-taḥiyyatu l-mawla l-salamu taḥuffuhu/miskiyyatu l-nafaḥati wa-l-'arāği"

انتهى والحمد لله، وسلام على عباده، الذين اصطفي. "Intaha wa-l-ḥamdu li-llah, wasalamun 'ala, ibadihi l-ladina iṣtafa"



Figure (14) Shows Al-Mansour gate in Meknes.



Figure (15) Shows Al-Mansour gate; details of Inscription.



Figure (16) Shows Al-Mansour gate; word "Damacus" with inscription different color.



Figure (17) Shows Al-Mansour gate; extracting of inscription.

3. A Visual Study of Inscriptions in Terms of Form

3.1. Methods of inscription implementation

The implementation method plays a significant role in highlighting inscriptions and making them easy to read. It is important for the visual dimension associated with the functions and aesthetics of inscriptions. The inscriptions of Almohad Gates: Agnaou, Oudaya, and Al-Rawah were carried out in high relief. It is one of the best methods that play an important role in highlighting inscriptions and making them easy to read. Where it makes the letters and words solid, highlighting and clarity of its details, thus easy to read. Therefore, the inscriber used the high-relief in the most of gates inscriptions, and did not use the low-relief. Although low-relief is easier and faster to carry out the engraving. Highrelief requires engraving the surface from the boundaries of the text's letters and the spaces in some or between them until the inscription stands out from the surface level as required. High-relief has varied and has become of varying levels. In some inscriptions, it reaches the level of solid, and it may appear as an ordinary prominent engraves. That is, the level of engraving varies from one inscription to another, as in the inscriptions of the gates of Oudaya and Al-Rawah, fig. (5 & 8), which came more prominent than the inscriptions of the Agnaou gate, fig. (2). The distance between the inscription and its reader controlled the level of relief; the greater this distance, the greater the level of engrave and the greater the relief. Likewise, the larger the size of the words in the inscription, the engraver is not in dire need of increasing the engraving. The large size of the words ensures clarity and ease of reading, which was evi dent in the inscription on Bab Agnaou in Marrakesh, fig. (2). The high relief shape on the background causes the shadow and light feature as long as it has appropriate lighting to increase the clarity and readability of the inscription. Moreover, the inscription attracts the attention of passersby. Shadow has a key role in showing the details and contrast of shapes and surfaces. They are also associated with natural light sources, e.g. the sun, Increases clarity of inscriptions executed in heightrelief. Since the inscriptions under study were carried out on the gates of the kasbahs and cities, they are exposed to sunlight throughout the day, highlighting their clarity and rea dability. Most of them were carried out by high relief. With the movement of the sun during the day, their shadow increases and decreases according to the direction of the light. Such shadows increase the visibility of writing as if they were three dimensional. The contrast between shadow and light gives better visibility and clarity to the inscriptions. Using high-relief allows the calligrapher to implement the decorative elements on the background because of the available space after engraving the inscription to enhance the aesthetics and attraction of the inscription [2]. Although these decorations attract attention to the inscriptions, the calligrapher should not overuse them. They should be placed in the appropriate

place not to overwhelm the inscriptions and be counterproductive, making them difficult to read. In all the inscriptions under study. The inscriptions on the gates of Aknaou, Oudaya, Al-Rawah, Al-Kames, and Al-Mansur were decorated with some palmette, half palmette, leaves, twigs, and branches, fig_s. (2, 5, 8, 12 & 15). The engraver placed the decorations precisely in specific places to increase the aesthetic value. Consequently, he drew a considera ble attention to them. The inscriptions of Alawite gates: Al-khames and Al-Mansour in Meknes were carried out in peeling, where the monochrome zellige (porcelain) is placed above the surface to be dec orated. Then, the writing or floral motifs are painted over zellige. The architect peels off the paint except for the writing or decorations to show the color of the natural zellige clay and contrast the glossy surface of the writing and decorations [4, 6]. This contrast between the colors of the inscription and background makes the writing clear and easy to read and draws the attention of the reader, fig. (15, 16). Furthermore, the different level of inscription raised from the tile's level causes an impact on to highlight inscription, which resembles that of the high-relief inscriptions [3]. One of the advantages of peeling is that it is easier and more accurate than carving or cutting; This is because peeling enables the calligrapher to master the letters and draw their shapes easily and accurately on the surface of the zellij, which is not available to the maker who cuts the same shape of the letter in stone or other materials [15]. As a result of the accuracy of the implementation of those words using peeling, they are more clear and visible to the reader. Implementing the inscription varied because of the raw material used. The inscriptions of Almohad gates: Agnaou, Oudaya and Rawah were engraved on the stone using high-relief. In addition to the aforementioned features, high-relief inscribing letters on stone makes the letters as strong, durable, and lasting as possible without being affected by weather factors [16]. But the inscriptions of Alawite gates: Al-Khames and Almansour in Meknes were carried out on Zellij tiles, peeling was adopted. In both cases, the inscriber adopted the most suitable method of inscription on the raw material to make the inscription clear and easy to read. In sum, each raw material has a method of implementing inscriptions and decorations. The importance and value of stones and Zellij depend on several factors, including natural correlations that define their features in terms of color fastness, fragmentation resistance, abrasion resistance, water absorption, and humidity [17] that affect the appearance, clarity, and durability of the inscriptions, the purpose of inscription.

3.2. Geometric formations of inscriptions

The geometric formations of the inscriptions are the set of geometric frames in which the writings are executed. The shape of the frame varies according to the inscriptions executed inside it, the type of the monuments on which the frames are executed, and its position on the facade of the building. The inscriptions on the gates were executed within various geometric formations; to distinguish the inscriptions, clarify their importance, and determine their position on the surfaces of the gates. Thus, it works to attract attention to these geometric formations and their inscriptions, making it easier to see and read. The geometric formations varied – between frames, medallions and formations in archways – according to the diversity of the inscription texts and their position on the surfaces of the gates. The frames were the most implemented, fig. (18).

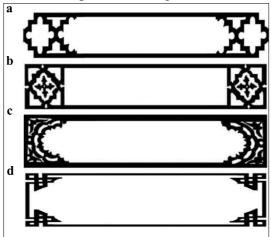


Figure (18) Shows rectangular frames forms; <u>a.</u> Agnaou, <u>b.</u> Oudaya & Rawah, <u>c.</u> & <u>d.</u> Al-Mansour

Most of the inscriptions were carried out in frames that helped set the boundaries of the writing and focus the visual orientation within the frame. Hence, the reader's vision is directed towards the inscriptions to provide maximum use of the content and play its role as a medium for news. Implementing inscriptions in longitudinal frames fits the facades of the gates because the wide areas allow the architect to implement such inscriptions to accommodate the largest number of words, which are readable to passers-by while entering or leaving the gates. Some short inscriptions were executed in Formations in archways of decorative columns with overlapping arches, which is known as "Net of the rhombus", fig. (19), that were famous for the decoration of minarets in the Almohad era, such as phrases "Alshukr Lilah Wahdau" (Thanks to Allah alone), and "Almulk Li- lah Wahdau" (Dominion belongs to Allah alone) was duplicated above the external façade of the Oudaya gate, fig. (10-a), and a phrase "Allah Wahdau" (Allah is one) and another phrase was duplicated above the Internal façade of the Oudaya gate, fig. (10-b).

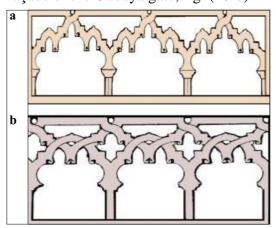


Figure (19) Shows archways (net of the rhombus) forms; **a.** Oudaya external façade, **b.** Oudaya internal façade.

These formations were at the top of the Oudayas gate's façade, the first observed part by the far observer. These decorative geometric formations draw and focus attention on the encompassed inscriptions. This decoration is known in Moroccan terminology as "alkitf waldarag" "the shoulder and the staircase" [18]. The rhombus

network is one of the most important elements that the artists of the Islamic West excelled in implementing, whether on the facades of buildings or on antiques [15]. Researchers have differed opinions about the origin of this decoration. Some of them believe that it derives its origins from the intersection and overlapping of the arches of the Cordoba mosque [19]. Some of them believe that the origin of the rhombus network is due to the braiding decoration that is used as frames for independent decorative elements [20]. The first hint of the network of rhombus appeared on the minaret of the Oal'at Bani Hammad mosque (398AH/1007AD). Then it appeared in the mihrab of the mosque of Constantine (530 AH/1136 AD) [21]. Then almohads used it in the decoration of their minarets, as it appeared for the first time in the minaret of the Koutoubia in Marrakesh, and then it became popular in the minaret of the Hassan mosque in Rabat, and the great mosque of the Kasbah in Seville. This decoration reached its peak of tenderness and beauty in the era of Bani Marin and became the prominent element in the decoration of the facades of their minarets and buildings. It is commonly used on the facades of Saadian buildings and their minarets [18]. We also see it in the buildings of the Alawite era, as its counterpart that adorns the facade of Bab Al-Khames, fig. (20) and Bab Al-Mansour, fig. (21) in Meknes.



Figure (20) Shows net of the rhombus decoration, Al-Khames gate.



Figure (21) Shows net of the rhombus decoration, Al-Mansour gate.

3.3. Design and implementation of inscription bands

Having the final form of the inscription bands on buildings requires different stages, starting from studying the text, calculating the number of words, and estimating implementation time. Hence, the engraver or architect could define the appropriate size of letters and words and the surrounding frames and decorations in a balanced manner. Thus, he could ensure the appearance, clarity, and readability of the inscription and draw attention to its balance and aesthetics. The following stages include preparing and writing the inscription on paper [22], implementing the raw material directly on the wall such as the decorations and inscriptions on Al-Rawah gate [10] or assembly method, i.e., engraving on the material and assembly and installlation on the wall such as the decorations and inscriptions on Agnaou and Oudaya gates, fig. (1 & 4). Regarding the size of the gate facades and the area of inscription bands, the façade of Bab Agnaou in Mareakesh is 13 m wide and 10 m high, with an inscription band of 0.95 m wide and 24 m long. The inscription band starts from a height of 3.25 m from the ground to the right of the viewer of the entrance that wraps around and ends left at the same height, fig. (1). The Bab of Kasbah of the Oudaya has an external façade of 13 m high and 11 m wide between the entrance towers. The inscription band starts from the height of 2.37 m. It is 20.90 m long and 0.50 m wide, fig. (4). The internal façade is 12 m high [23], and 12 m

wide. Its inscription band starts at the height of 2.90 m, and it is 24 m long and 0.50 m wide, fig. (7). Bab Al-Rawah: The facade is 12 m high and 13.24 m wide between the entrance towers. The inscription band starts from the height of 2.40 m. It is 24.73 m long and 0.50 m wide, fig. (11) [24]. The inscriptions on this gate were executed in large letters [10]. Bab Al-khames: The façade is 14 m high and 16 m wide [25]. The inscription band is 15.50 m long and 0.72 m wide, fig. (13). Bab Al-Mansour: The façade is 16 m high [26]. The inscription band is 43 m long and 1.10 m wide, fig. (14). The size of the words in each inscription band shows from the tab. (1).

Table (1) Length of bands inscription & length and no of words.

S.	Inscription	Band Length	No. of words	Average word length
1	Aknaou gate	24 m	35 words	68.5 cm
2	Oudaya gate, ext. façade	20.90 m	63 words	33 cm
3	Oudaya gate, int. façade	24 m	76-3=73	33 cm
4	Al-Rawah gate	24.73 m	49 words	50 cm
6	Al-khames gate	15.50 m	26 words	59.6 cm
7	Al-Mansour gate	43 m	162/2	53 cm

It is clear from the table that despite the height of the entrance facades, the size of the inscription bands and words fits the height of the facades, making the inscriptions clear and readable. Moreover, most inscriptions surround the entrances of the facades from three directions, starts from a small height in the level of the sight line of the average person. A large number of inscriptions are Qur'anic verses memorized by people. Thus, a passerby needs to see the beginning and end of the verses that are inscribed at the beginning and end of the inscription to know the remaining parts, content, and implications.

3.4. Font type

The fonts in which the inscriptions were executed on the gates varied between the various types of Kufic and the Moroccan Thuluth, to serve the visual and decorative dimension. Where the inscriptions on the gates dating back to Almohad era were executed in Kufic script, while the inscriptions on the gates dating back to Alawite era were executed in Moroccan Thuluth script. In the Islamic west, the

Kufic script was widely used in inscriptions, since the 4th century AH, it has been divided into: the Kairouanese Kufic script, and the Andalusian Kufic script. Andalusian Kufic began to spread during the Almoravid era, and in the Almohad era, two forms of this script appeared. In the Marinid period, it took five forms; Including the Kufic script that was used to write stone inscriptions [27]. The thuluth script did not appear on buildings until the 5th century AH/11AD [28]. Where soft scripts, e.g. Thuluth, overcame and prevailed [29]. The most writers believe that the Thuluth replaced the Kufic script on archaeological buildings in the foundation writings for its readability and suitability in advertising the buildings [30]. As for the Almohad buildings, their inscriptions were limited to the use of the Kufic script [31], such as the inscriptions on the gates of Agnaou, Oudaya, and Rawah, figs. (2, 5, 8 & 12). In the Marinid era, both types (Kufic and Thuluth scripts) became common, and the inscriptions became graceful in composition and balance in proportions [32]. It is worth noting that the Far West and Andalusia had examples of Kufic writings with braided letters in the reign of Almohad [33]. The script type is a basic part of the contemporary culture and a visual means among all social groups, including the inscriber and reader. Visual communication requires that the inscription is done in a readable form to deliver the message well. Therefore, inscriptions on the gates under study were implemented in Kufic and Moroccan Thuluth. Inscriptions of the Almohad period were in Kufic with little involvement in some words, such as the inscriptions on the gates of Agnaou, Oudaya and Rawah, fig. (2, 5, 8 & 12). In the era of the Saadian, the kufic and thuluth scripts were used [18], and the Moroccan Thuluth Script was developed at the end of the Saadian era [27], and prosper in the Alawite era as attested by the inscriptions on the gates of the city of Meknes, as in the inscription of Bab Al-Khames and Bab Al-Mansour, fig. (15). It's worth mentioning, It was also used on coins in the Almohad

era. Later, it prevailed the coins of the Islamic west [27,34]. It was adopted for decorations on marble, plaster, glaze, and wood next to the Kufic script of the Marinid era and royal stamps of the Saadi and Alaouite eras. Furthermore, it was widely used in memorial inscriptions on architectural arts [35]. So the fonts in which the inscriptions were executed on the gates varied to serve the visual and decorative aspect of the writings, increasing them clarity and beauty to attract the attention of passersby and at the same time facilitating their reading.

3.5. Repetition (duplication)

It is repeating a word, phrase, sentence, or paragraph in one text, either by the exact wording or using synonyms to achieve various objectives, such as stressing a certain issue or cohesion between the different elements of the text [36]. Sometimes, the engraver repeated some phrases in the inscription to confirm the conveyed message, such as "Alshukr Li-lah Wahdau" (Thanks to Allah alone) repeated four times and "Almulk Li-lah Wahdau" (Dominion belongs to Allah alone) repeated three times on the External façade of Oudaya gate, fig. (6 & 10-a), and "Allah Wahdau" (Allah is one) repeated seven times on the internal façade of Oudaya gate fig. (9 & 10b). The establisher would like to convey to the reader that grace and dominion belong to Allah alone who enabled Muslims to win in Andalusia, and Almohads could preserve their power in Morocco and Andalusia

3.6. Colors

Colors are an important element in highlighting the inscriptions because they give the strongest visual effect at a glance [37]. The engraver made sure that the inscriptions were different from the color of the background. This contrast gave the writing visibility, clarity, and a better visual vision, making them easier to read. For example, the inscriptions on Al-Khames gate and Al-Mansour gate in Meknes were carried out in peeling to make the color of the

inscriptions (black colors) different from that of the brown background (the natural color of zellige), fig. (15). For the inscriptions of Al-Mansur gate, the engraver was aware of the importance of color contrast in the visual impact of the inscriptions, distinguishing the word "Damascus" which represented the date of establishing the gate in the manner of calculating sentences- in green. Thus, it could be easily seen and distinguished, fig. (16). And in Agnaou gate, The contrasting colors of the stones used in the decoration is notable: red and gray-blue stones are intermixed to create a polychromatic effect, fig. (1). The gray-blue stones are used in particular density along the base and the top of the wall in order to give visual significance to the gate's entry and cornice

3.7. The beginning of the inscription and its relationship to visual orientation

The beginning of the inscription is an important means of visual orientation in reading the inscription because the beginning of the text is the first thing observed by the reader and an important element in delivering the message. Because of being made of related sentences, a text cannot be understood separately without linking the different parts. Moreover, the beginning of the text or the first word mostly illustrates the type and purpose of the text. Thus, the writer should define the starting point of the text that matches the visual orientation of the reader [2,36]. In the inscriptions of the Agnaou, Oudaya and Rawah and, figs. (1, 4, 7 & 11), the text starts from the right of the viewer facing the gate at 2 meters high from the ground. That is, the inscription is in the sight line of the average person. When coming closer to the entrance, a person can read the text easily. Moreover, the facade of the gate is between two prominent towers that focus the view of the enterer to read the text, as in the gates of Oudaya, Raouah, and Al-Khames, figs. (4, 11 & 13). The Agnauo gate was also contained two towers that surrounded the facade, but they disappeared, fig. (1) [39].

3.8. Considering the time of reading

Reading the text is a basic means of visual communication, without which the message turns worthless, and the text becomes mere decoration. In other words, reading is a means of decoding the inscription to convey the message. Moreover, the text size, information, and relevance to the reading time should be considered [40]. Inscriptions understudy was implemented on the facades of gates, and their reading was related to the time of walking on the street. Hence, the speed of reading was related to the speed of walking. Therefore, it is important to know the speed of reading and walking as key factors in determining the time of reading the text and the extent to which the writer considers these factors to achieve visual communication [2]. The types of reading vary according to purpose. The most suitable for inscriptions on buildings is silent reading, which is more common and faster than reading aloud. However, its speed is not fixed because the minimum number of words to be read in a minute ranges from 33 to 43 per minute, while the maximum is up to 300 words/minute [41], with an average of 170 words/minute. The average walking speed of the average person is 1.54 m/second [42]. Table (2) shows that the time of reading the inscriptions ranges from 9.2: 57.2 seconds, i.e., the largest and longest texts take no more than one minute to read, which fits the movement of passers-by, whether on foot or riding animals. Clarity is another feature that reflects the readability and reading time of the text. It was highly achieved in the inscriptions understudy, especially in Bab Agnaou in Marrakesh. Consequently, fast visual communication, speed, readability, and conveying the message are achieved well.

Table (2) The number of words in the inscriptions, the average reading time, and the average number of words per meter.

S.	Inscription	No. of words	Av. reading time	Av. words/m
1	Aknaou gate	35 words	12.4 seconds	4-5 words/m
2	Oudaya gate, ext. façade	63 words	22.3 seconds	
3	Oudaya gate, int. façade	76 words	26.9 seconds	
4	Al-Rawah gate	49 words	17.3 seconds	
5	Al-khames gate	26 words	9.2 seconds	
6	Al-Mansour gate	162 words	57.2 seconds	

4. A Visual Study of Inscriptions in Terms of Content

Inscriptions on the buildings of Morocco were carried out in several rich methods in terms of distribution, composition, and formulation. Those amazing inscriptions could draw the viewer's attention, calling for discovering their secrets and contents. Undoubtedly, a reader starts a direct communication with inscribers. Those inscriptions are a continuous dialog that is almost uninterrupted from one generation to another. Hence, as much as an inscription constitutes a brilliant artistic image given the letter form, distribution, and accompanying or surrounding decorations, it conveys a visual message relating to generations. Each generation tries to read and understand this message. In short, inscriptions play an important role in the content by providing different information and inputs [6] and a message to be conveyed to the reader. The purpose of the inscription is to deliver its message to the intended group. The message becomes clear by analyzing the content, i.e., an objective qualitative and quantitative analysis of the contents and the classification of the connotations into main and subcategories [3]. Analyzing the content of the message aims to identify the message of the sender and reflect the content of the inscription in terms of selecting the topic, formation, relation to vision, and providing the elements of visual attraction. Analyzing the text or message of the inscription relies on a semantic classification according to type and importance to the sender and the receiver, as reflected in the inscription itself [2]. The value of attention is achieved by the writer's focus on certain texts, phrases, or statements in the text, known as visual attraction, achieved by the power of the artwork towards the general formation of the design. It also relies on the style and experience of the designer in handling the parts and words in an attractive manner. Achieving visual attraction goes through several stages, especially the stimulus. Defining the text type and appropriateness defines the interesting words. The order of the text elements

is one of the most important means of drawing attention to and continuity of reading the inscription. The type of the reader should be considered because not all readers are interested in reading the text till the end. Because the owner of the text is interested in conveying the message, attention was given to the means of visual communication, stages, and aids to achieve the inscription function [5]. These elements are highlighted in the following sections.

4.1. Types of texts in the inscript-

4.1.1. Foundation texts

Several text types were used, including foundation texts, Qur'anic verses, and religious phrases. Foundation texts are highly important because they contain the name, titles, and position of the founder as a form of competition, boasting, and bragging. They also affirm the role and contributions of the founder in construction, which is the most important message to be conveyed. For instance, the foundation text of Bab Al-Khames in Meknes has the name of the Alaouite Sultan Ismail. The foundation text of Bab Al-Mansour in Meknes has the name of the Alaouite Sultan Abdullah bin Ismail to glorify the Sultan, report his honorable lineage and great works, brag against other kings, and praise the excellence of his architectural works. The main gate of Meknès, the capital of the Alawite in Morocco, was the best to receive inscribing this text to convey the message to the largest number of visitors through that gate. The facades of the gates were the most suitable for the inscriptions because of the largest number of passers-by. These facades were generally "a location of selfexpression". There is no doubt that those standing in front of these gates will be amazed and terrified by their good design, the accuracy of their decoration, and the Qur'anic verses they bear [43]. The titles in Foundation texts in the inscripti- ons of gates of Al-Khames and Al-Mansour were varied, like: Politically significant titles, such as "King". And religiously significant titles, such as: "Almawla", it was used in the inscriptions understudy in different forms, such as "Mawlana" and "Mawlay". And socially significant titles, as: "Kahf Aldaief", "Ghuniat Almuhtaj", It is one of the social titles mentioned in the inscription of Bab el-Mansour in Meknes with the tiles of Sultan Abdullah bin Ismail Al-Alawi to indicate his interest in the people. All of these titles emphasize the status of their owners - rulers and princes - and their political, religious, social and military status. It showing them as protectors of religion and faith, caliphates of Allah on earth, and responsible for the issues of the Islamic Ummah and interests of people. These rulers made sure that the contents of these titles reached the reader within the media message of the inscription.

4.1.2. Religious texts

Qur'anic verses and religious phrases represented the largest part of inscriptions on the gates understudy, mostly to Almohad state. They were carefully selected to convey the desired messages related to contemporary circumstances and political events. In contrast, it was reported that the large Almohad buildings were simple and void of decorations and inscriptions, especially the foundation texts, and were limited to religious phrases [4,44]. This opinion applied to certain Almohad buildings in certain periods^(a). Almohad gates of cities and Kasabahs experienced decorative richness [45], including floral and geometric decorations, inscriptions, and weapon shapes [46]. Although these gates had religious statements only, they conveyed messages related to the political events to the people who passed through them. In contrast, some buildings limited certain groups of people; thus, Almohad rulers were not interested in showing their inscriptions. Because architecture reflects the well-known dualism of any civilization, i.e., material and spirit [47] (function and symbol), the Muslim architect is keen on employing all architectural and decorative elements in accordance with the political or religious perspective [48]. In the ideological, religious, racial, and political framework, Almohad rulers always tried

to demonstrate the strength and greatness of their state through huge buildings to convey a message to the people of Andalusia, Morocco, and Christian kingdoms that they were not less powerful than the Umayyad caliphate and that they were more powerful and greater than Almoravid rulers [49]. Almohad mosques, minarets, and buildings were characterized by sublimity and height as political and sectarian propaganda [50] to symbolize their strength and greatness [51]. In their buildings, they considered commemorating victories. For instance, Abu Youssef Ya 'qub completed the construction of the Seville mosque and minaret after victory in the Battle of Alarcos (591AH/1195AD). He also built the Faraj fortress after regaining Shalb [52]. When he returned to Morocco, he established the Hassan mosque and its huge minaret as a new memorial to his victory over the Christians of Spain. With its towering minaret, this mosque is one of the great monuments and a symbol of the greatness and strength of the Almohad state [53]. Bab Agnaou in Marrakesh, Bab el-Rouah in Rabat walls, and Bab Udayas in Rabat kasabah were established in recognition of the greatness of Almohad state more than being entrances of fortressses. Jack Caille reported, "The main gate of Oudaya kasabah takes the form of an impenetrable military gate. At first glance, it appears to be built for a purely military purpose. However, coming closer shows that it is weak strategically and less military efficient than its appearance. Some authors argued that the decorations of this gate indicate its luxury, not defense. And both the interior and exterior gate facades were also decorated, which is unusual when compared to the decorations of the cities gates, which focus more on the external facade than the internal [10]. This opinion demonstrates the greater propaganda use of the gate beside the military purpose. Moreover, Bab Agnaou in Marrakesh had wonderful decoration, making it one of the most beautiful doors in the Islamic West. It was simply used to glorify the founder and his architectural capacity;

it was highly decorated but in the second position in defense [54]. So if the entire building was used as a political propaganda for the Almohad, it is not surprising that the contents of the inscriptions were used to confirm the same message that the builder wishes to convey to the people. Almohad rulers focused on the expressive and propaganda dimension of their buildings, whether by hugeness or inscriptions. All religious texts in the inscriptions understudy begin with Al-Isti'aathah (seeking Allah's help from Satan), Basmala, prayers on the Prophet, and the Qur'anic verses. Because any inscription conveys a message, the Our'anic verses are employed intentionally, not for decoration purposes [55]. The Almohad rulers rarely used Arabic letters for decoration in which they used floral and geometric shapes. They used Arabic letters in writing historical or religious texts [6]. Qur'anic verses were used in the inscriptions of Bab Agnaou (Hijr: 46-48), the external façade (Fath: 1-4) and the internal façade (Saff: 10-13) of Udayas gate, Bab er-Rouh (Al Imran: 110-111). All Qur'anic verses have implications related to contemporary political events. As will mention. Some duplicated religious statements appeared in the inscriptions of external façade of Bab Oudaya, as "Alshukr li-lah wahdahu", "Almulk li- lah wahdahu", figs. (6 & 10-a), and "Allah wahdahu" on the iternal façade of Bab Oudaya, figs. (9 & 10-b). Duplicating these statements in the Bab of Oudaya conveys expressing thanks and gratitude to Allah alone and testifying that the great victory in the Battle of Alarcos was a blessing of Allah and that domi-nance belongs to Allah, who bestows it to whomever He wants.

4.2. The message of the inscription

Writing inscriptions were not for decoration purposes only, but the owner used them to convey a message. Inscriptions were used as propaganda media that remained but not for a limited time or occasionnally. Inscriptions included verses of the Qur'an, propaganda and religious phrases,

prose, and Establishment texts. They were related to contemporary events, and the rulers succeeded in exploiting them for propaganda purposes [4]. *Inscriptions on Agnaou gate in Marrakesh Kasabah* indicate the conquest and seizure of Almohads to Marrakesh, the capital of Almoravids. None could ever cause harm or expel them out of the city because their rule was stable, and they could control Marrakesh completely.

"In peace and security, enter them (in Paradise), We shall remove all rancor from their hearts, and as brethren they shall recline on couches face to face, There, no fatigue shall smite them, nor shall they ever be driven from it".

"الدخلو ها بسلام آمنین، ونز عنا ما في صدور هم من غل إخواناً على سرر متقابلین، لا یمسهم فیها نصب وما هم منها بمخر جین".

It was a text of the Qur'an that suited the political events which accompanied the establishment of the Almohad dynasty, conflict with the Almoravid dynasty, and victory and seizure of Marrakesh, the capital. The verses included words relevant to the function of the gate as an architectural unit dedicated to the entrance, such as "aud- khuluha bi-salam āminin", "Enter it in peace, safe". The correlation between the text and function relies on the texts of inscriptions on architecture and applied arts [4]. This verse entails praying for Almohdas for the conquest of Marrakesh in peace and safety, denoting their control and seizure of the city. The same inscription or verse was duplicated on Bab Alghofran in the Almohad Mosque of Seville [56], indicating the desire of Almohad to affirm the implication of the verse that they could control Andalusia and Morocco and seize Seville as their headquarter in Andalusia. Inscriptions on the external façade of Oudaya gate:

"We have opened for you (Prophet Muhammad) a clear opening, that Allah forgives your past and future sins, and completes His Favor to you, and guides

you on a Straight Path, and that Allah helps you with a mighty help, it was He who sent down tranquility into the hearts of the believers so that they might add belief upon belief. To Allah belong the armies of the heavens and the earth. Allah is the Knower, the Wise".

"إنا فتحنا لك فتحاً مبيناً ليغفر لك الله ما تقدم من ذنبك وما تأخر ويتم نعمته عليك ويهديك صراطاً مستقيماً وينصرك الله نصراً عزيزاً هو الذي أنزل السكينة في قلوب المؤمنين ليز دادوا إيماناً مع إيمانهم ولله جنود السموات والأرض وكان الله عليماً حكيماً"

The content of the Qur'anic verses indicates the political status in the reign of Abu Yusuf Yaqub al-Mansur, who achieved a major victory over the Castilian forces in the Battle of Alarcos. He also expressed thanks to Allah, who blessed him with victory and supported his rule, as shown in "Thanks to Allah alone" and "dominion belongs to Allah alone". Especially if we know that this door opens to the west towards the old yarn market. Also, the second and third halls of that gate used to seat the caliphs to receive delegations, consider armies, and settle issues of soldiers [10]. This means that large numbers of those who frequent the market, delegations and soldiers can see the inscriptions on the gate and read it, so that the desired message from the text reaches the largest number of readers. Inscriptions on the internal façade of Oudaya gate:

"Believers! Shall I direct you to a commerce that will save you from a painful punishment? You shall believe in Allah and His Messenger and struggle for His Way with your possessions and yourselves. That is better for you, if you but knew. He will forgive you your sins and admit you to Gardens underneath which rivers flow, and to fine dwelling places in the Gardens of Eden. That is the mighty triumph. And other things that you love, victory from Allah and an opening that is near. (O prophet Muhammad) give glad tidings to the believers".

"يا أيها الذين أمنوا هل أدلكم على تجارة تنجيكم من عذاب أليم تؤمنون بالله ورسوله وتجاهدون في سبيل الله بأموالكم وأنفسكم ذلك خير لكم إن كنتم تعلمون يغفر لكم ذنوبكم ويدخلكم جنات تجرى من تحتها الأنهار ومساكن طيبة في جنات عدن ذلك الفوز العظيم وأخرى تحبونها نصر من الله وفتح قريب العظيم وأخرى تحبونها نصر

The Qur'anic verses call for Jihad in the cause of Allah by exerting money and life, illustrating that the reward is forgiveness of sins and paradise, and promises the believers of victory and conquest. This content matches the state of struggle and Jihad that the Almohads were waging against the Christian kingdoms in Andalusia. The Qur'anic verses motivate Muslims to turn to Jihad in the cause of Allah and promise them victory and great reward. They are the same Our'anic verses on the Al-Marisa gate in Salé, which dates back to the Marinid period [10,57], and also found on a flag that was attached to the tent of Sultan Al-Nasir Al-Marini during the wars, which the Spaniards looted in the Battle of Al-Uqab, It is an affirmation of the ongoing state of conflict between the Muslims and the Spanish kingdoms. Inscriptions on Bab Al-Rawah in Rabat:

You are the best nation ever to be brought forth for people. You order honor and forbid dishonor, and you believe in Allah. Had the People of the Book believed, it would have surely been better for them. Some of them are believers, but most of them are evildoers. They will not harm you except a little hurt. And if they fight against you, they will turn their backs. Then they will not be victorious

"كنتم خير أمة أخرجت للناس تأمرون بالمعروف وتنهون عن المنكر وتؤمنون بالله ولو آمن أهل الكتاب لكان خيراً لهم منهم المؤمنون وأكثر هم الفاسقون، لن يضروكم إلا أذا وإن يقاتلوكم يولوكم الأدبار ثم لا ينصرون"

The content of the Qur'anic verses suggests the state of conflict between Muslims and Christians who were defeated by Mus-

lims and promises Muslims of achieving victory. Additionally, this Bab contained decorations of long or hooked swords, daggers, and bows. Alnasry argues that "inscribing these weapons on the gates of Rabat and the minaret of Hasan mosque denotes that they were the slogan of Almohads and a call for Jihad in Allah's cause", [55]. The content of all Qur'an verses on the gates and walls of Rabat Kasaba were directly related to the cause of establishing Rabat, which was a military city originally and a starting point of the Almohad army in the conquest of Andalusia [10,58]. The Inscriptions on gates of Meknes: When Sultan Ismail Alalawi made Meknes the capital of Morocco instead of Fez [59], the inscriptions on the gates of Meknes reflected its political and cultural status. They also glorified and highlighted the status of the Sultan and his son Abdullah. By the Gate of Al-Mansour, the parade of the armies moving either to suppress internal revolutions or to liberate the cities occupied by the Spanish and Portugal were held [25], and at the gate, organized official ceremonies and religious festivals, and the Sultan met to discuss complaints and resolve disputes [26]. Furthermore, the Sultan received official delegations and embassies at this gate [60]. This gate was the meeting of the city market and the reception of tribes coming to Meknes [61], as it had symbolic importance [26].

4.3. Effect of instincts and emotional responsiveness in the stimulation of visual appeal

Human instincts, such as survival, fear, escape, and success, as well as an emotional response, have a great impact on provoking visual appeal [62]. A sender addresses the receiver emotionally, such as fear of religion and beliefs. This communication approach is preferable if propaganda seeks to per suade the largest number of people in the shortest time possible because thinking requires greater effort and time than emotions. Moreover, a few people enjoy adequate capabilities

of persuasion based on mental activity only [2]. The content of the inscriptions under study arouses people's enthusiasm and instincts regarding jihad, love of victory, fear of defeat, the forgiveness of sins, and entering paradise. They also arouse their emotions towards the Muslims of Andalusia and to protect them from the oppression of the Christian kingdoms. They arouse the enthusiasm and emotion of the reader and attract attention to the text. Thus, the message is conveyed to the reader. For instance, the inscription of Al-Mansour gate in Meknes adopted the emotional approach because of people's fear for religion. The message reads, "Sultan Abdullah ibn Ismail Alalawy, protector of religion and defender of Islam".

5. Results

The study showed that the inscriptions of Almohad gates: Agnaou, Oudaya and Al-Rawah were carried out in high relief. It is one of the best methods that play an important role in highlighting inscriptions and making them easy to read. Where it makes the letters and words solid, highlighting and clarity of its details, thus easy to read. The study showed that the inscriptions of Alawite Gate: Al-Khames and Al-Mansour in Meknes were carried out in "peeling", which show the color of the natural zellige clay and contrast the glossy surface of the writing and decorations. This contrast between the colors of the inscription and background makes the writing clear and easy to read and draws the attention of the reader. The study revealed that implementing the inscriptions on the gates under study varied because of the raw mat-erial used (High-relief on the stone and peeling on Zellij tiles). The inscriber adopted the most suitable method of inscription on the raw material to make the inscription clear and easy to read. The study indicated that the inscriptions on the gates under study were executed within various geometric formations – Frames and formations in archways – to distinguish the inscriptions, clarify their importance,

and determine their position on the surfaces of the gates. Thus, it works to attract attention to these geometric formations and their inscriptions, making it easier to see and read. It is clear that despite the height of the gates facades, the size of the inscription bands and words fits the height of the facades, making the inscriptions clear and readable, where the average length of the word ranged between 33 cm in the inscription of Oudaya gate and 68.5 cm in the inscription of Agnaou gate. The study showed that the fonts in which the inscriptions were executed on the gates varied to serve the visual and decorative aspect of the writings, increasing them clarity and beauty to attract the attention of passersby and at the same time facilitating their reading. The Kufic was used in the inscriptions of the gates of Agnaou, Oudaya and Al-Rawah, dating back to the Almohad era. And Thuluth script was used in the inscriptions of the gates of Meknes, dating back to the Alawite era. The study highlighted that the engraver repeated some phrases in the inscription to confirm the conveyed message, such as some religious phrases were repeated on Oudaya gate. The study revealed that the engraver using the contrast in the colors of the inscriptions and their background to highlight the writings and make them easy to read and draw the attention of passersby, as in the inscriptions of Bab Al-Khames and Bab Al-Mansour in Meknes. The study proved that writing the Qur'anic verses in inscriptions were not for décoration purposes only, but the rulers used its content to convey a message to the reader, as in the inscriptions on gates of Almohad era: Agnaou, Oudaya and Al-Rawah. The study showed that different titles were found in the inscriptions on the gates of Al-Khames and Al-Mansour, achieving a visual function, e.g., publicity of the owner and expressing the dominant culture. The study modified the misconception that the religious texts in the inscriptions dating to the Almohad era were used for decoration and ornament only. It demonstrated that the meanings of these texts convey denotations and messages related to contemporary actions that the founder seeks to convey to the reader. Such as in the inscriptions on the gates of Agnaou, Oudaya and Al-Rawah. The study showed that not all establishments of the Almohad era were characterized by asceticism, simplicity, and lack of decorations, but some types of establishments were characterized by decorative diversity and richness and using inscriptions, especially the gates of cities and kasbahs.

6. Discussion

Inscriptions found on all types of buildings in Morocco: Religious, civil and military. In this paper, we analyse the inscriptions on the gates of the Kasbahs and the cities in Almohad and Alawite eras visually. It was found that most of the remaining gates have inscriptions that have significance, and the architect was keen to deliver these indications to the reader by various methods. It turns out that the use of these methods was followed in the gates' inscriptions in all periods from the Moaheds era until the Alawite era. The gates were chosen for the implementation of the inscriptions on them because they are the passage point for all people living in and coming to the city, and then the writings on it are viewed and read by the largest number of passers-by, and thus the desired media message from the inscription reaches the largest number of people. The paper presents the methods used by the architect to highlight the inscription and ease of reading. It focused on studying inscriptions visually in terms of form and content.

7. Conclusion

The study showed the importance of the optical dimension as a characteristic of the gates of cities and kasbahs, especially that of the inscriptions. The study also showed the means of the engraver and the architect to highlight these inscriptions visually, making them easier to observe and read. For example, they adopted means of inscription implementation,

font type, decorations, colors, frames, repetition, shadow and light, as well as considering the time of reading, etc.

Endnotes

(a) Tendency to asceticism and simplicity in decorations was adopted in the early Almohad state in certain buildings, especially mosques. Torres Balbas stated: "Asceticism adopted by Almohad rulers originated from a desire for religious, political, and social reform in the early rule affected the mosque that was simple and void of extensive decorations in the main parts their ancestral mosques". In spite of that, Almohad mosques were not completely devoid of decoration. The minaret and mihrab areas were full of decorations. The minaret and mihrab areas were full of decorations. Even the second Koutoubia mosque was built in a pure Andalusian style rich in decorations, inscriptions and colors, and the Tinmel mosque as well [63]. Abd al-Mu'min bin Ali and his successors became supporters of the arts of embellishment and decoration, this is evident in buildings and books, These buildings are still, until now, eyewitnesses to the decorative arts that combine, along with the tenderness of Andalusia, the splendor of the East, and characterized by kindness and strength [64]. Other types of Almohad buildings were characterized by rich and various decorations, such as the minarets and civil architecture. For instance, palaces in Marrakesh "were unmatched by the buildings of former kings" [85] and "were characterized by width, luxury, and decorative and artistic richness" [86]. Their palaces in Rabat were reported that "Rabat has high monarchical buildings, seating domes for masters, and high palaces, making it a global park [67]. In addition, their palaces in Andalusia were rich in décorations [68]. When Abu Yousef Ya 'qub Al-Mansour established *Bim*aristan (Hospital) in Marrakech, he "instructed architects to do it in the

best possible way. Thus, they mastered and excelled the exquisite inscriptions and decorations" [65]. Other buildings demonstrate the greatness and excellence of Almohad rulers in terms of politics, military, and art, especially in the reign of Yaqub Al-Mansour, the greatest ruler in confronting the Christian kingdoms and mastering architecture. He built many establishments that reflect and commemorate his astonishing victories in politics, war, and art alike [63, 69]. Additionally, the buildings of Alm ohad rulers since the late (6H./12G.) century were characterized by decorative richness and foundation texts. For instance [70] Ibn Abu Zara and Al-Jazni reported the inscriptions on the fountain in the courtyard of Qarawīyīn Mosque (599AH/1202AD) [71]. And the inscriptions on the *Anza* of the mosque of Qarawīyīn [72]. The inscription indicated that the great chandelier in Qarawīyīn mosque was established in (600AH/1203AD), whereas the little chandelier had the name of Almohad Alnasir caliph [73]. Inscriptions showed that the chandelier of the Great mosque chandelier in Meknes was manufactured in (604AH/1207 AD) [73], whereas the *Anza* of the Mosque of Andalusia had the date of completing manufacturing in (606 AH/1209AD) [69,70,74]. Other works had inscriptions dating back to the Almohad era [75].

(b) Caillé reported that the decorations of swords and archery bows date back to the renovations of the Alawite Sultan Mohammed ibn Abdallah.

References

[1] Šeḥāta, ʿA. (2008). al-noqūš al-ktābīa b-al ʿamā ʾer al-dīnia wa al-mdnia fal-ʿaṣrīn al-mamlūky wa al-othmāny (The inscriptions on religious and civilian architectures in Mamluk and Ottoman Age), al-ʿelm wa al-eimān le-al-nšr wa al-tawzeʿ, Desoq, Egypt.

- [2] Abdulah, M. (2019). al-noqūš al-ktābīa 'ala al-'āṭār al-me'mārīa fal-qāhera fī 'ahd osrat Qalawūn (Inscriptions on architectural in Cairo during the era of Qalawun dynasty), MA, Islamic Archaeology dep., Faculty of Archaeology, Sohag Univ., Egypt.
- [3] Othmān, M. (2013). 'Aḍwā'a ğadida 'ala al-ketābāt fī al-'ātār al-'islāmīa (New highlights on inscriptions in Islamic mon-uments), *Maqālīd*, Vol. 6, pp. 197-230.
- [4] Abū reḥāb, M. (2014). Derāsa fī maḍmūon al-noqūš al-ketābīa 'ala 'amāīr al-'Ašrāf al-S'adīen be al-maġreb (A study on the content of the inscriptions on the buildings of the Sha rifian Saadi dynasty of Morocco), *Abgadiyat*, Vol. 9, pp. 150-194.
- [5] Abū Šanab, S. (2021). Derāsa baṣarīa le-šāhed qabr 'abi Qāsem al-zleǧy b-Tunis (A visual study of the tombstone of Abu Qasim Al-Zligi in Tunis), *JGUAA*, Vol. 22 (2), pp. 393-415.
- [6] Al-Ḥaǧ Musa, A. (2017). Tawzīf al-ḥarf al-ʿArabī al-Kūfī fī al-ʿImāra al-Marīniyya bi Fās (the rercruiment of the Kofi Arab crafts in Marinid architecture in Fez), *Hespéris Tamuda*, Vol. 52 (3), pp. 151-171.
- [7] Bab Agnaw: https://www.archnet.org/sites/2847, (15-5-2022).
- [8] The Holy Quran: *Sûrah Al-Hijr*, Aya 46-48.
- [9] Al-Nāṣery, A. (1997). Al-ʾIsteqṣa le-ʾaḥbār dewal al-maġreb al-ʾaqṣa (Survay of the news of Morocco), Vol. 2, Dar Al-Ketab, Casablanca.
- [10] Salem, A. (2010). Dirasat al-imara al-islamia al-ḥarbia ala tdeftataī nahr'ab-īraqraq bialmaghrib al-aqṣa fī alaṣrīn al-muahedy wa al-marīny (A study of Islamic military architecture on the banks of the Bouregreg river in Morocco in the Almohad and Marinid periods), *J. Minia Univ.*, Vol. 71 (4), pp. 1492-1556.
- [11] The Holy Quran: *Sûrah Al-Fat-h*, Aya 1-4.
- [12] The Holy Quran, *Sûrah As-Saff*, Aya 10-13.

- [13] Ibn 'abī Zar', A. (1972). *Rawd alqertas* (*Fez history*), Dar al-Manṣūr le al-tebā'a, Rabat, Morocco.
- [14] The Holy: *Sûrah Âl 'Imran*, Aya 110-
- [15] 'Ismā'īl, O. (1977). Derasāt ğadīda fī al-fonūn al-'islāmīa wa al-noqūš al-'arabīa balmaġreb al-aqṣaa (New studies in Islamic arts and Arabic inscriptions in Morocco), Dar Al Thaqafa, Beirut, Lebanon.
- [16] Rezqī, F. (2017). Ṭoroq tanfez alnoqūš al-ketābīa ʿala al-ʿamāʾer al-ʾislāmīa b-madīnat ʿEnaba (Methods of implementing the inscription on Islamic architecture in Annaba), *Ma-ğalat al-Mūāqef*, Vol. 12 (1), pp. 31-49.
- [17] Alām, A. (1986), al-Nṣūṣ al-t'asīsīa 'ala al-'amā'er al-denīa al-mamlūkīa al-bāqīa b-madenat al-qahwra (Constitutive texts on Mamluk Religious buidings in Cairo), Ph.D., Islamic Archaeology dept., Faculty of arts Sohag, Asuit Univ, Egypt.
- [18] Abū reḥāb, M. (2008). Al-'amā'er aldīnīa wa al-gnā'zīa b- al-maġreb fī 'aṣr al-'Aṣrāf al-S'adīen (The religious and funeral architectures in Morroco in Saadi age), Dār al-qāhera, Egypt.
- [19] Maldonado, B. (2002). *El art hisp-anomusulmana en sus decorac-ion geometrica*, trans. by Al-Monūfī, A., Supreme Council of Culture, Cairo.
- [20] Henri T. (1932). L'art hispanomuauresque de origines au XIIIe siècle, Les ed. Van Oest, G., Paris.
- [21] Abdel Karim A. (2006), *Taṭawur alm 'ādhin fi aljazay'r (The evolution of minarets in Algeria)*, Zahraa Al Sharq, Cairo.
- [22] Al-Atrakji, T. (2019). *Al-'asāsīāt alt-aṣmīmīa le al-'ašreta al-ketābīa (The design basics of the writing tapes)*, (http://alatraqchi.blogspot.com/201 1/02/blog-post.html, (26-9-2019).
- [23] Salem, A., Ṭalʿat, O., Hassan, S., et al. (2020). Al-ʿAmāʾer al-ḥarbīa bal-Maġreb al-ʾAqṣa "al-qeṣab nmoḏgan" (Military architecture in Morocco"

- Kasbah as a model"), *MJAF*, Vol. 5 (23), pp. 664-686.
- [24] Ṣalāḥ, Y. (2018). Al-Taḥṣīnāt aldefā ʿīa al-bāqīa b-madīnat al-Rebaṭ (Remaning defensive fortification in Rabat), MA, Islamic Archaeology dept., Faculty of Arts, Mansura Univ., Egypt.
- [25] 'Emām, K. (2012). al-Taḥtīt al-'omrānī wa al-a'tār al-me 'mārīa le al-mawla 'Ismā 'īl al- 'Alawī b-madīnat Meknās (Urban planning and archaeological of maewla Ismail Al Alawi in Meknes Morocco), MA., Archaeology dept., Faculty of Arts, Ain Shams Univ., Egypt.
- [26] Daaïf, L. (2013). Les inscriptions de Bāb Manṣūr al-, Ilǧ: déchiffrement et traduction, *Al-Qantara*, XXXIV 2, pp. 243-266.
- [27] Salem, A. (2010). 'Iidafat jadida 'ala nuqūd aldawla alsa'dia (New additions to Saadi state coin), *Abgadiyat*, Vol. 5, pp. 133-172.
- [28] Gómez Moreno, M. (1995). *Alfan al'iislamī fī 'iisbania (Islamic art in Spain)*, trans. by Salem, A. & Abdel Badie, L. Univ. Youth Foundation, Alexandria.
- [29] De Teràn, I. (2019), Al-Noqūš alktābīa fī Espānia (Inscriptions in Spain), *Mağalat Al-Mīādīen le Al-Dreāsāt fī al- 'Olūom Al-'Insānīa*, Vol. 3, pp. 56-81.
- [30] [30] Basset, H. & Lévi-Provençal, E. (1922). Chella: une nécropole mérinide, *Hespéris Tamuda*, Vol. 2, pp. 1-92.
- [31] Kunel, A. (1966). *Alfan al'iislamī* (*Islamic art*), trans. by Musa, A. Dar Ṣader, Beirut.
- [32] Marçais, G. (2016). *L'art Musulman*, trans.: Abd Alrazek, A. National Center for Translation, Cairo.
- [33] Martinez, V. (2009), *Inscripciones* Arabes de la region de Murcia, Impreso en Espana, Murcia.
- [34] Salem, A. (2021). Alnuzum alnaqdiat lilsultan 'abu al 'abaas 'ahmad almansur biallah alsaadi (The monetary systems of Sultan Abu al-Abbas

- Ahmad alMansur Billah al-Saadi), *JARCH*, Vol. 10 (24), pp. 65-94.
- [35] Afa, O. & Maghrwai, M. (2007). Alhaṭ al-maġrebī: tārīḥ, wake' wa 'afāq (Moroccan calligraphy: history and prospects), Wezārat al-'awqāf wa al-šūon al-'islāmīa, Morocco.
- [36] Al-Feqī, S. (2000). 'Elm al-loġa alnaṣī bīn al-nazarīa wa al-taṭbīq (Lin-guistics script betwen theory and application), Dar qebā', Cairo.
- [37] Šalaby, R. (2016), Dūr al-dūo wa al-zel ka-aḥad al-'awāmel al-moa'tera fī edrāk al-taṣmīmāt al-zoḥrofīa (The role of light and shadow as one of the factors influencing the perception decorative designs), *MJAF*, Vol.13, pp. 29-37.
- [38] Hillenbrand, R. (1999). *Islamic architecture*, Edinburgh Univ. Press, Edinburgh.
- [39] Talaat, O. (1999). Malamiḥ takhṭiṭ almadkhal almunaksir fī al'emara aldifa'eia (Features of the bent entrance layout in defensive architecture), *CGUAA*, Vol. 2 (2), pp. 323-356.
- [40] Afqīren, A. (2022). al-Qerā'a al-wzīfīa (Functional reading), http://ekladata.com, (19-5-2022).
- [41] Rağab, M. (2004). al-Sor'a fī alqerā'a: Motġīrāteha wa qīāseha wa tnmītha(Speed in reading), *Mağalat al-qerā'a wa al-ma'refa*, Vol. 34, pp. 15-49.
- [42] Ḥelīwa, H. (2013). Moḥākat wa nmzağat al-mšī 'end al-'insān (Human gait modeling and simulation), MA., Mechatronics dept., Faculty of Mechanical and Electrical Engineering, Tishreen Univ., Syria.
- [43] Salem A. Ṭalʿat, O., Hassan, S., et al. (2022), 'Anwaʿ altahsinat walaistih-kamat aldifaeia lilmonshaʾāt alharbia fī shamal almaghrib (Types of fortifications and defensive fortifycations of military architecture in northern Morocco), *ARCHMU J.*, Minia Univ., Vol. 10 (10), pp. 507-536
- [44] Basset, H. & Terrasse, H. (2001). Sanctuaires et forteresses Al mohades, Maisonneuve Et Larose, Paris.

- [45] 'Ismā'īl, O. (1986). Imāret wa momīzāt abūāa al-mūaḥdīn be bebaṭ al-fatḥ(Building and features of almohades gates in Rabat), *Arab Museum Magazine*, Vol. 3, pp. 122-130
- [46] Terrasse, H. (1923). Le décore des ports Anciennes du Maroc, *Hespéris Tamuda*, Vol. 3, pp. 147-174.
- [47] Ṭaha, Ḥ. (2016), Gmālīet al-fn alme 'mārī al-'islāmī (The aesthetics of Islamic architecture), *Mağalat Altorāt wa Al-ḥḍāra*, Vol. 9, pp. 255-270.
- [48] Al-Kaḥlāwī, M. (2006). Ta'dod ro'ūs al-m'āden bīn Miṣr wa Tunis wa dlālāteha (Multiplicity heads of minarets between Egypt and Tunisia), *JGUAA*, Vol.7 (7), pp. 122-173.
- [49] Rosser-Owen, M. (2014), Andalusi spolia in medieval Morocco: Architectural politics, political architecture, *Medieval Encounters*, Vol. 20 (40), pp. 152-198.
- [50] Márquez, S. (2017). El simbolismo arquitectónico de la giralda en la ciudad de Sevilla, Tesis de Licenciada en Arte, Univ. del Claustro de Sore Juana, Ciudad de México.
- [51] Maldonado, B. (2009), *Tratado de arquitectura hispanomusulmana*, Vol. IV, Mezquitas, Consejo Superior Invwstigaciones Científicas, Español.
- [52] Al-Manūnī, M. (1977). Al-'Olūm wa al-'ādāb wa al-fenūn 'ala 'ahd al Moaḥdīn (Science, literatures and arts in the era of Almohades), Dār al-Maġreb for Authorizes, trans. & Pub., Rabat.
- [53] Al-Kaḥlāwī, M. (1986). Al-'īmāra alislāmīya fī al-ġarb al-islāmī: Amāir (Islamic architecture in the Islamic west), Ph.D., Islamic Archaeology dept., Faculty of Archaeology, Cairo Univ., Egypt.
- [54] Deverdun, G. & Allain, Ch. (1957). Les ports anciennes de Marrakech, *Hespéris Tamuda*, Vol. XLIV, pp. 85-126.
- [55] Al-Nāṣery, G. (2006), Sala wa Rebaṭ al-fatḥ (Salé and Rabat), Kingdom of Morocco Academy Pub., Morocco.

- [56] Salem, A. (1978). La puerta del perdón en la gran mezquita de la alcazaba almohade, *Al-Andalus*, Vol. XLIII, pp. 201-207.
- [57] Terrasse, H. (1922). Les ports de l'Arsenal de Salé, *Hespéris Tamuda*, Vol. 2, pp. 357-371.
- [58] Ben Omar, A. (2017). Islam, vie collective, organization sociale et politique dans la ville de Salé, (1792-1930), Ph.D., Univ. Paris I Sorbone, Paris.
- [59] Al-Zīyānī, A. (2008). Tuḥfat al-ḥadī al-motreb fī raf'e nasab šurafa' almaġreb (The origin of Moroccian Sherifs), Pub. of the Ministry of Awqaf and Islamic Affairs, Morocco.
- [60] Wendus, J. (1993). *A journey to Meknes*, trans. by: Ikhwan, Z. Deanship of Moulay Ismail Univ., Morocco.
- [61] Al-Mušrefī, M. (2005). Al-ḥolal albaḥia fī mulūk al-dawla al-'alawīa (Kings of the Alaweet state), Pub. of the Ministry of Awqaf and Islamic Affairs, Morocco.
- [62] Rīād, A. (1995). Al-takwīn fī alfonūn al-taškelīa: Derassa fī saekologeat al-rū'ea wa dwraḥa fī 'iṭarat al-'ahā'te't al-ǧamālīa (configuration in fine arts: A study in the psychology of vision and its role in arousing aesthetic sensations), Dar Al-Nahda Al-Arabiya, Cairo.
- [63] Mounes, H. (1990). Tarikh almaghrib wahadaratuh (History and civilization of Al-maghrib), Aldaar Alsaudia for Pub. & Distr., Jeddah.
- [64] Al-Manouni, M (1977). Aloulūm waladab walfonūn 'ala 'ahd dawlat almuahidin (Science, Literature, and Arts during the Almohad era), Dar Al-Maghrib for Writing, Trans. & Pub., Rabat.
- [65] Al-Mrākešī, A. (1994). al-Mo 'ğab fī talḥeṣ 'aḥbār al-maġreb (Summarize Almaghreb news), Dār al-Ferjanī Pub. & Distr., Cairo.

- [66] Bo Baker, A. (2016). Madīnat Marakeš ģelāl 'aṣrī al-Morabṭīn wa al-Moaḥdīn (Marrakech during Almoravide and Almohade), MA, Humanities dept., Faculty of Social and Humanities, Algelaly Bonʿama Univ. Algeria.
- [67] Anonymous, (1986), Al-ʾIstibṣār fī ʿaǧāʾib al-ʾamṣār (Manage in the wonders coutries), Āfāq aʿrabīa, Baghdad.
- [68] Basilio Pavon, M. (2010). *Tratado de Arguitectura Hispano-musulmana*, trans. by: Monūfī, A., National Translation Center, Cairo.
- [69] 'Ismā'īl, O. (1993). Tārīḥ al-'imāra al-'islāmīa wa al-fnoūn al-taṭbīqīa bal-maġreb al-aqṣaa (History of Islamic architecture in Morocco), al Helāl al-'Arbīa, Rabat.
- [70] ben Abdullah, A. (2005). Alfan alme 'marī almaghribī ta 'bir rayie 'an madarik al'ajīal (Moroccan architecture is a wonderful expression of the perceptions of generations) Kingdom of Morocco Academy, Morocco.
- [71] Ibn 'abī Zar', A. (1972). al-Daḥīra al-sonīa fī tārīḥ al-dawla al-mrīnīa (History of marinids), Dar al-Manṣūr, le al-tebā'a, Rabat, Morocco.
- [72] Terrasse, H (1968), Le mosquée Al Qaraouiyine á Fés, Archéologie Méditeranéenne, III, C. Clincksieck, Paris.
- [73] Salem, A. (2010). Rwā'e 'al-fenūn al-'islāīa fī al-maġreb al-'aqṣa (Islamic arts in Morocco), Book Center for Pub., Cairo.
- [74] Terrasse, H. (1942). La mosquée des Andalous à Fès, Les editions d'Art et d'Histoire, Paris.
- [75] Salem, A. (2014). Al-Noqūš al-tasǧelīa fī al-fenūn al-ʾislāīa b al-maġreb al-ʾaqṣa (The documentary inscriptions in the Islamic arts in Morocco), *ABGAD*, Vol. 9 (9), pp. 55-76.