

A lost Fragment and Gate of the Almohad Wall of the World Heritage City of Cáceres, Spain

Pablo A. Cruz Franco ¹, Adela Rueda Márquez de la Plata ¹, Jesús Cruz Franco ², Jose Antonio Ramos Rubio³

¹ University of Extremadura, Av/ Universidad s/n, Cáceres, Spain

² Panta Rhei Desarrollo SL, C/ Gabino Muriel 3 1C, Cáceres, Spain

³ Real Academia de Extremadura, C/ de la Academia s/n, Trujillo, Spain

adelarm@unex.es

Abstract. The objective of this research is the documentation of a lost fragment of the Cáceres' Almohad Wall hidden in within some houses that used it in their construction.

Thanks to a research of the urban development of the City of Cáceres an anomaly in the urban planning was discovered that made us suspect that some popular houses hid a fragment of the ancient Almohad Wall. After the analysis of this singularity the existence of a "lost piece" of the city was discovered; a hidden denatured military structure preserved along the centuries by several houses that reused it within "economy of means". This paper studies this lost fragment from a holistic perspective: constructive, urbanistic and planimetric; verifying that this is a fragment of the ancient Almohad Wall. The aim of the paper is to contribute not only to the knowledge of Cáceres' Almohad wall, but also to a better understanding of the buildings and spaces of the city from the perspective of how they were constructed; hoping that this knowledge will help to preserve them.

1. Introduction

The City of Cáceres is located in the West of the Spanish province with the same name, in the plateau trujillano-cacereña. It is located on a hill between the mounts of la Mosca and la Sierrilla. In 1929, the fortified historical city was granted the title of Artistic Monument, in 1930 it was declared Monument of the National Artistic Treasury, in 1949 the "old city" was considered Historical Monumental and finally the "old city" was included by the UNESCO in its World Heritage List.

One of the criteria indicated for inclusion in the list of the UNESCO was that "the walls of Cáceres provide an exceptional testimony of the fortifications made by the Almohads in Spain. With the Tower of Espantaperros of Badajoz or the Tower del Oro in Seville, La Torre Mochada Tower of Cáceres is integrated in a set of representative walls and towers long conserved"[1].

The Almohad wall of Cáceres was constructed in its last version towards the year 1180, during the time of Caliph Abu Yacub Yusuf. It has a perimeter of about 1174 metres covering a surface of 8,68 Ha with a trapezoidal shape. It has a primarily military and defensive character. It is built over a hilly terrain with natural defenses in some flanks of the city with an advanced line of flank or "albarrana" towers and a round way along the inner perimeter of the wall for to allow the access of the troops to the wall and



the towers. It is mainly a rammed earth wall made in mortar on a masonry base in some areas with ashlar of Roman origin. The composition of the rammed earth wall varies but the results of the analysis carried out indicate that it is composed of 40% of lime and clay, 40% of sand and 20% of gravels of various sizes (quartzites, slates and ceramic bricks). [2]

The study of the Cáceres's wall presents a high complexity. This complexity is due not only to the successive remodelling of the wall as a defensive element during the Roman, Almohad and Christian times; but also to the city's own urban development that led to the demolishing of the gates and walls to enable the city's growth or to the reuse of these elements as houses [3]. This urban development eliminated and concealed elements that today would allow us a better understanding of the walled area.

Studying the urban development and the reuse of the Almohad Wall an anomaly within the urban fabric was located. This anomaly made us suspect that some popular houses located in the Northeast zone contained an old section of the Almohad Wall and possibly a missing entrance.

The present text presents the study done to verify if this finding was a "missing fragment" of the Almohad Wall; a denaturalized military element that had remained hidden throughout the centuries and had been preserved thanks to the civilian architectures that reused it.

2. The wall's fragment and gate

Studying the urban development of the city a façade in a building in the Street Adarve del Cristo (figure 1) was located [4]. This building presented several singularities that made us suspect that it could be part of the ancient wall. These singularities were:

- The fabric of the façade was similar to the existing Almohad rammed earth walls of the city.
- The façade still showed the regular horizontal lines and the putlog holes of the wooden formworks used in its construction and their dimensions were similar to the ones employed in the original Almohad Wall adjacent to the house.
- The façade was displaced seven meters from the intrados of the Almohad Wall breaking its continuity. This displacement was hidden by the house that had used this space to build its walls.



Figure 1. right - photograph original Almohad Wall adjacent to the fragment under study, left photograph wall and gate under study.

In order to corroborate if this fragment was part of the ancient wall an analysis of area was undertaking covering several points:

- A constructive analysis of the fragment to verify if the techniques and materials used to build it were similar to those employed in the original Almohad Wall.
- An urban study of the area through the available historical documentation (historical city maps and municipal ordinances) to verify if in these documents the Almohad Wall was displaced and an entrance was mentioned.
- -A planimetric analysis of the houses that contained the fragment to look for evidences that could give us an idea of the function of the element [5].

3. Constructive analysis

The objective of the constructive analysis of the fragment was to verify if the techniques and materials used were similar to the ones of the used in the adjacent original Almohad Wall. This study was divided in two parts: the first one covered the supposed wall's fragment and the second one the supposed wall's gate.

3.1 The wall's fragment

In order to carry out this analysis, the walls of the houses nº 5 and nº 7 of the Street Adarve del Cristo, which contained the supposed wall's fragment, were compared with the wall of the house nº 9 in the same street which undoubtedly was considered part of the Almohad Wall in all historical city maps and archaeological studies.

From a constructive point of view, the results of this analysis were that:

- The supposed wall's fragment was made with a rammed earth fabric which apparently had not suffered significant modifications. This rammed earth fabric conserved the original wooden formworks lines and the original putlog holes that served to insert the timbers to support the formworks to raise it; additionally, the dimensions of the wooden formworks used in its construction were similar and coincided a priori with the dimensions of the ones were used to build the known Almohad Wall (figure 2).



Figure 2. Dimensions of the wooden formworks of the original Almohad Wall and in the fragment under study.

- The formwork lines of the fragment coincided geometrically with the ones of the adjacent original Almohad Wall showing a formal continuity between the two walls formworks as it could be seen from the Air Tower (figures 3 and 4).



Figure 3. View of the area under study from the Air Tower.



Figure 4. Continuity of the formworks between the original Almohad Wall and the fragment under study.

These facts supported the idea that the supposed fragment was in reality an original part of the wall that had been conserved thanks to have been reused to build a popular house.

3.2 The wall's gate:

Another singularity of the wall's fragment was that it contained an unusual access to a courtyard. From the intrados of the wall, the house located in the nº 5 of the street held a passageway to several houses organized around a courtyard. Constructively, this passageway had several singularities:

- The urban solution, courtyard house or “corrala” [6], was very unusual in the city of Cáceres (figures 1 and 2).
- The passageway contained a traditional brick arch in the extrados of the wall and in its intrados the entrance's lintel was made of granite ashlar with holes for staples; this could indicate an Arab and Roman origin of these elements.

- The dimension of the passageway entrance was considerably greater than all of the other nearby entrances.

4. Urbanistic analysis

While constructively it made sense that the wall's fragment could be part of the original Almohad Wall; urbanistically there was a problem since historically it had been considered that this section of wall ran parallel in its intrados along the Streets Obra Pía de Roco and Adarve del Cristo, from the Tower Redonda to the Tower of el Socorro and the fragment was displaced from this supposed course a non-negligible distance of 7 metres, making a very pronounced deviation in the known itinerary.

This issue triggered the next analysis which was an urban study of the area through the available historical documentation (historical maps of the city and municipal ordinances). The objective was to check if the historical documents had reflected the displacement of the Almohad Wall and the gate in this area of the city to verify the authenticity of the findings,

The reasoning behind this analysis was that this very pronounced displacement was an important enough fact in the morphology of the wall that had to have been reflected in the various surveys conducted during the long history of the defensive perimeter and therefore in the planimetry of the city.

Thus, the first step of the urban study was the analysis of the historical documentation in order to verify if the displacement was reflected in any of the maps. In order to carry out this study, the following maps were analyzed: the Urban Nucleus Map of Cáceres from 1,845 (figure 5); the city map that appeared in the fourth sheet of the supplement of the Atlas of Spain and its Possessions of Overseas by Francisco Coello printed in 1,857 and for its particular importance the Tower Map of the Almohad Wall by Torres Balbás published in 1,948. [7]

After analysing the referred documents it was found that: whereas in the maps of Torres Balbás of 1,948 and Francisco Coello of 1,857 the Almohad Wall was drawn straight or continuous at the point where the supposed fragment of wall was located, in the oldest map, the Urban Nucleus of Cáceres of 1,845, the wall was not continuous at that point; it made a turn that coincided with the fragment found (Figure 5) !

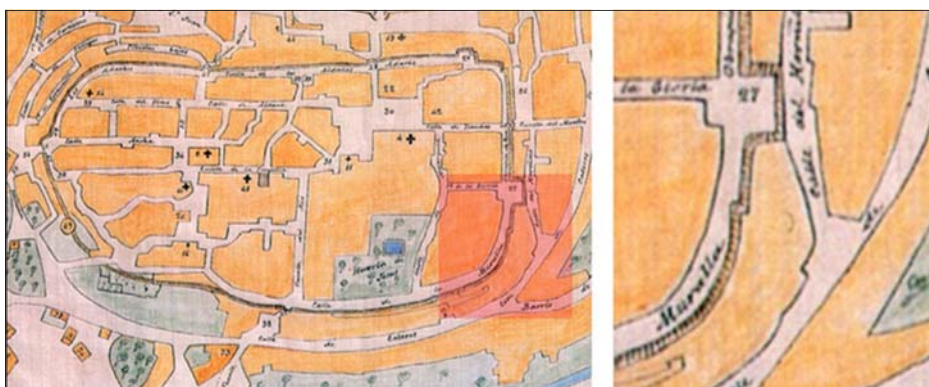


Figure 5. Displacement or turn of the Almohad Wall in the 1,845 map.

Then the question was: what was the reason for ignoring this displacement in the maps after 1,845? One conjecture is that, as indicated by Torres Balbás, this area of the city was one of the firsts to be occupied during the first enlargements of the city. During this expansion, the wall's fragment could have been “phagocytosed” by the new buildings which would have used in their construction, simplifying

their execution and lowering the costs. This “reuse” would have hidden the displacement of the wall and as a result it would have not been reflected in the maps.

These facts confirmed the hypothesis that the wall was not continuous in this area and, together with the constructive evidences, that the supposed wall’s fragment was genuine and part of the Almohad Wall.

5. Planimetric analysis

This analysis consisted on the planimetric study of the house nº 7 in the Street Adarve del Cristo to look for other evidences. This study was disaggregated into two levels. The first one was the comparison of the layout of the house nº 7 with the layout of the original wall of the adjacent house to verify if the wall was used in the construction of the house. The second level was the study of the integration of the supposed wall with the known remains of the wall in the northwest direction towards the Gate of Coria to determine if the supposed wall continued in that direction. The results of both studies were positive.

5.1 Integration of the house with the Northeast wall’s remains

After studying the interior and exterior load walls of the home, the following results were obtained:

- First, that the interior load wall of the house was a continuation of the resistant extrados sheet of the "original adjacent Almohad Wall, as shown in figure 6, and with the fragment under study could have been part of the Wall. With the passage of the time the filling of the wall would have disappeared; hypothetically it could have been emptied to form a habitable space that today it was the living room of the house.

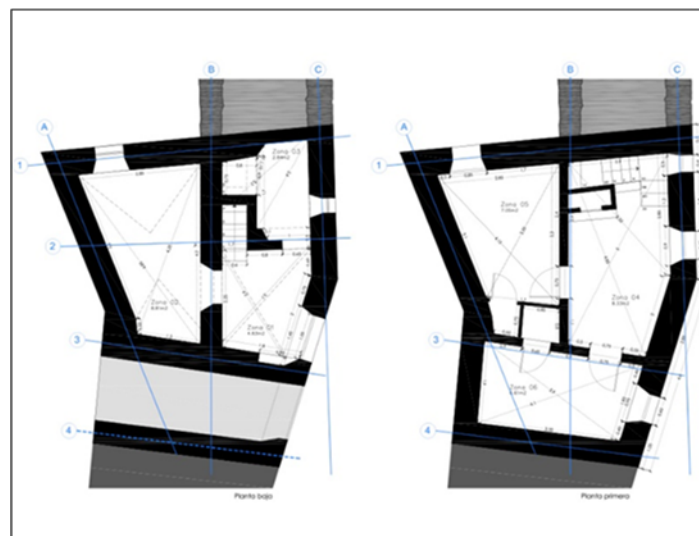


Figure 6. Planimetry of the housing

- Second, the intrados resistant sheet of the original Almohad Wall also continued in the load wall corresponding to the façade of the house to the Street Adarve del Cristo. This fact did not make sense constructively unless the whole house was a cube of the original wall as pictured in the 1,845 map of the wall (Figure 5); however to confirm this hypothesis further archaeological studies were needed.
- Third, after the analysis of the photographic documentation of an ancient historian of the city, Carlos Callejo, it was found that the house towards the Northeast was originally an exempt piece, approximately four stories high. This fact indicated the existence of a promontory that

would have justified the displacement of the layout of the wall to adapt it to the terrain's orography (figure 10).

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Figure 7. Old photo of the house towards the Northeast without attached constructions

5.2 Integration of the house with the Northwest wall's remains

The next step was morphological comparison of the layout of the extrados house façade looking at the courtyard with the annexed buildings in the Northwest area. There was a limitation in the access to the houses so the existing planimetry and aerial photos were used. In this comparison, two results were obtained:

- The first result was that the fragment was not an isolated element; it had a neighbouring continuity houses of the Street Adarve del Cristo that hypothetically would have used the ancient Almohad Wall to construct their façades. A result the fragment had a bigger dimension than initially thought (Figures 8 and 9).

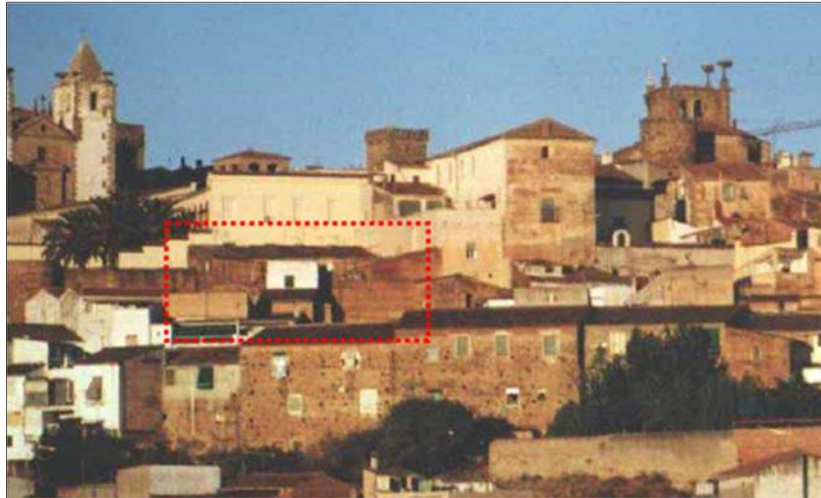


Figure 8. Old photo of the study area



Figure 9. Continuity of the fragment.

- The second result was that the fragment of the wall under study connected with other elements of the Almohad Wall currently known thanks to archaeological interventions in the direction towards the Tower del Aire. The planimetry of the Almohad Wall indicated the existence of a wall's fragment inside the Tower del Aire. This fragment was not alignment with the Street Adarve del Cristo; however it was aligned with the fragment under study thanks to its displacement of 7 metres. This fact verified the veracity of the fragment and the displacement of the wall (Figure 9).



Figure 10. Surrounding analysis

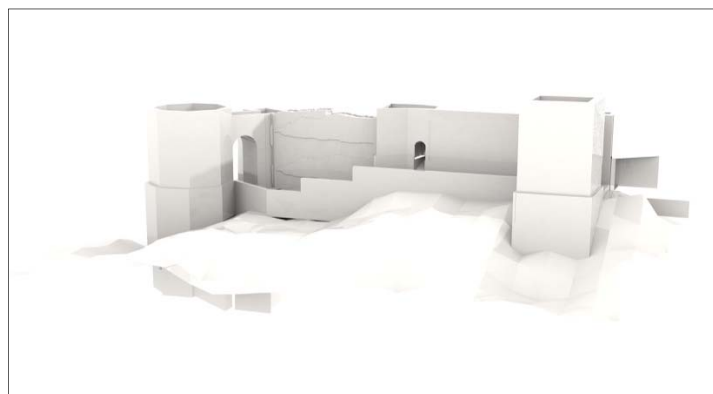


Figure 11. Idealized reconstruction of the study area

6. Conclusions

After all the analysis the following conclusions were established:

- First and the most important conclusion was that the supposed wall's fragment was an original element of the Almohad wall preserved intact and hidden inside of the house nº 7 in the Street Adarve del Cristo.
- Second, conclusion was that the wall's fragment was not an isolated element, but it continued in the house nº 5 of the Street Adarve del Cristo towards the Air Tower .
- Third, conclusion was that the assumption that the wall in this area ran straight along the Street Adarve del Cristo, forming the façades of the houses nº 5 and 7 was erroneous. The wall was actually displaced 7 metres towards the extrados; fact that was not reflected in most of the historical plans of the city (figure 11).
- Fourth conclusion was that the passageway contained in the fragment deserved a further study. This gate was difficult to date since it had been transformed over the years but it could be more

than a door to a courtyard; it could have served as a point of communication with the first neighborhoods outside of the walled city.

- Fifth conclusion was that this case reflected how a military element was transformed into residential one ignoring the orders of demolition. Therefore, it was an example of how adaptation imposed over elimination giving an old element a new use and thus preserving it for the future generations.

Acknowledgments

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References

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- [3] It is unfortunate that the city of Cáceres was one of the first in the Peninsula to grant permissions for the demolition of the wall in a new concept of the city not constrained by its defensive fence. As an example we have the Municipal Ordinances of the year 1891, specifically, article 441: "The ancient walls of this population, will be demolished and their land will be added to the plots and adjoining houses according to the law of plots in force..." *Printing Company of Nicolás M. Jiménez*.
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- [6] House of neighbors formed by several departments in which the main doors of all the houses give to interior courtyard.
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