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Origins and Repercussions of the Architecture of the Umayyad Palace in Amman

In a recent publication we embarked upon the study of the large architectural complex occupying the whole northern end of the citadel of Amman (Almagro 1983). We consider that there can be no doubt about its dating in the Umayyad period after the excavations carried out by the Spanish Archaeological Mission, the publication of which has also just appeared (Olavarri 1985). However, in this article we should like to devote greater attention to qualifying the influences that this great architectural complex received in its design, and the repercussions from it which, in our opinion, affected later architecture, not only in the Islamic world, but in other cultures also.

For our analysis we shall study first the typological background and contemporary parallels of the palace complex as an architectural and functional organism. We shall also analyse precedents of certain architectural forms and spatial ambits integrated into the whole. Later we shall see some of the possible repercussions this monument may have had both typologically and formally. We believe this shows a world of relations across the breadth and length of the Muslim world, from its very beginning.

The existence of large architectural, one would almost say urbanistic, complexes with the function of housing the court of a sovereign makes its appearance in the Middle East together with the development of urban civilisations. These large palaces, which were really true cities living with full autonomy, represent the first origin of our architectural complex (Grabar 1978: chapter 2). The Babylonian, Assyrian or Achaemenid palaces contain a marked symbolism of the power they house, apart from suitable functionality. This feature of almost all palace architecture is also present in the palace of Amman.

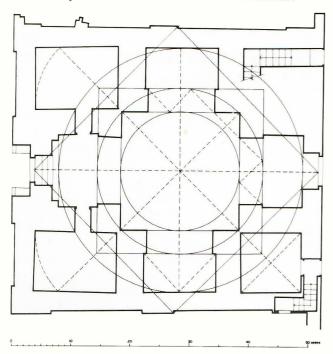
The world of the large palace complexes will always be linked to the Eastern Mediterranean and the largest ones have generally arisen in the area of Iran and Mesopotamia. In the Roman Empire, one had to wait until the oriental conception of absolute power became established with Diocletian for there to arise a real palace of an importance comparable with that of the oriental palaces, and with that symbolic function which makes patent the idea of power. The palace in Spalato has the size of a city, and in fact throughout the whole of the Middle Ages it contained the city of Split (Niemann 1910).

This palace started a typology which was largely to provide a standard for Umayyad palace architecture.

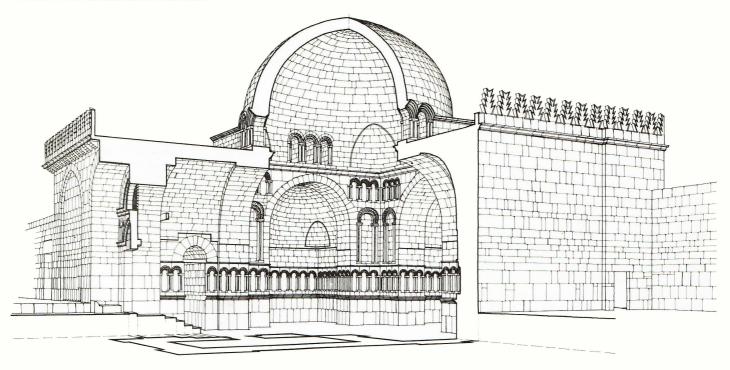
Spalato has the structure of a city with its cardo and decumanus, a temple, and also the halls for the protocol of a court whose conception of power is closer to the Parthian or Sassanid Empires than the empire created by Augustus, to say nothing of the old Roman Republic. In the structure of this palace we should note the layout of the residential area of the emperor at the end of a porticoed street, which starts from a main gate treated with special splendour. Also in this palace there appear architectural forms which had had many years of experimentation in the Roman world, and which would undergo considerable development in later architecture. We refer to the buildings with centred floor plans such as the emperor's mausoleum and the vestibule of the imperial residential area, and the so-called banqueting hall in which a cruciform plan appears. These constructions are further covered by domes, which elements appear later in the Amman palace complex also, used with clear symbolism and which have an evident precedent here (FIGS. 1, 2 and 3).

We know little about the large palace complexes in the Byzantine Empire. However, there are a large number of buildings with centred floor plans, and especially with the design of a symmetrical cross, marking out a path of evolution towards the architecture of the palace in Amman. These spaces of centred or cruciform plan have their origins in Roman architecture of the first and second centuries, and developed especially in the East, particularly in Syria. They are used equally well in civil and religious buildings, which proves the transposition of the ceremonial from the court to the religious ambit and the application of equal architectural forms in both functions. We shall see later that, although more differentiated in the Islamic world, certain forms and spaces will be translated from civil to religious architecture. Despite the fact that we only know of it from descriptions, a space of central cruciform plan configured the main gate, the Chalki, which gave access to the Imperial Palace of Constantinople, erected between 532 and 536 (FIG. 4). This building may have been the model for the building underlying the vestibule of the Amman palace, of which we shall say more later.

1. Ground plan of the Vestibule of the Palace of Amman.



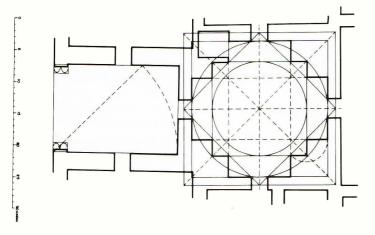
2. Section in perspective of the reconstruction of the Vestibule or Audience Hall of the Palace of Amman.



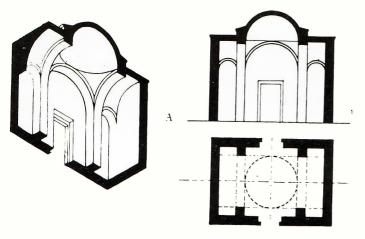
Outside the confines of the Roman and Byzantine world, in the area of Iran and Mesopotamia, and erected by their rival empires, there appear large palace buildings with architectural and spatial elements later used in the palace in Amman. The large Sassanid palaces, clear heirs to the tradition

of the enormous Assyrian, Babylonian and Achaemenid residential complexes, are real cities, some isolated and others inside other, larger, cities. These residential complexes contain an abundance of cruciform spaces, domes, and two elements which appear in the palace in Amman: the iwan and the bayt.

3. Ground plan of the Throne Room of the Palace of Amman.



4. Reconstruction of the 'Chalki' gate of Constantinople Imperial Palace (from Krautheimer, 1965).



The iwan is a spatial form of Parthian origin which appears as early as the first century AD. Extensively used in Sassanid architecture, we find it also in Islamic architecture, especially in Iran and Mesopotamia, but also in Egypt and of course in Amman. However, this form did not reach the Islamic west. The bayt, as a group of ambits constituting a basic living unit which is frequently repeated in buildings, especially in palaces, is yet another element of clear eastern influence, although it also appears occasionally in roman buildings (Creswell 1969: 515). Its repetition within structures with slight functional differentiation appears to correspond to forms of life in family groups, without hierarchical distinctions in most cases. The bayt did not reach the Maghreb and Spain in such a clear form as we find it in Amman or in other Umayyad buildings in Syria, although the groups of alcoves (usually two) accompanying the throne rooms in the Islamic palaces of Al-Andalus of the 10th-15th centuries, or later in the Maghreb, could be considered to be forms derived from it. We shall return

to this when we deal with the repercussions, both formal and spatial, of the architecture of the palace of Amman.

I should like to analyse in a more concrete manner the origins of the two buildings of cruciform plan in the palace. They apparently correspond to the same typology and one would think that they have a common origin in their design. However, this is not so. A number of particular features in the foundations of the vestibule (FIGS. 1 and 2), some discovered during the course of the excavations carried out by the Spanish Archaeological Mission, have shown that this building is constructed on the plan of an earlier Byzantine edifice. On the basis of this certainty, a detailed analysis of both plans shows up remarkable differences in their design and spatial conception. In the vestibule, the space, though unitary, extends markedly along the arms of the cross which are satellite ambits with their own character. The projecting main arches help to outline the separation between the central space and that of the arms.

In the throne room of the north area of the palace (FIG. 3), the space is totally unitary and the arms of the cross, with their slight depth, lack an entity of their own. Between this hall and one with a square plan there is hardly any difference in spatial conception, apart from a greater plastic vibrance. Basically, this room hardly differs from the throne rooms of Ujaydir (Creswell 1940: 67) or Tulul al-Ujaydir (Finster 1976). Above all, this space clearly follows the pattern of the throne rooms of the Sassanid palaces and some temples (Reuther 1939).

Here two clear influences of different models and conceptions of space are evident in an apparently similar layout. These different influences are also evident at the level of construction techniques, materials, decorative elements, and so forth.

So far we have been able to see how the inter-relations of the whole Islamic world at the beginning of its expansion are manifested in this great complex in Amman. Logically, there is a clearer influence from the worlds which had a greater cultural development, above all of their architecture. But the palace of Amman also constitutes a link in the development of Islamic architecture, and through it, we can see how the spaces, forms, construction elements and the ornamentation evolve.

Although we cannot affirm that they are an evolution from the palace of Amman, but rather a parallel development, the Abbasid palaces of Ujaydir, Tulul al-Ujaydir and later of Samarra, maintain to a great extent the layout of the palace as a large almost urbanistic complex, and above all spatial and formal configurations which are clearly similar to those of Amman. In this connexion there is a layout which I should like to indicate with attention, owing to its later application expecially in the Islamic West.

Ever since the first Umayyad palaces such as Minya (Creswell 1969: 382) and later, Jirbat al-Mafyar (Hamilton 1959), were built, the door has been emphasized in a special way, housing it in a dome-shaped space. This emphasis given to the entrance to the palace may well have its origin in the role

that this place played in the court protocol. The presence of the dome in the throne room is found, as we have said, in earlier palaces and its symbolic justification bears relation to a cosmic conception in which the king as the universal sovereign is the centre around which the universe turns. This same principle also justifies the presence of the dome in the door of the palace, at which the sovereign often gives audiences and distributes justice. The interesting feature about the Amman palace is that for the first time there are two cupolas, defining two main spaces within the court protocol, and with a symbolic manifestation at the level of the silhouette of the whole. In a global vision of the palace, the two cupolas mark the principal poles of the whole complex. In this case the architecture facilitates its own semantic reading (FIGS. 5 and 6).

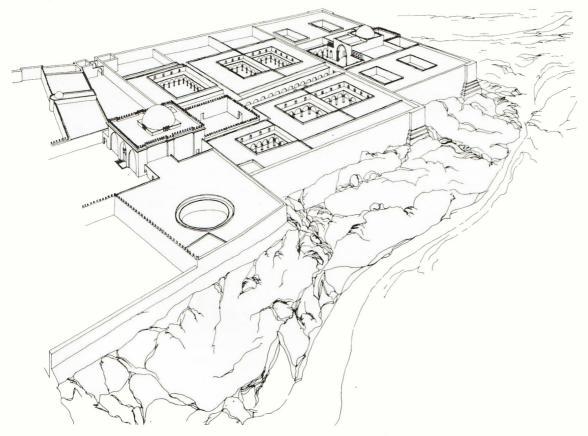
In the Baghdad of Al-Mansur this arrangement is repeated although on a totally different scale (Creswell 1940: 5). The gates of the palatine city were finished with cupolas. In the centre of the circle formed by the city, a large cupola, the Qubat al-Jadra covered the throne room. However, the distance of over one kilometre between the gates and the palace proper is disproportionate in relation to the height of the cupolas, in comparison with the palace of Amman. In Samarra (Creswell 1940: FIGS. 194 and 215), all the palaces have throne rooms with cupolas and generally monumental gates in the palace grounds or complexes, but there is no double cupola.

However, we should note a later group of buildings with a notable similarity to the palace of Amman. This is Laskari Bazar (Schlumberger 1952), a palace of the Ghaznavid period in which the layout of door with cruciform hall and throne room with iwan in front is repeated with clear parallelism. Although they have not been conserved, it is assumed that both halls in the Ghaznavid palace would be covered by cupolas.

In the Islamic West we find this arrangement of cupolas in a later period, but linked to religious architecture. The first example in which two cupolas are arranged over the gate and before the mihrab is in the mosque of Qairawan (Lézine 1966: 79–92). Both cupolas are of a very similar size although they were not built at the same time (FIGS. 7 and 8). The cupola in front of the mihrab was erected by Ziyadat Allah in 836, whereas that of the Bab al-Bahu was the work of Abu Ibrahim Ahmad and was erected 26 years later. Although with a different function, it being a religious building, these two cupolas, as in Amman, mark the two main poles of the building and the fundamental direction: in the palace of Amman, the seat of power, in Qairawan the direction of prayer, Mecca.

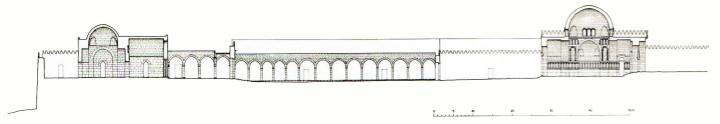
The model created in Qairawan was so rooted in western Islamic architecture that shortly afterwards it was reproduced, with a more marked will, in Al-Hakam II's extension of the

5. Perspective of the reconstruction of the Palace of Amman.



¹I thank Dr Christian Ewert for his advice and remarks about this parallelism.

6. Reconstructed longitudinal section of the Palace of Amman.

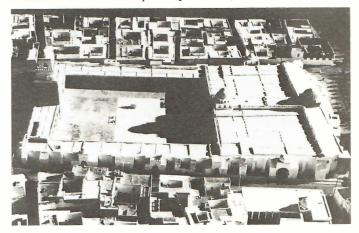


mosque of Cordova (FIGS. 9 and 10). In this case the cupola of the mihrab is accompanied by a further two, but even here, as in Amman, it is curious to find that greater size is given to the cupola of the gate than to that at the end of the building. Inspired by Qairawan, in the Hafsi period a second cupola was erected over the Bab al-Bahu of the Zaytuna Mosque in Tunis, similar to that of the mihrab and repeating the same layout. The model would be continued to be used in the Almohad mosques. Two interesting reproductions of the throne room of Amman can be found on the Manar tower at the Qala of the Beni Hammad in Algeria (Golvin 1957: 185) (FIG. 11) and on the Ziza palace at Palermo in Sicily (Marçais: 1954: 121) (FIG. 12).

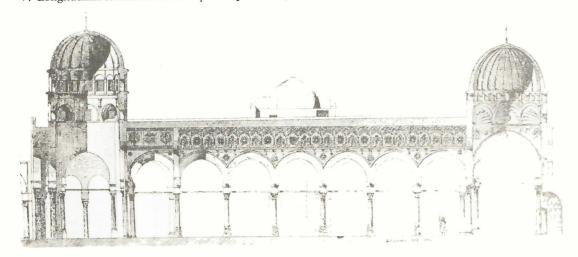
Let us return now to the scheme of the palace and in particular to the structure of the bayts. This arrangement in Amman (FIG. 13 and 14) is reproduced in all the palaces of the Umayyad period and the later Abbasids, especially in Ujaydir. Yet in the West the structure of the bayts also presents an interesting evolution. Unfortunately, we do not know the arrangement of the older palaces and houses of moslem al-Andalus. It would be interesting in this respect to know what the residences of the first Umayyads of Cordova were like, such as the Rusafa of Abd-al-Rahman I. But by the evolution of palaces both of the 9th and 10th centuries in North Africa and of the 10th and 11th centuries in Spain, we see that the arrangement of a main hall with immediate alcoves, usually

placed symmetrically, is constant in all of them. Comparing what we suppose is the theorical plan of the palace of Amman (FIG. 14) with the Ziri's palace at Ashir (Galvin 1957: 180) (FIG. 15), we can appreciate the similarity of the latter with the north area of the palace of Amman, with its courtyard, throne room and four habitation units. In the 'Rich Hall' (FIG. 16) of Medinat al-Zahara, the throne room is basilical (Torres Balbas 1957, figs 223, 229). There was a kiosk, certainly basilical too, in the centre of the garden, opposite the throne room. On both sides of the basilical room there are alcoves recalling,

8. Aerial view of the Mosque of Qairawan. (from Ewert 1981).



7. Longitudinal section of the Mosque of Qairawan (after Saladin).



9. Ground plan of the Mosque of Cordoba at the time of Al-Hakam II. (from Ewert 1981).

Abd ar-Rohmán II.
'Abd ar-Rohmán III.

10. Longitudinal Section of the Mosque of Cordoba. (after Velazquez Bosco).

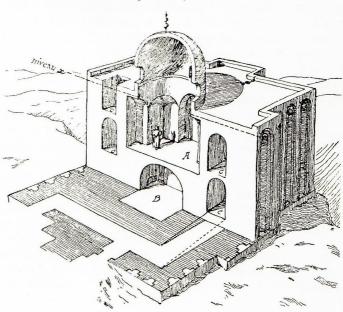
in their arrangement, the two alcoves of the palace of Qusayr Amra (Almagro 1975), which reproduce the layout of a bayt.

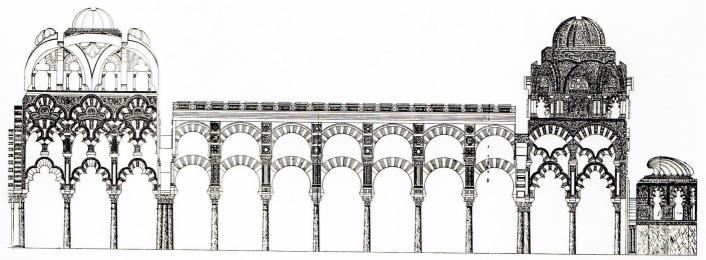
In the 11th century, in the Aljaferia palace (Ewert 1978), the throne room is oblong (FIG. 17), but the alcoves continue to appear on both sides. Here the cover of the cupola was only used in the immediate mosque.

Lastly, in the 14th century, Nazarid architecture again used the space with cupola, in this case of wood, for the throne room. Cupolas, whether of wood or knotted ornaments (mocarabes), are again placed over all symbolic spaces. The door, however, despite maintaining its importance, is now never placed on the same axis as the throne room and neither is it symbolised by the cupola, but with decorative elements.

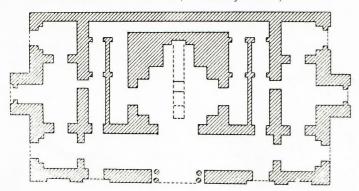
Of the minor decorative elements, I should like to draw

11. Reconstruction of the Palace of the Manar at the Qala of the Beni Hammad. (from Marçais 1954).





12. The Ziza Palace of Palermo. (from Marçais 1954).



attention to two which have particularly survived in the Islamic West. I refer to stepped merlons and roll brackets. The merlons, clearly of eastern origin, as they appear in Assyrian, Babylonian, Achaemenid, Nabatean and Sassanid architecture, attain a very wide diffusion in the west both as architectural elements and as decorative motifs (Pavon 1967). The roll brackets (FIG. 18) appearing in the palace of Amman represent the first link in a chain which will join up with Spanish Christian architecture, and through it, with the Roman architecture of Europe (Torres Balbas 1936).

Until recently, it was thought that the use of these elements in the mosque of Cordova (FIG. 19) in the 8th century was a happy invention with no earlier parallel. Although its concrete application in Cordova is doubtless original and of proven ingenuity, nowadays we can affirm that the formal element was not invented in this building, but copied from an oriental model and as far as we know at the present time, from Amman. The precedent of the brackets in Amman is not clear but they may have been Byzantine models which evolved from the classical modillions. The Mozarabic and Pre-Romanesque brackets were copied from the Cordovan elements in the 10th century, and they later became Romanesque and were used profusely in alternation with other elements with figurative decoration.

We believe that this brief account clarifies the world of relations and influences in the Islamic world through the architecture of the Umayyad palace of Amman. A similar study could be made with the decoration. In any case, it is clear that the palace of Amman is an important element in the development

of Islamic art, not only because at the time of its construction the Umayyad Empire reached its maximum extension and power, but also because of its strategic position on a crossroads. As almost the necessary route of passage to Syria, Mesopotamia and Iran, Arabia and Egypt and the Islamic West, it had to be known to countless travellers, architects and artists who, in a very special way in the beginning of Islamic art, moved around the Umayyad Empire. Its proximity to the official capital Damascus, and more so to the residences of the princes and caliphs of the dynasty would also doubtless play an important role in this respect.

Bibliography

Almagro, M., Caballero, L., Zozaya, J., Almagro, A. Qusayr Amra, Residencia y Baños Omeyas en el Desierto de Jordania. Madrid, 1975.

Almagro, A. El Palacio Omeya de Amman, I. La Arquitectura. Madrid, 1983.

Creswell, K. A. C. Early Muslim Architecture, vol. I. Oxford, 1969.
— Early Muslim Architecture, vol. II. Oxford, 1940.

Ewert, Chr., Wisshak, J. P. 'Forschungen zur Almohadischen Moschee. Lieferung 1: Vorstufen'. Madrider Beiträge 9, Mainz, 1981.

Ewert, Chr. 'Spanische-islamische Systeme sich Kreuzender Bogen III. Die Aljaferia in Zaragoza'. Madrider Forschungen 12, Berlin 1978.

Finster, B., Schmidt, J. 'Sasanidische und frühislamische Ruinen im Iraq', Baghdader Mitteilungen, Band 8, 1976.

Golvin, L. Le Magrib Central à l'époque des Zirides. Paris, 1957.

Grabar, O. The Alhambra. Harmondsworth, 1978.

Hamilton, R. W. Khirbat al Mafjar. An Arabian Mansion in the Jordan Valley. Oxford, 1959.

Krautheimer, R. Early Christian and Byzantine Architecture. Baltimore, 1965.

Lezine, A. Architecture de l'Ifriqiya. 1966.

Marçais, G. L'Architecture musulmane d'Occident. Paris, 1954. Niemann, G. Der Palast Diokletians in Spalato. Vienna, 1910.

Olavarri, E. El Palacio Omeya de Amman, II. La Arqueologia. Valencia, 1985.

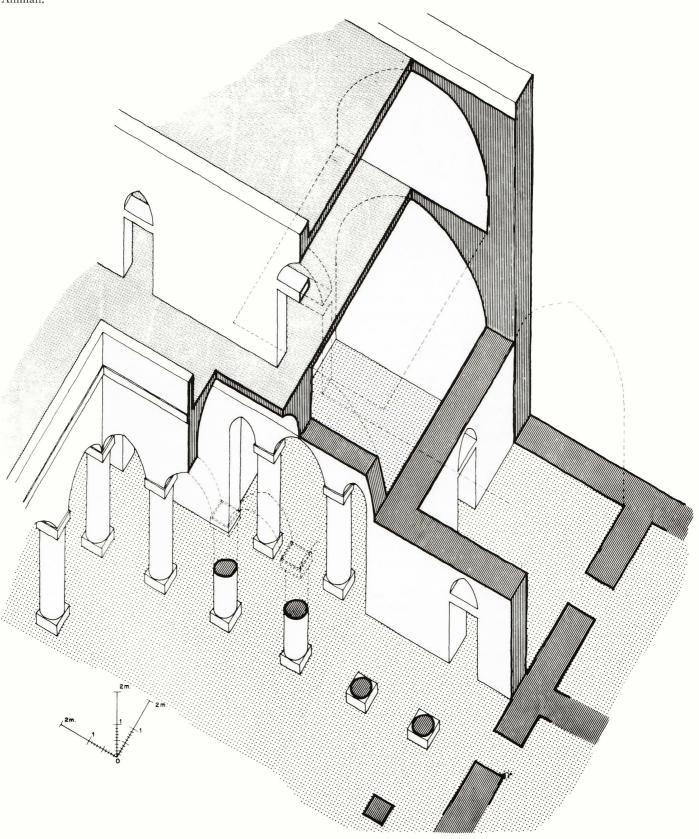
Pavon, B. Las Almenas Hispanomusulmanas. Madrid, 1967.

Schlumberger, D. 'Le Palais Ghaznevide de Lashkari Bazar', *Syria* XXIX, 1952, 251–270.

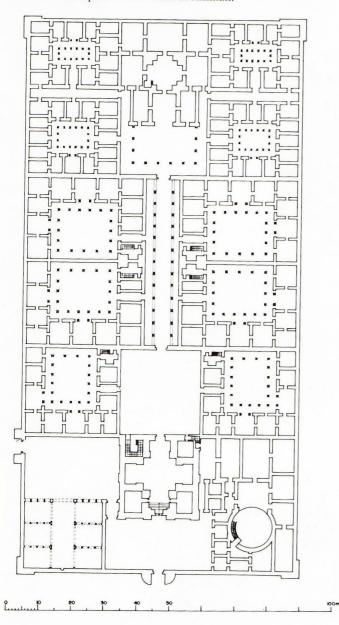
Torres Balbas, L. 'Los modillones de lóbulos: Ensayo de un analisis de la evolución de una forma arquitectónica a traves de dieciseis siglos', *Archivo Español de Arte y Arquelogia* XII, 1936, 1–62, 113–149

--- 'Arte Hispanomusulman. Hasta la Caida del Califato de Cordoba', Historia de Espana, vol. V, directed by J. Menendez Pidal, Madrid, 1957.

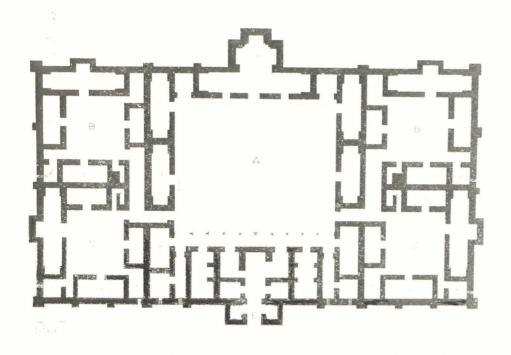
 $13.\,$ Perspective of the reconstruction of a bayt of the Palace of Amman.



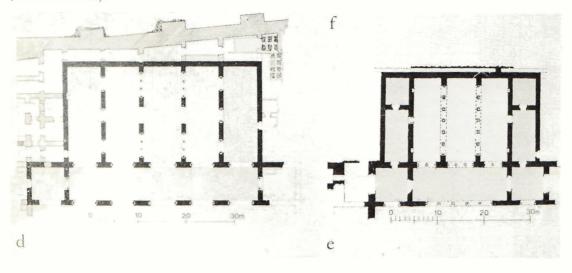
14. Theoretical plan of the Palace of Amman.



15. The Ziri's Palace at Ashir. (from Golvin 1957).

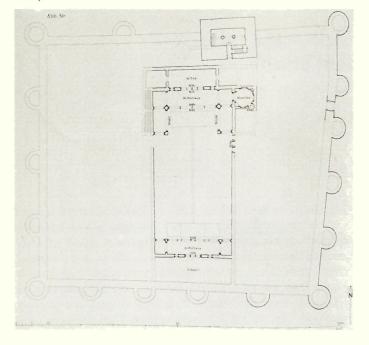


 $16.\,$ The Dar al Yund and the 'Rich Hall' of Madinat al Zahara. (from Ewert 1981).

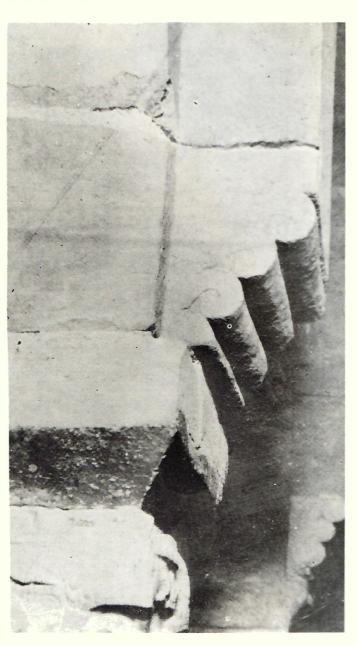


ARCHITECTURE OF THE UMAYYAD PALACE IN AMMAN

 $17.\,$ Ground Plan of the Aljaferia Palace at Zaragoza. (from Ewert 1978).



18. Bracket from the Palace of Amman.



19. Brackets in the porticoes of the Mosque of Cordova.

