



Pl. 2. Bronze standard from Enkomi.

## PALACES OF THE SECOND MILLENNIUM B.C.

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A main purpose of the observations which follow is to advocate a careful reconsideration of evidence available, regarding the design of palaces in the Middle and Late Bronze Ages. It is proposed for this purpose to pay special attention to the existence in certain cases of an upper storey, and to the possibility of its tentative reconstruction. It may also be said at once that, in doing so, we shall be faced by a striking disparity, where architectural conventions are concerned, between the two main regions with which we shall be dealing and shall find little difficulty in attributing this to the diversity of building materials available in each of them.

Geographically then, we may start with alluvial Mesopotamia and the valley of the Middle Euphrates: areas where, in the absence of stone, sun-dried or kiln-baked brick were the materials invariably made use of for buildings of all sorts, and where a further limitation was imposed on architectural design by the almost total absence of timber for roofing purposes. We shall note the evidence of recent discoveries, demonstrating that brick vaulting, (albeit on an unpretentious scale), could be contrived with some ingenuity (1); but will realise that, for the spanning of major apartments in palaces, wooden beams of adequate dimensions could only be obtained from abroad with considerable difficulty and expense. Surely then, it must be concluded that these were primary factors in the planning of public buildings and would explain, among other things, the long and narrow proportions of all minor chambers. This same predicament could indeed even account for the primeval formula adopted in the design of ordinary dwelling-houses, where flat-roofed livingrooms of moderate size are invariably planned around a central courtyard, often open to the sky. And here at once we are presented with two major enigmas, of a sort which long controversy has still failed to resolve. It is with these that we now propose to concern ourselves.

First then, there is the question of interior lighting. Where dwelling-houses in Near Eastern towns and villages are concerned, ground-floor windows in the exterior walls are to this day avoided for

reasons of security. In the historical period with which we are now dealing, it is generally accepted that, for the same reason, more pretentious buildings also presented blank façades to the outside world. This being so, surprisingly little attention has usually been paid to the problem of obtaining light for their enclosed chambers. Sometimes it has even been loosely assumed that reflected sunlight could be relied upon, penetrating through doorways leading to open courts: a theory which appears ridiculous to anyone familiar with the overcast skies of a Mesopotamian winter. Windows facing such courts would be slightly more feasible; but one remembers that, on one occasion when something of this sort was found in a slightly earlier building at Eshnunna, its publication created a stiff disagreement between editor and architect, as to whether or not the court itself was open to the sky (2). In dealing with larger buildings however, where major halls are enclosed on all sides, their walls may be raised higher than the adjoining roofs, thus enabling clerestory windows to be introduced. A device of this sort may sound improbably sophisticated; but it has in fact been conclusively demonstrated in Egyptian mansions of the 18th Dynasty (3), while, at a much earlier period, its use is now commonly assumed in the most ancient 'tripartite' temples of Mesopotamia.

Returning then to the 2nd millennium palaces of the river-valleys and delta, one sees in their planning an unchanging convention: a rectangular throneroom approached through a square 'court-of-honour', with access behind to residential quarters where clerestory lighting would have been essential. The 'reception suite' itself, with its supporting adjuncts, was to survive in a form rigidly adhered to until Late Assyrian times and has been closely studied (4). One of its components is a small stairway leading upwards; and this raises a second problem, central to the present enquiry. Does it imply the existence of an upper storey (of which none of their traces have been found), or merely provide access to a flat roof: a setting perhaps for relaxation on a cool summer evening? Ignoring for the moment Woolley's well-known and convincing reconstruction of a two-storey dwelling in 18th century Ur (5), the present writer's opinion would favour this second alternative.

With this decision in view, it may be of some interest to concentrate for a moment on one particular royal establishment in a typical Mesopotamian environment, which can be seen to incorporate certain distinctive features. This is Dur Kurigalzu (Aqar Qûf), seat of government for a dynasty of Kassite rulers which lasted for some five centuries. Among the complex of palaces, partly excavated by Iraqi archaeologists in the 1940's (6), two

architectural practices are relevant to our present subject. At an early stage in their work at 'Aqar Qûf, Taha Baqir's wall-tracers reported the discovery of a square chamber, partly filled by "a rectangular altar, connected at one end to the wall". Longer experience enabled one to recognise this immediately as the denuded remains of a 'stair-chamber' and in the weeks that followed, no less than seven more of these came to light, each serving a separate unit of the palace complex. A typical but better preserved example was recorded as follows:-

"A paved ramp made one complete revolution around the central pier and showed evidence above of a stairway of wooden beams, making a further revolution in order to complete the ascent... Holes in the brick-faces on either side marked the position of the supporting woodwork". The palace had been destroyed by fire; and in a similar instance elsewhere:- "No ramp existed; but a heavy deposit of charred beams and ashes suggested that the whole ascent had been made on a suspended wooden staircase". We also noted that - "Owing perhaps to the presence here of so much exposed woodwork and a draught of air from the **opening onto the roof (?)**, the fire had raged with particular fury...". Another circumstance which attracted our attention was that the burnt debris in these stair-chambers was extraordinarily rich in objects. In fact they included some of our most valuable finds: objects of gold and jewellery together with a large number of bronze weapons, (one bearing the insignia of the palace-guard). Could these signs of violence suggest the looting of an upper storey?

One other feature of this palatial lay-out at Dur Kurigalzu may perhaps be identified as an unique characteristic of Kassite architecture, since it has no parallel elsewhere in Mesopotamia. This was the great courtyard, distinguished in the publication as 'Unit H', of which unfortunately only part survived. It was surrounded by a covered 'arcade', supported on brick piers: a device no less unusual than the mural paintings which covered its lower wall-faces. Seeking a parallel for this striking architectural deviation, certain similarities with Anatolian practices did not escape our notice. At the time when our report was written, little was known about the design of Hittite palaces; but, since a northern provenance had always been attributed to the Kassite aristocracy, a comparison with certain buildings at Boghazköy was tentatively suggested. It was also noted that the 'arcades' themselves might well have permitted the extension above them of rooms in an upper storey, perhaps with windows overlooking the court... though this was of course the merest speculation.

Let us now turn to the broader curve of the 'Fertile Crescent': to the hilly country of North Syria and Anatolia, where, as we have said, different building practices prevailed, dependent on a plentiful supply of stone and timber. In dealing with the architecture of these regions, an outstanding fact to be born in mind is that even in modern times, an upper floor is considered essential for all forms of residential building. From the Orontes northward to the Anatolian Lake District and further eastward to the Halys country, peasants live in houses whose accommodation at ground level is used for stabling, storage and other agricultural purposes, while the family lodges in a balconied upper storey, approached by a wooden stairway. Structurally, the ground-floor rooms are stoutly built of sundried bricks; but the upper structure is a framework of timber, where brick is used only as a filling between posts and beams. There can be no doubt that this system of building has been the traditional practice of countless generations; and it is accordingly less surprising to find its reflection in the palace architecture of the 2nd millennium B.C.

First then, at Alalakh in north Syria, we have two such palaces very fully excavated and studied (7), whose construction was the work of successive provincial rulers, dating respectively from the 19th and 15th centuries B.C. Each represented stages in the evolution of contemporary planning. And in either case a group of official apartments is seen to be separate and distinguished from the actual residence of the ruler. This in itself has an interest of its own because they incorporate their own versions of a standard 'reception unit', later known to the Assyrians as a *bît hilani* a feature fully analysed and discussed by H. Frankfort as long ago as 1952 (8). It is however the residential quarters which have particular relevance to our present subject in more than one respect. First then, whereas the administrative suite was entered directly from the main courtyard, this more private group of living-rooms can be seen to have occupied an upper storey or *piano nobile*, reached by a prominent stairway. Secondly, since they clearly lacked any other form of illumination, light-wells were introduced at convenient points. Opening onto these, (e.g. in the case of Rooms 24 and 28 in the Niqmepa palace), were columned balconies, whose remains could easily be identified among the fallen debris beneath.

As for the structural details of these ancient 'half-timber' buildings in north Syria, their understanding is hampered by the fact that, being highly inflammable, their destruction by an enemy presented little difficulty and the excavation of their remains is by no means an easy matter.

Nevertheless, this particular system of building did in fact survive well into the 1st millennium B.C. and rather more can be learnt from the ruins of larger, Iron Age palaces - like Tell Tayinat (a few hundred yards from Alalakh) or Tell Halaf (on the Turkish frontier), where the extravagant use of timber framing on a low stone structure, has left charred wallposts and beams almost intact.

For an alternative source of information on this subject, we should now move northward to examine some 2nd millennium palaces in south Anatolia. A good example of these is the great Middle Bronze Age building at Beycesultan, destroyed by fire in about 1700 B.C. A novelty here is the rather formal planning, with a main axis leading through the residential quarter into a colonnaded courtyard and terminating in an obviously impressive stairway. Here there can be no possible doubt about the **piano nobile**; for the suspended upper floors of the living-rooms had fallen, almost intact, into the chambers beneath, revealing their layered bedding of straw and rushes, (regularly renewed). Between these and elsewhere in the building, there are minor open courts and light-wells. Nor, as we shall presently observe, are the wooden columns which create a covered-way around the main courtyard in any way unique. Already at that time, a long portico of the same sort had been found near the palace gate at Alaca Höyük (9). But it remained for Professor Özgüç's more recent excavation at Maşat Höyük, further to extend our knowledge of such buildings and their structural peculiarities (10).

The impressive palace at Maşat is once more planned around a columned courtyard. Unfortunately, only the north and east colonnades have survived, together with the buildings behind them. But these are enough to demonstrate the high standard of structural technique attained by Hittite builders in the late 15th century B.C. The limits of the courtyard are marked by a stone curb, upon which are set column-bases, also composed of dressed masonry and drilled with dowel-holes for the seating of wooden pillars. As for the buildings themselves, chambers directly adjoining the courtyard have a substructure of stone walls on broad foundations, rising to a point level with the courtyard. Here, based on a bedding of transverse beams, the upright posts of timber framing could be seen, with mudbrick filling between them. And here also a further refinement is apparent, for the room-walls are now concealed behind a narrow facing of stonework, no more than a few inches thick. Like the pavements beneath, these were carefully plastered.

When traced with some difficulty, the plan of these inner chambers did become clear; but at the same time they presented a new and very puzzling enigma. In their walls, no traces could be found of doorways providing either access or intercommunication and it became necessary to conclude that, together they constituted a basement, supporting one or more storeys above. This being so, it was even more disconcerting to note the apparent absence of a stairway in any form by which the upper floors could be reached. Admittedly however, the plan still remains incomplete, and a suggestion by the present writer may or may not be worth considering.

In the northwest corner, the lines of the original palace walls are interrupted by the intrusive foundations of a later building (Level II). Of this structure five rooms can be distinguished, one of which (No. I), owing to an unusual feature, was known to the excavators as "The Altar Room". Its plan however, very closely resembles that of the 'stair-wells' so frequently mentioned above in buildings of the same sort (Cf. p.--). Remembering the conservatism of ancient builders, where tradition presented a precedent, could they not have regarded this as the conventional location for a stairway? Curiously enough, an exact parallel happens to have been found in a somewhat earlier palace at Ebla in north Syria (11), where a main stairway is similarly located in the corner of a colonnaded courtyard.

At this point, some sort of tribute would not be out of place to the Maşat team and all other excavators who have been faced with the task of disentangling the remains of half-timber buildings, when destroyed by fire and later rebuilt.

## NOTES

- 1) Oates, David. 'Tell Rimah' in *Iraq*, 29, pt 2 (1967). See also 'Early Vaulting in Mesopotamia' in *Theory and Practice: Essays Presented to W.F.Grimes*, London 1973.
- 2) Delougaz, et.al *Private Houses and Graves in the Diyala Region*, OIP 88, Chicago 1967, p.275.
- 3) Lloyd, S. 'Model of a Tell-el-Amarnah House' in *JEA*, 19 p. 1-7.
- 4) Turner, G. 'The State Apartments of Late Assyrian Palaces', in *Iraq*, 32, pt. 2 (1970).
- 5) Woolley, C.L. *Ur-of-th-Chaldees*, London 1935; New Edition; P.R.S.Moorey, 1982 p.199.
- 6) Baqir, T. 'Iraq Government Excavations at 'Aqar Quf, 1944-5' *Iraq* 8 (1946).
- 7) Woolley, C.L. *Alalakh; An Account of the Excavations at Tell Atchana*, Oxford 1955, p.115ff, Figs.45 and 49.
- 8) Frankfort, H. 'The Origin of the Bit Hilani' in *Iraq* 14 (1952).
- 9) Koşay, H.Z. *Alaca Höyük Kazısı*, Ankara 1966, pls. 78 ff.
- 10) Özgüç, Tahsin, *Maşat Höyük Kazıları*, (2 vols.) Ankara 1978 and 1982.
- 11) Mattiae, P. *Ebla; An Empire Rediscovered*, London 1980. (English trans. Holme, C.), Fig. 11, p.70. Level IIB1.



The first part of the report deals with the general situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and the plans for the future.

The second part of the report deals with the financial statement of the organization. It shows the income and expenditure for the year and the balance sheet at the end of the year. The report also includes a statement of the assets and liabilities of the organization.

The third part of the report deals with the administrative matters of the organization. It includes a list of the members of the organization and a list of the committees and sub-committees. The report also includes a list of the various reports and documents prepared during the year.

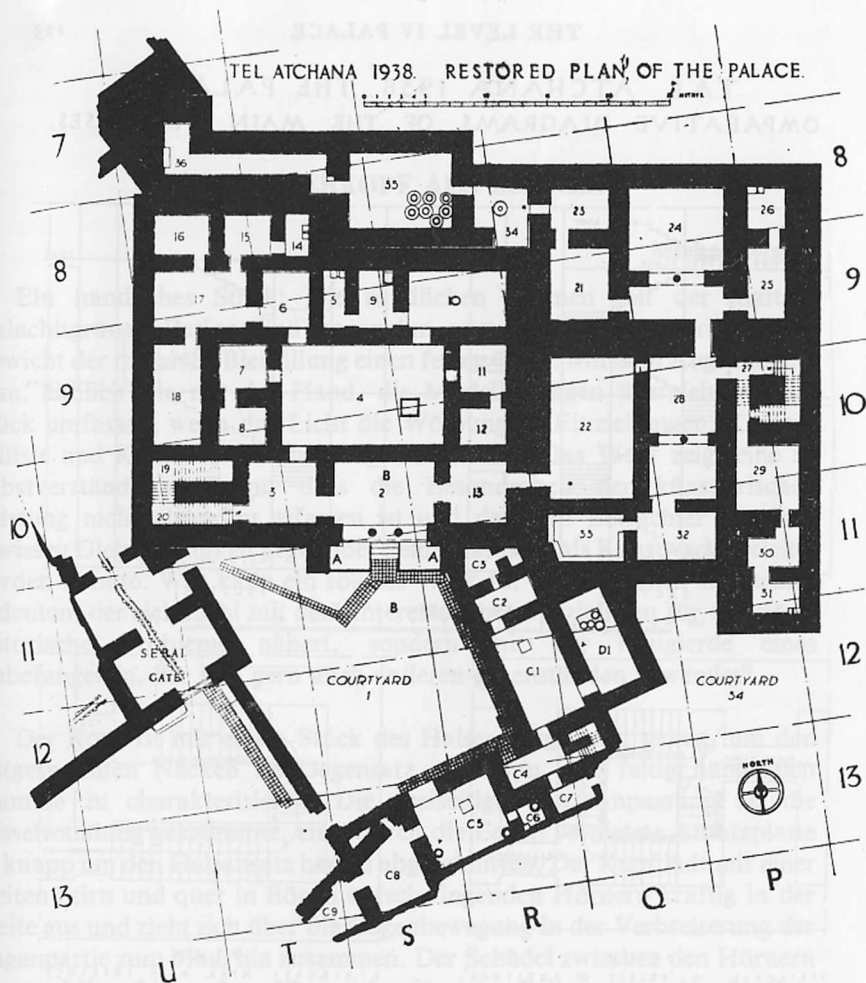


FIG. 45

Augenpartie. Der Schnitt zwischen den Hörnern ist zur Nase hin abgewandt und "Wülbe" gegen den Nasenknöchel abgesetzt. Die Stirn wird von den gegenüber schwebenden Linien des oberen Schädelkonturs, der Hörner und der ornamental stilisierten, dreifach gekerbten Augenbrauen umgeben. Die Augen treten kugelig aus den aufgeworfenen, kantigen Lidern mit mandelförmigen Umriss hervor. Die Nasern sind kräftig eingekerbt und gegen den Nasenknöchel mit einem leichten Wulst abgesetzt. Der Unterkiefer sitzt schmal und kurz unter dem mächtigen Schädel(1).

Stierköpfe dieser Art waren zu zweit(2), dritt(3), viert(4) oder fünft(5) am Rand von grossen tiefbauchigen, aus Bronze getriebenen Kesseln angebracht. Solche Kessel, mit und ohne figürliche Schmuckaufsätze, sind

TAL ATCHANA 1938 THE PALACE  
 COMPARATIVE DIAGRAMS OF THE MAIN STAIRCASES.

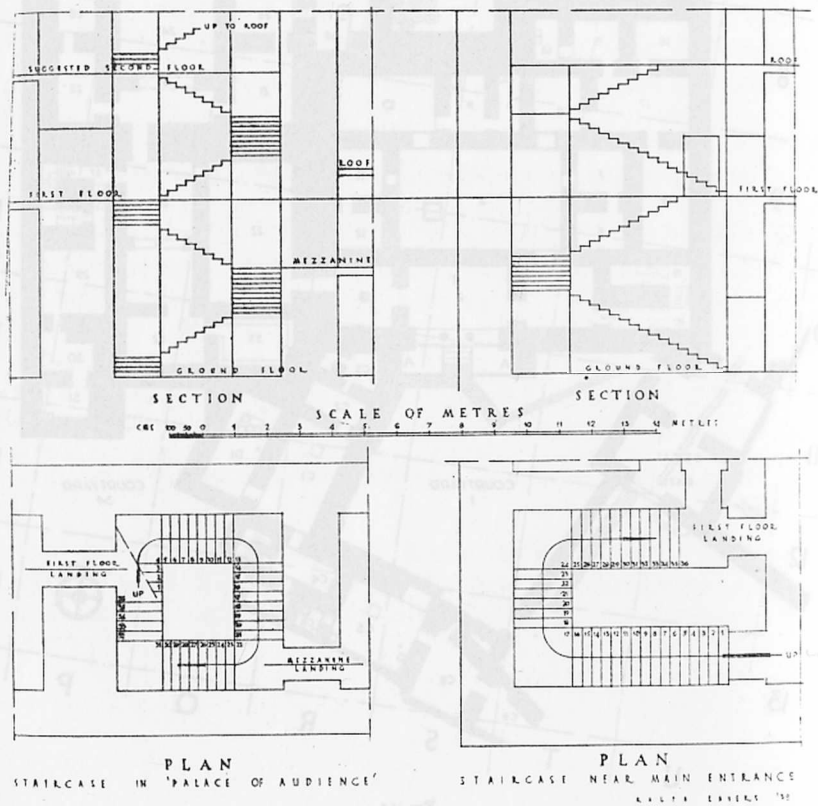


FIG. 49

## EIN STIERKOPF AUS BRONZE

Michael Maass

Ein handliches Stück: Die rundlichen Formen mit der glatten, malachitgrünen Patina sind angenehm anzufassen, doch verlangt das Gewicht der massiven Bleifüllung einen festen Griff. Mit dem Auge möchte man, ähnlich wie mit der Hand, die Modellierungen übergleitend, das Stück umfassen, wenn das Licht die Wölbungen, Einziehungen, Kerben, Wülste und Kanten in Erscheinung treten lässt. Das Werk zeigt eine so selbstverständliche Form, dass die Besonderheit der künstlerischen Leistung nicht gleich zu erfassen ist und dass ein Betrachter zu einer gewissen Gleichgültigkeit gegenüber dem Charakter als Kunstwerk verleitet werden könnte. Was kann ein solches Werk für einen solchen Betrachter bedeuten, der sich nicht mit dem Interesse eines Spezialisten für ungelöste historische Probleme nähert, sondern mit der Neugierde eines Unbefangenen, der sich gern auch anderen Gegenständen zuwendet?

Der Kopf ist mit einem Stück des Halses dargestellt, genug, um den festgespannten Nacken im Gegensatz zur dünn und faltig hängenden Wamme zu charakterisieren. Die dreiseitige, zur Anpassung an die Kesselwandung gekrümmte, einst durch die Ecken vernietete Ansatzplatte ist knapp um den Halsansatz herum abgeschnitten. Der Kopf lädt mit einer breiten Stirn und quer in Bögen aufschwingenden Hörnern kräftig in der Breite aus und zieht sich über die Gegenbewegung in der Verbreiterung der Augenpartie zum Maul hin zusammen. Der Schädel zwischen den Hörnern ist zur Mitte hin aufgewölbt und mit einer Falte gegen den Nacken abgesetzt. Die Stirn wird von den gegeneinander schwingenden Linien des oberen Schädelkonturs, der Hörner und der ornamental stilisierten, dreifach gekerbten Augenbrauen umgeben. Die Augen treten kugelig aus den aufgeworfenen, kantigen Lidern mit mandelförmigen Umriss hervor. Die Nüstern sind kräftig eingekerbt und gegen den Nasenrücken mit einem leichten Wulst abgesetzt. Der Unterkiefer sitzt schmal und kurz unter dem mächtigen Schädel(1).

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