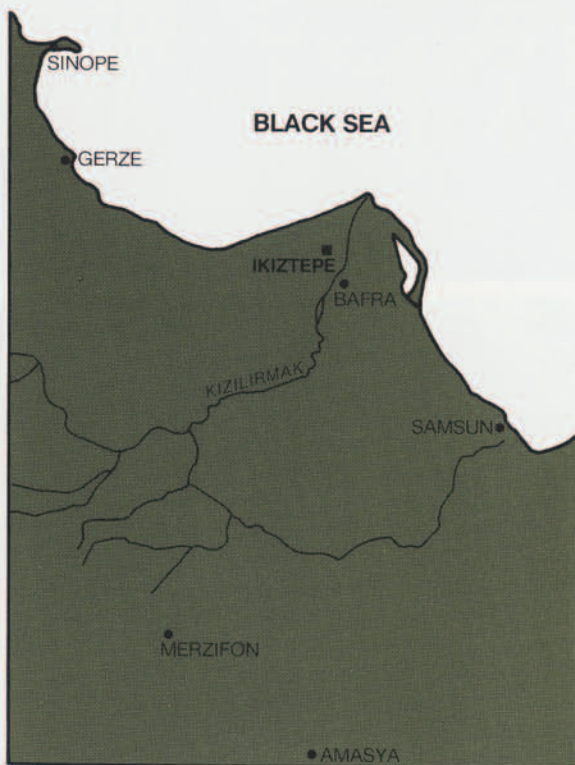


The Survival of Ancient Traditions in the Popular Architecture of NORTH-CENTRAL TURKEY



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A group of houses in the village of Karaburc, Bafra plain



José Louis Garzon, architect, graduated from the University of Madrid. While working as an assistant at that University he took part in the restoration of ancient buildings and monuments in Madrid, sponsored by the Spanish Department of Antiquity, and later in various restoration projects in Central America. Some of the excavations at which he worked as an architect are Beersheba (1970), Ikiztepe (1974) and Valeria (1975).

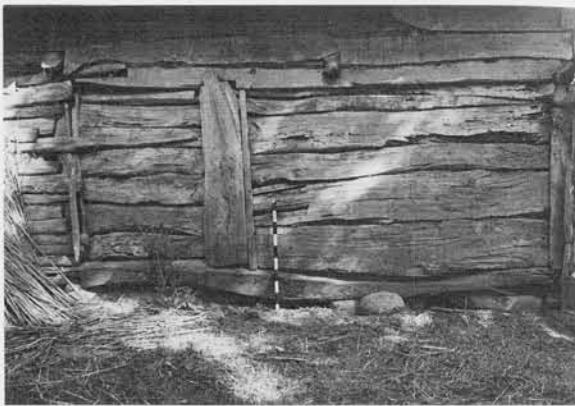
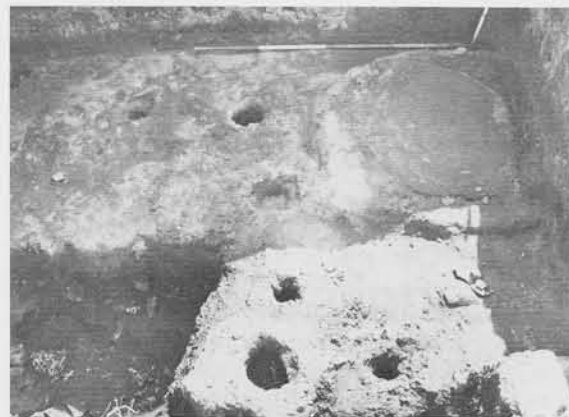


JAK YAKAR and JOSÉ LOUIS GARZON

This article deals with one of the numerous cultural aspects brought to light during the first excavation campaign at Ikiztepe, Bafra, by the Samsun Expedition in the summer of 1974. This expedition, which is organized and directed by Professor U.B. Alkim, Chairman of the Department of Ancient Near Eastern Languages and Cultures of the University of Istanbul, also undertook a series of archaeological surveys in the Samsun region in the summers of 1971-1973. The purpose of these surveys was, among other things, to find out the nature and distribution of the pre-Hittite settlements in the north central Black Sea region, and the cultural and historical interrelations between this and other regions of Anatolia.

The recent archaeological excavations at Ikiztepe, an EBA-MBA (3000-1600 B.C.) site in the Bafra plain, Samsun, unveiled the oldest known regional architecture in Western Pontus. This area which borders on the Black Sea coast was considered, during Classical times, as part of Cappadocia. Several mountain chains run through the area in lines from east to west, roughly parallel to the Black Sea coast, divided from one another by the river valleys. Conforming to the physical structure of this part of Anatolia, the natural roads run from west to east. The numerous gorges cut by rivers constitute natural barriers which keep this region in relative cultural, social and economic isolation.

The lack of stone quarries near settlements and the geographical and topographical conditions prompted the early inhabitants to build their houses out of the only building materials available to them: wood and mud.



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- 1 Post-holes and fireplace of a third millennium B.C. house at Ikiztepe
- 2 Third millennium B.C. ovens
- 3 Wood and pisé house with reed roof
- 4 Wooden house
- 5 Interlaced twig walls of a wooden structure in the Samsun region
- 6 House with walls of mud-plastered interlaced twigs
- 7 A wooden house standing on stone supports in the hilly sector of the Samsun region
- 8 Wooden house resting on stone supports

The wattle and daub or wood and pisé houses of EBA-MBA Ikiztepe often burned, forming an accumulation composed largely of successive layers of decomposed pisé, ash, mud-plaster and charred wood. As a result, no clear-cut house plans or walls were found during the excavations. However, burnt pisé debris and traces of post-holes on and below the floors helped us to reconstruct the basic building techniques and architectural concepts of the early settlements.

This ancient regional architecture was so strikingly similar to the popular village architecture of the Samsun region, that in our tentative reconstruction of the EBA-MBA houses and fireplaces, we were largely inspired by what is to be seen in the area today.

The EBA-MBA houses of Ikiztepe were free-standing and rested on vertical wooden posts which were partly driven into the earth. The space between the neatly aligned posts was sometimes filled with pisé. Long horizontal beams were then placed on top of these posts and pisé in order to build the upper structure of the walls. The debris found over the floors and the sections obtained in the trenches suggest that the common method of walling utilized a combination of diagonal, vertical and horizontal plank or split-plank framework which was either filled with pisé or covered with interlaced twigs which were then daubed with chaff-tempered mud. Both faces of the walls were plastered with lime and whitewashed. The alignment of the foundation posts suggested that the houses were rectangular in plan and subdivided into a number of quarters by enclosure walls. Our excavations revealed that not all the EBA houses were built the same way. In some cases irregularly spaced large unhewn stones were used as wall supports (foundations) instead of vertical wooden posts. House floors were usually plastered and as a result of periodic replastering and innovations they were elevated, thus providing the necessary insulation against the humid surroundings. Habitations were heated by means of a circular fireplace which was probably enclosed by a low pisé wall. The built-in household

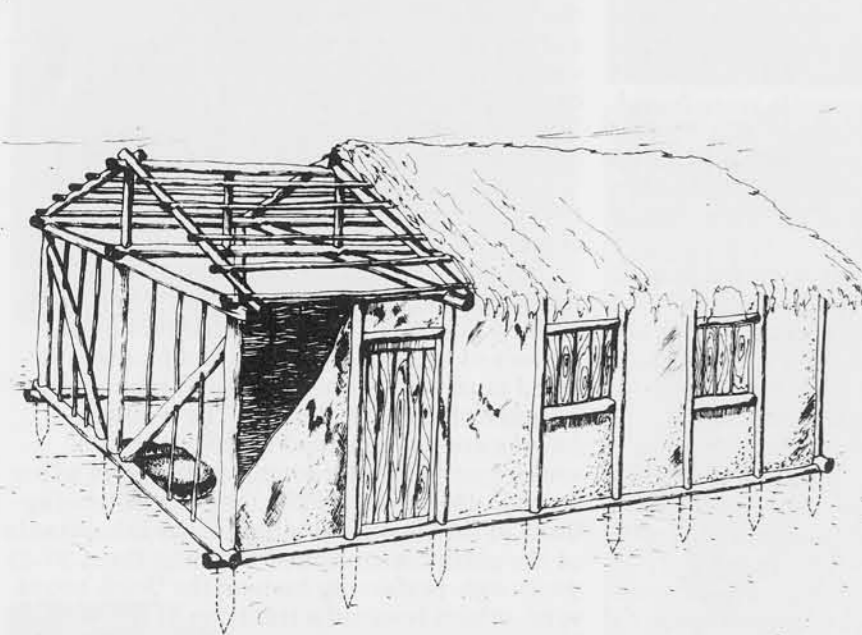
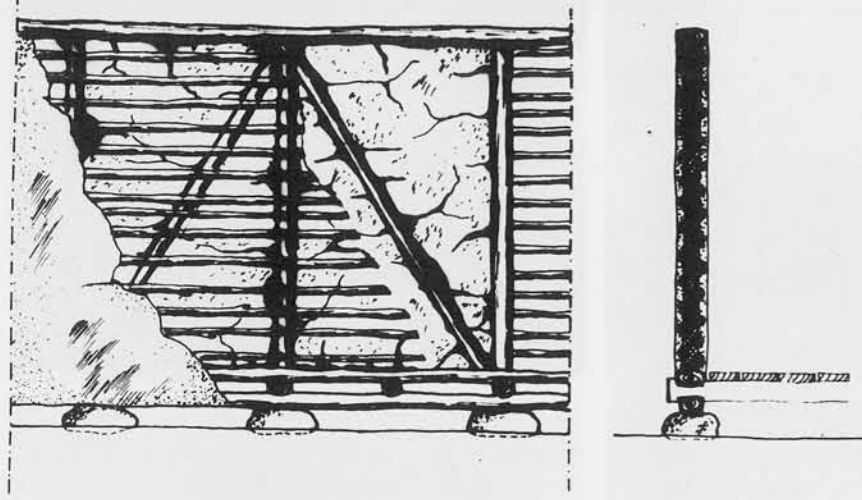
furniture included at least two types of oven, probably built in enclosed courts adjacent to the houses. The first type is a low oval-shaped pisé oven with a vaulted opening. The second is a rectangular oven whose floor was completely paved with small pottery sherds. This oven, too, seems to have had a clay hood and was encircled by an enclosure wall.

Based on our observations, the modern village houses in the Samsun region may be classified into four groups:

- a) Wooden houses standing on wooden posts, or over a few large stones. They are usually confined to the forested mountain sectors of the region, where handmade, sun-dried mud bricks are difficult to manufacture because of the wet climate. The wooden houses are not confined to the mountain sectors only, but are found in the Bafra plain as well. However, whilst they are still being built in the mountain villages, the inhabitants of the plain discontinued building them 30-35 years ago, preferring instead the brick house type, which is as old a tradition as the wooden house type in other regions of Anatolia.
- b) Houses with wooden frames and mud-plastered interlaced twig walls standing on wooden posts or stone supports.
- c) Wood and mud-brick houses set on wooden or stone supports. These supports are replaced nowadays by concrete blocks, the space between them filled with baked mud bricks.
- d) Wood and mud-brick houses on high stone foundations.

Our investigations of these different types of village houses in the region prompted us to establish certain fixed principles and characteristics regarding the building materials in line with structural usefulness. These were used as guidelines in our tentative reconstruction of the EBA-MBA houses at Ikiztepe.

Foundation work using logs driven two-thirds into the soil, or wooden beams set over stone slabs as skirting boards, not only carries the weight of the house, but provides a 30-40 cm. space between the soil and the wooden house floor, thus preventing excess humidity in the living and sleeping quarters.

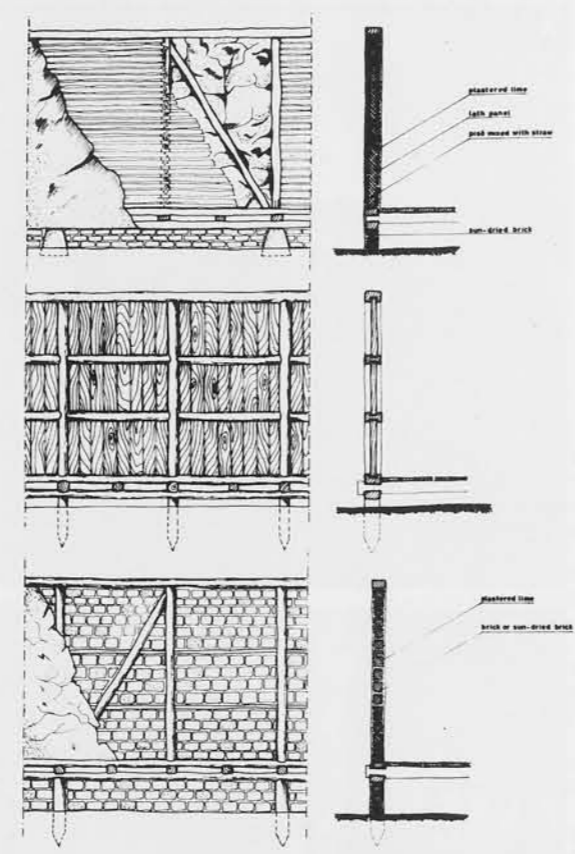
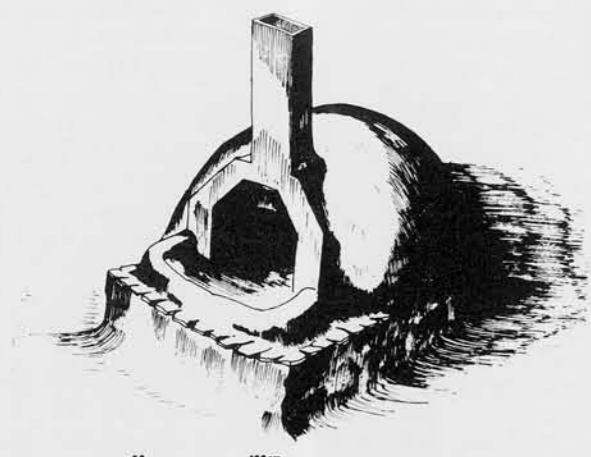


1 Tentative reconstruction of an Early Bronze Age wall

2 Tentative reconstruction of an Early Bronze Age house at Ikiztepe

3 Tentative reconstruction of an Early Bronze Age rectangular oven at Ikiztepe

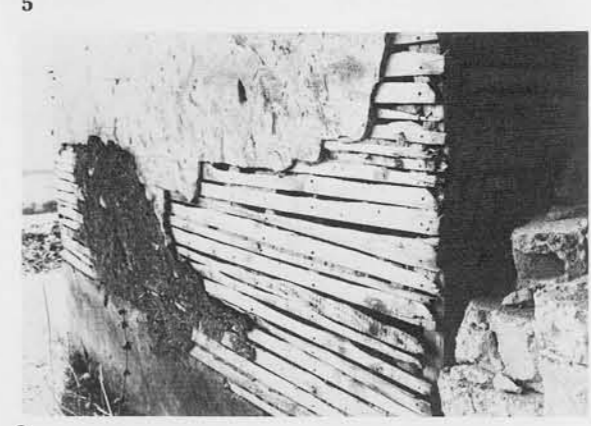
4 Different types of house walls in the Bafra plain



Stone slabs directly piled above the soil often take the place of logs or beams to serve similar purposes. Foundation work is completed by filling in all the space between the vertically set supports with pisé or bricks. Over this foundation work a horizontal wooden wall plate is placed to carry the wooden floor planks. These planks are firmly held in place by an upper wall plate which supports the wooden wall frame. In order to strengthen the frame, horizontal or diagonal beams are placed in it. Topping all vertical struts, a horizontal beam is set to bind the wall structure and to support the gable roof. Openings in the walls intended for windows are bound by additional horizontal beams placed against the vertical ones. The binding system used in the popular architecture was probably used by the prehistoric builders as well. The timbers are not fastened together with nails, but interlocked at the notched ends. The roofs are also built with this notched joint system. Different systems are used in the filling of empty facades in the framework of the walls:

- a) A lath panel at each side of the vertical lumber pieces which is filled with straw-tempered mud. Both the inside and outside panels are coated with a layer of plastered lime.
- b) A double panel system at each side of the vertical wooden pieces which form the framework. Boards are set together by means

- 5 House standing on tree trunks
- 6 Wood and mud-plastered wall



Suggested Reading

Burney, C.
1956
"Northern Anatolia before Classical Times," *Anatolian Studies* 6, 179-204.

Güterbock, H.G.
1961
"The North Central Area of Hittite Anatolia," *Journal of Near Eastern Studies* 51, 420-424.

Naumann, R.
1971
Architektur Kleinasiens von ihren Anfängen bis zum Ende der hethitischen Zeit, 2nd ed. Tübingen.

Alkim, U.B.
1973
"Recent Archaeological Research in Turkey," *Anatolian Studies* 23, p. 51.

Otten, H.
1973
Eine althethitische Erzählung um die Stadt Zalpa. Wiesbaden (Studien zu den Boğazköy-Texten 17).

Dinçol, A.M., and J. Yakar
1974
"The Theories on the Localization of Nerik Reconsidered," *Belleten* 38, 573-582.

Yakar, J., and A.M. Dinçol
1974
"Remarks on the Historical Geography of North-Central Anatolia during the Pre-Hittite and Hittite Periods," *Tel-Aviv* 1, 3, 86-100.

of tenon and mortise joints. No metal binding fixtures were ever used on any of the old houses still existing in the region.

c) Filling consisting of interlaced twigs which in turn take a final coating of mud mixed with straw. This is probably by far the oldest of all the systems used in this region, since in fact it involves only materials readily available and, as a further consideration, it is on the elemental side of the construction techniques applied.

d) Sun-dried mud bricks are occasionally used at present. They probably replaced the pisé filling used previously in the region.

The framework of the inside partition walls sits on the foundation stones beneath the floor. The fireplaces are supplied with chimneys built of wood and pisé. The chimney usually stands as an independent unit through the house framework. The fireplace is raised slightly over the floor level and consists of a heavy layer of pressed mud resting on a solid bed and covered by a hollow structure gradually tapering at the top to form the final chimney line outside the roof. Heavy rains in the area have made it necessary to provide roofs with sloping sides. Hence, the span roof and the hipped roof are the most frequent types found, with the corresponding structure built of a simple wood truss framework which lies directly on the outside walls of the house, forming in the span roof type a ridge parallel to the front. Roof trusses supported by a single beam, or with the help of boarding, carry the outside covering of the roof on which reeds and/or wooden tiles are

set. Occasionally, flat stones are then placed over all as an overweight to prevent strong winds damaging the roof cover. The light roofing material and scattered flat stones overlying the wall debris of the EBA houses at Ikiztepe suggest that this type of roof was known in this region as early as 3000 B.C.

Ovens for baking bread are indeed considered a complementary house unit, fully attached to the rural dwelling. The ovens are always placed outdoors, in an open or enclosed court, protected by a light roof set over the same oven base. Two different types of ovens are characteristic of this region: rectangular and square hearths, set on brick or sun-dried brick platforms. Roof tiles are sometimes broken and laid over the surface of the hearth to obtain increased temperatures. These hearths are covered by hemispherical clay hoods. Rectangular type ovens have a basin-like platform at their opening, and have a chimney towards the front. Houses may at times have two ovens, a rectangular one with a basin and chimney and a square one, under one single lean-to roof:

The topographical and geographical conditions in Western Pontus make it one of the few regions in Anatolia where ancient architectural traditions are preserved almost unchanged by village communities.

The Samsun Expedition discovered some 20 new sites with EBA-MBA occupation in the Bafra plain and further south along and near the Halys (Kizilirmak) valley.

Today it is generally accepted that the distribution pattern of these ancient settlements within the topographic structure of the North-Central Black Sea region fits the geographical data in some of the Hittite documents regarding the northern Hittite provinces and important cult and administrative centers.

Among these documents, KUB xxxvi 89, an aethiological mythos first evaluated by H. Güterbock, provides some important references on the Marašanta (Kizilirmak) River and, therefore indirectly, about the possible location of the cult center of Nerik. An Old Hittite Narrative, Bo 70/10=KBo xxii 2, recently published by H. Otten, about the Queen of Kanesh and the adventures of her 30 sons after they were carried by the river (Halys) to the sea (Black Sea) in the Land of Zalpuwa, gives some general details as to the possible whereabouts of Zalpuwa in the Bafra plain.

It is hoped that future excavations by the Samsun Expedition will reveal more information regarding the identities of some of these Middle Bronze settlements which probably are those referred to in the Old Assyrian and Hittite documents. 21