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'YAYLA' SETTLEMENTS OF THE BOLU REGION AS EXAMPLES OF INDIGENOUS DEVELOPMENT OF RURAL VERNACULAR ARCHITECTURE ON THE ANATOLIAN PLATEAU

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ABSTRACT

During a series of field surveys conducted in the Bolu Region of the Central Anatolian Plateau between spring 1971 and spring 1973, the 'yayla' settlements of pastoral nomadic peoples who conduct seasonal migrations between their winter settlements around Beyşehir area of the Province of Ankara and their summer pastures in the Bolu Region have been studied. In this article after giving a summary background information on the 'yayla' traditions in Anatolia, the unique layout and characteristics of the timber 'yayla' houses, which have a very long antiquity in Anatolia, are being described. Following this a classification of timber vernacular buildings in Anatolia is being offered, and then some observations are being put forth on jettying in timber buildings, and finally a note is being added on the conservation problems of the 'yayla' settlements. The text is also supplemented by line drawings and photographs.

INTRODUCTION

It is possible to identify the continuation of rural vernacular[1] traditions of building, especially in timber, in many parts of the Anatolian Plateau, and studies with this aim in mind have recently been on the increase.[2] One of the more important areas, the forested environs of the Bolu Region, has, however, escaped the sounity of systematic research until now, and the present study is aimed to fill this gap. The 'yayla' settlements of the Bolu Region, with their unique layout and characteristic 'horizontal-log' structures, as well as with their sociological implications, justify a proper evaluation.

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These settlements, which are built entirely of timber and whose origins stretch back as far as the Ist millenium B.C., also illustrate an extremely interesting development of an indigenous rural vernacular building type on the Anatolian Plateau. Furthermore, some challenging conservation problems have arisen due to the changing pattern of the 'yayla' people's life style during the last few decades, and many settlements are already being abandoned or completely neglected. Conservation problems created by this situation will also be discussed in this study under a separate heading.

AREA OF FIELD STUDY

The field surveys were conducted within the area that lies to the east and south of the city of Bolu and to the south-east of the district, or **kaza**, town of Gerede (Figures 1 and 2). Out of practically hundreds of settlements, eight were selected for detailed surveys. Of these three were completely deserted and were found in a state of total neglect and disrepair. Consequently, the investigations were concentrated on the remaining five. These were the twin settlements of Üçpınar-Yazıköy 'yaylas' in the Gerede area and the triple settlements of Aladağ-Kızık-Değirmenözü 'yaylas' in the Bolu-Seben area. Some preliminary interviews with the 'yayla' people were conducted as well, but considerably more has to be done in this respect before a comprehensive discussion of the habits of the present 'yayla' peoples, and their social and ecoomic life patterns, can be possible.

BACKGROUND ON THE 'YAYLA' TRADITIONS IN ANATOLIA

In spite of the predominantly dry character of the Central Anatolian Plateau, the average yearly rainfall of about 32-35 cm (or 9.8-11.8 inches) makes it possible to have pluvial agriculture more or less throughout the country where irrigation is not strictly necessary. There have been periods in the Anatolian history and prehistory, especially towards the end of the Bronze Ages and before the arrival of Indo-European peoples (c. 2500 to 2000 B.C.), when economic life of the country was organized round small towns and city-states in which the wealth was largely a result of a brilliant development of metallurgy and trade, where at the same time these towns served as centres for

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This article was originally submitted to the University of London as part of a Ph. D. Thesis on the history of (building) technology in Anatolia; see.
G. Danışman, «Timber Building Activity on the Anatolian Plateau and its Conservation», **Ph. D. Thesis, University of London,** August, 1976.
The field surveys were conducted intermittently between Spring 1971 and Spring 1973 with entirely my own resources. I must, however, record here my deep gratitude to Mr. M. Zekâi Bayer, the General Director of the National Parks Department of the Turkish Ministry of Forestry, for without his most valuable introductions, I could not have joined the crews of several Forestry Commission 'control-jeeps' in the Bolu Region, and in many instances under very adverse climatic and road conditions I could not, otherwise, have reached my destinations of mountain 'yaylas'. I am also most thankful to my architect brother Mehmet Danışman, for assisting me most loyally and patiently throughout these field surveys and during my documentation studies.

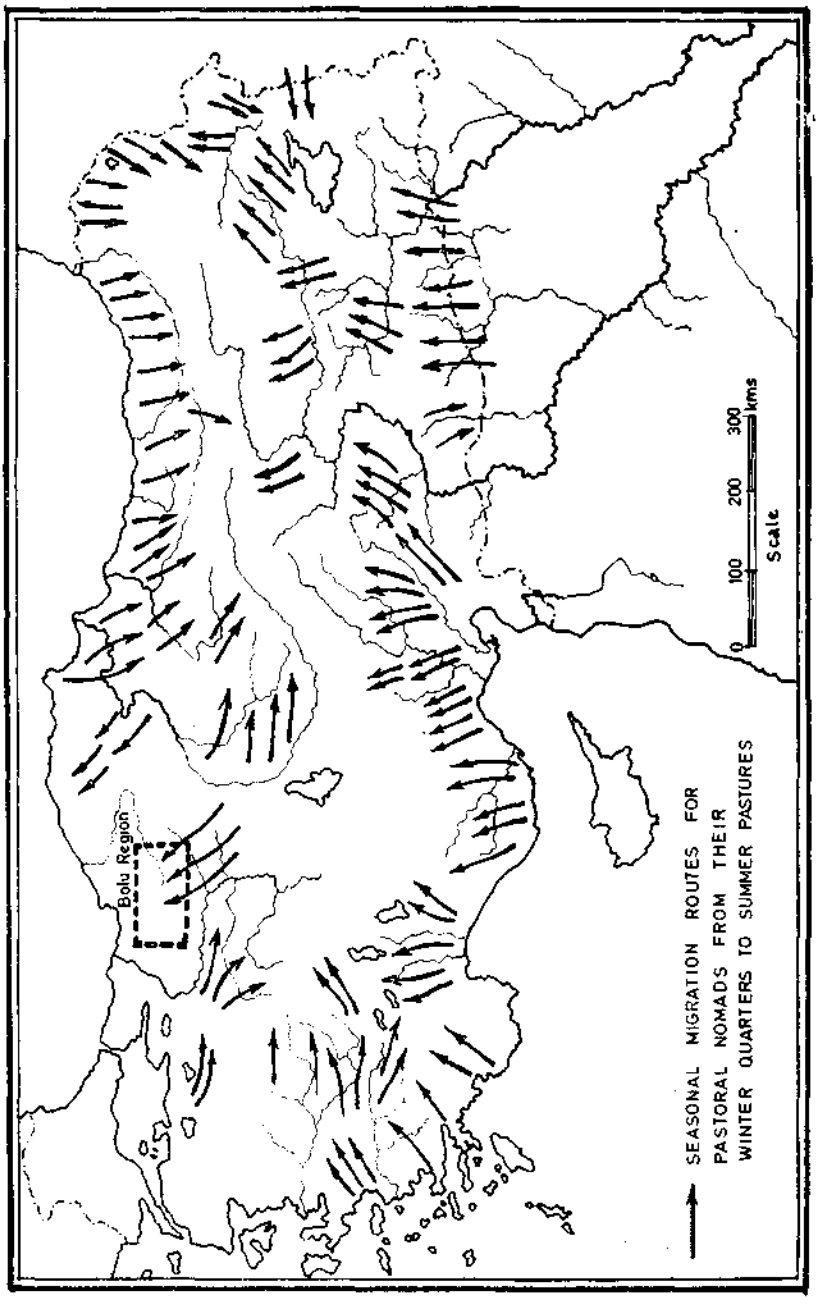


Fig. 1 — A Map of Anatolia indicating area of field study and migration routes (partially based on the D.I.A's Turkey, London, 1942).

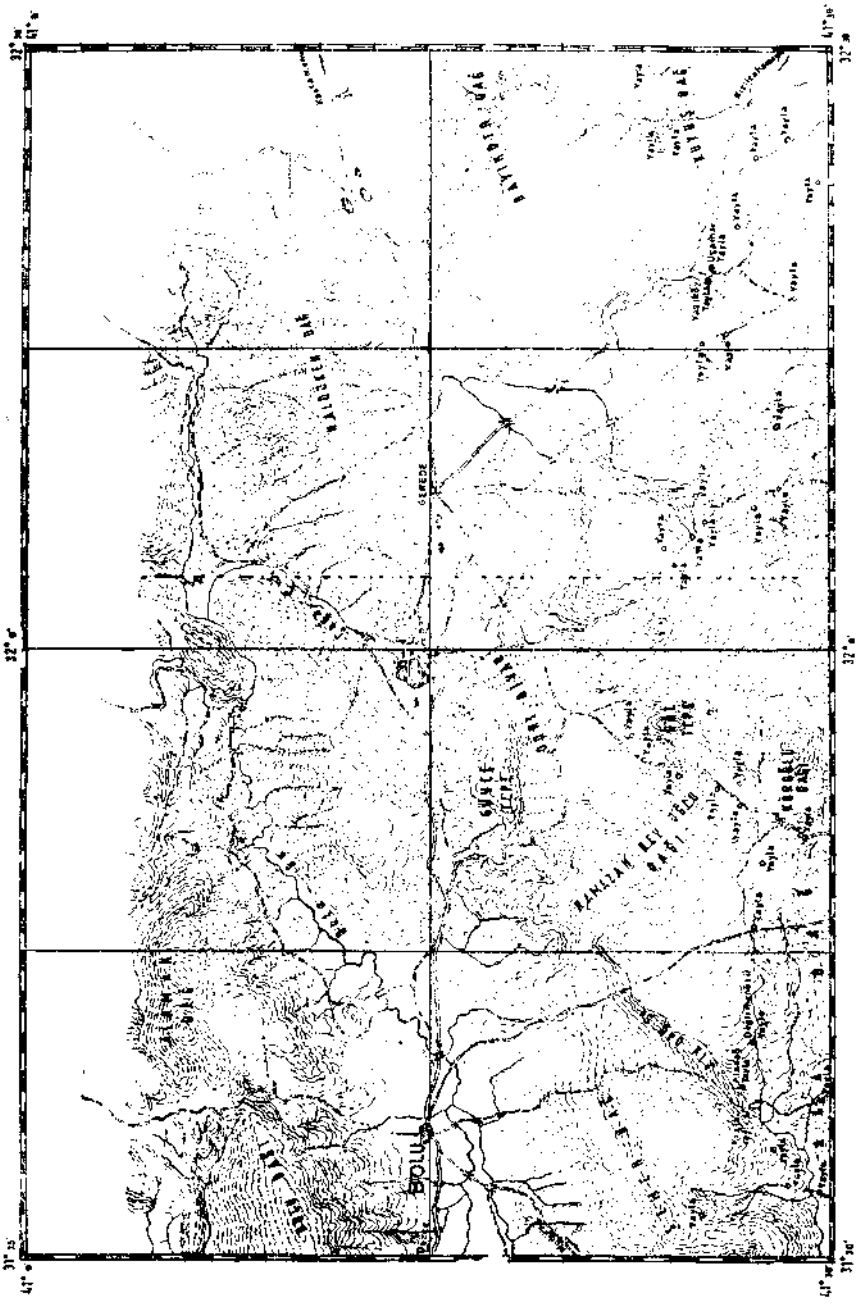
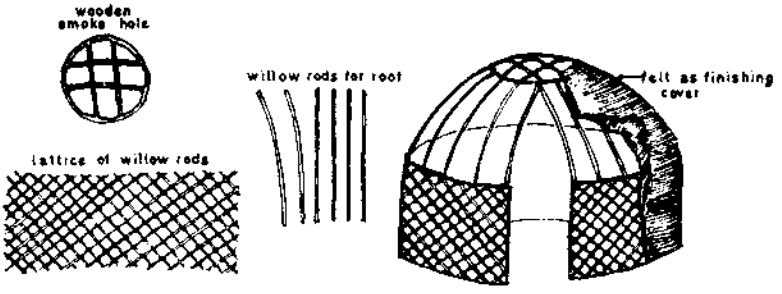
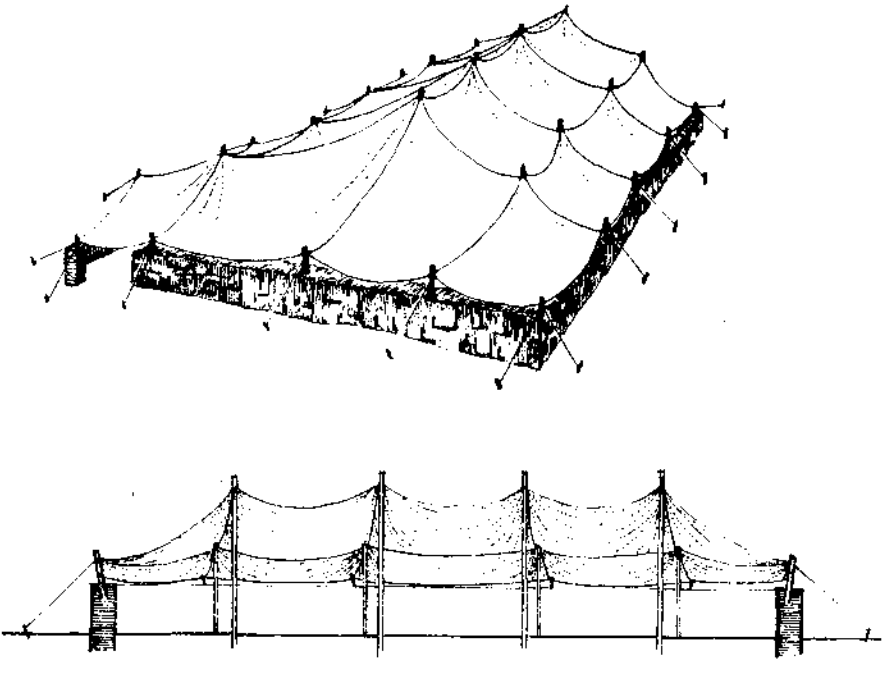


Fig. 2 — Distribution map of Yaylas in the Bolu Region (Scale 1:250,000).

a pastoral economy around which the flocks were kept not by nomads but by shepherds in the service of the town-dwellers.[3] The Anatolian prehistory, however, is predominantly marked by successive waves of violent invasions of new peoples from various directions, with traces of destruction as well as widespread evidence for abandoned settlements after which the land remained depopulated or returned to nomadism. A particularly significant case of this had taken place at the end of the Hittite Period when there was a 'dark-age' in the central plateau spanning from c. 1200 to 750 B.C. with almost no archaeological evidence forthcoming, probably as a result of the upheavals following the Mushki invasion, who are believed to be the ancestors of the Phrygians.[4] A major revolution of the similar proportions occurred at the end of the 11th century, with the sudden appearance in the Middle East of the nomads driven from Central Asia due to adverse climatic conditions, as well as due to pressures arising from disturbances among Mongol peoples.[5] These nomadic tribes lived all year around in their 'yurt' dwellings of felt (Figure 3a), or in the lighter black goathair tents they had adopted in the Near East (Figure 3b). In Anatolia they found a setting suitable for their chosen way of life, which involved annual migrations between the high summer pastures (**yaylak**) round the upper limits of the forest zone and their winter quarters (**kışlak**) in the sheltered valleys. Having long been used to the harsh climates of Central Asia, they feared the heat and humidity of the plains both for themselves and for their camels, which were originally two-humped **Bactrian** camels, but were progressively mated with the **Dromedaries**, the offspring having one lump.[6] Instead they sought cool summers and accordingly, at first preferred the northern part of Anatolia, where they wintered in the longitudinal valleys of the Pontic chains or on their inner slopes below the peaks, which offered them attractive 'yaylas'. Some of them, however, soon pushed on to the Taurus Mountains, wintering in the lake basins of the inner slopes in Pisidia or Lycaonia. During this troubled period of 12th and 13th centuries, the coastal areas were still bases of Byzantine resistance, more or less controlled by the Greeks, who received supplies by sea. On the Plateau the settled population grouped itself into small communities that usually took the form of walled towns. It was only in the late 13th and the 14th centuries that the renaissance of peasant life began within the hereditary principalities of the Seljuk Kingdom. Once again, great trade routes ran through Anatolia to the Far East. Gradually expelled from the Plateau where the spreading cultivation of the fertile basins left increasingly less room for their winter quarters, the nomads turned to the coastal plains of Cilicia and Pamphylia and the lower Aegean valleys, as well as the mountain ranges along the western Black Sea Coast. For centuries, they were to make their summer quarters in the small ranges of the Plateau or the high marginal chains, and their winter quarters on the coastal fringes, the distance covered often being more than 100 kms. As a result of this situation, the settled population of the country progressed rather slowly in the peripheral plains, where as it advanced rapidly on the Plateau. About this time it began to be realized that the nomads were in a minority in the plains, and consequently, throughout western Anatolia they became known as **Yürüks** (i.e. 'those who walk'), being thus distinguished from the local populations, whereas in eastern Anatolia they kept their traditional name of **Turkomans**, or Türkmen. The settlement of the Turkomans was an extremely slow process. In the 17th century, the breaking-up by the Ottoman Government of the great Turkoman confederations that moved between the 'yaylas' of the high Plateau and the 'kışlaks' of the Syrian desert, constituting a threat to authority,



a. The yurt of the Central Asian horse and sheep-herding nomads, consisting of the component parts of the framework, i.e. lattice of willow rods, fastened with thongs where they cross, which forms the wall; a number of rods which are fastened to the top of the lattice, and to a wooden ring which forms the smoke-hole; and the ring and the assembled framework which is then covered with felt (partially based on figure 2, p. 490 of S. Cranstone's "Environment and Choice in Dwelling and Settlement", in P.J. Ucko et al. (Eds.), 1972).



b. Goat-hair tents adopted by the pastoral nomads in Anatolia (after a photograph taken on the Central Anatolian Plateau)

Fig. 3 — Two examples to portable dwellings used by pastoral nomads.

resulted in the infiltration of the survivors, which were split up into a number of small groups, into western Anatolia, where they reinforced the former Yürüks. And despite the ever increasing pressure of the settled population, Anatolia still contains tens of thousands of nomads, particularly in the Taurus Region, but also on the shores of the Aegean and in the Western Pontic ranges, renting winter pastures from the peasants of the plains as best they may and spending the summers on 'yaylas' at ever greater altitudes, above the limits of the spreading agricultural areas on the mountain slopes (for a map of major contemporary seasonal migration routes, see: fig. 1).

ARCHITECTURAL DESCRIPTION OF THE 'YAYLAS'

Two groups of 'yaylas' out of eight groups studied in the Bolu Region are believed to represent the two prototypes of 'yayla' layout in this area. These are the twin 'yaylas' of Üçpınar-Yazıköy near Gerede and the triple 'yaylas' of Aladağ-Kızık-Değirmenözü near Bolu (Figure 2). The established pattern seems to be to have clusters of two or three 'yaylas' in close proximity, but no explanation for this can be offered at this stage. It is also discovered that the names of 'yaylas' belong to and repeat the names of winter villages (**kışlaks**) of the same group of people who, in this instance, come from Beypazarı area, a district in the Province (**vilayet**) of Ankara, to the southeast of the study area (Figure 1).

The most striking feature of each settlement is that a 'yayla' is a single purpose affair. The 'yaylas' in the Bolu Region are inhabited for only 8 weeks during the months of May and June each year. The rest of the time they are completely deserted. Each settlement consists of only residential units for people and their animals ranging from, according to the size of the original winter settlement, about a dozen units to several scores, and there are no communal buildings, religious or public halls, shops, or administrative buildings, not even the ubiquitous coffee-house, the indispensable male social-club of each rural community. There does not seem to be a pattern for the clustering of the residential units, except for the alignment of buildings and courtyards according to sunlight and prevailing wind orientations and access to and from the main approach roads.

The twin settlements of Üçpınar-Yazıköy 'yaylas' are physically separated by the main north-south approach road, with Üçpınar situated to the east Yazıköy to the west of it (Figures 4 and 5a). The settlement is surrounded by a belt of green pastureland of a more or less uniform width, after which the pine forests start. This pattern is repeated at every settlement (Figures 5a and 10a). The main difference between the twin 'yaylas' of Üçpınar-Yazıköy and the triple 'yaylas' of Aladağ-Kızık-Değirmenözü is, besides the differences of size and number of conglomerations of village communities, the fact that the latter group consists of mainly single storey dwelling units (Figure 10d) and multi-storey and multi-family occupied dwelling units (Figure 10c), while the former consists of only two-storey dwelling units for single-family occupation (Figure 11). The individual design requirements of each type of residential unit, however, are not dissimilar from one type to another. Each residential unit is planned to have either

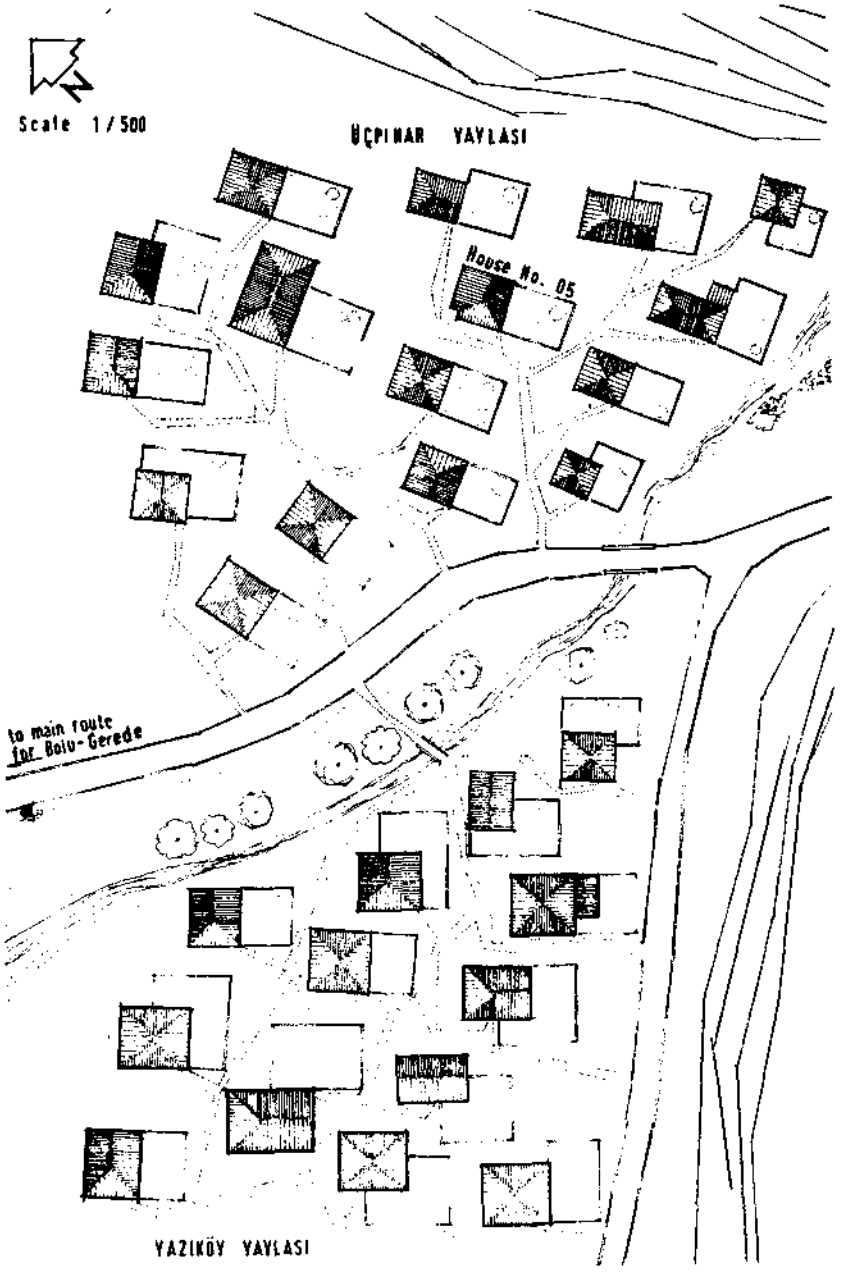


Fig. 4 — Site plan of Üçpınar-Yazıköy Yaylas in Bolu Region.

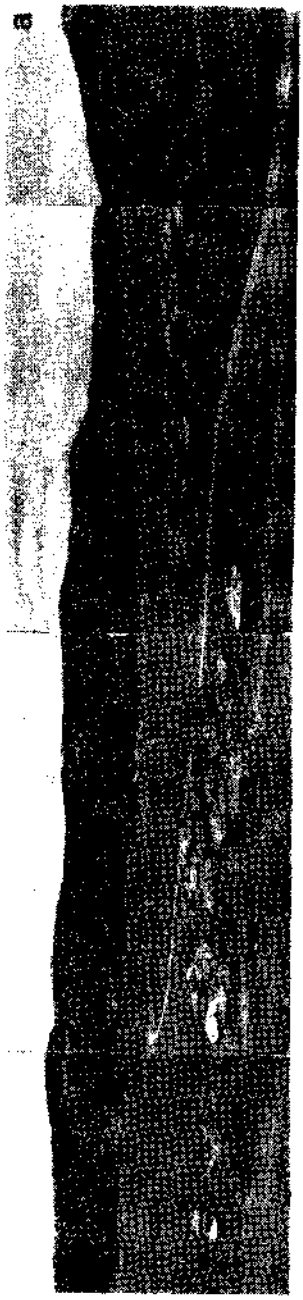


Fig. 5

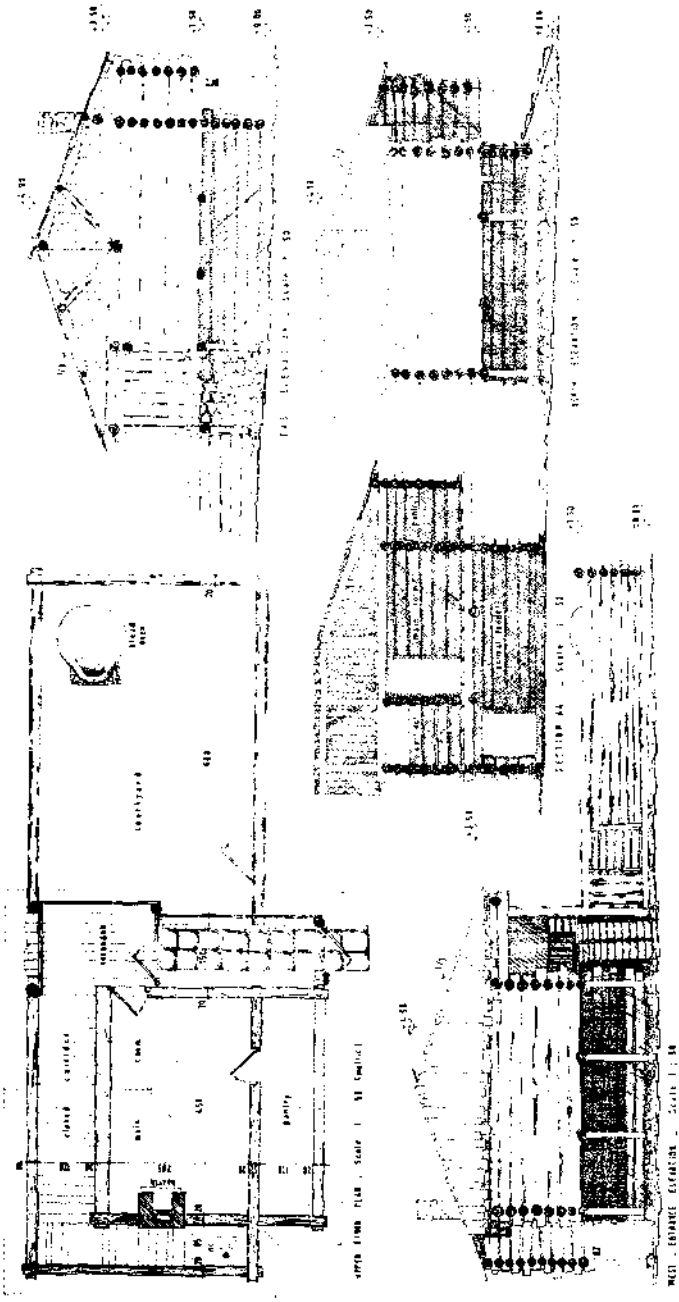


Fig. 6 — Drawings of House No. 03 in Üçpınar Yaylası in the Bolu Region of Central Anatolian Plateau.

one or two families, the personal belongings of each family being equal in volume to those things that can be carried by the family's pack animals (Figure 5b). Except for the recently degenerated form of 'yayla' houses (**yayla evi**), such as those that make use of stone or brick (Figure 5d), every single structure in the settlement, including the road bridges, are built of timber (Figure 5c). The prominence of the use of timber is nowhere better illustrated than in the design and the construction of each individual unit.

House No. 05 in Üçpınar 'yayla' ilustrates all the characteristic features of a typical dwelling unit. It is entirely built of timber, with the 'horizontal-log' or 'log-cabin' style of structure. The planning entails a ground floor space designated as covered fodder for the animals, a part of which may also include a poultry-cage (Figures 6 and 9a). Above this is situated the first floor arrangement. This consists of an inner core of living-dining-sleeping area, surrounded on all sides by a narrow corridor acting as an outer skin and housing various functions such as the pantry, the entrance hall, and an open 'sofa' (i.e. outdoor living area), together with washing and toilet facilities (Figure 6). The inner core has no openings to the exterior, but it includes a fireplace (Figures 9c and 9d). The corridor area on all sides is cantilevered, or jettied over the ground floor load-bearing walls (Figures 6, 7b and 7c). The cracks and openings of the walls between the horizontal logs are filled with mud-plaster. The roof is a simply constructed hipped roof, covered with woodshingles (Figure 6a). The entrance elevation that faces towards south incorporates the entrance to the first floor, approached by an ingenious stair constructed of two tree-trunks perforated in the shape of rising steps and laid side by side to provide a comfortable width (Figure 8a). The entrance to the enclosed courtyard is placed next to this stair. The courtyard includes provisions for the animals, the fuel for the fires, and a mud-brick bread-oven in one corner (Figure 9c). Although most houses contain a bread-oven, it is also possible to see communal bread-ovens serving more than one house unit, for example at Değirmenözü 'yayla' (Figure 11e).

The study of the first floor plan, section and elevations of the House No. 05 (Figure 6) indicates that when this building was constructed, it must have been consciously arranged to permit future extension, in that if a hypothetical main-room and a pantry would be added to the building on the opposite side of the closed corridor, it would immediately produce a symmetrical arrangement and the roof shape would begin to make more sense, i.e. a proper hipped roof shape will be completed. Indeed, buildings containing two dwelling units under one roof and arranged symmetrically have been observed at the triple 'yaylas' of Aladağ-Kızık-Değirmenözü (Figures 10b and 10c). Nevertheless, houses which seem to have been single units, and in fact, intended to be so consciously from their inception, have also been observed at the above-mentioned complex of 'yaylas' (Figures 10d and 11a-c). Thus, it is possible to conclude that use of a single building material, i.e. wood, as well as a single and rather simplistic method of construction, have not deterred the emergence of a variety of arrangements with regards to house plans in the 'yaylas' of Bolu Region, and perhaps even contributed to their unique character.

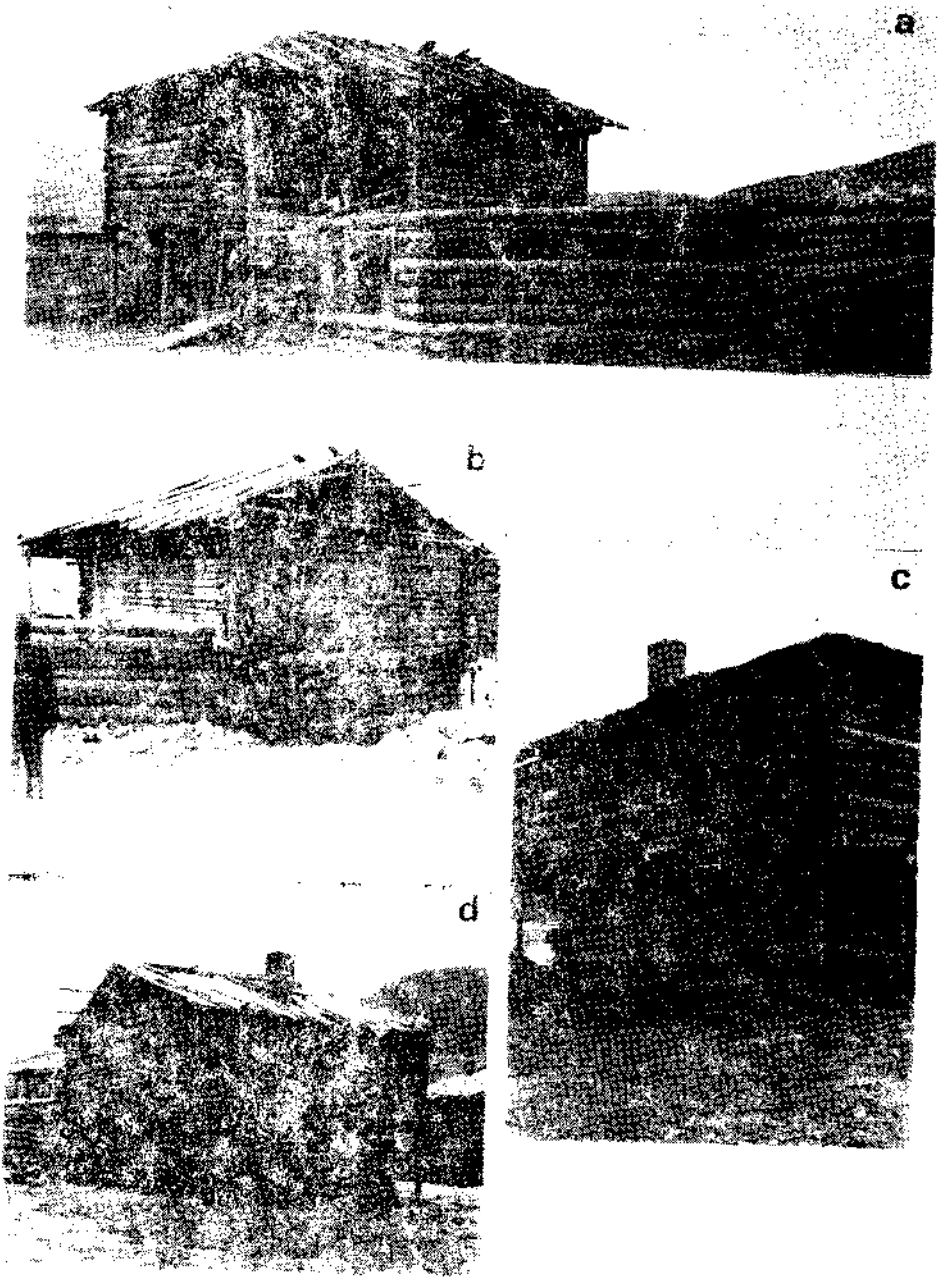
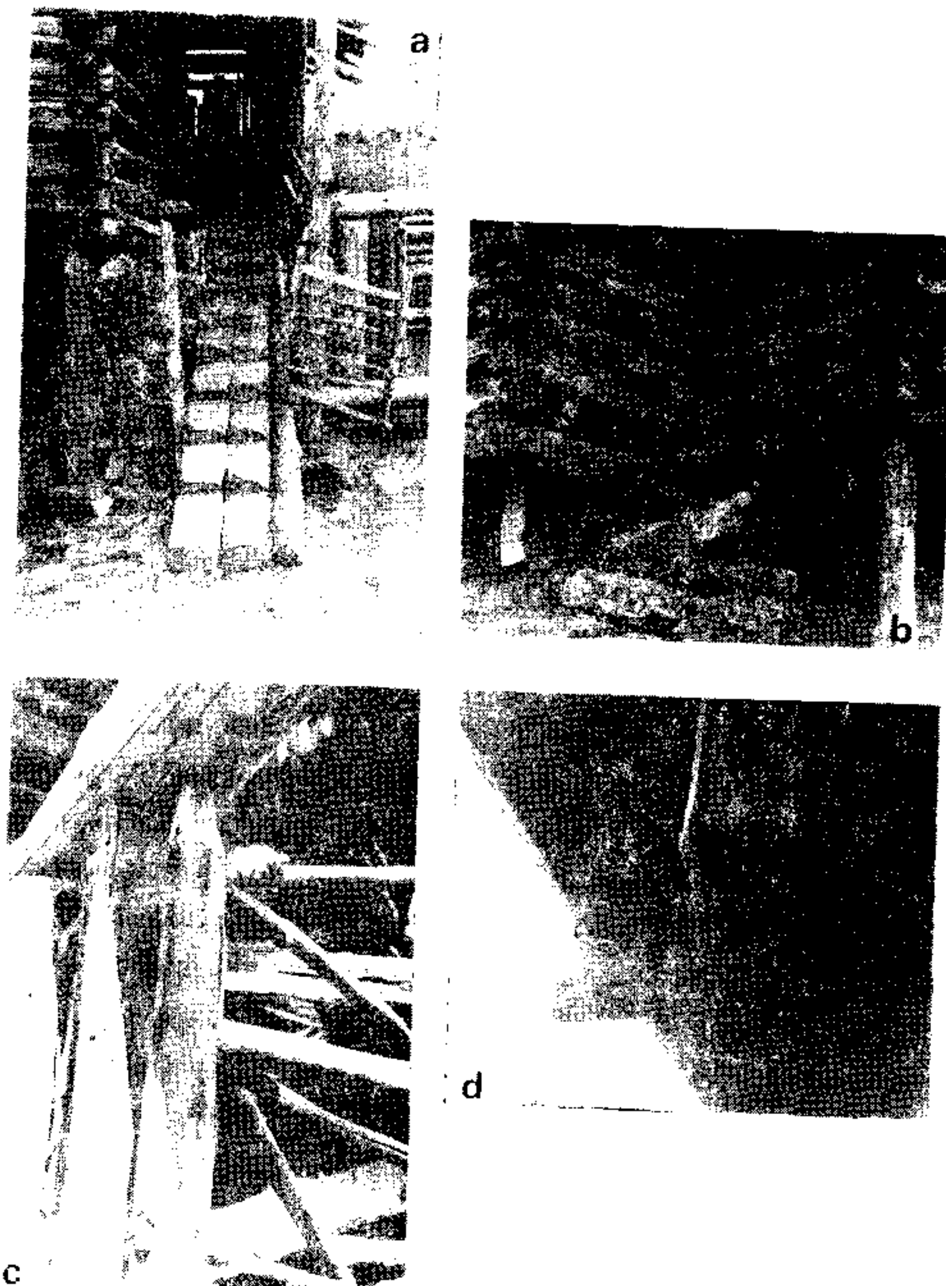


Fig.



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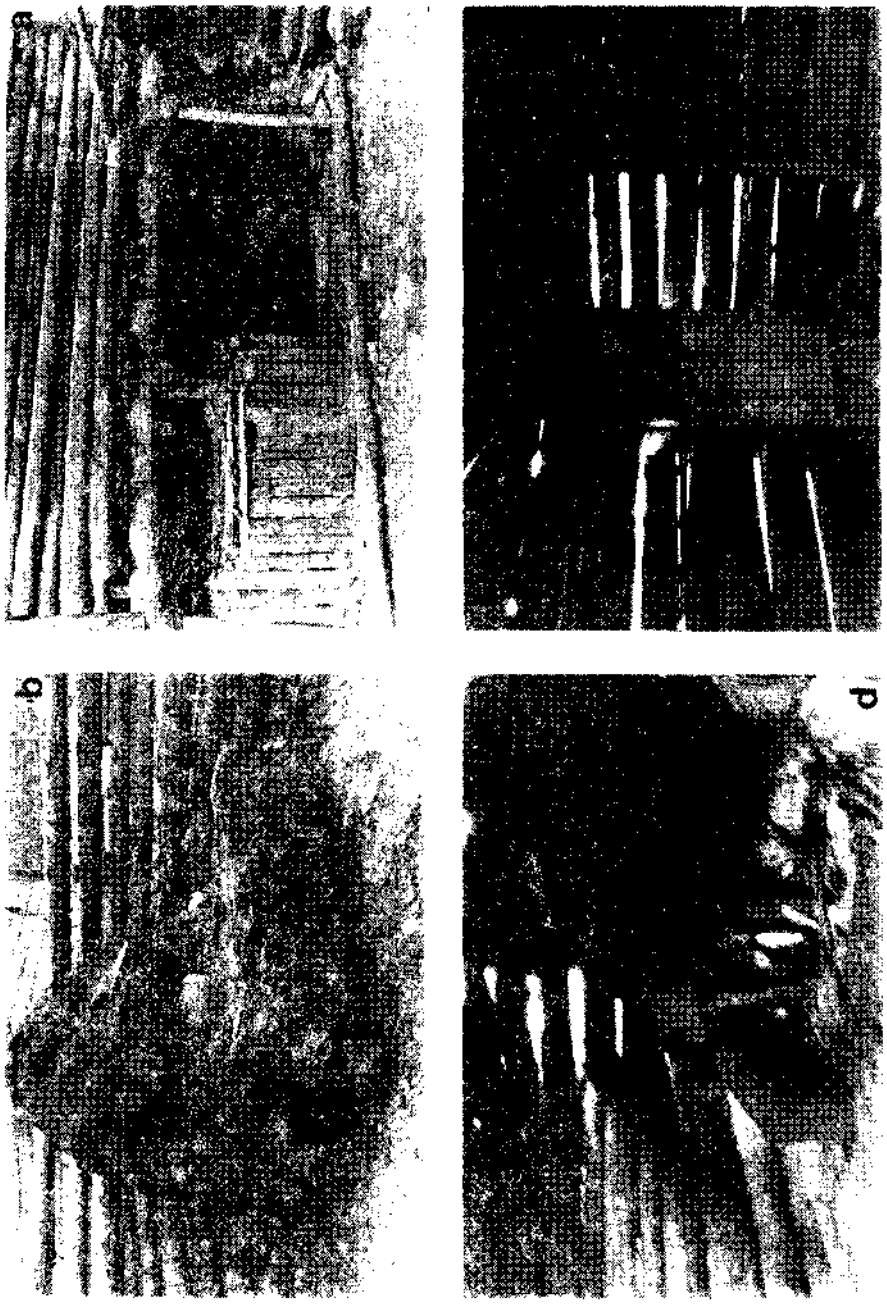

a
b
d

A SEARCH FOR THE PEDIGREE OF THE TIMBER 'YAYLA' HOUSES

There is no doubt that the 'horizontal-log' type structure employed in the construction of the 'yayla' houses in oBlu Region has a very long antiquity in Anatolia, perhaps even dating back to the very beginnings of timber building activity,[7] although direct archaeological evidence for this specific building type is hard to come by until much later, i.e. not until the beginnings of the Ist millennium B.C. in the burial tumuli of the Phrygians.[8] An equally important, but later, written evidence comes from the welknown architectural treatise by the ist century B.C. Roman engineer Vitruvius,[9] and because his description is extremely informative, it is useful to record it here in full;

> "...Among the Colchians in Pontus, where there are forests in plenty, they lay down entire trees flat on the ground to the right and the left, leaving between them a space to suit the length of the trees, and they place above these another pair of trees, resting on the ends of the former and at right angles with them. These four trees enclose the space for the dwelling. Then upon these they place sticks of timber, one after the other on the four sides, crossing each other at the angles, and so, proceeding with their walls of trees laid perpendicularly above the lowest, they build up high towers. The interstices, which are left on account of the thickness of the building material, are stopped up with chips and mud. As for the roofs, by cutting away the ends of the cross beams and making them converge gradually as they lay them across, they bring them up to the top from the four sides in the shape of a pyramid. They cover it with leaves and mud, and thus construct the roof of their towers in a rude form of the 'tortoise' style."

The conservatism illustrated by the Anatolian peoples in these traditions of timber building, however, is not surprising, and furthermore, the adoption of a very old method of building by the latest arrivals of nomadic peoples in Anatolia is quite understandable. For the limited requirements of a 'yayla' settlement in a forested area like Bolu Region, the 'horizontal log' construction must have proven more than adequate throughout several centuries of building activity, and the method has been perfected to a degree best exemplified in House No. 12 in Aladağ 'yayla' (Figures 11a-c), which displays all the best qualities of good vernacular architecture, i.e. its construction follows established traditions and conservative precedents, its function dominates its appearance, it makes use of locally available building materials, and more often than not, the owner builds his own house.

AN ATTEMPT TO CLASSIFY ANATOLIAN BUILDING TYPES

Elsewhere, in a study of the history of timber building activity in Anatolia,[10] a comprehensive system of classification for different types of timber buildings was devised, and this system was based on the distinction between two principles of structure, namely the 'load-bearing' (or in-compression) construction and the 'timber-framed' (or in-tension) construction. It was also pointed out in this study that no evidence

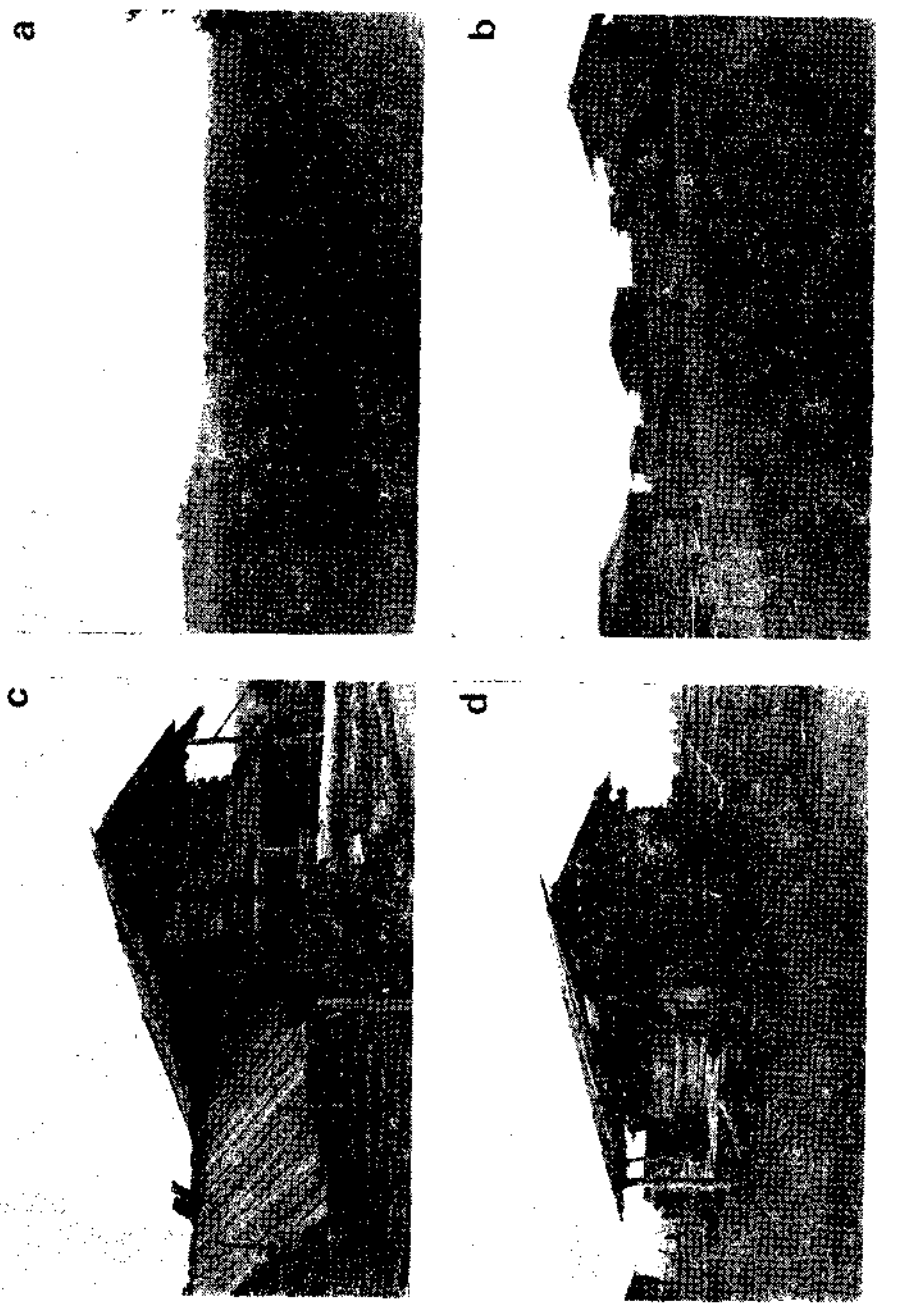


Fig. 10

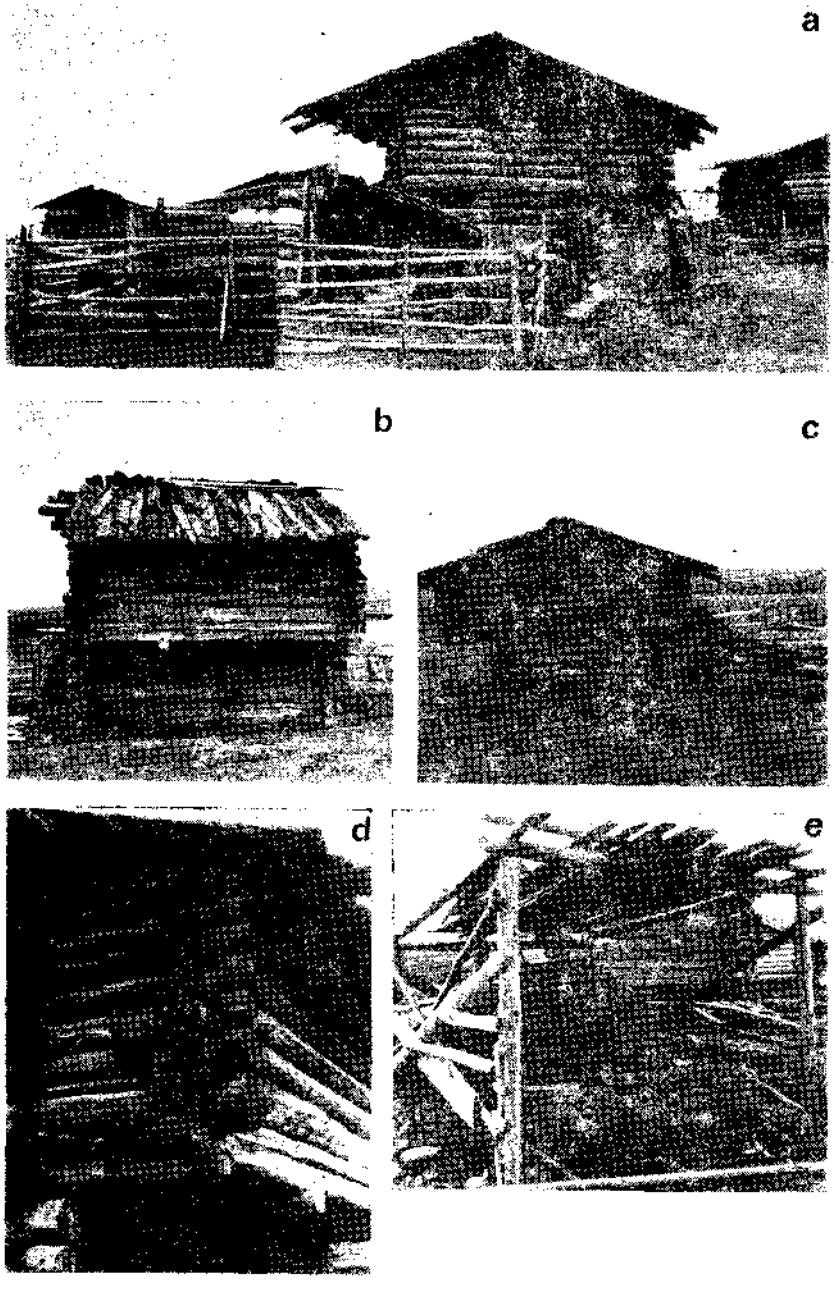


Fig. 11

was found in Anatolia for certain known types of timber buildings, although this lack of evidence could not mean that new evidence for these building types would not be forthcoming in future explorations. Consequently, in order to obtain a workable and flexible classification based on availabe evidence, the following proposal is being put forth, with the main groups arranged under two main principles of structure, while subgroups are classified according to differing walling and roofing types (Figure 12):

Group I. Load-bearing (in-compression) timber buildings;

A. Vertical-log or 'stave' types;
   a. Flat-roofed and single-storeyed,
   b. Pitched-roofed and single-storeyed.

B. Horizontal-log or log-cabin types;
   a. Flat-roofed and single-storeyed,
   b. Pitched-roofed and single-or multi-storeyed.

C. Post-and-plank types;
   a. Flat-roofed and single-storeyed,
   b. Pitched-roofed and single- or multi-storeyed.

D. Masonry-walled types with or without the incorporation of timber within the walls;
   a. Flat-roofed and single- or multi-storeyed,
   b. Pitched-roofed and single- or multi-storeyed.

Group II. Timber-framed (in-tension) timber buildings;

A. Box-frame (pure timber) types;
   a. Flat-roofed and single storeyed,
   b. Pitched-roofed and single- or multi-storeyed.

B. Post-and-truss types;
   Only pitched-roofed and single-storeyed.

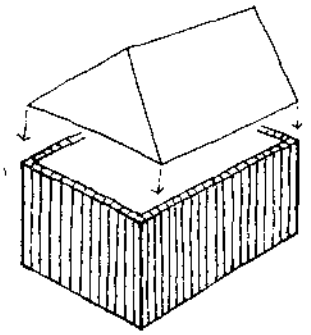
C. Composite types (load-bearing at ground level with timber-framed superstructure);
   a. Flat-roofed and multi-storeyed,
   b. Pitched-roofed and multi-storeyed.

It becomes obvious from the above classification that the 'yayla' houses of Bolu Region should easily be classified under type I-B-b.

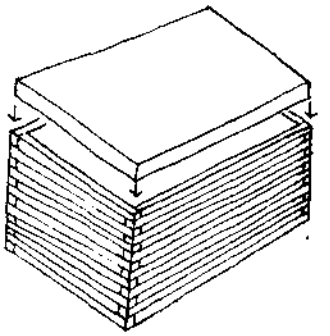
A NOTE ON REASONS BEHIND JETTYING IN TIMBER BUILDINGS

The question of jettying, its reasons for construction as well as its origins, has occupied scholars of timber building activity at length.[11] Basically four explanations for jettying have been offered, all or any of which may account for it.

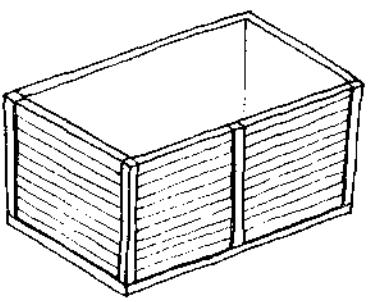
Firstly, the pressures of new building in urban areas with confined spaces and narrow streets, where increased floor-space requirements would have been fullfilled by over-



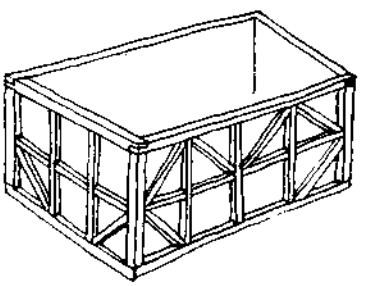
a. Vertical-log construction as a type of 'load-bearing' (in compression) structure



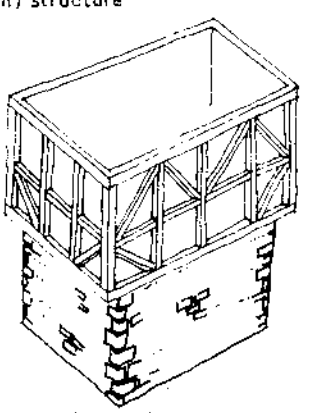
b. Horizontal-log construction (log-cabin) as a type of 'load-bearing' (in compression) structure



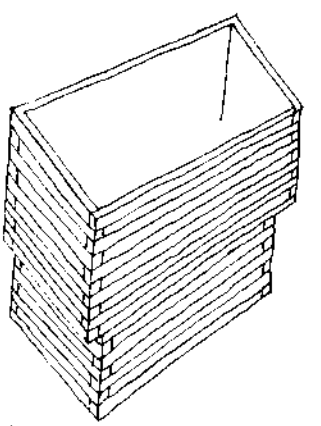
c. Post-and-plank construction as a type of 'load-bearing' (in compression) structure



d. 'Box-frame' construction as a type of 'timber-framed' (in tension) structure



e. A composite construction combining 'load-bearing' and 'timber-framed' structure in a single building



f. A multi-storeyed horizontal-log construction as a type of advanced 'load-bearing' (in compression) structure

Fig. 12 — A classification of Anatolian timber buildings.

hanging storeys above ground floor level, is legitimate enough reason for the jetty building. However, jettying can frequently be seen in the depths of the rural areas as well, and a very good example to this are the two-storeyed 'log-cabin' type 'yayla' houses in the Bolu Region of the Central Anatolian Plateau. On the other hand, if it can be proven that the practice was started originally in the towns, which indeed seems possible and even probable, then it can also be illustrated that the rural builders were only copying a fashionable new technique of construction. Secondly, the desire to protect the lower parts of the structure from damp seems to be a likely explanation, especially in buildings which employed no gutters and no downpipes to shed rainwater away from the surfaces of walls. The two other possible reasons for jettying seem to be purely structural and closely related to increasing complexity attained in techniques of timber building activity during the Middle Ages. One of these reasons revolves around the problem of obtaining long timbers to run the full height of the building, a problem which could be solved by employing jetties that would cut down the necessary lenght of wall-posts to one-storey height. The other structural reason seems to have been an attempt to provide additional strength to floor beams, which would otherwise be under considerable stress with a single span deflection, by creating a counterpoise effect in them through projecting their ends into space beyond the point of their supports, i.e. timber posts or load-bearing walls. Although the logic behind such an argument is quite good, the validity of its application in reality seems to be challenged by the existence of multi-storey houses without any jetty at all.

Whatever may have been the origins and purposes of jettying, it seems that the technical innovation which permitted upper storeys to be jettied and which accompanied improvement in living accommodation at upper levels of houses, soon became fashionable and was practiced as an integral part of succeeding vernacular building traditions creating a unique and special character for 'yayla' buildings in the Bolu Region.

CONSERVATION PROBLEMS OF THE 'YAYLA' HOUSES

The field surveys conducted by this writer in the Bolu Region have indicated that the majority of the 'yayla' settlements in this area have already been abandoned by their original inhabitants. It is believed that this is due to the recently changing pattern in the economic basis of the lives of the pastoral nomads throughout Anatolia, but it is not possible to verify this conclusion at this stage. It has been discovered that the abandoned settlements have been completely neglected as far as normal maintenance of buildings are concerned. If this present trend continues, it is also possible to conclude that this unique type of settlements will completely disappear within a matter of few decades. Besides the normal structural damage and damage by natural forces, some severe cases of timber decay due to penetrating moisture has been observed. This kind of decay was located near the ground-sill levels of the houses, and around their defective roofs. Although the conservation problems are formidable, it is considered, nevertheless, that the situation is redeemable, and by finding an alternative function for many of these settlements, such as turning them into youth-camps or touristic establishments (i.e. motels or caravan-camps), it should be possible to restore these timber houses very effectively and economically, and, therefore, conserve a good collection of 'yayla' settlements for posterity.

NOTES

1 The term **vernacular architecture** can best be defined by establishing the distinction between the 'formal' architecture and the 'vernacular'. But before doing this, it is necessary to state the difference between 'building', which has the least aesthetic intension, **versus** 'architecture', which has the most conscious aesthetic intention. The threshold from building to architecture is crossed as the skill of constructing permanent structures for specific functions is perfected over a long period of accumulating experience, increasing know - how, and sophistication of technology. 'Formal' architecture is professionally designed, follows national or international fashion, tends to be forward - looking, while its appearance tends to dominate function, its construction tends to be adventurous in design or materials, and its choice of materials depends on design rather than on local availability. On the other hand, 'vernacular' architecture is amateur designed, follows local traditions, tends to be conservative, while its function tends to dominate appearance, its construction follows traditional precedent, and it invariably uses locally available materials.

(For this definition, as well as for the formulation of a general knowledge on vernacular architecture, I have benefited much from the 'Seminar on Vernacular Architecture' conducted at the Institute of Advanced Architectural Studies at University of York, between 27 July and 3 August, 1968).

2 Athough there have been many examples of studies in 'urban' vernacular architecture of Anatolia since late forties and early fifties (such as those conducted in the cities of Ankara, Istanbul, Bursa, Kayseri, Konya, Diyarbakır, Kütahya, and more recently Safranbolu), studies looking into 'rural' vernacular architecture on the Central Anatolian Plateau have been extremely rare. A few early examples can be listed as follows :

a. G. Beken, **Garbi Anadolu Mıntıkası Kerpiç Binaları**, İ.T.Ü. Mimarlık Fakültesi Yayını, Istanbul, 1949;

b. R. Kafesçioğlu, **Orta Anadolu'da Köy Evlerinin Yapısı**, İ.T.Ü. Mimarlık Fakültesi Yayını, Istanbul, 1949;

c. R. Kafesçioğlu, **Kuzeybatı Anadolu Ahşap Ev Yapıları**, İ.T.Ü. Mimarlık Fakültesi Yayını, Istanbul, 1955; and

d. S. Oran, **Orta Anadolu Köylerinde bir Aile Tarım İşletmesi Binaları**, İ.T.Ü. Mimarlık Fakültesi Yayını, Istanbul, 1954.

Recently, i. e. in late sixties and early seventies, the Turkish Folk Arts Research Institute (Türk Halk Sanatları Araştırma Derneği) at the State Academy of Arts in İstanbul and research by the Faculty of Architecture at the Middle East Technical University at Ankara have revived a new interest in rural vernacular architecture. Major recent contributions can be listed as follows :

a. T.H.S.A.D., "Articles on Timber Buildings in Anatolia", in **Mimarlık**, No. 69/6, pp. 71 - 23; No. 70/3, pp. 14 - 20; and No. 72/6, pp. 51 - 58;

b. O Özgüner, **Köyde Mimari - Doğu Karadeniz**, Middle East Technical University, Faculty of Architecture Publication, No. 13, Apa Ofset Basımevi, Ankara, 1970;

c. Department of Restoration, M.E.T.U., **Göynük, A Town in a Timber Region**, Middle East Technical University, Faculty of Architecture Publication, Güzel Istanbul Matbaası, Ankara, 1970.

d. M. Turan, "Vernacular Architecture and Environmental Influences : An Analytical and a Comparative Study", **Journal of the Faculty of Architecture**, M.E.T.U., Ankara, Vol. 1, No. 2, 1975, pp. 222 - 246.

3 For good resumes of the Anatolian History from c. 2500 B. C. onwards see the following revised chapters from **The Cambridge Ancient History :**

a. H. Lewy, "Anatolian in the Old Assyrian Period", **C.A.H.**, Vol. I, Chap. XXIV, Sec. vii - x, The University Press, Cambridge, 1965;

b. J. Mellaart, "Anatolia c. 2300 - 1700 B.C.", **C.A.H.**, Vol. I, Chap. XXIV, Sec. i - vi, The University Press, Cambridge, 1964; and,

c. O. R. Gurney, "Anatolia c. 1750 - 1600 B. C.", **C.A.H.**, Vol. II, Chap. VI, The University Press, Cambridge, 1962.

4 S. Lloyd, **Early Highland Peoples of Anatolia,** Thames and Hudson Ltd., London, 1967, pp. 80f.

5 M. P. Wagret, **Turkey**, Nagel Publishers, Geneva, 1972, p. 28.

6 M. P. Wagret, **Turkey,** Nagel Publishers, Geneva, 1972, p. 29.

7 Increasing evidence about Anatolian prehistory and its earlier archaeological periods indicate that an indigenous architecture in Anatolia has developed from the earliest traceable building activity onwards, and use of timber has played an important role in this development. For more detailed treatment of this theme, see :

G. Danışman, "The Architectural Development of Settlements in Anatolia", in P. J. Ucko **et. al.** (Eds.), **Man, Settlement and Urbanism,** Duckworth, London, 1972, pp. 505 - 512; and,

S. Lloyd, "Bronze Age Architecture of Anatolia", **Proceedings of the British Academy**, Vol. 49, London, 1963, pp. 153 - 176.

8 A well - known example was discovered in the construction of the burial - chamber beneath the great tumulus known as the Tomb of Midas at Gordion. For a reconstructed drawing, see :

S. Lloyd, **Early Highland Peoples of Anatolia,** Thames and Hudson Ltd., London, 1967, p. 131, ill. 142.

9 Marcus Pollio Vitruvius, **The Ten Books on Architecture,** (Trans. by) M. H. Morgan, Dover Publications, New York, 1960, p. 39.

10 G. Danışman, "Timber Building Activity on the Anatolian Plateau and its Conservation", **Ph. D. Thesis, University of London,** August, 1976, pp. 98 - 109.

11 The following four scholars have written on the problem of jettying :

a. M. W. Barley, **The English Farmhouse and Cottage,** Routledge and Kegan Paul, London, 1961, pp. 31f;

b. A. Clifton - Taylor, **The Pattern of English Building,** Faber and Faber Ltd., London, 1972, pp. 30f;

c. C. A. Hewett, "Jettying and Floor - framing in Medieval Essex", **Medieval Archaeology,** Vol. X, 1966, pp. 88 - 112; and,

d. J. T. Smith, "Timber Framed Buildings in England : Its Development and Regional Differences", **The Archeaological Journal,** Vol. CXXII, Royal Archeaological Institute, London, 1966, pp. 133 - 158.

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8 Kafesçioğlu, R., 1955, **Kuzeybatı Anadolu Ahşap Ev Yapıları,** İ.T.Ü. Mimarlık Fakültesi Yayını, Istanbul.

9 Lloyd, S., 1963, "Bronze Age Architecture of Anatolia", **Proceedings of the British Academy,** Vol. 49, London.

10 Lloyd, S., 1967, **Early Highland Peoples of Anatolia,** Thames and Hudson Ltd., London.

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15 Vitruvius, M. P., 1960, **The Ten Books on Architecture,** (Trans. by) M. H. Morgan, Dover Publications, New York.

16 Wagret, M. P., (Ed.), 1972, **Turkey,** Nagel Publishers, Geneva.

ÖZET

Bahar 1971 ile bahar 1973 tarihleri arasında Bolu yöresinde yapılan araştırmalar sırasında, Ankara Vilayeti'nin Beyşehir Kazası dolaylarından gelerek Bolu dağlarında yazı geçiren ve ekonomileri hayvancılık olan yarı-göçebe 'yayla' köylülerinin kurdukları ahşap yerleşme merkezleri çalışılmıştır. Yazıda önce yarı-göçebe hayvancılık ekonomisinin bir tarihçesi yapılmakta, daha sonra Anadolu'da çok eski tarihlerden beri kullanıldığı belgelenmiş olan bir yapı tarzı ile inşa edilen 'yayla' evlerinin mimarisi anlatılmakta, bu mimari sınıflandırılmaya çalışılmakta, ve bu yapı sisteminin bir özelliği olan çıkmalar konusunda yerleşmiş olan kanılar üzerinde fikir yürütülmektedir. Yazı 'yayla'ların konservasyon problemlerine de değinerek bu konuda bir öneride bulunmaktadır. Metin fotoğraf ve çizimlerle de desteklenmiştir.