

A SURVEY OF BALKAN HOUSES AND FARM BUILDINGS

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INTRODUCTION

This study is an analysis of settlement patterns, the construction and form of houses, yards and farm buildings in peasant communities in Yugoslavia, Albania, Bulgaria and Rumania. It might appear more logical to cover the whole of the Balkan Peninsula in which case Greece should have been added and Rumania excluded. However, my main interest is in the Southern Slavs of which Greek culture is not a part. Albania, on the other hand, has certain affinities to the culture of Slavic Montenegro, such as in social organization, and the large Albanian element in the population of southwestern Serbia has probably influenced the material culture of that region. In any case the political boundary between Yugoslavia and Albania scarcely reflects the cultural affiliation. The decision to include Rumania, which cannot be considered a purely Slavic country, rests on historical factors, for Rumania also came under the influence of Turkish rule, sharing the fate of other Balkan countries. The inclusion of Rumania should therefore throw light on the effect of Turkish culture on rural settlements in this region.

It was deemed desirable to keep the time factor constant and to choose a period after liberation from Turkish rule and before urban influence had affected rural areas. The availability of data had to be taken into consideration, and, since material on the first half of the 19th century is scarce, most of the research being done with the beginning of the 20th century, the period between 1875 and 1900 was selected. This plan could not always be strictly adhered to when only works from the 1930's were available. A certain lack of balance was unavoidable, as equally detailed information and the same number of sources were not available for all areas included in the study. Rather than follow a rigid outline, areas on which more information was at hand were handled in greater detail, with full awareness that this may slant comparisons.

This study deals only with village plans and locations, the farm yards, houses and farm buildings. The location and shape of fields might have been included, as they are part and parcel of the village organization. They were excluded because descriptions were frequently lacking and also because of time limitations. The interior arrangement of the houses would make an interesting study in itself. In this work only heating arrangements have been considered, as they frequently form an integral part of the house construction.

The purpose of this study was to discover what effect certain cultural and natural factors had on the patterns of peasant settlements. The influences of environment and natural resources on architectural construction are obvious and expected. Climatic factors and fertility of the soil must be dealt with but the solutions are many and the choices involved are cultural. Diffusion can generally be most readily traced in material culture and changes in this aspect in turn reveal the relationship with and the attitude to the introducing culture. Foreign domination is more easily established in fertile valleys than in mountainous terrain. Foreign control and planning are more feasible in the lowlands as manifest in the greater uniformity and regularity of settlements. Political insecurity also affects the location of settlements; they reveal whether the choice of the local population was submission, assimilation or flight.

The type of economy and the importance of any particular agricultural product or livestock may be revealed in the construction of farm buildings. However, influence of social organization is often equally important and receives less attention. Size and interior division of the dwelling often reflect family organization; a number of alternative methods provide the extended family with housing. Where patterns of feuding prevail buildings are modified for greater security. Value systems are manifest in the attention given to any particular unit of the farmstead, be it the granary, the guest-house or the gateway. A functional approach is thus of great value in the study of farmsteads and there are few aspects of life that are not in some way revealed in a people's habitations.

SLOVENIA

Slovenia has suffered fewer political changes and less warfare than has the rest of the Balkan Peninsula. Turkish domination did not reach this area (the frontier against the Turks, Vojna Krajina, was erected east of this region); rebellions against the Habsburgs did not arise, and vast movements of population did not occur. The Slovene villages are extremely old and have remained in the same locations for centuries, the houses being rebuilt on the same spots with very little change in the village form. Melik (1929) states that an examination of the Urbars (old Slovene landowners' records) reveals that the number of inhabitants has also remained relatively unchanged.

Location and Types of Settlements. Cvijić (1918, Map IV) distinguishes two types of settlements in Slovenia, the Stari Vlah type in the northern section and the Karst type in the Istrian Peninsula and the southeast. His Stari Vlah type is characterized by widely separated hamlets, whose farmsteads are also widely scattered. The Karst type hamlets differ from those of Stari Vlah in that they are generally located in depressions and their houses are somewhat closer together. Occasionally the houses extend in an

almost uninterrupted row on the edge of a geographic depression (Cvijić, 1918: 219). Vurnik (1929) states that on hilly terrain the farmsteads of a village are scattered in an irregular manner, while on more favorable terrain they are arranged in a regular manner on each side of the street, forming a linear settlement. Von Moro (1891) states that the hamlets average 6 - 12 houses. However Melik (1929) gives an average of 50 houses per village. Unfortunately one is not informed whether he subsumes a number of hamlets under a village, or whether he is speaking of the same units as Von Moro. If one accepts Melik's statement that there has not been an increase in the village population, it would appear that the authors are speaking of different units. The only exception to the small size of the villages is that of Prekmurje, the region that belonged to Hungary before independence, in which one meets villages with populations of over a thousand and more than 100 houses.

House Types. Slovenia comprises a number of different geographical and climatic areas: Alpine in the northwest, Karst in the southwest and south, and a flatter terrain in the central areas and the northeast. Slovenia also borders on four different ethnic groups: alpine Germans in the northwest, Italians in the southwest, Hungarians in the northeast and Croats in the west. Due to a variety of geographical factors and different foreign influences, it is not surprising to find a number of fairly distinct house types in Slovenia. Vurnik (1929) distinguishes four areal types; Ložar (1944) gives five, with a number of subdivisions. There is general agreement in their typology and both of them add the smokehouse (dimnica, Rauchstubenhaus) as another variation. This is considered by both as the earliest and now almost extinct house form. While three types, the Alpine or northwest, the Mediterranean or southwest, and the Prekmurje - Bela Krajina or eastern, appear as distinct types, the central area shows a mixture of these forms.

Alpine or Northwest Type. Generally the house and farm buildings, stable and barn, are placed in a straight line under a common roof (fig. 1). The house is a two story building, with ground floor walls of masonry and an upper story of wood. However houses made entirely of wood are also present. The gabled roof is very steep and covered with large shingles (about four rows), which are occasionally weighted down with stones against the strong winds. The gables are always covered with vertical boards which may have S - shaped openings for ventilation. The second story, or merely the attic under the gable, may protrude beyond the ground floor. In this case there is generally a balcony with a railing of planks decorated with sawed out designs. Occasionally this balcony may also extend along the front of the house. The walls of masonry are whitewashed and the large door and windows may have a frame of greenish limestone. The white walls often are painted with frescoes in bright colors.

On the ground floor is found the anteroom (veža) which has a kitchen partitioned off from it, and the hiša or living-room. On the other side of the anteroom may be added a smaller room, kamra, for sleeping or storage (fig. 2). The anteroom is the center of the house and from here doors lead to the other rooms and stairs to the second story and to the underground cellar. The floor of the anteroom is paved. The kitchen is generally partitioned off from the anteroom by a wall, or else by a masonry arch. In it is the large, fairly high, rectangular masonry hearth above which hangs the cauldron. In the kitchen are also found openings through which the stove in the living-room is heated (fig. 2). The second story is not subdivided and is used for the storage of grain, which is contained in colored chests.

Next to the kitchen, if there is not another room added, is the stable. Even when the house is of masonry, the stable may be of wood; otherwise it is of masonry with an attic of wood, sometimes even with a balcony. In the attic may be found a small room (čumnata) which can be entered from the anteroom, and where the old couple retires. The barn may be next to the stable, also under the same roof (Vurnik, 1929).

Towards the southwest, around Škofja Loka and Cerklje we find a modification of the Alpine house. The rooms no longer follow a linear arrangement and the kitchen is no longer part of the anteroom (fig. 3). The houses are of masonry, generally two stories high. Unlike the Alpine house, the second story contains a number of living quarters. Above it is the attic. Balconies are generally lacking. The gabled shingled roof may be extremely high, the ratio of the roof to the two lower stories being sometimes 3 : 2 (Ložar, 1944:40).

Prekmurje-Bela Krajina, or Eastern Type. Ložar distinguishes two variants, that of Bela Krajina (Metlika, Crnomelj) in the south-east and Prekmurje in the northeast.

a) Bela Krajina.

Houses are generally constructed of wood; the jerkin-head roof is of straw. The floor plan is symmetrical and the central anteroom tends to be very large; the two rooms, one on either side of it are called the prva hiša (first house) and zadnja hiša (last or back house). The kitchen was formerly not separated from the anteroom, which was the center of activities (fig. 4). Today the kitchen is partitioned off and one of the side-rooms has become the living-room. The second room is used for storage. The small rooms used for sleeping quarters, kamre and štibeljci, are generally lacking. The anteroom has no ceiling; the attics above the side-rooms are reached by means of a ladder from the anteroom. Chimneys are lacking, the smoke escaping through the roof or through openings in it. Newer houses have a vault of masonry above the fireplace, while in older ones a frame of wickerwork, plastered with mud, is suspended above it (Ložar, 1944: 70-72).

Many houses consist only of an anteroom and a living-room. When houses are built on an incline, they have two stories, cellar and stable being on the ground floor. Houses built on an incline have a balcony running along two sides, at one end of which is generally the toilet.

The farm buildings are characteristically arranged so that they enclose the yard on three sides. When the stable is not on the ground floor, it is located opposite and parallel to the house. The pigsties are generally located at right angles to the house and close the yard on one side. However they are frequently built onto the house. When the pigsties are in the same line as the stable, the space between them is roofed over by an extension of the roof of the stable, and it becomes a shelter for carts etc. Where the yard is not bordered by buildings, it is always enclosed by a fence of poles.

b) Prekmurje

Here houses may have a foundation of masonry, but most often they rest on heavy logs that are about 30 - 40 cm. longer than the walls. The walls are of logs, which, unlike the Alpine ones, are flattened. They are held together by means of long wooden spikes. Occasionally the logs may be arranged vertically. Walls are first plastered inside and out with mud and straw; they next receive a thin layer of mud and chaff and finally a whitewash. On the outside a two foot band of blue is painted at the base of the wall. Windows may also be bordered with blue bands, more rarely with a design. Vurnik (1929) states that often only the space between the logs is filled with mud and whitewashed, giving the houses a striped appearance. The roof is of rye straw. The wall under the gables is of vertical boards and may also be woven of willow twigs. Chimneys are lacking. The eaves protrude to cover the podstenj, a sheltered corridor that may run all around the house and extends also to the farm buildings (fig. 6). The podstenj is separated from the yard by means of a wooden threshold and has a floor of tamped earth. Activities are carried out under the podstenj in rainy weather and in winter.

The floor plan of the house is similar to that of Bela Krajina. It is symmetrical with a central anteroom, which has doors at either end, and two side-rooms (fig. 4). According to Vurnik (1929) the separate kitchen is missing and cooking is done in the anteroom. The stoves in the side-rooms are fired from the anteroom.

Generally a number of farm units are contained under one roof. The pattern varies: Units may all be in one line, in which case the stable is next to the living-room, followed by the threshing floor and the barn (fig. 6). An L-shape is common; this may consist of one building (fig. 8), or two separate buildings standing close to one another with a pojata (cart shed) in between (fig. 7). In this case the cellar (klet) is next to the pojata, followed by the stable, threshing floor, a place for the storage of grain and finally the

woodshed. Sometimes the buildings are arranged in a U-shape; one arm is formed by the house, the other by the wagon shed (kolarnica), and the other units are arranged between them (Ložar, 1944: 72-76).

Mediterranean or Southwest Type. This type, also referred to as the Coastal type, dominates in the extreme southwest; the eastern boundary runs along Mt. Snežnik, through Postojna and Idrija to Tolmin (Vurnik, 1929). The houses are built of stone; wood is used only for the essentials of roof construction. The walls are extremely massive with few windows. The latter are rarely found on the gabled sides. Roofs are extremely low, sometimes almost flat, covered with stone slabs or heavy cylindrical tiles set in mortar (1). The tile roof may be weighted down with heavy stones. Stone chimneys are extremely large, and have decorative tops. The fireplace is located in a rectangular annex that is built onto the kitchen (fig. 5). This annex has a separate roof and from it rises the rectangular chimney.

The poorer house consists of a single story, in which is the room with the fireplace and the stable. In this case the inhabitants sleep in the attic. Often, however, the kitchen and cellar are on the ground floor; the sleeping quarters are in the attic; and the stable is built on, in the form of an annex. Two-storied buildings have the cellar and stable on the ground floor, the kitchen and living quarters on the second floor, and the attic is used for the storage of hay. The main unit of the house is the kitchen, with the fireplace, which is also the largest room. In it is located the huge rectangular fireplace of stone, shaped very much like a table, which is about 40 cm. high. Above it hangs the cauldron. Other types of heating devices are lacking. Farm buildings are arranged around the paved courtyard and are linked with high massive walls (Vurnik, 1929).

Houses of Central Slovenia. Ložar (1944: 76) states that a number of different house forms may be found in Central Slovenia, which are transitional to those mentioned above. Though he admits that a thorough typology has not yet been worked out, the author presents five subtypes, which, however, do not appear very distinct. The following is a brief summary.

East of the Alps, around Kranj and Cerklje, and in the Ljubljana Basin, the floor plan is similar to that of the Alpine house. The main room and sleeping quarters (kamre) are of wood, while the part of the house containing the kitchen and stable is of masonry. There may be rooms in the attic but this is not a frequent situation. In the more mountainous areas the gabled roof is covered with shingles, in the valleys with straw. In Dolenjska, along the Krka valley, two-storied houses prevail. The ground floor consists of the stable and cellar; the second floor is used for living quarters, and in the attic may be found a storeroom and a small living-room. Entrance to the second story is by means of a wooden stairway that leads onto a wooden balcony. The ground floor may be of stone and the upper story

of wood. The jerkin-head roof is covered with straw. This type of house seems to be present in all regions of central Slovenia.

There are a number of different types of fireplaces throughout Slovenia. The fireplace is located in the anteroom or a separate kitchen partitioned off from it. The floor of the anteroom is either of tamped earth, stone, brick or a mixture of lime, mud, and straw. In the Karst regions an open fireplace stands in the center, but elsewhere it is generally placed against a wall. The hearth can be high or low, and is made of clay, stone or brick, surrounded tightly by a wooden frame along the top edge. The ceiling above is often in the shape of a dome. A chimney is generally lacking.

Another form has the fireplace connected with a stove in the living-room. In front of the mouth of the stove, in the anteroom, is added a structure of brick or stone. Cooking is done either on this platform or in the mouth of the stove. The stove in the living-room has a foundation and one or two stories. The foundation and the middle part of the stove are square, while the upper part is circular. The foundation has an opening which is used for the drying of shoes. Above the foundation there are a few rows of hollow bricks, followed by one to three rows of concave earthenware bricks. Sometimes the latter are convex instead of concave. This device serves to increase the heating surface of the stove (similar to fig. 18). Around the stove is generally a built-in bench; on either side, where the stove meets the wall, is a small seat about one meter above the ground and higher than the bench (Ložar, 1944: 91-92).

Ložar (1944: 95-96) states that two forms of roof construction can be distinguished. Unfortunately he provides no illustration and his description is quite inadequate. The first type, as far as I can make out, seems to be the collar roof, with horizontal beams fastening the opposing rafters. When the roof is high, a queen post construction is used. The second, and earlier, form is the streha na škarje, "roof on scissors." While this would certainly indicate a scissors truss, it is not quite clear where it is applied. Fig. 9 shows two ways in which it could be used.

Farm Buildings. Among farm buildings a most unique device is the kozolec (Gr. Harfe), used for the drying of grain, beans, clover and hay (figs. 9 and 10). It is found throughout Slovenia but is lacking in Croatia. Outside Slovenia it is found in the region around Isonzo, in the Pustertal of Tyrol, on the upper Rhine, and in the Tessiner Canton of Switzerland (Dachler, 1906: 164-65). The simplest types consist of a number of heavy posts which are either set in a straight line in the ground, and supported by transverse beams, or rest on a foundation of stone. They are about 5 - 6 m. high and placed about 5 m. apart. The space between them is filled with horizontal poles at intervals of 50 cm. A small straw roof may be set over the kozolec. The space between any two vertical posts is called a window, and a kozolec may consist of up to 20 windows (Pirc, 1891: 478).

While the single row kozolec is most common, numerous variations are to be found. The frame can be set up in two rows, one of them lower than the other, and covered with a shed roof of straw (fig. 9). The most elaborate type (fig. 10) may have a second story and an attic. The ground floor is used as a wagon shed; the second floor, used for the storage of hay, has its gable ends covered with a cross-work of poles to permit circulation of air. The attic protrudes over the second story and has gable walls closed with vertical wooden slats. Occasionally the roof may be shingled instead of thatched (Ložar, 1944: 141-42).

These frames may also be made to lean against some other farm building. In some areas they are erected only temporarily in the fields and destroyed when no longer in use. The kozolci may be located in the yard, but are usually out in the fields, forming a separate group outside the village. One can tell by their length and number of windows the size of the owner's field as well as the number of fields belonging to the village (Franke, 1891). The kozolec is not used for drying corn. Corn is generally hung up under the eaves of the house, but in eastern Slovenia we find a special structure for it (fig. 11).

The next most important building is the skedenj or threshing house. In contrast to other parts of the Balkans, threshing here is done by means of the flail. The skedenj is a well-constructed building made of horizontal logs, with a very large door, and only small openings for windows. It has a low upper story with walls of vertical planks and is covered with a gabled roof of straw. Onto the skedenj are built other units for the storage of hay, etc. Sometimes the eaves are made to protrude and a wagon is stored in the shelter underneath (Ložar, 1944: 143).

Agricultural products such as wheat, meat and eggs are sometimes stored in separate buildings, called kašča. They are built in the same style as the house, either of logs or masonry. When built on an incline the ground floor is of stone and the upper of wood. Often these structures are raised on poles to protect them against dampness and mice. The jerkin-head roof is covered with straw and the entrance is on the narrow side of the building (Ložar, 1944: 143-44).

Stables have already been dealt with in connection with houses. They generally do not form separate structures, but are built onto the house, or located in its ground floor. Even in Prekmurje, where they may not be connected with the house, they are always linked up with other farm units. Horses and cattle are kept in the same stable; sometimes goats, sheep and pigs may be kept there also.

When there are a large number of pigs, the pigsty forms a separate unit. It may be attached to the house or the stable. When it stands alone, it is a long narrow structure made of boards; the roof is covered with straw and is like a shed roof. The whole lower

front of the building is closed by two low horizontal doors, which are attached to the building at the top and are opened by being raised upwards, either toward the inside or outside. These doors are used for feeding. Through the back door the pigs enter a small fenced enclosure. The space under the roof becomes the chicken coop (fig. 12) (Ložar, 1944: 142).

Buildings Outside the Village. In spring the cattle are driven to Alpine pastures where they stay all summer. The houses erected for the shepherds and for the making of cheese are log structures with gabled roofs covered with large wooden boards (2 - 3 rows cover the whole height of the roof). Commonly, the house consists of only one room with a central fireplace. However there are a number of two-roomed houses consisting of a kitchen and a storeroom for dairy products. Sometimes the eaves almost reach the ground and form a shelter for the animals. The entrance is always on the gable end; windows are lacking. Around the house is an enclosure of poles set very widely apart and connected with heavy cross-beams (about six of them).

A number of these houses may stand together and form a settlement. They may be grouped together in an irregular circle, or may form a line at the edge of some geographic depression (Ložar, 1944: 171-74).

CROATIA AND SLAVONIA

Croatia and Slavonia include the hilly regions south of the Sava River, extending from the Uskoki Mts. in the west to the Una River in the east. North of the Sava River, the boundary runs approximately northward from Zagreb; it includes the broad Sava valley and the hilly regions north of it, extending eastward to Vinkovci. In the east Slavonia borders on Sylvania. The Croatian Karst and Littoral will be dealt with elsewhere; that area is not large and the house types are very similar to those extending down the Adriatic coast.

Location and Types of Settlement. According to Cvijić (1918: Map IV) a number of different village forms prevail in Croatia and Slavonia. In the area south of the Sava River is found the Stari Vlah type (Cvijić, 1918: 217), which is characteristic of the Dinaric regions. It consists of small scattered hamlets with extremely widely and irregularly spaced farmsteads. In the area around Zagreb, along the Sava and north of it, is found the Šumadija type, with larger and denser settlements which may also be located along a road (Cvijić, 1918: 217). Eastward from the confluence of the Sava and the Vrbas the Mačva type is dominant, which is also found in the plains around Beograd and in the Bačka and Banat. Here the houses are always regularly aligned along a street (Cvijić, 1918: 218). Anton Dachler's (1906: 85) description agrees with that of Cvijić. He too states that the regular planned villages of eastern

Slavonia become smaller and less regular as one proceeds westward toward Zagreb, and he attributes the orderly eastern villages to the influence of the Austrian military border authorities who were in favor of planned villages. Popović (1929) describes the villages of eastern Slavonia and Sylvania as being extremely widespread, with farmsteads regularly distributed along a very broad road along which runs a gutter, and he ascribes them to Austrian rule.

House Types. It is these regions of the Balkan Peninsula that have been most exposed to Central European cultural influence (Krebs, 1918: 311), and it is probably for this reason that Cvijić summarizes the house types of this area as "le type de maisons modernes" (Cvijić, 1918: Map V), and does not appear to be particularly interested in their analysis. His description of the modern type is brief and quite inadequate. In the more general works one finds rather brief descriptions of the "Croatian house" and yet, when one reads works on specific villages and studies photographs, one finds a large variety of forms. The difficulty encountered here is to determine just how widely spread or common a particular form is. There is frequently a great difference between the houses of the wealthy and the poor, and authors vary in their conception of what is picturesque. I was therefore unable to form a very clear picture of regional differences or of the distributions of various forms. In the following I shall deal with settlements in the area around the Kupa River (Ljerka Topali, 1936), those of the Sava plain around Zagreb, Dugo Selo and Sisak (Ivo Franić, 1935; Kata Jajnčeroval, 1898; Stjepan Dokušec, 1936), house types from the hill country around Bjelovar (Dragan Zboziček, 1938) and Slavonska Požega (Ivo Franić, 1936), those from the vicinity of Vinkovci in the east of Slavonia (Josip Lovrečić, 1897), and finally farmsteads from Lika in the southeast of Croatia (Mate Pavičić-Šunjić, 1937).

Kupa River Types. The older houses in this region are made of roughly finished boards or planks and are set on a low foundation of tamped earth or stone. Chimneys are lacking. The jerkin-head roof is covered with straw and the eaves protrude on one side to cover a veranda which runs along the long side of the house. The eaves may be supported by wooden posts. The floor of the veranda is formed by the foundation of the house and is further demarcated at the ground line by heavy wooden logs. Sometimes part of the veranda may be closed in, and often the toilet is located at one end of it. Just under the eaves of the veranda is a horizontal beam (tenda) for the drying of clothes, etc. This feature is also found in the extreme east of Slavonia (Lovrečić, 1897). Generally there are three rooms in the house; a central kitchen at the entrance, the velika hiža ("large house" or living-room) at one side, and the komora at the other. Though not explicitly stated, the latter is probably a combination storage and sleeping room. The entrance to the side rooms is from the central kitchen and the threshold may be quite high, about one foot from the ground. The houses tend to be quite broad and the upper part of the wall under the jerkin-head may be of boards or wickerwork. The attic space, najža, serves for the storage of

potatoes and other products. It is reached by a ladder from the outside. When the terrain is not even the house may be built on an incline, half of it resting on the ground, and the other on a stone foundation that contains the cellar (pivnica). The passage or veranda is made of logs, extends along the whole front of the house and has a railing of slats. When built over an incline, part of the house has a floor of tamped earth, while the other half has a floor of boards. The exterior walls are generally whitewashed.

In the kitchen is a fireplace, 75 centimeters high, made of stone and mortar, called kamin. (The term kamin is prevalent on the Littoral and is not used in the Sava valley where the term ognjište is used instead). The fireplace consists of two separate parts: one is used for boiling clothes in a cauldron that stands over the fireplace on a tripod; the other, the prepeć, (fore-stove) is connected with the stove in the living-room corner. Cooking is done on the prepeć, while bread is baked in the stove, which also furnishes the heat for the room. The stove (pečnik) has a built-in bench all around it and two raised seats on either side of it, which are similar to those found in Slovenia (fig. 18). The material from which it is made is not stated, though it is probably earthen; the upper part has a number of rows of hollow glazed tiles.

Topali (1936) also gives an example of a very well-made farmstead. The main house is a large two story structure made of bricks and whitewashed. The veranda, on the second floor, has a railing of carefully cut boards which runs along the front of the house and one side of it. The jerkin-head roof is covered with flat tiles. The double stairway in the center of the house ends in a small platform over which extends a gabled canopy. It is not clear how common or recent this type of house is. It may be a later form than the type previously described; on the other hand its difference may lie in the wealth of its owner. Lodge (1943: 73) describes the houses around Karlovac as being two story buildings with a ground floor containing kitchen, storerooms, and stables, with the living quarters in the story above it, and a wooden "balcony-veranda" running along the first floor. The balcony is supported by strong posts from below and forms a shelter for carts and other equipment.

Farm Buildings. The various farm buildings are built very much like the houses. Some of them have the walls on the narrow sides made of wicker. Occasionally one finds a ground floor of stone and an upper story of boards. In this case the stable is on the ground floor; above it is the storage room (ambar) for grain, and in the loft, hay is stacked. The yard is enclosed with rather poorly made fences of roughly shaped poles that have cross-beams attached above and below. One also finds fences of extremely coarse wicker. The various farm buildings in Topali's (1936) example are made of wood and are covered with flat tiles. They are arranged around a regular yard but do not touch one another. A number of different units may be under one roof; the stable with a hay loft above it, the wagon shed, and other storage units.

Sava Plain Types, from Zagreb to Sisak. One of the better sources for this area is Jajničerova's (1898) description of the village Trebarjevo near Sisak. In this village the various farmyards follow one another on either side of the village road. The yards are always fenced in with poles or wickerwork. The orchard behind the buildings may also be enclosed. There is always a wooden gate at the side of the road, and openings on either side to permit visiting with neighbors. The separate buildings are not arranged in any definite order, though they tend to follow one another at right angles to the road, sometimes forming two more or less parallel rows. Sometimes the stable comes first, followed by the house, the summer kitchen, and the pigsty. However the house may be closest to the road, then the stable, followed by the other buildings.

The house is made of planks, or sometimes of brick. Two story houses with the ground floor of brick and the upper story of wood are preferred, as the living quarters in such a house are drier. (The Sava plain gets extremely muddy, and floods are frequent). According to the author cited, low and long buildings are not considered aesthetic. The upper story is reached by a roofed stairway that ends in an enclosed porch at the top (fig. 13). There are a number of variations: a gabled canopy might be built at the bottom of the stairway over a door leading to the ground floor, or the roofed stairway may lead into the upper right half of the house, which projects forward from the left half; sometimes the stairway terminates in an enclosed veranda. There appears to be much concern for keeping the walls of the house dry. Where the eaves do not extend far out over the walls, roofs, about three feet in width are added to the wall above the first floor (fig. 13). The gabled side is sometimes protected by three roofing units: the wall of the attic is sheltered by the main gabled roof; where the vertical boards of the attic join the horizontal planks of the upper story, a narrow roof running the full width of the wall is added, and an identical one is constructed where the upper story and brick lower story meet. This type appears to be fairly common in the area and Franić (1935) presents the same form. The main roof is either jerkin-head or gabled. One author (Jajničerova, 1898) states that while wooden shingles and straw were once in use, flat tiles were almost universal by 1898.

The upper story contains the hiža or main living-room, with a stove in which cooking is done in winter, and which is also used for sleeping. Also in the upper story are two komore (sleeping chambers) and the kujna (literally kitchen), where pots and pans, corn for the pigs and chickens, and also food is kept, but in which cooking is done only rarely. Frequently the veranda is enclosed to form a komorek, or storeroom for cheese, milk, meat, and other food.

On the ground floor there are two šute, and a pošuta in the center. The šute serve for the storage of clothing and food, and are the sleeping quarters of the younger couples or marriageable daughters. Since each married couple of the zadruga had to have its

own room, marriage often had to be delayed until a room was provided (Jajnčero^{va}, 1898: 113). This was achieved by further subdivision of the house or building an annex. When there were many sons in the family a special house would be built for them, called the čardak; it had two rooms above (čardake) and two šute below.

Dokušec (1936) describes the smaller houses in the vicinity of Dugo Selo as follows: The house rests on a foundation of large logs or brick. The ends of the planks forming the wall are not squared off in older houses, but in newer ones, notches are cut into them so that they interlock with one another and form what are called "German corners." Above them is placed a heavy plate on which are attached the rafters. On the rafters are placed the battens, and the frame is then covered with straw. Hazel branches are nailed onto the wooden walls which then receive a plaster of mud and chaff and are whitewashed. The kitchen and the smaller room (komora) are generally not plastered or whitewashed.

The floor plan follows the familiar pattern of central ante-room, from which the kitchen is partitioned off, and two side-rooms: the living-room with the stove, and the komora, bedroom for the younger people (similar to fig. 16). The living-room has three windows, about 45 by 45 centimeters in size, and the rest of the rooms have only one window, 30 centimeters square.

While none of the Yugoslav authors discuss the decoration of houses, Dachler (1906: 205) considers elaborate painting and wood decoration a characteristic of Croatia. According to him the Carpathian region of Rumania is the only other area where wood ornamentation is so well developed, both Croatia and Rumania sharing the Kerbschnitt (fig. 14) decoration of wooden lathes. The Kerbschnitt technique consists of cutting out designs in low relief, so as to create planes at different angles to form patterns in light and dark as the shadows fall on them. Jajnčero^{va}'s illustration (1898: Plate II) shows a two-story building in which this technique is used in a row of horizontal beams running between the attic and the upper story. This building also has sawed-out designs on the bargeboard (fig. 13).

Dachler (1906: 205) also mentions that different planes in the Kerbschnitt may be painted in bright contrasting colors, blue, red and white being predominant, and that designs of tendrils, flowers, and buds may be painted on the attic wall under the gable. Ložar (1944: 75), in his description of the Slovene house in Prekmurje, which borders on Croatia, states that the application of bright colors in the interstices of the horizontal house planks is a Croatian trait. Recent accounts of travellers as well as this writer's personal experience would tend to confirm the latter.

Farm Buildings. Data on the various farm units in this area are deficient; the buildings are named but not described. The stable, cart-shed and storage space for hay are generally under one

roof. They are made of boards; though occasionally the stable is of masonry. The gable or jerkin-head roof is usually of straw, but may also be of flat tiles. The pigsty has a chicken coop above it. The stable and pigsty are frequently plastered with mud for greater warmth. While no description of the pigsty is given, it is probably similar to that from Slovenia (fig. 12), for Franić (1936: fig. 9) presents an example from Slavenska Požega, much further east, which is very similar to the Slovene type. Corn is dried in a special structure called a koš. The summer kitchen is located close to the house and next to the well. It contains the bread oven as well as a fairly high masonry fireplace.

Types from Bjelovar and Vicinity. Zbožinek (1938) states that the house form in this area has changed very little from that of the last century, the only innovation being that newer houses are built on a foundation of brick, more rarely stone, instead of tamped earth. The floor plan is the familiar one with anteroom and kitchen in the center, the main living-room and the storeroom, which serves as the sleeping room for the younger family members, on either side of it (fig. 16).

The jerkin-head roof is covered with rye straw, which is first tied into sheaves and then attached to the battens. On the lowest batten the sheaves are tied with the grain upward, thus forming a straighter edge. Above it they can be tied with the grain pointing downwards or upwards, the former giving a smoother appearance, the latter creating a clearer demarcation between the single rows of sheaves.

The frame for the walls consists of rather widely separated studs which are reenforced by transverse beams. The space between the studs is filled with wicker of hazelnut branches which are first plastered with mud and cut straw, and when partly dry, smeared with a layer of mud and chaff.

The floor remains of tamped earth; the ceiling is of boards and covered with a thin layer of mud so that grain stored in the attic does not fall through when the boards shrink.

Eastern Slavonian Types. The farmsteads in this region of the wide Sava plain are spread regularly along an extremely wide central road which has a central gutter because of frequent flooding of the river. In fact, near Slavonski Brod houses may be erected on poles (Dachler, 1906: 87). The yards are enclosed with a fence of poles or slats, never wicker, and have a gateway for animals and a smaller door for humans. The houses are never located in the middle of the yard, but always at the edge of the road so that their main windows face on it (Lovretić, 1897: 116).

As there is no stone in the plain, most houses are of bricks set in mud mortar, although a few are of wood; wicker and daub construction is lacking. The houses are one story structures with a veranda,

consisting of a raised platform under the extended eaves, running along the front of the house. Occasionally part of the veranda may be enclosed with a wall. The gabled roof is covered with tiles and has a brick chimney. Walls are whitewashed.

In the main house are only two rooms, the kuća and the soba. In one half of the kuća is found a low hearth, a few inches in height, and about one quarter of the width of the kuća. Over it hangs the cauldron. The soba is entered from the kuća and contains a high square earthenware stove (furana), the upper two-thirds of which are covered with square green glazed tiles. Around it is attached a wooden bench, or else the base of the stove projects out to form a bench. The living-room has two windows facing the front and one or two at the sides of the house. The floor in the living-room is never of boards or tiles, but of tamped earth; the floor in the kitchen may be covered with bricks. In larger houses one may find a small room (sobica), used by the master, and a komorica, used for storage of dry meat, wine, and other food.

Before the universal usage of bricks, houses in this area were of wood, with a gabled roof of shingles. The wall under the gable had boards arranged in decorative patterns and sometimes had sawed-out designs. Much attention was also given to the bargeboard. The fairly wide chimney was decorative too; the lower portion of it was made of wicker and daub, or mud; above it, raised on four poles, was a pyramid-like roof of shingles which was topped by a carved pole with a bird form at its end. This type of chimney is very similar to that found in older houses in the regions of Slavenska Požega (fig. 15). Dachler (1906: 141-42) considers it typical for this area.

Since the houses are relatively small, additional buildings must be made to shelter the members of the zadruga. The buildings erected for this purpose are similar to the house, except that they are longer and narrower (fig. 17). It consists of a row of small rooms (kućer) which are used by married couples and young girls. Each has a door leading onto the veranda; heating devices and windows are lacking. In each is found a bed, chests, and other furnishings, and it is here that all one's more valuable possessions are kept.

Farm Buildings. An outdoor bread oven is located just outside the veranda of the house. It is made of bricks, whitewashed, and covered by a tiled gabled roof, giving it the appearance of a small house. The kačara is a small building for the storage of plums and rakija (plum brandy) and next to it is a separate building, pečara, in which rakija is distilled.

Greatest care is expended on the construction of the ambar, the granary. It is erected on blocks of masonry, with a few masonry or wooden steps leading to the door on the gabled side. The roof is often covered with tiles. Where the eaves do not extend over the wall on the gable side, a narrow roof is erected at the division of the attic and the ground floor (similar to fig. 17). The walls are

made of carefully cut and planed boards and are left unplastered to permit better ventilation. Grain is stored in the main chamber, while in the loft peas and other seeds are kept. Under the ambar are located the chicken coops.

The štagalj is the building in which grain is stored before threshing. This becomes a place for agricultural tools when the threshing is over. It is sometimes built of bricks and covered with tiles, but often of wood and covered with straw. Hay may be stored in the loft of the štagalj, in the stable-loft, or in a separate unit adjoining the štagalj. Next to the stable is the wood shed and a shed for the cart. Occasionally a separate building is put up for the sheep. Every house has a pigsty, a long narrow structure covered with straw, reed or shingles.

Buildings outside the Village. Lovretić (1897) writes that in former times each zadruga had a house in its distant fields, close to the meadows and forest. This was linked with the custom of driving the pigs into the forest and the cattle into the fields over the summer. Members of the zadruga alternated in residing there for a year. The house was built very much like the village house and, together with the stables and pigsties, was enclosed by a fence. Those who had pigs in the forest erected there smaller houses of boards plastered with mud and covered with shingles or straw. They were divided into a whitewashed living-room (soba) with a stove, and a kitchen (kuća) with a hearth.

Types of Slavonska Požega and Vicinity. The older houses in this region appear to be similar to those found around Bjelovar. The walls are made of wicker and plastered, but unfired brick is also used; sometimes a house was made of both materials (Franić, 1936). Most houses have a ceilingless kitchen (kuća) with a low hearth, and a living-room (soba) that has a ceiling and contains a tiled stove. While straw is used for roof covering, wooden shingles are also popular. Chimneys, when present, are covered with a small roof (fig. 15).

The veranda on some houses takes on a somewhat different form; the central portion of the front wall, where the front door is located, is pulled back to form a set-in porch, about 4 meters long and 1.5 meters wide (similar to fig. 56c). The roof above is supported by two carved pillars which form the entrance. On either side of the pillars, extending to the protruding walls of the side-rooms, is a fairly high railing of slats.

The newer buildings in this area that have displaced the older form are a Slovak introduction (Franić, 1936) and are similar to those found in the plains of Hungary. They are one story constructions of unfired bricks and are whitewashed. The gabled roof is covered with tiles or shingles. It, too, has a set-in porch or veranda similar to the one just described, except that here the pillars are massive and made of brick, as is also the railing. The

windows face the front of the house, are rather large and are closed with wooden shutters. The floor of the house is of earth, plastered with a layer of mud and chaff.

It would appear that a number of rather different house types are present in this area and that it has been influenced both from the east (e.g. chimneys) and from Hungary. Unfortunately, data on this area are very scant and research in it began only in 1936 (Franić, 1936).

Types of Lika and the Vicinity of Lovinac. According to Pavičić-Sunjić (1936), the wattle and daub houses of this area were replaced about 150 years ago by buildings of logs and masonry. While log houses occur in forested areas, stone houses predominate in the treeless area.

The log houses are raised on a foundation of stone 50 centimeters high. The horizontal logs have their ends notched so that they interlock. Some of them are erected over a basement made of dry masonry, or of stones set in a mortar of lime and mud. In the basement are the stables. Stone houses are generally built on an incline and therefore have a cellar. The stone wall is plastered with sand and lime.

Windows are small and have wooden shutters that open on the inside. The entrance is closed by a door on the inside and a lower door on the outside. The latter keeps the animals from wandering into the house and also keeps the draft off the hearth on the floor.

The gable roof has a collar truss. It is covered with rye straw (the lowest row with the grain pointing upwards, the higher rows with the grain downwards), or wooden shingles fixed to the laths by means of home-made nails. The first brick tiles introduced into the area came from Udine in Italy; later they were replaced by ones of Slavonian manufacture. Chimneys are lacking; the smoke escapes from an opening near the ridge, which has a lid attached to it that can be raised and lowered by a pole from the inside.

The house is divided into a ugljenica and a soba. The ugljenica has neither ceiling nor windows; light enters through the open door and the opening in the roof. On the earthen floor is erected a low rectangular fireplace of bricks, more rarely of stone or clay. The living-room (soba) has no ceiling and is separated from the kitchen by a partition of boards or stone, depending on the construction of the house. At the most it has three windows. The stove (1-1.5 meters high) in the living-room is made of earth and has inset hollow earthenware bowls. In the center it has a niche of earthenware (trumba) on which one can cook (fig. 19). The stove is heated from an opening in the kitchen and smoke escapes back into the kitchen from a hole placed above the first opening. The older people and children sleep in the living-room while all the other adults, even if married, sleep outside the house in the stables and other farm units.

Farm Buildings. The yard is generally small and enclosed with a strong high wall on the wealthier farms, or a fence of branches on the poorer ones. Occasionally thorns are placed on the masonry walls and sometimes the fence may consist of thorns. In the yard are found the pigsty made of boards, and the stables of stone or wood, with the same roof as the house. In their loft is stored the fodder, and they have partitions of wicker to separate the large cattle, the sheep and the goats. The wagon shed is under the same roof as the stable and is completely open on one side. Ambars (granaries) are rare in Lika. Corn is stored in a rectangular corn-house of wicker which is 5-6 meters long, 70 centimeters wide and 1.8 meters high. It rests on a foundation of brick or stone and is covered with a straw roof (more recently of tile or brick).

THE YUGOSLAV LITTORAL AND THE KARST

Under this heading we shall deal with the Adriatic coast, extending from Fiume to the Boka Kotorska, and the barren Karst region of Dalmatia, Herzegovina and Montenegro behind the coast. Italian and Venetian influence is found only along the narrow coastal strip, for the high mountain ranges immediately behind the coast have been a barrier to diffusion. Plateaus 800-1200 meters high must be crossed to get into the interior, and movement has been somewhat easier towards the coast than in the opposite direction. Only the Narenta valley in Herzegovina provides easy passage, and it is here that one finds some penetration of Mediterranean elements, as well as Oriental influence from the east (Krebs, 1918: 299-301).

Most authors deal with the Adriatic coast as if it were a uniform culture area. Similarly, and probably with less justification, the houses on the coast are not treated separately from those of the Karst hinterland. One would like to know what changes occur in the house form as one progresses southward from Fiume to Boka Kotorska. Since the stone house types characteristic of the Slovene Karst do not appear to extend far southward (Vurnik, 1929), one may expect a greater variation in the coastal region than is generally indicated. The present study is handicapped by the fact that detailed data were available only from the areas around Dubrovnik (Sindik, 1926) and the Boka Kotorska (Nakičenić, 1913), both in the southern area.

The house types of the barren mountains and plateaus of the Karst have also been treated as a unit. This however, is a fairly isolated and impoverished area; furthermore, the building material is almost limited to stone, and one would expect great similarity in the simple stone dwellings.

For the above reasons the writer is unable to bring out regional differences and to present as clear a picture as would be desirable.

Location and Types of Settlements. Sindik (1926: 15) states that in the area around Dubrovnik and in Central Dalmatia one can

distinguish three zones of settlement: the villages of the islands and along the coast of the mainland; those located at the geological zone of flysch where springs occur; and those of the Karst valley between the second and third mountain ranges. While the villages of the second zone are all provided with water, those of the first and third are not. Nakićenović (1913: 225), in discussing the region around Boka Kotorska, states that settlements occur at elevations of from 100 to 1500 meters, and he distinguishes the villages of the Primorje (coast) from those of the Zagorje (mountains), the former located on the coast and the lower slopes of the foothills, the latter on high mountain terraces. Cvijić (1918: 214) writes that in the Karst one finds deserted areas with no habitations, followed by regions where villages are numerous and close together. They tend to be grouped on the borders of basins and depressions in which is found arable land; they are never located in the basins themselves as the soil there is reserved for agriculture. For this reason one builds on mountain slopes, often on stone itself. Both Sindik and Nakićenović state that one strives for a leeward location on the mountain slopes, as it is necessary to seek shelter from the extremely fierce wind, the bura, that comes in from the sea and carries away roofs, stones and wood.

Historical factors have also had their influence on the location of villages; on the Dalmatian islands settlements are located away from the coast because of the danger of piracy (Sindik, 1926: 15). Nakićenović (1913: 297) gives the same explanation for the fact that the earlier settlements in the Boka Kotorska were never located close to the sea, and adds that later on movement towards the sea was brought about by the presence of hajduks (brigands) in the mountains. It is interesting to note that in this area people prefer to build houses away from the road, because they feel that the house next to the road is "half foreign."

From the data on the form of settlements it would appear that both widely scattered ones as well as highly agglomerated types are found in this region. Cvijić (1918: 219) states that the closer one gets to the littoral, the more congested the villages appear, and that in the coastal regions they are all of the agglomerated type, due to the influence of Mediterranean civilization. Sindik (1926: 15-16) confirms this for villages in the vicinity of Dubrovnik, all of which are of the agglomerated type, the houses being built close to one another. Popović (1929) however, contradicts Cvijić in stating that in the mountain regions of Dalmatia, Herzegovina and Montenegro the houses are grouped closely together because of the shortage of good earth. Nakićenović (1913: 297) informs us that settlements vary in size from those consisting of only a few houses to those of a hundred and more. Often a village may be made up of a number of hamlets formed by 5-10 houses, which are either grouped together or widely scattered in no particular order. The latter is characteristic of settlements in hilly regions, where parts of the village may be far from one another and separated by depressions, streams, hills, etc. Nakićenović attributes this wide scatter of

houses to the desire to have the house surrounded by arable land and to the preference for building away from the road. The author states that on the coast the houses are located along the road and may be close to one another. Some of the settlements here resemble Dalmatian-Venetian towns, being built on the bottom of a hill, close to the sea, and having a wide central street running parallel to the coast, crossed by a number of crooked lanes. On the other hand, many settlements along the coast consist of groups of 4-5 houses, some of them 400-500 meters apart.

Nakičenić concludes his discussion by referring to Cvijić's terminology and claiming that the latter's "Stari Vlah" and "Šumadija" types prevail in this region. Since these two types are characterized by the greatest scatter of the constituent parts of the villages as well as the houses, one wonders whether the conclusion is justified. All one can say in summary of the types of settlement in the Coastal and Karst regions is that both the agglomerated and widely scattered types are represented, their exact distribution and frequency, however, remaining undetermined.

House Types. As stated above, most authors do not attempt to distinguish the houses of the coast from those of the mountainous Karst, and Cvijić (1918: 239) sets up a common "Karse-Méditerranéan" type for these areas. For lack of better data, the following description is largely drawn from Nakičenić's (1913) work on the Boka Kotorska, though other works will be drawn upon whenever possible.

The stone house is characteristic of all this area. The main house is generally built of cut stone, set in lime mortar, and may be one or two stories high. Cvijić (1918: 239) states that the latter are more frequent over the littoral and in Montenegro than are one story houses. Patsch (1922: 5) mentions only one story houses for the Karst region of Herzegovina. Frequently houses are also erected on an incline, so that only part of the upper story is built over a ground floor, while the other rests on the ground (Cvijić, 1918: 240).

The house is generally 10 meters long and 8 meters wide and 7 meters high; when two-storied the height is about 12 meters. Windows are so arranged that light enters from at least two sides. On the ground floor there are generally two windows in front and one on either side of the house; the second story may have four in front and two on either side. The windows may be 1-1.10 meters wide and those of the ground floor are fitted with iron bars. Cvijić (1918: 240) states that windows are fitted with glass panes and have wooden shutters. The poorer one-story houses may have small square openings that are closed only by shutters. The door opens on the inside and is at least 1.15 meters wide and 2 meters high. The stairs leading up to the second story are of wood when located on the inside, or of stone if constructed on the outside; they are generally wide and not steep. The inside walls are whitewashed. The windows and doors are generally framed with stone.

In certain villages one finds one-unit houses measuring 6 by 9 meters and only 4 meters high. They may have two doors (one to bring in products, the other for humans) facing one another, and only two or three small windows, the interior always remaining dark (fig. 20a) (Nakičenović, 1913: 234).

In the area around Dubrovnik and also in the Boka Kotorska (Sindik, 1926; Nakičenović, 1913) the houses are roofed with tiles, more rarely with stone slabs. However, it would appear that in the interior tiles are less widespread. Patsch (1922: 6) mentions stone slabs as characteristic of the Herzegovinan Karst; Nakičenović (1926: 229) also mentions straw roofs, while Cvijić (1918: 238) states that rye straw predominates in the poorer houses. The roofs are generally gabled, with very narrow eaves (fig. 24). While the roofs may sometimes be fairly high, in Boka Kotorska this does not seem to be the case, and would be undesirable because of the strong winds in this area. The hipped roof occurs only in rare instances and is generally considered to be of Italian origin, as are occasional dormer windows (Nakičenović, 1913: 230). The ceiling and floors in two-story houses are made of narrow boards, the cracks between them being filled with dirt and dung (Nakičenović, 1913: 229). One may add that with the absence of balconies and woodwork these rectangular structures, with their central doors and symmetrical windows, do not give a prepossessing appearance. The extremely narrow eaves accentuate their box-like character (fig. 24).

Cvijić writes of the one-story houses that chimneys are lacking and that when the roof is of stone slabs, two or three may be lifted to permit the smoke to escape. Even in two-story buildings only smoke holes may be provided (Cvijić, 1918: 238, 240). The fact that Sindik and Nakičenović do not discuss chimneys when describing the better-built houses of this region would confirm the fact that they are not common. Their absence may be accounted for by the fact that stoves are generally lacking in the rooms and cooking takes place in an outside kitchen (Nakičenović, 1913: 233). Dachler (1906: 29), on the other hand, characterizes southern regions of Austria and Herzegovina as "Kamin" countries, their hearths being distinguished by a wide umbrella-like structure which catches the fire of the open fireplace and leads it off through a flue.

Lodge (1942: 80) describes a room which is shaped above the eaves like a huge extinguisher and is used as a kitchen. Its sloping sides are two times the height of the upright walls, ending above the roof in a small square chimney with a pointed cap, and are slit by one or two vents. The description is not too clear but she may be describing a structure that is similar to the kitchens found in the stone houses of northwest Slovenia (fig. 5). On the other hand the separate kitchens are built in a similar manner and Sindik (1926: 46) mentions that they may be built on to the house.

The simplest type of house, the prizemljuša (literally, "by the earth"), consists of only one unit, in which the fireplace is

found next to the wall. The floor is of tamped earth, while the fireplace is of clay and rises only a few inches above the ground (Cvijić, 1918: 238). Patsch (1922: 5) describes similar dwellings from the Karst region of Herzegovina. Nakićenović (1913: 234) gives examples of one-story houses consisting of two or three units, the partitions being formed by wickerwork and having doors of boards or twigs that are arranged vertically and horizontally. One of the rooms is the kitchen and contains the hearth, while the other serves for the storage of grain and other products. A third may be partitioned off from the kitchen, and is used for sleeping quarters (fig. 20b). If the house has an attic, the attic may remain undivided, serving as kitchen and living-room combined, while the ground floor may be divided into compartments for the shelter of livestock. Houses built on an incline have the stable on the ground floor (called konoba, magaza, izba), while the family resides in the upper story, which is divided into two or three rooms (Cvijić, 1918: 239-40).

Sindik and Nakićenović agree in their description of the arrangements of rooms in the two-story house. Almost all of these houses have five units on the ground floor and the same divisions on the second floor. The entrance is a large room with a staircase at the back, on either side of which are two smaller rooms (figs. 21a, 21b). The large central room on the ground floor may be furnished with a large table where the daily meals are taken. One of the side rooms (dispensa) is used for the storage of foodstuffs, and may have a number of pits, 1.5 meters deep and 1.2 meters wide, for the preservation of food. Another may serve as sleeping quarters for the family members. All the rooms on the ground level have floors nicely paved with stone slabs. It is unfortunate that the author does not explicitly state what material is used for the partitioning walls. Since the partitioning walls of the upper story are set over those of the lower, they may well be of stone. The central room on the second floor (saloca) is the best room of the house, where guests are received, while the other rooms serve as bedrooms.

In the southeast of Montenegro, on either side of the Morača River, one finds slightly different house types. The one-storied stone houses have gabled roofs covered with tiles weighted down with stones. They are dug into the ground so that the floor level is below the ground level, the houses being considered warmer the deeper they are set in the earth. The longer houses may have two doors next to one another in the center, facilitating the division of the house which may occur with the expansion of the zadruga. The windows may be small or absent for the sake of greater safety, since this is a feuding area. The walls may have numerous niches for the placement of objects; the floor is of tamped earth. The poorer people inhabit small windowless houses (pojata) of wickerwork plastered with mud, with a roof of the reeds which grow in the swampy areas of the Morača River (Jovičević, 1926: 451-53). Reference should also be made to the cave dwellings found in the vicinity

of Dubrovnik (Dachler, 1906: 83). I am unable to find further information on them.

Farm Buildings. Drobnjaković (1929) considers small yards, enclosed by a low wall of dry masonry or of stone and lime mortar, characteristic for this area. Nakičenović and Sindik both describe small enclosed yards in front of the main building, the entire area often paved with stone slabs, or perhaps only the portion next to the house entrance (fig. 20a). In the Zeta area of southeast Montenegro the fence is made of wooden poles, only Turkish houses possessing stone walls about 3 meters high (Jovičević, 1926: 452). In Herzegovina enclosures are occasionally made of thorn (Patsch, 1922: 6). The massive stone walls that link adjoining buildings, prevalent in northwest Slovenia and Albania, appear to be lacking here. No attempt is made to enclose the whole farmstead; farm buildings are located around or near the walled yard, only a few being inside. It is very likely that the yard is connected with the presence of animals in the basement of the house, for when animals are kept in a separate stable the latter also has a low walled enclosure in front of it (Sindik, 1926: 47).

The kitchen (kuhinja or kamin) is located in the yard, next to the main house. It is built of stone (6 x 4 x 3-5 meters), has one to two windows and is covered with tiles or stone slabs. The better kitchens have a large rectangular chimney flue of masonry which rises about 1 meter above the roof; it is covered with tiles or stone slabs, and has vents on the side to permit the smoke to escape. The kitchens of the less wealthy lack the chimney, and smoke leaves through an opening created by raising a few slabs or tiles in the roof. The hearth may be on the level of the floor or raised 6-10 inches above it. Over the hearth hangs the cauldron on an iron chain. The floor may be paved with stone. In some areas the people eat in the kitchen; in others, in the main house. However, in cold weather the warm kitchen is a gathering place for the family members and some do not leave it all day. As noted earlier, among the poor the kitchen is located on the ground floor of the main house (Nakičenović, 1926: 232-33). The kitchen may sometimes have a storeroom attached to it (fig. 22).

All the additional farm buildings are of the same construction as the house. The magazinica is located in the yard and is of the same size as the kitchen. Its floor is not tiled; it is furnished with one or two windows, and it serves for the storage of wine, oil, grain and tools. Oil is often kept in an oval container made of oak trunks, or in a square one made of boards, located outside the yard and surrounded with a high wall of dry masonry, topped by pointed wooden poles and thorns (Nakičenović, 1913: 235).

The stable (košara) is in the immediate vicinity of the house and kitchen, and has an enclosure where animals stay in summer. It may be partitioned for the different livestock, and the chicken coop is generally located in its loft. The pigsty is always outside the

yard. A dry masonry structure (4 x 4 x 2 meters), it is paved with stone and in front of it is a small area enclosed by a stone wall 1.5 meters high (fig. 23). In the enclosure is a stone trough (Nakićenović, 1913: 236). Grass and hay for the livestock are stored in a masonry building called the poyata. The threshing floor consists of a carefully paved area which is enclosed by a low wall (Nakićenović, 1913: 235). In the upper villages one finds stone-paved pits (trap) used for winter storage of potatoes. To close the pit, thick wooden beams are first placed over it, followed by a layer of stone slabs, the whole covered with earth. A pole is erected over it to mark the spot during snowfall (Nakićenović, 1913: 236).

Buildings Outside the Village. Summer shelters for the livestock are erected in the high mountain pastures. They are stone houses (5 x 4 x 2 meters) covered by a high roof of rye straw. Partitions are made to separate the cattle, sheep and goats; and also to separate the young animals from the old. Next to this structure is found a small hut for the storage of milk (Nakićenović, 1913: 235-36).

BOSNIA AND HERZEGOVINA

(excluding the Karst Region)

Cvijić's maps (1918: Maps IV and V) on the distribution of village and house types in the Balkan Peninsula depict a parallel distribution of the "stari Vlah" village type and the "Dinaric" house in the area between 16° and 20° longitude, bordering on the Sava plain in the north and the Karst region in the south. Geographically and geologically the area is very uniform; it is mountainous country that slopes gradually from the high ranges and plateaus of the Adriatic coast to the Sava plain. While this area includes part of Serbia in the west, it roughly coincides with the regions of Bosnia and Herzegovina. It is mainly for this reason that the two areas are here treated as a unit. Furthermore, Bosnia and Herzegovina have been historically and politically separate from Serbia and are generally dealt with as separate units in the literature. While one could include western and southwestern Serbia in the following section, I believe it is not entirely arbitrary to deal with them under the heading of Serbia. The following data have been derived from a number of general works on Bosnia and Herzegovina as well as two detailed accounts; one on the region along the Una River in north-west Bosnia (Karanović, 1925), the other on the area around Sarajevo (Stjepa and Trifković, 1908).

Location and Types of Settlements. When located in the plains, the villages are close to rivers, and streams may run through them. When located on the slopes and ridges of hills, they are generally on the sunny side and the houses so arranged that they face into the valley (Stjepa and Trifković, 1908: 13). Mulabdić (1929: 75)

mentions that the Moslem villages in Bosnia and Herzegovina are generally built on an elevation; in relatively flat country a slight rise of the terrain is sought, while in mountainous regions villages are located on or near the top of a ridge. Here, too, the houses are generally turned towards the valley. Radenović (1925: 151) states that in northwest Bosnia one can distinguish the settlements of the "outcast" (bezpravni) population from those of the free population. The former are more numerous and tend to be located in hidden areas away from the main roads, while the latter have a more open position and are often in plains along the roads. The "off-the-road" settlements were formed by the fleeing raya (Christians) during the harshest periods of Turkish rule. One wonders in how far this explanation holds good for the rest of Bosnia and Herzegovina, and for that matter, Serbia. One must also not overlook the fact that in mountainous areas access to a village is always more difficult than in flat territory, which is comparatively rare in these regions.

In this area villages tend to be of the widely scattered type, especially at higher altitudes. They often consist of hamlets numbering 3-10 houses. On the mountain slopes the houses lie 100-500 meters apart. In the valley villages the houses are less scattered, and the village may spread out for about 1 kilometer in length. The houses are on both sides of the street, separated by a distance of 30-80 meters. Moslem settlements, on the other hand, are of the agglomerated type, due to the necessity of being close to the mosque (Stjepa and Trifković, 1908: 27; Karanović, 1925: 297).

House Types. In this fairly forested region the houses are generally constructed of boards, unfired bricks and of wicker and daub. Two-story buildings are infrequent, although cellars are found under houses on an incline. Enlargement of the house takes place in the horizontal rather than vertical direction, and the architecture tends to be rather simple.

The houses are built on a foundation of stone about 50 centimeters high, or on a foundation of logs. If the walls are made of wooden boards, the cracks between planks are filled with pieces of wood, covered with a mixture of mud and chaff, and then whitewashed (Vuletić-Vukasović, 1896: 33). When unfired bricks are used, the walls are erected in the following manner: over the stone foundation one first raises a wall two bricks in width, up to the height of one meter; upon this is placed a horizontal beam followed by another meter of bricks, topped off with another beam on which lies the plate. The boards forming the ceiling of the living room are placed between the upper beam and the plate (Stjepa and Trifković, 1908: 32). In Herzegovina the house walls are often of wicker and daub. Houses of unfired brick are often not whitewashed, while in wooden houses it is frequently only the living room that is whitewashed (Stjepa and Trifković, 1908: 320).

Two doors, located opposite to one another, generally lead to the kitchen; the larger one faces the road while the smaller one leads into the yard. The windows on older houses are small (20 x 25 centimeters). While glass panes were already common in 1908, they were fastened on in such a manner that they could not be taken off. The newer houses have windows measuring 50 by 80 centimeters, but the panes in these can be removed and the windows often have double casements so that they can be opened (Stjepa and Trifković, 1908: 36).

The roof construction was simple in that the rafters supported the roof unaided. When dealing with roof construction, most authors are satisfied to state that horizontal laths are placed on the rafters. Distinction is never made between the purlins and the battens, and one wonders whether this is an oversimplification, or whether these horizontal laths are indeed uniform. Should the latter be the case, it would be important to know just how strong they are.

The roof is either gabled or hipped, and tends to be high. Since tiles are not used in peasant houses, the roofs are generally covered with wooden shingles, or less frequently with straw. The roof may be covered with 8-12 rows of shingles, sometimes as many as 16. Vuletić-Vukasović (1896: 35) states that the shingles may be 5-6 centimeters thick. He mentions that often long planks are used that reach from the eaves to the ridgepole, and that occasionally boards and shingles are combined, the shingles covering the boards.

Three types of smoke escapes are known. The better houses have a rectangular opening in the roof which is provided with a cover that can be opened and closed. The second type consists of raising two or three shingles in one of the lower rows of the roof 20-25 centimeters and fastening them so that they are immovable. A less frequent device is the samar (saddle). This opening is located at the ridgepole, and is covered with a small gable roof, one shingle in width and 50-75 centimeters in length, which is raised 20-25 centimeters over the ridgepole.

The two-unit house, consisting of a kitchen and a living room, is the commonest form (Cvijić, 1918: 231). Dwellings with two living rooms (soba) are rare; however, a storeroom is frequently added to the house (figs. 25, 26). The entrance is into the kitchen, which has a floor of tamped earth (often plastered with a layer of mud and chaff) and a fireplace either in the center or next to the wall dividing it from the living room. The fireplace is raised 20-30 centimeters from the ground, made of tamped earth and encircled with stones that rise slightly above its surface. If it is built next to a wall partition, the portion of the wall next to it is either of unfired brick or of stone. Sometimes a bed is located in the kitchen for sleeping in summer. The living room is separated from the kitchen by a wall of wicker and daub or of unfired bricks. The living room often has a floor and a ceiling of boards. The stove is next to the wall and is heated either from the kitchen or

from the outside (Stjepa and Trifković, 1908: 36). In Bosnia one finds beautiful stoves of glazed green or brown earthenware tiles that have little hollows to increase the heating surface; these stoves are often about four feet high, but sometimes extend to the ceiling (Lodge, 1942: 72). However, in poorer dwellings, the stove may be of unglazed earthenware or mud (Vuletić-Vukasović, 1896: 36). In winter the family members sleep in the living room, but in summer it is only used by women and small children (Stjepa and Trifković, 1908: 36). The attic above the living room is used for the storage of grain, dry meat and other supplies.

Houses built on an incline have a windowless storeroom in the stone basement. People often sleep there in summer. In poorer houses the basement is used as a stable. Very frequently a storeroom is added to the building (fig. 25) (Stjepa and Trifković, 1908: 37-38).

When more rooms are desired, the living room may be divided into two (fig. 26), or a room is added onto the other side of the kitchen, creating the familiar tripartite division (fig. 27). The new unit may be divided into a storeroom and a room for guests or offspring. Depending on the size of the zadruga, the rooms may be further subdivided; when the zadruga is especially large or when there are two zadrugas in the house, the kitchen, too, may be divided, creating two complete and separate dwelling units under a common roof (figs. 28, 29) (Stjepa and Trifković, 1908: 40-41).

It is unfortunate that the author does not explain the manner in which annexes to the main buildings are roofed over; that is, whether the main roof extends over them or a separate roof is added. In this connection it may be added that the long verandas under extended eaves appear to be uncharacteristic in this area.

Houses with living rooms above the main floor are comparatively rare. Such living rooms, called čardak, are generally reserved for guests. The čardak are reached by a staircase from the kitchen and may be located above the living room on the ground floor, as the kitchen does not have a ceiling (Stjepa and Trifković, 1908: 42). It is not clear whether they form a second story or are merely located in the loft.

Cvijić (1918: 234) considers separate dwellings for married members of the zadruga typical for this area. Karanović (1929: 303) describes buildings consisting of a row of rooms (zgrada), lacking any heating device, each furnished with a separate entrance from the outside. They appear to be very similar to those found in Slavonia (see above). Vuletić-Vukasović (1896: 37) states that each peasant has a form of storage house (hudžara) built close to the main house, made of boards over a foundation of stone. Only the more valuable possessions are stored here, and young girls or young men sleep in them. The author adds that peasants may prefer a good hudžara to a good house. However, it is not clear whether these are to be

equated with the separate quarters for the zadruga members. Trifković, who has described the multi-divisioned houses, fails to mention them for the Sarajevo area, and one wonders whether they are universal or not.

The wealthier people often erect two-story houses. Often the lower rooms are inhabited by the members of the zadruga while the upper ones are reserved for guests (Drobnjaković, 1929: Karanović, 1925: 302).

The section above has dealt with the houses of the Christian population of this area. Moslems often inhabit dwellings that differ very little from those of the Christians, the main difference being the greater wealth of the Moslem owners. The Moslems, however, prefer to place the staircase leading to the rooms in the upper story on the outside of the building instead of locating it in the kitchen (Stjepa and Trifković, 1908: 49). On the other hand, Moslems have special types of houses that are not used by the rest of the population, called čardak and kula. The latter is a two-story fortress-like structure of heavy masonry with a square base, and has a hipped or pyramidal roof. The same type is found in Albania and in southwestern Rumania. Its occurrence in Bosnia and Herzegovina, however, does not appear to be common.

While the kula are rather rare in Bosnia and Herzegovina, the čardak is fairly common (Stjepa and Trifković, 1908: 50-53). The latter is a large two-story building, often square in floor plan, containing numerous living quarters. The lower story is made of stone or unfired brick, while the upper may be of wood or wicker and daub. Often the entire building is of wood (Karanović, 1925: 305). The shingled or tiled roof is always hipped and low. Sometimes a belt of roofing just above the ground floor extends all around the house creating a pagoda-like effect. This serves to protect the lower wall from rain, which the main roof is unable to do (Mulabdić, 1929: 75). Often the upper story is made to protrude over the lower one, sometimes on all sides or, in other cases, only in front of the house. The extra roof is, of course, not added in this instance (Stjepa and Trifković, 1908: 51).

The ground floor may be used for storage space or as a stable, but more frequently the kitchen and main living room are located there. The stairway leading to the upper story is always roofed, and leads to the divanahana, an anteroom, on each side of which are rooms. One of the rooms is especially large, extending over the whole front of the house; it may have 6 or 7 windows overlooking the best view. This room is reserved for guests, for special festivities, and for the use of male members of the household. At night the windows are closed with wooden shutters. The women's quarters have windows of lattice work. The upper story may also contain a kitchen, which has no ceiling, and a fireplace that is raised 70 to 80 centimeters above the ground. In rare cases the fireplace is directly on the floor (Stjepa and Trifković, 1908: 51). The kitchen in the

lower story has a floor of tamped earth; all other rooms have floors of wood, for in all rooms except the kitchen one walks without shoes and sits on the floor (Mulabdić, 1929: 75). Occasionally separate houses are provided for the men and women, the selamluk or konak for men and the haremluk for women.

Farm Buildings. Moslem houses generally have a small yard surrounded by a high fence of boards. Sometimes the fence is only on the street side or on the side of a neighbor of different faith (Stjepa and Trifković, 1908: 50). The čardaks described above often have a high enclosure of unfired brick or stone with an imposing gateway. A garden is next to the house, or sometimes the latter stands in the middle of a garden (Mulabdić, 1929: 76).

Stjepa and Trifković (1908: 30-31) write that when the property of the owner is a single unit the house tends to be located in the middle of this property. However if the various fields and buildings are scattered widely the house tends to be located along a road. They prefer to place the yard and garden on one side of the house and all the farm buildings on the other side. Care is taken that the house is not surrounded on all sides by buildings. The various farm buildings are not arranged in any particular order, but may be separated from the fields and the road by a fence of poles. However, fences may be lacking altogether.

The summer kitchen prevalent on the coast is not known in this area. Each zadruga, however, has a bread oven covered with a roof of boards near the house (Stjepa and Trifković, 1908: 46). The wealthy have a special storehouse for grain, the hambar. It rests on a stone foundation 20-40 centimeters high; the building has walls of planks and a shingled roof. In it are 6-8 compartments for the various kinds of grain.

The mlekar is similar in shape to the house but smaller. A fireplace with a cauldron is located near the door. This mlekar is used only for the storage of meat and milk products and for the churning of butter. Often a bed is found in it for the use of mother and children (Stjepa and Trifković, 1908: 44). Corn is stored in a wickerwork structure called the šalos which is raised on posts 30-50 centimeters high; it is 3-5 meters high and 50 centimeters wide, and is covered with ferns (Stjepa and Trifković, 1908: 46).

The most important building is the stable, or klanica, which only the poorest farms are without. It is as big as the house, sometimes larger and better built. Occasionally it is divided into two units, in which case it is provided with two doors, both on the same side of the building. Horses and cattle are kept there and a special compartment is made for calves. Sometimes calves are sheltered in an annex built onto the klanica. The ceiling is of boards or wicker; the hay that is stored in this loft is thrown into it through an opening in the roof. One side of the roof is generally

extended to form a shelter for agricultural tools. Sometimes the klanica is erected in the fields, where the threshing floor is located, so that the straw can be placed directly into it. In this case the cattle are sheltered away from the house during winter (Stjepa and Trifković, 1908: 45-46). The poyata is a hut of planks or wicker possessing a roof of rye straw, which is used exclusively for the storage of straw and hay. Unlike the klanica it is never plastered with mud, thus permitting greater ventilation (Stjepa and Trifković, 1908: 46).

Goats and sheep are kept in a smaller building very similar to the stable, called the ahar. However, a simpler shelter may be provided for them consisting of two parallel walls of wicker roofed over with ferns. In front is generally a small enclosure with a crude fence of poles. Near the house there is often an enclosure which is divided into two parts, one for the sheep and the other for the goats. When they are to be milked, the animals are first driven into one of these two areas; they are milked at the partition, and then pass on to the second area. The sheep of the poor people often pass the winter in this enclosure, but the goats cannot, for they are more delicate (Stjepa and Trifković, 1908: 46-47).

The pigsties (of the non-Moslems) are made of bark or boards, sometimes of wicker with mud plaster. The shape is variable. They are generally located at the side of the yard, not too close to the house or the road (for there are many Moslems in this area) but may also be built onto the stable (Stjepa and Trifković, 1908: 47). Chickens are kept in a circular structure of wicker covered with ferns that is placed next to the house or the stable (Stjepa and Trifković, 1908: 46).

Buildings Outside the Village. The mountain pastures are frequently only two hours walking distance from the settlements. Though the cattle are generally kept in the mountains over the summer, they may also remain there during the winter months. One finds there shepherd huts, measuring 3-4 by 5-6 meters, as well as larger houses. The latter are made of logs with roofs of boards, shingles or bark. Frequently they have two rooms. The fireplace and sleeping quarters are in one room, while the other is used for the storage and preparation of milk products. Around the houses or huts are enclosures for animals; and, if the latter winter there, stables (klanica) are erected for their use (Stjepa and Trifković, 1908: 54-56).

SERBIA

In Serbia one finds greater regional variation of village and house types than in any of the areas heretofore discussed. Serbia lies on a number of important communication lines and it is generally regarded as the area where Occident and Orient meet. Northern Serbia was open to Central European influences that extended as far

East as the Iron Gate (Krebs, 1918: 11). The Morava and Vardar valleys connect the Aegean with Beograd, and were the channels through which Greek, Byzantine and Turkish cultures penetrated inward from the Aegean coast (Krebs, 1918: 303). Skoplje and Niš were centers of important routes that linked the various parts of the Balkan Peninsula. From Niš a major route led eastward to Kÿstendil and from there to the Marica River, which provided a connection with the southeastern part of the Peninsula, and Constantinople (Cvijić, 1908: 28). From the Albanian coast, communications extended up the Drin valley and into Metohija, and from there into the interior regions of Serbia, while another route led from the coast to Macedonia (Cvijić, 1908: 23). The mountainous region of Sumadija, on the other hand, received less foreign influence and was the starting point of all Serbian movements for independence (Krebs, 1918: 312). With this number of cross cultural influences it is not surprising that Cvijić can distinguish seven types of villages and six different house types in Serbia (Cvijić, 1918: Maps IV and V).

Cvijić's La Pêninsule Balkanique (1918) is one of the first and most comprehensive books on the peoples of the Balkan Peninsula. The author describes the geographical environment and deals with migrations, political and social histories, economics, modes of settlement, as well as the physical characteristics of the Balkan peoples. The writer is not equally familiar with all areas of the peninsula, as most of his "anthropogeographical" research centered on Yugoslavia, particularly Serbia, of which he was a native son. His distribution maps of settlements and house types of this area would therefore appear to be most dependable, and for this reason they have been used as an outline for the following study.

Location and Types of Settlements. Cvijić (1918: Map IV) distinguishes the following seven regional variants in the form of settlements in Serbia. The first occurs along the Lower Morava, where the villages are always aligned regularly on both sides of the road. Sometimes two roads meet at right angles to one another giving the village the shape of a cross. Cvijić (1918: 218) believes that this type of settlement, the Mačva type, arose through an increase in population density in the lower fertile valleys, by imitation of the villages of Sylvania and Banat, and also under pressure of authorities who prefer orderly and compact villages, as they are easier to supervise and control.

West of the Kolubara River and extending southward to the Tara River are found villages consisting of widely dispersed hamlets, having farmsteads that are likewise spaced at large distances from one another. This is the previously discussed Stari Vlah type. The hamlets forming the villages are located on the slopes of hills, on the sides of valleys, or in depressions. Milojević, (1913: 652), describing the region between the Jadar and Drina rivers, states that at lower altitudes the settlements tend to occur on ridges and hill-tops, while at higher altitudes they are in depressions. The

higher the altitude, the more dispersed the hamlets and farmsteads become. In the mountainous areas, the sunnier and warmer slopes are preferred, and one finds villages most often located on slopes that are turned southeast and northeast, while those facing southwest and northwest remain unsettled (Milojević, 1913: 654).

Jovanović (1908: 338) would attribute this wide scatter of farmsteads and hamlets to the mountainous and forested terrain. While this is no doubt an important factor, the fact should not be overlooked that extremely congested villages with houses separated only 5 to 20 paces from one another prevail in an equally mountainous area in the vicinity of Kjaževac in eastern Serbia (Stanojević, 1913: 20). The possibility of obtaining arable land is important. Where forest has to be cleared to gain arable land, the farmsteads tend to scatter; when arable land is limited and cannot be increased by clearing forest, the settlements tend to be more densely settled (e.g. Karst regions and the area between Knjaževac and Pirot).

Political factors may also be important in the location of settlements; there are no permanent settlements in the plains of the Jadar River. This area had always been an important line of communication and in times of war it provided easy passage to the enemy, thus endangering the settlements. After the Austro-Turkish and the wars of independence many fled from this region (Milojević, 1913: 652).

South of Beograd and north of the Western Morava, extending from the Kolubara to the border of the Morava plain, the settlements are very similar to the type just discussed (Stari Vlah type) and differ only in that the farmsteads are closer together and the hamlets less distant from one another. This is the Sumadija type of settlement.

In southwestern Serbia, on both sides of the Kopaonik Mountains and almost bordering on the Lim River in the west, the Ibar type prevails. Like those of the Stari Vlah type, these villages cover large surfaces and stretch over many hills and ridges. They are almost never in the valleys. The villages are divided into a number of hamlets (džemat) each of which occupies, more or less alone, a site on a hill. The houses of the džemat stand close to one another. Cvijić (1918: 219-20) maintains that that form of settlement is mainly determined by the terrain and that it occurs only where the terrain is formed by granite, serpentine and crystalline schist cut through by numerous valleys and ravines, which reach a depth of 300-400 meters. Between these valleys rise hills which are often flattened on top or have gentle slopes, on which the population is forced to settle. These hills are more suitable for agriculture and herding than are the valleys.

The Timok type, best represented in the Timok Basin, has a continuous distribution from the Danube to Skoplje; its western boundary would run approximately in a straight line from Beograd to Skoplje. One finds here large villages of an agglomerated type whose

origins sometimes point to the čiflik (Turkish feudal village). They are among the most crowded villages of the Balkans and can only be compared with those of the Greco-Mediterranean. The houses crowd one upon another in no particular order and the streets are crooked. The densest villages are found in Crna Gora near Skeplje, in Sar Planina, and in the Homoljske Mountains of northwestern Serbia (Cvijić, 1918: 221).

North of the Rtanj Mountains the villages tend to be smaller than those further south. This is due to an increased interest in agriculture. The little crowded villages in the bottoms of valleys are surrounded with pasturage and prairies which suffice for the pastoral population. With increased interest in agriculture, the pasturage is transformed into arable land and the peasants must drive their animals into mountain pastures. Here mountain dwellings (pojate) are erected in which peasants spend most of the warm season. When the mountains are not very high, agriculture is possible, and more and more dwellings begin to collect around the pojata, forming a new village. Some peasants become permanently installed there, while others migrate back and forth. The lower villages are almost deserted, especially in summer, and one comes down only to cultivate the fields, to take part in a feast, or to make contact with the authorities. The establishment of agriculture in the upper villages has again forced the herders to move to higher pastures and construct new shelters there (Cvijić, 1918: 222).

In southern Serbia, Cvijić distinguishes a number of different settlement forms of which only the čiflik village type stands out very distinctly. Čiflik villages are found mainly in the Kosovo and Skoplje Basins, and in Metohija. They are always located at the bottom of basins and fertile valleys. Two forms can generally be distinguished. In the first type the one-unit mud dwellings of the čifči (serfs) may be arranged in a square, or form a number of squares. Inside the enclosure one finds the dwellings of the master (bey), a selamlik for men, a haremlik for women, and an open pavilion (čardak). In the second, the whole čifčik is surrounded by a high wall of unfired brick (rarely of stone), which is roofed over with tiles. It resembles a small fortress and can only be entered through a gateway with a small door. The houses of both bey and čifči are in the enclosure, the latter being grouped together to form a little village of their own (Cvijić, 1918: 222-23).

For the region south of Skoplje, Cvijić sets up the Mixed type and the Greco-Mediterranean type. While the Greco-Mediterranean type is characterized by dense villages, the Mixed type hardly qualifies as a separate form. It is largely composed of former čifčik villages that are undergoing transformation in all directions, some approaching the orderly Mačva and dense Timok types, others resembling the scattered ones of Sumadija and Ibar (Cvijić, 1918: 224). One can therefore make the conclusion that there is a great range of variation in this area, with dense villages predominating.

If we discount the modern houses that have infiltrated into the area and the čifčik establishments introduced and operated by the Turks, four regional house types are discernible in Serbia. These can be more or less equated with Western Serbia (the eastern boundary running in a straight line south from Beograd), Eastern Serbia (east of Beograd and the Kopaonik Mountains, extending to Vranje in the south), Southern Serbia (south of Vranje and bordering on Albania in the east and Bulgaria in the west), and Metchija (bordering onto northeast Albania, lying north of the Šar Planina and south of the Ibar River, and reaching slightly beyond the Kopaonik Mountains and the Kosovo Basin in the east) (Cvijić, 1918: Map V). While in northern Serbia, the eastern house types coincide with the Timok village type; and the western type with that of Sumadija, this correlation breaks down as one proceeds southward, where a one-to-one relationship between any village type and any house form is lacking. In general it can be stated, however, that the eastern and southern house types are associated with dense villages and those of western Serbia with widely scattered ones.

Western Serbia

House Types. As has been previously stated, the farmsteads of western Serbia are very similar to those of Bosnia and Herzegovina, with which they form what has been designated the Dinaric type (Cvijić, 1918: 231), which is considered one of the basic forms in the Balkans. These houses are built mainly of wood, wicker and daub or timber-framing and daub (Lehmfachwerk); stone is used only for foundations, or for the ground floor when the house is erected on an incline.

The walls generally rest on a rectangular foundation of stone. On this is placed a heavy sill, followed by rows of thinner and narrower boards that make up the wall of the house, and which in turn are topped by a heavier plate. The joists forming the ceiling fit into channels in the plate. Above them is placed the sommer, on which the rafters rest (Jovanović, 1908: 348). The walls may also be of wicker and daub, and in the area of Ivanjica, Cačak and Gruža half board, half timber-framing and daub houses predominate (Jovanić, 1908: 345; Dragić, 1921: 180). In these the kitchen is always of wood and the living room of timber-framing and daub, which is whitewashed inside and out.

The house generally has two doors on opposite sides, facing one another, both leading into the kitchen. Only the living room has windows; two on the side facing downhill and one on each of the other two walls. In wooden houses the windows are quite small and have no shutters, but when the walls are of timber-framing and daub, they may be large and provided with wooden shutters. While glass may be used in the richer houses, the windows of the majority of houses are only covered with paper (Jovanović, 1908: 346).

The roofs are generally hipped and may be covered with boards (taraba), shingles, tiles, or straw. The boards are placed next to one another and underneath them are placed thinner boards so that the rain does not seep through the cracks. The shingles are thicker than the boards and are thinned out at the sides so that the thinner part of one comes into the channel of the next (Dragić, 1921: 179). They may be arranged in 6-12 rows. When straw is used for covering, long poles extend downward from the ridge over the straw to prevent it from flying off. The straw may be piled on in bundles but is often merely laid on in a continuous layer (Lodge, 1942: 73). Tiles are frequently used in this area, and many of the half wood, half timber-framing and daub buildings are roofed in this manner. While the characteristic wooden house with its high shingled roof was introduced from Osat in eastern Bosnia. (Cvijić states that the houses in eastern Bosnia and western Serbia were constructed by builders from Osat), the half wood, half timber-framing and daub houses, as well as the tiled roofs were brought into the area by the people from Niš, Pirot and Vranje in eastern Serbia (Dragić, 1921: 180).

Kanitz, writing in 1869, reports extremely high shingled or straw roofs (sometimes twice the height of the wall) in the region of the Drina River in the north and in Novi Pazar in the south (Kanitz, 1869: 80, 239). Kilojević (1913), Jovanović (1908) and Dragić (1921) fail to mention extremely high roofs. Jovanović (1908: 347) states that straw roofs are highest and that tiled roofs are noticeably lower than the shingled ones, while Dragić (1921: 181) reports that many shingled roofs in the mountain areas are as low as those made of tiles. It would thus appear that the high roofs disappeared with the introduction of tiles and lower roofs from eastern Serbia toward the end of the century. The authors do not give enough data on roof construction. From Jovanović's (1908: 342) account it would appear that rafters and ridgepole support the roof unaided.

The smoke from the fireplace may be allowed to seep through the straw, tiled or shingled roof, or may escape through a special opening provided with a liđ (see Bosnia and Herzegovina), or through a chimney. The so-called Sumadija chimney is associated with the wood house; it is made of wood and is covered by a cylindrical wooden cap (kapa) surmounted by a spire with one or two wooden balls. The wooden chimney (kapić) is often decorated with designs (Cvijić, 1918: 228-29).

When the house is built on an incline it may have a cellar of stone (podrum) under the main floor. Sometimes the long sides of the house may stand at right angles to the slope. Jovanović (1908: 345) reports that in the regions of Ivanjica and Čačak a cellar is generally not built under the house even when there is ample space for it; the people prefer to use one of the numerous buildings in the yard for this purpose. It would be interesting to know how frequently the space under the house is used, for it may throw some

light on the tendency to erect separate structures to house each activity. In the Alpine regions of Slovenia it is desirable to have all the farm unit under the roof of the main house; in Prekmurje and Croatia a number of farm units adjoin one another to form a long row and share a common roof; in western Serbia, on the other hand, each unit stands apart from the others. The argument that greater building skill is demanded to erect multi-unit structures will not hold here, for a string of rooms under a gabled roof may be of the simplest construction, and require no more knowledge of architectural principles than does the one-unit house. However, it is true that this simple "long-house" can most easily be erected on level ground, and that uneven terrain may militate against it. While simple construction combined with uneven terrain may be conducive to scattered single units, the preference for the latter may be a purely cultural one; people may like to equate each activity and product with a separate building, or they may prefer moving about from one unit to another instead of performing all activities in one place. The fact that the easily constructed basement is often not employed would support the latter hypothesis.

If we discount the stone basement—and we have seen that this is not an important structure—one can make the statement that two-story houses are almost lacking in this area. The house is generally 7-9 meters long and 5-6 meters wide, and consists of two units, the kitchen (kuća) and the living room (soba) (Jovanović, 1908: 345; Milojević, 1913: 658). When a third unit is required, the living room may be divided or another unit built on to the other side of the kitchen. The kitchen, which has doors on opposing sides and lacks windows, is frequently larger than the living room, from which it is separated by a partition of boards or timber-framing and daub. The floor is of tamped earth, and a ceiling is absent. The fireplace is located either in the center, or more frequently, on the partitioning wall. Above it is suspended a frame of boards or wicker on which corn may be dried (Jovanović, 1908: 345-46). Most of the daily activities take place in the kitchen, in which the people also sleep in summer. The soba is entered from the kuća and generally has three windows. Here the ceiling is of boards and the floor of tamped earth, only the wealthier possessing a wooden floor. Next to the partitioning wall is a stove made of earthenware or mud, heated from the kuća. One sleeps in the soba in winter and it is empty in summer (Jovanović, 1908: 345-46). The veranda with its low railing does not appear to be a characteristic of the house of this area, for both Milojević (1913) and Jovanović (1908) fail to mention it.

The two-unit house is supplemented by a number of additional dwelling units. Depending on the size of the zadruga, one finds one to three Vajats near the main house. They consist of one compartment which may be built on a foundation of stone, while the walls are of boards and the roof is covered with shingles or tile. The floor may be of tamped earth or covered with boards. These structures belong to married zadruga members who store their more valuable

possessions in them. Since they are not furnished with any heating devices, they are used for sleeping only during the summer (Dragić, 1921: 182). Windows also appear to be lacking, for they are never mentioned.

The best made dwelling is often the guest-house, whose construction is similar to that of the main house. The walls are of boards or brick, and rest on a foundation of stone, in which is a cellar where barrels of wine and food are kept (Dragić, 1921: 181). It has two or three rooms. At the entrance may be an anteroom from which doors open into a larger and a smaller compartment (soba). The earthenware stoves in the two rooms are heated from the anteroom (Milojević, 1913: 660). A veranda with a low railing is often provided. Frequently the eldest member of the zadruga sleeps in the guest-house (Jovanović, 1908: 350).

Farm Buildings. The yard is generally fairly large and is enclosed by a simple fence of poles or slats. The various buildings in it are arranged in no definite order. Where agriculture predominates, most of the farm buildings surround the house; if herding is more important there are fewer buildings in the yard, as many are erected in the pastures where cattle are kept during the warm season (Jovanović, 1908: 342, 349).

The bread oven is raised on four low posts and covered by a roof of boards or brick. It is hemispherical in shape and made of unfired brick outside (Milojević, 1913: 659).

Dairy products are stored in the mlekar, which is constructed of boards and resembles the vajat, except that it is smaller. For better ventilation one of the upper boards of the wall is removed on one side of the building and replaced by wicker or lattice work (Dragić, 1921: 183). The podrum, which serves for the winter storage of food, also resembles the vajat, but is lower (Jovanović, 1908: 350).

Two buildings serve for the preparation of plums; the pušnica is open on one side, and has three walls of wicker, unfired brick or brick, roofed with tiles or boards. It generally has two stoves above which can be placed 5-6 trays for the drying of plums. The trays are woven of willow twigs and are 2 meters long and 1 meter wide. The kačara is rectangular in form, made of boards and covered with slats; the floor is of tamped earth. It has a fireplace and it is there that rakia is distilled from the plums (Milojević, 1913: 660).

A number of different buildings are provided for the storage of grain. Maize is stored in a structure (koš) of wicker that rests on posts 1 meter high and is covered with straw (Dragić, 1921: 183). The ambar is made entirely of wood with a wooden floor and a roof of boards or shingles. It is 3 meters long and 2 meters wide, and its interior is divided into 6 equal units (Milojević, 1913: 660). A

more unusual building is found along the Drina and Jadran rivers; the long and narrow buildings (6 x 2 meters) rest on three pairs of posts which raise it 1.5 meters above the ground; the floor is of boards while the walls are made of laths or wicker. Entrance is on one of the narrower sides, while the opposite side has rounded corners (fig. 39) (Milojević, 1913: 660). This structure is no doubt related to the Turkish barns found in southern Macedonia and Bulgaria (see below) as its appellation čardak would indicate.

Animals are kept in a stable (ar) that is generally made of boards and covered with straw, though it may also be built of unfired brick or stone and may sometimes be roofed with tiles. In order to keep horses and cattle dry in summer a roof of straw or tiles may be raised on four posts. The pigsty is of stone or boards and is covered with straw. Sheep and goats are kept overnight in the košara made of wicker or boards, roofed with straw; during the day they are in an enclosure (tor) in front of the košara which consists of a fence of poles or slats (Dragić, 1921: 184). The chicken coop is of wicker.

When the zadruga is very large the farmstead may consist of so many separate buildings that it resembles an independent village. Cvijić (1918: 233-34) enumerates the following buildings in a zadruga in the Jadar River region:

- 2 houses--an old and a new
- 4 vajats for the zadruga members
- 3 granaries for maize (koš)
- 1 granary (ambar)
- 2 units for distilling rakia
- 1 storehouse (kačara) for brandy
- 2 storehouses (pušnica) for prunes
- 1 cart shed (suvotnik)
- 1 bread oven

However, not all farmsteads are equally large, and on the average there are only 5-6 buildings in addition to the house. Only the wealthier can afford a guesthouse, or require the ambar, kačar and stable (Jovanović, 1908: 345).

Buildings Outside the Village. A number of buildings are erected in the mountain pastures where animals are kept over summer. In the Drina-Jadar region mountain houses have two compartments and are almost identical with the wooden houses of the lower regions, except that they are smaller (Milojević, 1913: 662). In the area of Čačak and Ivanjica they resemble small vajats (Jovanović, 1908: 351). A small wooden building covered with boards may be erected for the storage of milk; sometimes one of the rooms of the house is reserved for this purpose. In front of the house is an enclosed area in which animals are kept over night (Jovanović, 1908: 351). Shepherds may have movable shelters of wood (kučer) which are just large enough for a person to stretch out in (Cvijić, 1918: 237; Jovanović, 1908: 351) (fig. 40).

Milojević is the only author to mention stables in the mountain pastures, unfortunately giving no further description. Jovanović (1908: 350) remarks that despite the fact that herding is well developed and that animals are kept at a long distance from the farm, there are not many shelters for livestock in the mountains. One wonders if animals are kept in the house or whether the lack of data is merely due to omission.

In winter the animals are often kept in the fields in order to fertilize the land. Stables may be of wicker and covered with straw; in Zlatibor they are dug into the earth and covered with straw, hay or branches. Peasants may also build a separate house in the fields (Milojević, 1913: 662; Jovanović, 1908: 351). In the Jadar-Drin region temporary huts may be built for winter use, when the pigs are driven into the forest (Milojević, 1913: 351).

Eastern Serbia

House Types. Though the houses in eastern Serbia may differ from one another, they form a sharp contrast to those of western Serbia. The so-called Morava house is a squarish, thickset building of wicker and daub or unfired bricks with a tile or straw roof, a trait which is linked with dense and compact villages (Drobnjaković, 1929). The following description is largely taken from Stanojević's (1913) report on the area around Knjaževac.

Due to the hilly terrain, houses are often built on an incline. The basement is dug out first and a foundation of masonry erected (the author does not explicitly state what material is used for its construction, but his illustration (fig. 37) indicates that it is some form of brick. Since fired bricks are not generally used in this area, the foundation is most likely of unfired bricks). Over the foundation is erected the wooden framework for the house, consisting of the studs, floor and ceiling joists, and heavier beams at the bottom and top of the wall. The hipped roof of medium height is supported by two king posts, and the battens are placed on the rafters. The interstices between the studs are then filled with wattle and daub, wicker, or unfired bricks. All houses are plastered with mud and chaff; in the lower altitudes they are whitewashed but not in the mountains. The roof is generally covered with cylindrical tiles, rye straw or hay. The straw or hay is kept from falling off by poles.

The chimney stack is about 1-1.5 meters wide and pyramidal in shape. It protrudes about 1 meter above the house, but is lower in regions where the wind is strong (fig. 34). The body is made of wattle or wicker smeared with mud inside and out. Where rains are heavy it may be plastered only on the inside. Occasionally wooden boards are placed over the plaster on the outside (sometimes only on the side where the rains come) to protect the plaster. These boards may be very beautifully joined to one another and have interesting excised designs. A lid is raised on four poles 20-30

centimeters over the chimney. It is covered with flat round tiles (even when the roof is of straw), wooden boards or stone slabs. Occasionally the lid has a small hole in the middle to ensure better draft. The poorer houses have narrower chimneys which are unplastered and lack a lid.

The pattern of two doors on opposite walls of the kitchen is not present in this area. If a second door is provided, it serves for carrying out rubbish, etc., and may be located on one of the sidewalls of the kitchen. (In former times, due to Turkish and hajduk menace, two doors were the rule). Light enters the kitchen through a small hole in one of the walls; the living room (soba) may have two windows facing south or east, which are covered with glass or paper and have shutters on the outside.

The floor plan, though variable, does not follow the western pattern. The basic division into two halves may run lengthwise or crosswise through the house (figs. 30 and 31). The kitchen may take up one full half of the house, the other side being composed of the soba, storage room, and other rooms (fig. 31). When the kitchen does not occupy the whole side, it is only the soba that is located in the same section, all the other rooms being on the other side.

The kitchen is generally the largest room in the house. A round fireplace of stone or brick is located in the center or at the partition to the soba. The soba is entered from the kitchen; its floor is always of tamped earth, but the ceiling may consist of tastefully arranged boards and is only rarely of wicker and daub. It is generally furnished with a stove and is used for sleeping in the winter months; during the rest of the year one sleeps in the kitchen. Sometimes there may be an additional small room which may serve as a guest-room, storage room for food and drink, or as a granary.

In front of the house is always a smaller or larger roofed area, called the odvor (fig. 31), one section of which may have a raised wooden floor and a railing, 50 centimeters high, the krevet. People sleep there in summer, and much of the daily activity goes on in it. The krevet is not always in the front of the house, but may also be at the back; it forms a sort of porch or veranda which is enclosed on either side by rooms, and is entered from the inside of the house (fig. 32). The basement, which is only lacking in the house of the plains, serves for the storage of wine, sauerkraut, and other supplies.

One often finds houses with two chimney stacks which are actually two complete houses under one roof (fig. 33). Sometimes there are three complete dwellings under a common roof. This design arose from the custom of providing each married zadruga member with a complete house at the zadruga's expense, and is linked with the desire to waste as little of the arable land as possible (Stanojević, 1913: 50-51).

Farm Buildings. The granary (ambar) (fig. 35) is rectangular in form and raised over a basement of masonry which is used either for the storage of wine and rakia or as a stable for horses and cattle. It is carefully made of boards, which are never plastered, and covered with cylindrical tiles, more rarely of straw or hay. Inside, the six compartments are arranged around an open space which facilitates access to them. In front of the ambar is often a covered porch which may be used for sleeping in summer. The poorer people lack an ambar and use a basket-like structure (koš) instead. This container is woven of willow twigs and is plastered inside and out with dung. It is provided with a movable lid of straw; the grain is placed into it from the top and is taken out through a small opening in the side (fig. 36). Many small koš may be kept inside the house, while larger ones are located in the yard. A storeroom for corn (corn is not kept in the ambar along with the other cereals) may be built onto the ambar and the two may share a common roof (fig. 35). It is built in the same manner as the ambar although the walls are sometimes wicker instead of boards. A door is usually lacking and to gain access one merely removes the boards on one of the narrower sides.

Each house has a large barn for the storage of straw. It is made of boards but may also be of wicker. Two doors are provided; a larger one facing the threshing floor for putting the straw in and a smaller one for taking it out. The roof may be of straw or tiles. Often it has a basement which serves as a stable (fig. 37). It may be located either near the house or out in the fields. The stable, košara, is a rectangular or square shed of wattle and daub covered with straw, rarely tile. It is only used for horses and cattle. Most often it is not located in the yard.

The pigsty is usually further away from the house. It consists of a longish pit dug into the ground and covered with straw. In front of it is a small enclosure.

The chicken coop is a cylindrical structure of wicker, 1.5 meters in diameter and 1.5-2 meters high. It has a roof of straw and is generally put in some hidden place behind the house (fig. 38).

Buildings Outside the Village. When the fields are a long distance from the house a permanent building may be erected near them. This building usually has a soba and a kitchen, and resembles that of the village except that it is smaller. A barn for straw and a stable may be built around it. In summer the whole family may stay there; in winter only those people that watch the cattle remain.

The house built in the mountains has only one room, generally equipped with a fireplace. Most frequently one finds a crude tent-like hut, elliptical in shape; the framework is of wood and the whole structure is thatched over. The shelter for goats and sheep is similar to the above, except that it is still cruder. In front of it is a circular enclosure which also contains a windbreak (a wooden frame covered with straw) for the animals.

Southern Serbia

House Types. The data on this area have been largely derived from Hadji-Vasiljević's (1909) research in the region of Kumanovo, which has a fairly central location and may serve as a representative sample. Though the author enumerates the various buildings and indicates their usages, he often fails to mention their specific construction, especially the building materials used. The more general works list the materials used but fail to provide much detail. For this reason it is difficult to present a full picture.

The houses in this region are constructed of wattle and daub, unfired brick and more rarely of stone. Their low hipped roofs are generally covered with tiles or straw. One can distinguish three types of houses, those consisting of only one story, the two-story ones and the houses of the čifčik (Drobnjaković, 1929).

One-story houses are generally not built on a foundation; their walls are of wattle and daub (sometimes of unfired brick), the roofs of straw or tiles. Chimneys are usually lacking, and smoke either escapes through the door or through a narrow opening in the roof. When chimneys are provided, they are of wicker and daub. Windows are small openings that are closed with shutters. The floor is of tamped earth (Hadji-Vasiljević, 1909: 106-07).

The rectangular house consists of two units, each of them furnished with a door to the outside. However these two compartments do not represent kitchen and soba, as is so generally the rule in other areas, but kitchen and stable (Cvijić, 1918: 243). The live-stock may enter through the smaller door of the stable, but more frequently they are let in through the kitchen door, the smaller one being used to bring in the hay and remove the dung. Frequently only the working animals are kept in the stable; when other live-stock are sheltered there, the cattle occupy the place next to the kitchen, followed by horses and the donkeys (Hadji-Vasiljević, 1909: 107). Cvijić (1918: 243) states that the partitioning wall between kitchen and stable may be only 1.50 meters in height.

The fireplace in the kitchen is circular and frequently consists merely of a small area bordered with stones. The cauldron hangs above it. While the kitchen lacks a ceiling, the stable has a ceiling of wicker, plastered with mud on the upper side. The resulting attic is open towards the kitchen and serves for the storage of agricultural tools (Hadji-Vasiljević, 1909: 109).

Frequently the house consists of only one unit, the kitchen (the roof may be of straw or tile). An identical structure, the guesthouse, is found next to it in about one-third of the farmsteads. The oldest member of the zadruga generally lives in the guesthouse. When a patriarch is lacking, one house may be used for cooking and the other for sleeping (Hadji-Vasiljević, 1909: 108).

Around 1880 a new type of house began to be built in the area. It is raised over a foundation, the walls are of stone and mud mortar, the roof of tiles or stone slabs. It consists of a kitchen, two rooms for family members and a sheltered veranda along the front. Sometimes a small room is added outside the kitchen for the storage of clothes (fig. 41) (Hadji-Vasiljević, 1909: 109).

Two-story buildings are built of stone and are covered with tiles. Sometimes two of the outside walls may be of stone, the other two of wattle and daub. The walls may or may not be whitewashed. Sometimes glass windows are provided. On the ground floor is the stable, with compartments for the different animals, and the kitchen with a fireplace. In the upper story are a balcony (čardak) and two rooms for the zadruga members. The steps leading to the second floor are always on the outside of the house (Hadji-Vasiljević, 1909: 110).

In Kumanovo these buildings are called kula, a term which is frequently applied to better buildings in the Balkans. They are built very much like the Moslem houses (čardak) of Bosnia and Herzegovina (a characteristic of the latter being the placement of the staircase on the outside of the house), and the houses of the beys in the čifliks, and are no doubt derived from them. They are to be distinguished from the fortress-like stone buildings that are also found in this area. The houses of the čifliks are very similar to those described in the section on Southern Macedonia.

In southern Serbia, one also finds the vajats, small houses for the zadruga members. In the region of Kumanovo they are called košara, the same word which designates a stable in eastern Serbia. Their walls are of wattle and daub or stone and mud mortar, and the roof is usually of straw. The floor is of tamped earth; a ceiling and windows are lacking. In certain areas a room with a separate door to the outside may be added to the vajat; one spends the day in the room and sleeps in the vajat at night.

During the winter months when there is no work in the fields and the kitchen may get overcrowded, young girls build themselves a zemnik in the yard, where they spend their time, knitting, sewing and talking. The zemnik is made by first digging a pit 1 meter deep, which is then lined with straw and čukanica, and is covered with čukanica about 1 meter above the ground. (I have been unable to find the English equivalent for the term). Only a small opening is left to permit light to enter. The structure is heated by burning coals in an earthenware pot (Hadji-Vasiljević, 1909: 115).

Farm Buildings. Cvijić (1918: 243) describes the yard of the wealthier peasants as being surrounded by high stone walls with large gateways. Hadji-Vasiljević (1909: 105) states that the yard may be surrounded by a wall of dry masonry 1 meter high, on top of which are put thorns, a hedge of thorns alone being less common. On the other hand, he mentions that in one of the richest areas

(Ovče Polje) the yards are not fenced in at all. The buildings in the yard do not appear to follow any particular order.

The cellar (izba), used for the storage of food-products and agricultural tools, is slightly sunk into the ground, and has a foundation of stone and walls of wattle and daub; it is roofed with straw, rarely tiled. Sometimes the cellar is combined with the granary.

Grain is stored in the same manner as in eastern Serbia. One finds here the same vase-like container (fig. 36) and also the ambar of boards with its six divisions for the various cereals. Straw, generally only rye and barley straw, is stored in a barn made of mud and stone, roofed with straw; this building is located close to the threshing floor. However, these barns often are lacking, and the straw and hay is merely piled up around a tree. Sometimes straw may be piled into heaps 10-20 meters long and 8-10 meters high, covered with thorns and weighted down with poles. Against one of the shorter sides is placed a woven framework which has a door. The straw is taken out from the heap through the door and the framework is pushed further back until the pile is exhausted (Hadji-Vasiljević, 1909: 114-15).

Milk is stored in a wooden box about 2 to 4 cubic meters in size, which is raised on wooden posts about 1 meter from the ground and is located in a drafty spot close to the house (Hadji-Vasiljević, 1909: 115).

While the animals are often kept on the ground floor of the house, separate stables of wattle and daub roofed with straw are also located in the yard. They are usually used only to house cattle; wealthier people may erect a separate stable for horses and donkeys. Sheep are kept in a very flimsy structure of wicker, covered with straw during winter; in summer they are in enclosures in the fields. Pigs are kept in pigsties, on which, however, no further information is available (Hadji-Vasiljević, 1909: 110, 114, 115).

Metohija

House Types. The data on this area are derived chiefly from Jovičević's (1921) work on the Plav-Gusinje region close to the Albanian border.

Three types of houses appear in this area: one-story houses of boards or wattle and daub, two-story houses with a ground floor of stone and an upper story of wood, and the stone kulas (Jovičević, 1921: 121).

Two-story buildings are almost square in ground plan. Their hipped roofs are fairly high and are covered with about 10 rows of narrow, short shingles. The floor of the upper story is made of boards. Chimneys are generally lacking, and the author does not

state in what manner the smoke escapes. Windows are small and have wooden bars and wooden shutters on the inside. In winter a wooden frame is attached to the window; in one of the bottom corners is a small lid that may be opened and closed. The stone walls are generally plastered with mud on the inside and then whitewashed. The mud is to absorb the dampness; were this not done the walls would sweat in winter when fires are lit (Jovičević, 1921: 433).

Animals are kept on the ground floor while the upper story contains the living quarters. The second story is reached by a wooden staircase that leads into an anteroom, from which all other rooms can be reached (fig. 42). The partitioning walls are whitewashed. Each room may have a fireplace against one of the walls, which is used only in summer; in winter the rooms are heated with an earthenware stove. Special guest-rooms are usually lacking (Jovičević, 1921: 433-436).

One-story buildings are of wattle and daub and have high hipped roofs of shingles or straw. Poles extend from the ridge over the roof to keep the straw from flying away. Frequently the points of two poles shoot straight upward from each end of the ridgepole. They may be quite high and the straw that is attached to their lower parts gives them the appearance of two horns (Vlahović, 1938: 147). The interior division consists of a kitchen with a fireplace and a soba for sleeping.

Large zadrugas often inhabit fortress-like kulas, which sometimes have three stories. Roofs with narrow eaves are generally hipped but may also be gabled; usually they are covered with about 8 rows of narrow shingles. Chimneys are lacking but smoke may escape through a small opening on either side of the ridgepole. The lower floor serves as a stable. The wooden stairway to the upper story may be located on the inside of the buildings. When on the outside, it leads to a narrow and rather flimsy balcony which is sheltered by an extension of the eaves on the front side of the house. The upper story has a small anteroom, on one side of which is the kitchen with the large circular hearth in the center; on the other side is a storeroom. Neither of these units have windows. The rest of the space is taken up by two large rooms which have two to three windows and a fireplace against the wall (fig. 42) (Jovičević, 1921: 435-36).

Farm Buildings. The yard is enclosed by a fence of poles or slats. In it is found the košara, a building of wattle and daub roofed with straw, in which sheep are kept in winter. The stable is also of wattle and daub, and has partitions for the various animals. Corn is stored in a structure of wicker, which has a floor of planks and is roofed with small boards. The store-room for dairy products is also entirely of boards (Jovičević, 1921: 435).

SOUTHERN MACEDONIA

This area is one of high mountains between which lie a number of large basins—the basins of Bitolj and Solun, and of Lakes Prespan, Kostur and Ostrov. The population is of mixed ethnic origin and religion. The Vlahs, mainly Orthodox herders, occupy villages on the mountain ranges between these basins. On the shores of Lakes Prespan, Kostur and Ostrov are the villages of the agricultural Slavs. The Turks took up the fertile land around some of the basins and are especially numerous in the southeast, in the Ostrov and Solun Basins, near the towns of Pazar and Kukuš. Greeks are found mainly in the towns, which have, however, a very mixed population. Thus one finds Vlahs on the mountain heights, Slavs and Turks in the plains and Greeks in the cities (Milojević, 1921: 10-11).

Settlements can be distinguished on ethnic and religious grounds. The Turks generally have large settlements, but may also live in small hamlets (mahala). If there are two religions represented in a village each group may occupy a small hamlet (mahala) more or less separate from the other. Religious differences are apparent in the houses; the Moslem houses differ from those of Christians in exterior and especially in interior furnishing.

Location and Types of Settlements. Settlements tend to be located on the border of plains and on the sides of mountains. The flat land can be cultivated, while the mountain land provides pastures and forest. In the larger plains of the basins the villages are mainly agricultural and have their pastures close to the rivers and fields further away. Settlements occur on top of old river terraces but may sometimes occupy the bottom of a depression (dolina) (Milojević, 1921: 69-76).

Villages are generally compact, the houses standing close to one another. Their shape varies; along a stream, the villages may be linear, while in the plains they are circular. The čiflik are generally geometrical: linear, rectangular or square (Milojević, 1921: 77-82).

House Types. The houses immediately below the mountains are built of stone. In villages on the plains unfired brick is used. In the Ostrov Basin, earthen walls predominate, while in Prahnanu buildings are made of wicker plastered with mud. Around Solun and Monopistu the house foundations are of large stones, and the walls of unfired brick. While houses differ with regard to the material used for walls, all have roofs of tiles. Roofs of stone slabs are extremely rare.

Roofs tend to be flat and are generally hipped. The smaller houses erected for the čifči may have gabled roofs. Often a whole row of čifči houses is built under one roof (Milojević, 1921: 84-86). Milojević gives almost no information on chimney structure, but from his illustrations one would conclude that they are rare.

Milojević (1921: 82) states that two types of houses predominate in southern Macedonia; those erected by the beys for their čifči and those built by independent peasants for themselves. The čifči houses may be built three or four in a row, a number of these rows enclosing a large yard. The house of the bey may stand apart or be attached to the čifči house (fig. 44). Sometimes each čifči house may have its own yard (fig. 45). Though not explicitly stated, one may assume that in this case the house stands separate from the others. The houses erected for the čifči are generally one-story structures, small and low. Since they are located in the plains their walls are of earth. The verandas so widespread in the Balkans are missing here.

The floor plan of a čifči house is as follows: on entering the house, one first finds the trem, a long narrow room where one sleeps in summer. Left of the trem is the keral where clothes are stored, and to the right, the odaja, where one sleeps in winter. From the trem one enters into a corridor, on the left side of which are stables for the larger animals (aur). The kitchen (kuća) with its fireplace is separated from the corridor by means of two ambar made of boards in which grain is stored. All partitioning walls are of wattle and daub; the floor is of earth; and the roof of tiles (Milojević, 1921: 83).

Milojević gives an example of the type of house erected by independent peasants (fig. 46a). One may wonder how typical this is and whether the buildings are frequently that large. The house is built on an incline, and only one-third of the ground floor is of masonry or stone. It forms a long narrow windowless chamber (ajer) where work animals and pigs are kept. The second story is reached by a stairway from the outside. One enters through a large door into the pulata, a long narrow anteroom at the far corner of which stands an ambar of boards. On one side of the pulata are two odaja, one of which has a fireplace. At the other side is the čiler, a storage room. The floor of all these rooms is earthen, earth being laid over the wooden boards. The ceiling is of boards. The outside wall of the building is of stone and is 60 centimeters thick. The inside partitions, called bolme, are of an unusual composition; they consist of a double wall of reeds plastered with mud; the space between the walls is filled with stones.

From the pulata on the second floor, stairs lead to the pulata of the top story. This has three holes in the floor above the ambar on the story below, for pouring grain into the ambar. On either side of the pulata are two odaja, usually with fireplaces; they serve as sleeping quarters in winter, while in summer the winter bedding is stored in them. The floor is of boards, and all rooms except the pulata have a ceiling of boards. The rooms on the top floor have more windows than those on the lower.

Houses of the Moslem beys (fig. 44) are two-story structures, the second floor protruding over the first. This is also characteristic of the houses of the beys in Bosnia and Herzegovina.

Settlements of the Vlachs are located in steep hillsides far away from the highways. The houses are large, have a number of rooms, and are two-story structures. They are rectangular and of stone; the higher the altitude the thicker the walls become. Windows are not very large, but all two-story buildings have a balcony on the second floor. When they consist of only one story the veranda is lacking (Capidan, 1941: 29-30). The floor plan of both stories consists of a central hall with side rooms. In winter the ground floor is used for habitation, in summer the upper story, although in large families both floors are occupied in summer and winter. Most daily activities take place in the hall of the ground floor. The side rooms there are generally for storage, and most of the sleeping rooms are on the top floor. One or two guest rooms may be present. (Capidan, 1941: 29-30).

Farm Buildings. In the yard one finds the košara, a long rectangular building made of wicker with a straw roof, used for sheep in winter. The circular chicken coop is likewise of wicker (fig. 38). The most important structure is the plemnja, which is located close to the threshing floor and serves for the storage of straw and fodder. Poorer ones are made of wattle and daub and covered with straw; however, they are generally of the same construction as the house. They are one-story buildings and are found in all villages of southern Macedonia. While they may be located in the yard they usually form a group away from the houses (Milojević, 1921: 87-88).

Buildings Outside the Village. In the mountains one finds groups of up to twenty shepherds' huts that form a hamlet, looking like beehives from afar. They have a diameter of 5-6 meters and are not higher than 3 meters. They are constructed of woven twigs or straw and plastered with mud. The walls are about 10-15 centimeters thick. The upper part of the "bee-hive" has a roof consisting of about 5-7 rows of straw which merge with the walls. In the interior one finds a fireplace with a cauldron hanging over it, and a loom (Capidan, 1941: 31-32).

In addition to these huts the Vlach shepherds have portable tents. The tent is made by spreading a cloth of woven goat hair, 4-5 meters long and 2-3 meters wide, over a wooden frame. One of the triangular entrances remains open while the other is closed by woven cloth (Capidan, 1941: 32-33).

ALBANIA

Albania consists largely of rugged, barren mountains, bordered by a fairly wide coastal plain. Most of the available data deal with the mountain regions of northern Albania. This is an area of intensive feuding, where, as among the Spaçi clan, up to 32% of mortalities are the result of feuds (Nopcsa, 1925: 52). This internecine warfare is clearly reflected in the preference for stone

buildings, fortress-like structure and small windows. House types thus serve as a clear index to the amount of feuding in any particular area. Where veranda houses prevail, conditions are fairly peaceful. This factor explains the almost mutually exclusive distribution of kulas and veranda houses in mountain areas, although how far this is borne out in lowland areas, I am unable to say.

Location and Types of Settlements. In the mountain regions west of Lake Scutari to Lake Ohrid one finds single farmsteads comprising one or two buildings. Only in the plains and at the foot of the mountains does one find Cvijić's Ibar type of settlements (Nopcsa, 1925: 6). This type is characterized by widely spaced, dense hamlets (Cvijić, 1918: 219). In southern Albania the village form is variable but agglomerated villages with crooked roads predominate (Cvijić, 1925: 224, Map IV).

House Types. Buildings of wickerwork and plaster are found only in the coastal plains, and even there they are rare (fig. 47). In the extreme north one finds houses of boards or logs. Most buildings are of stone; one finds some use of dry masonry, but generally mortar is used. Stone is preferred because it gives protection from fire and gunshot. In south and central Albania bond timbers are inserted into the stone walls; this pattern is lacking in northern Albania. The combination of stone foundation and wooden second story, found in Serbia, Bosnia, Rumania and Siebenburgen is missing in Albania (Nopcsa, 1925: 30).

Roofing may be of straw, shingles, slate, stone slabs or tiles. The simplest buildings in the mountains have roofs of corn stalks. Tiles are common both in the coastal and mountain regions. Roofing of stone slabs is widely distributed; most dairy houses in the high mountains are covered in this manner (Nopcsa, 1925: 31-32). High shingled roofs, common in Bosnia and eastern Montenegro, are found only in the extreme north of Albania. Gabled roofs predominate north of the Drin River; south of it one finds hipped roofs. Widely projecting eaves are absent. The kulas may have low pyramidal roofs and occasionally desk roofs. In general, roofs tend to be flat. When the roof is hipped, the chimney tends to be in the center of the short side (Nopcsa, 1925: 31-32). Chimneys are not typical.

The simplest type of house is the one-room log house with a low roof of short thick shingles. Cracks in the wall are stuffed with moss; windows are lacking, and light enters through the open door and openings in the roof. The open fireplace has hung over it a deflector of boards plastered with mud; smoke escapes through the roof (Nopcsa, 1925: 33).

In the coastal regions of northern Albania, reed is abundant and walls are made of woven reeds. The roof is likewise of reeds. These buildings are generally plastered on the outside. Occasionally the roof is of unfired bricks (Nopcsa, 1925: 35).

The simplest stone buildings are made of dry masonry. Windows are lacking. The roof may be made of two rows of boards, 30-40 centimeters wide and rather thick, which are weighted down with stones or with a beam at the eaves. Occasionally they may have a hipped roof covered with stone slabs (Nopcsa, 1925: 35). More common are buildings of mortar and stone. When the interior is partitioned, interior walls are of lighter material, wickerwork or wooden boards. Whereas in Rumania and most of the southern Slav area the entrance leads to the central kitchen, on each side of which are symmetrical rooms, in Albania the hearths are located on either side of the building and there is only a passage between the two side rooms (figs. 50, 51) (Nopcsa, 1925: 39).

More often than one-story houses, one finds two-story ones (only the kulas may have more than two stories). The ground floor has storage rooms and stables, while the second story has two rooms. The stairway to the second story is located on the outside. Often one finds a two-story house that has a veranda along the whole front and a massive masonry stairway leading up to it (fig. 49). When the veranda is encompassed by the side walls of the house it is called a shamashin, when not enclosed, čardak (Nopcsa, 1925: 43). In the veranda house, the basement space under the veranda and the rooms may be partitioned off with dry masonry or wooden boards into small rooms for storage and animals (Nopcsa, 1925: 44).

The stairs leading up to the second story may have wooden banisters. The roof may project over the stairs, or a separate canopy roof may be built over them. Sometimes a small stairway house is built over it (fig. 53) which makes for greater security when stepping out of the house. (The position of the door is always an important factor in Albania). Nopcsa (1925: 53) believes that this staircase is an independent development. One part of the veranda may be walled in to form a small room (fig. 50). The pattern of building separate houses for family members when the family gets too large is not known in Albania. However, in northern Albania this is given consideration when building additions to the house or making changes. If one needs more room, the building is enlarged or a room may be subdivided. Fig. 51 represents modification of a building into two separate units each with its own stairway.

Kulas are high tower-like structures of massive masonry that can be defended by a few men. Instead of windows they have loopholes and sometimes have a bastion-like defense structure on their upper story (fig. 54). Special construction for defense is found even in some of the simple one-room dairy houses. Thus, in one inside corner may be erected a structure, 2.5 meters long and 1.5 meters high, of solid walls covered with a slab roof. It looks very much like an oven, especially as the opening is only 75 centimeters high and 75 centimeters wide (Nopcsa, 1925: 52).

The door of the kula is generally to one side. Stairs to the second story are on the inside and may be merely ladders that lean

on the wall. When the stairway leads to the second floor on the outside, the ground floor is generally used by women and also has the stables (Nopcsa, 1925: 58). Since the space in the kula is limited, women commonly reside in a one-story women's house, which is not necessarily built like the kula. If the kula gets too small for the family a second one may be built; the new entrance facing the old. They try to have the entrance protected by some other building and not directly in view.

Interior partitioning walls are never of stone, as this is too heavy and would have to be continued to the ground floor. Partitions are generally of woven brushwood, boards or sometimes large objects are placed so as to form a division. Windows are missing entirely in simpler houses. In the mountains they are small, narrow, glassless and resemble loopholes. They are just large enough to look through, and at night are shut with heavy boards. The fireplace is always along the short wall of the house. It is square in form and made of stone slabs bordered by wooden beams, or of stones that are half buried in the ground. When the floor is of wood an area 20 centimeters deep is cut out for the fireplace and filled with mud for insulation from the fire. This is necessary in two-story houses. The fireplace generally rises only 10 centimeters above the floor. A horizontal beam may extend from the wall over the fireplace. On it is attached a metal chain on which hangs the cauldron. Sometimes a grating of wood is suspended over it for drying meat and to attach pots. The ceiling usually does not project over the fireplace. Sometimes a baldachine-like structure is placed over it; this is a wooden frame, filled with wickerwork and plastered with mud. Between the wall and the fireplace there is often a built-in stone bench. This is sometimes set into a niche. Occasionally there is a smokehole set over the niche (fig. 55) (Nopcsa, 1925: 81).

Farm Buildings. The yard enclosure is generally a fence of wicker. Occasionally the fields are also enclosed, but less completely. The fence may consist of poles stuck into the ground at regular intervals and bound in two or three places with twine. It may be of wickerwork or poles set close to one another and fastened with a horizontal beam close to the top. Dry masonry is also used (Nopcsa, 1925: 15-16). The yard may be enclosed by stone walls, 7-8 feet high, which are connected with the buildings, together with which they form an enclosure (fig. 43) (Patsch, 1904: 26-27). Nopcsa maintains that the high enclosures and large portals are lacking in Catholic settlements. I was unable to find out just how prevalent high stone walls are in Albania. While one might assume them to be an advantage in defense, one finds that many of the fortress-like buildings are surrounded by extremely weak fences (Nopcsa, 1925: figs. 9, 39, 41).

The kukor is a frame of horizontal boards set on poles 2 meters high. It is not roofed over and is reached by a ladder, generally a notched tree trunk. It is used for the safekeeping of meat, etc. (Houses do not have an attic for storage.) (Nopcsa, 1925: 19-20). The koš for the storage of corn is the same as that used in Serbia, i.e. a circular wickerwork structure.

When stables are not present, man and animals may live together in the same one-room house; occasionally a breast-high fence serves as a separation. Even in a one-room house there is a separate entrance for the animals. Occasionally stables are made of wood. I was unable to find more information on them, but it would appear that horses are more frequently kept in a stable on the ground floor than in a separate building. Sheds for storage are better made than the stables and rest on stone foundations to permit circulation of air (Nopcsa, 1925: 22). In northern Albania there are no separate houses for hay.

Buildings Outside the Village. Cone-like huts (*kačor*) are used as temporary buildings by fishermen in the swampy regions of the coast. They are made of rough branches that interlock at the top. They are 2 meters in diameter and 2.5-3 meters high, covered with reeds which make them waterproof (Nopcsa, 1925: 8).

In the plains near Scutari, one finds semi-subterranean buildings. A deep excavation, 8 by 3 by .30 meters is made; on the long sides a wall 40 centimeters high of dry masonry is built up and on the short sides a wall 2 meters high. The gabled roof is of straw, and earth is built up until it touches the eaves. Grass soon begins to grow over the roof and it is not easily recognizable. The door is on the gabled side, the fireplace opposite it. This structure is used by shepherds and their cattle in winter. Similar buildings are found in Wallachia (fig. 63) (Nopcsa, 1925: 9).

In the barren mountains of northern Albania one finds storage houses built against the slope of a hill. Only a side wall and a front wall are erected. Horizontal beams are laid over this, then wooden boards, and lastly earth. Here one also finds dairy huts made of masonry, rarely of wood, resembling the simple one-unit house. They are meant for summer use and are erected on the sunny slopes. Each one has an enclosure in which the sheep are kept at night. The enclosure is irregular in shape and the fence is of wicker or of stone.

BULGARIA

Data on the Bulgarian farm houses have been derived mainly from the works of J. F. Gellert on Central Bulgaria (1937) and East Bulgaria (1934). Cvijić, in his work La Péninsule Balkanique, deals but briefly with Bulgaria, commenting that his Mixed type predominates and that one finds "une mélange extraordinaire de formes d'ancienne maisons" (Cvijić, 1918: 251).

Central Bulgaria is the region extending from the Ihtimanska Sredna Gora to the Tundža River in the east; the northern boundary includes the southern slopes of the Balkan Mountains, and in the south it terminates at the Rhodopes. It includes mountainous regions in the north and the lowlands of the Marica River. East Bulgaria

extends from the Rumanian border south to the towns of Karnobat and Burgas.

Location and Types of Settlement. The presence of water is an important factor in the location of the settlements. Villages tend to be located along the Marica, Topolnica Strema and Tundža rivers. In the Tundža Mountains settlements are on the slopes of hills. Isolated hills in the Marica valley are preferred spots. Settlements rarely descend into the fertile river plain, most of them being located at its edge (Gellert, 1937: 142-43). In the Sub-Balkan regions, settlements are rarely at the bottom of steep valleys or on steep slopes, a gentler terrain being preferred (Gellert, 1937: 143).

Due to the irregular terrain and deep valleys in the Topolnica and Ihtimanska Sredna Gora regions, the settlements are in the form of hamlets (mahala, kolibi) of 2-10 farmsteads, scattered over the spurs overlooking a valley in which is located the main village (Gellert, 1937: 168). In eastern Bulgaria the villages show no regular plan. In the plains the villages are large and the buildings less crowded, the roads being often exaggeratedly wide. In mountainous terrain the roads are narrow and crooked, often unsuitable for carts (Gellert, 1937: 164).

House Types. In eastern Bulgaria the building materials are boards, wicker, mud and unfired brick. Usually a framework of wood is filled with wicker, which may or may not be plastered. Compact walls are often made of mud, unfired brick or stones, strengthened with horizontal bond timbers. These may form the foundation on which the upper story of timber-framing is built. The hipped roof is of straw, reeds or brushwood. On the longer side of the house the eaves extend over a veranda that is raised about 10 centimeters from the ground. The walls are generally whitewashed, and each room has an exit to the veranda. Chimneys are of woven brushwood or of fieldstones and are plastered with mud. Bulgarians often build one half of the house first and plan to add more rooms later; when one side of the roof is not hipped it means that the house is not finished (Gellert, 1934: 8).

A two to three room house is common. Often the veranda is between the protruding side rooms (fig. 56e). The central room is generally windowless and serves as a winter kitchen. Frequently many farm units are included in the main house. One of the side rooms may be transformed into a stable with a separate entrance from the outside (fig. 56c) (Gellert, 1934: 8-9).

Two-story buildings are in the majority (fig. 56a, 56b). In the ground floor are the stable and cellar. Often annexes are built on the sides (fig. 56e) and the back, and the roof is extended over them. Here, too, the veranda is enclosed by the two side rooms. The stairway leading up to the veranda may be a simple one of wood or a massive one of unfired brick (Gellert, 1934: 10-11). While

the entrance is generally in the center of the long side of the house, there are a number of houses (some of them two-story) where the door is on one of the short sides. In this case, the veranda is also found on the short side (Gellert, 1934: 6-7). Gellert (1934: 14) states that complicated houses such as appear in western Bulgaria and Macedonia are missing in east Bulgaria. The Turkish-Oriental style present in southwestern Bulgaria is likewise missing.

In central Bulgaria the same building materials are used as in eastern Bulgaria. In Ihtimanska Sredna Gora the ground floor may be of stone and bond timbers. The upper story is of brushwood, with or without plaster, or timber-framing filled with mud or unfired bricks. Whitewashing is frequent. Straw is rarely used for roofing and tiles predominate. On the foothills near Cirpan thin chalk slabs are used for roofing. Shingled roofs are absent (Gellert, 1937: 152-3).

One-story houses with a veranda enclosed at the sides are common. The veranda rarely extends along the whole front of the house. In general, these houses are larger in the plains than in Sredna Gora and the Sub-Balkan Basins. In south central Bulgaria (Talešmanli and Monastirski Vrh) the side rooms protrude to such an extent that they are covered with separate hipped roofs the ridge-poles of which are connected with the main roof (Gellert, 1937: 154).

Two-story houses are numerous in the mountain regions. They are usually built on an incline. Very frequently, the veranda is changed into an anteroom and a balcony is added (fig. 56a) (Gellert, 1937: 155). Generally the lower story serves as a shelter for animals, as storage rooms and also as winter living quarters for the family (Ivimy, 1939).

In the mountain regions near Golak and in Mečka on the Topolnica River the houses tend to be squarer and in this case the veranda is bordered only on one side by a room. The roof is in the shape of a flat pyramid, or has only a very short ridgepole (Gellert, 1937: 157). In central Bulgaria one finds the čardak, a balcony on a two-storied house. It differs from the veranda in that it is not as massive and is not built into the building (fig. 56d) (Gellert, 1937: 151).

Farm Buildings. The material used for the enclosure of farm-yards varies from region to region, and there may be a great variety of forms in a single area. In the mountain regions and in the Sub-Balkan basins the enclosure is made of woven brushwood or, less commonly, of dry masonry or mud. The entrance is a door of simple wickerwork or boards. In some villages at the foot of Sredna Gora and in some western villages the yard is enclosed by a stone wall with inserted bond timbers. In some areas, particularly around Mečka on the Topolnica River, a fence may be lacking. In general however, wood and brushwood are preferred in the mountain regions. In the Marica plain, between Ihtimanska Sredna Gora and Cirpan,

almost all farms have high walls of unfired brick which are topped with a small roof of straw. The large gateway is also roofed over and has a small door for people. In the eastern Marica plain the fence is of wickerwork or consists merely of a hedge (Gellert, 1937: 161-62). In eastern Bulgaria the enclosure, if present, is a low one of brushwood (Gellert, 1934: 5).

In the Marica plain there appears to be a difference between the enclosures in the east and west that cannot be attributed to the presence or absence of the necessary raw materials. Gellert believes that the high enclosures in the west are due to a persistence of Turkish traits (Gellert, 1937: 162). Also, in Sredna Gora and the Sub-Balkan basins high walls are limited to the west (Gellert, 1937: 162).

In the mountains and the Sub-Balkan basins the yards are small and crowded together because there is little arable land (Gellert, 1937: 164). When the enclosures are of stone the yards are rectangular; when the fences are of wood or hedges the yards are often rounded and there is often much free land between the separate yards (Gellert, 1937: 165).

Since the houses are generally built to shelter both men and farm animals and have a number of annexes built onto them, one would expect fewer separate farm buildings. Barns are not typical of central Bulgaria. In Ihtiman we find two-roomed barns made of timber-framing and mud. The eaves may be extended and supported by pillars to form a shelter. Only in the extreme east of the Marica plain are barns widespread. Here a small side annex is added to the barn; the entrance is on the short side where the eaves are extended to form a shelter (Gellert, 1937: 158). In Juricite one finds Turkish store houses being used by the Bulgarian population, although in east Bulgaria they are used almost exclusively by the Turks (Gellert, 1937: 160). These are large buildings of woven brushwood with a straw roof that extends far out to the sides. They are generally built on an incline. The entrance is on the short side and the back is rounded (fig. 39) (Gellert, 1934: 3). In Karlovo Basin one finds store houses of wickerwork with straw roofs which have poles attached to the ridge to prevent the straw from being blown away (Gellert, 1937: 159). Stables for sheep in east Bulgaria are long narrow huts of stone covered with straw or reed (Gellert, 1934: 3). In general the various sheds and shelters for animals are of poor construction and have no particular regional characteristics (Gellert, 1937: 159).

Summer kitchens are numerous; they are either built onto the house or are in the open, in which case they are covered by a roof of straw, reed, brushwood or brick that is supported on four poles (Gellert, 1937: 160; 1934: 3).

Buildings Outside the Village. Outside mountain villages one finds shepherds' huts of brushwood, round or rectangular in shape,

with straw roofs. They are rarely plastered with mud. In western Sredna Gora, transportable sheep pens are used (Gellert, 1937: 169).

RUMANIA

In Rumania there exists a marked difference between settlements in the lowlands and those of the Carpathian Mountain region. While topography and the presence or absence of such building materials as stone, wood or clay are important factors, political considerations also played a significant role. With the beginning of the 18th century Greek influence became predominant in Moldavia and Wallachia. The Porte set up Greek rulers in these principalities, thus in reality the Rumanians were as much under Turkish dominion, although indirectly, as were the people of the Balkans. It was only after the rebellion of 1821 that Rumanian rulers were reinstated. During all periods of unrest and foreign invasion the mountains and forests served as areas of refuge; the Serbian hajduk has his counterpart in the Rumanian heydoick (Stratilesco, 1907: 30-34).

Location and Types of Settlements. The older settlements were in the nature of hamlets (catîn). These were generally not built on the top of hills, but rather in depressions, on the edge of forests, and away from the military roads (Grothe, 1907: 54). In the hilly regions of Oltenia and Moldavia the villages were located close to a river or on the slope of a hill. Farmsteads are generally spaced fairly far apart, in no definite order. Villages may extend over two or three hills facing one another (Stratilesco, 1907: 205). Villages in the Wallachian plains are located close to the roads. The prevalent type is the road village; buildings are located on either side of the highway which forms the main road of the village. Larger villages may have additional cross-roads (Jänecke, 1918: 7). While mountain villages average a population of 350, the largest being around 700, villages of the plains average 700 and may reach 2000 (Grothe, 1907: 55).

House Types. Due to the scarcity of wood and stone in the plains, buildings are generally constructed of wicker and daub, in which technique the Rumanians are masters. The roof is made first, the walls afterwards. The principle posts are first set into the ground, then the studs of the outer walls and inner partitions are spaced at 1 to 2 foot intervals. After the roof has been formed walls are built up. Mud is kneaded down with the feet, mixed with straw, and shaped into lumps that take the place of bricks. These lumps are then set between the studs and left to dry (Stratilesco, 1907: 208). More often walls are of wickerwork, plastered inside and out with a mixture of mud, straw and cowdung to a thickness of 15-25 centimeters (Jänecke, 1918: 10). The rough walls are smoothed out by applying thinner and thinner layers of mud and cowdung mixture. They are then whitewashed inside and out. Floors of timber are recent; the floor is commonly of tamped earth.

The hipped roof is rather flat and made of corn straw or reed, about 40 centimeters thick. The frame is often of the collar type, horizontal beams supporting opposing rafters (figs. 60a, 64). Pan tiles appear only in isolated instances. In 1918 sheet iron was becoming popular because it was economical and saved time and effort. It was generally painted red-brown. Chimneys are usually inadequate or lacking (Jänecke, 1918: 11).

Every house has an open veranda (prispa) on at least one side which may or may not have a low banister. It is slightly elevated from the ground and is protected by an extension of the eaves. While many Moldavian houses consist of only one room, even the smallest house in Wallachia has an anteroom (tinda). Here the main room is called odaia and has a special stove that is heated by a flue from the hearth in the anteroom. Often an additional odaia is added on the other side of the anteroom forming a symmetrical three-room house. Sometimes additional units are built onto the house on one or both of the narrow sides (figs. 57c, 58). The roof is extended over them in the form of a catslide (fig. 57a). These units are used for storage of agricultural tools, stables, summer kitchens, etc. If two are not sufficient, three or more units may be added. The prispa may be extended alongside the annex; or, when the annex protrudes in front of the house, the prispa may stop at the annex wall (fig. 57c). Occasionally a large house may have two parallel rows of rooms. However, this arrangement complicates the roof construction, which in this case is generally unsuccessful (Jänecke, 1918: 11-16).

The interior is very simple. The anteroom serves for the storage of house implements; maize is kept in wooden boxes and placed along the wall, and there is also a small handmill for grinding maize. A large oven with a hearth in front of it is located at the wall opposite the door (figs. 57c, 58). The anteroom has no ceiling. When two odaias are present one is used for both living and sleeping quarters, while the other is used for the storage of blankets, carpets etc. It is somewhat of a guest-room.

In the Rumanian house special attention has been given to the hearth and stove, and the whole house can be said to have been built around the hearth. The hearth is the showpiece of the room. Arched over the hearth is a decorated mantel on which cooking utensils are placed. Niches on either side of the hearth are provided for the same purpose. Because of the inflammability of the straw roof, the chimney is of brick (these are the only bricks in the house and are made by the peasants themselves). The stoves in the living room are of unusual construction. The most spectacular of these are the columnar stoves which are not only beautiful but also effective. To the main part of the stove have been added graceful clay pipes which are either arranged symmetrically or placed on one side. The better ones resemble organs. The rest of the stove is also made of clay bricks set in mud mortar and covered with a layer of plaster of a lime and sand mixture. Decoration of clay or plaster may be added. These stoves are generally built by Gypsies.

Windows are generally double even in the simpler houses, one opening to the inside, the other to the outside. They are always barred and set in a wooden frame (Jänecke, 1918: 27-28).

The Rumanian house is noteworthy for its exterior decorations. Special attention and much imagination is given to the woodwork. Much art is evident in the pillars supporting the roof over the veranda (fig. 57d), lintels supporting the eaves, the railings of the veranda and the window and door frames. The corners of houses may have designs in low relief. Painted designs may be placed on the wall in great abundance (figs. 57a, 57b). Because of the lesser opportunity of embellishment through woodwork and because whitewashed walls lend themselves well to painting, painting of the exterior is characteristic of the plains. The Rumanian does not shy away from bright colors. Ultramarine is most popular, for it is said to scare away evil spirits. Combinations of red, blue and yellow are common, and dark green shades are also favored (Jänecke, 1918: 23).

The basic difference between the house of the lowlands and those of the mountain region is that the latter are of two-story construction (fig. 64a). Building materials in the mountains are stone and wood rather than wicker and mud. When houses are built on an incline a high stone foundation forms the ground floor (pivnita). This can be used for stables, storage rooms and also as a wine cellar. This form persists even when the terrain is flat. The higher house is appreciated for its better view, greater security and suitability for defense.

While the floor plan often consists of a row of rooms similar to that of the lowlands, a number of changes have taken place. The anteroom with its large hearth is generally left out (fig. 64b). This is due to the fact that the bricks that line the hearth are not available, and the wooden walls are more inflammable than the predominantly mud ones of the plains. Where the hearth is present it is put into a special annex. Instead of the hearth an oven-stove (a combination stove and oven) is used, which permits the main room to be used as living room and sleeping room as well as a kitchen.

The two-room house predominates; due to the absence of the connecting anteroom, each room has a door to the veranda (čerdak) (fig. 66). Sometimes the veranda at the top of the stairway is expanded into a hall-like structure (foișor) (fig. 64a) covered by a hipped roof at right angles to the main roof. In summer most activities take place there.

The foundation is made of rocks or of large pebbles from the river. Walls are made of horizontal logs or boards which cross at the corners, each fitting into a notch in the other. A mud or lime plaster is never omitted, and to facilitate this plastering thin laths are nailed diagonally across the beams.

The roof is steeper than in the plains and protrudes further over the house. The support is in the form of a collar. The rafters tend to be too widely spaced, which results in slight bending of the battens; but, while it makes for a weaker roof, this results in softer and more pleasing lines. The four corners are not sharp but tend to be rounded (fig. 62). Wooden shingles are almost exclusively used for roof covering. They are about 15 centimeters wide and may be as long as 3 meters. They overlap two to four times. Shorter shingles form 6-10 rows. The smaller shingles may have their ends in the form of swallow tails or other decorative shapes. The ridge shows a special development. On the windward side the first layer of shingles is made to protrude over the ridgepole (fig. 62). These shingles also have excised patterns and are very ornamental. The ridgepoles may extend slightly over the hip and have a small gabled roof, one shingle in height (fig. 62). This provides an opening for the smoke to escape through. Ornamental poles rise at either end of the ridgepole (fig. 61).

Chimneys are lacking and the smoke may escape through openings at the ridge or otherwise through the roof, which then shows all shades of gray to black. In some areas of Oltenia in southwestern Rumania one finds wooden chimneys (fig. 65). These are made of wicker and daub and are covered with shingles.

A special development in the foothills of the Southern Carpathian Mountains is the privy, which is in the form of an annex located at the end of the veranda (fig. 64b).

In general the buildings in the mountain districts show a greater variation than those of the plains. The woodwork is superior, and shows a great deal of inventiveness. The construction, however, is irregular, sloppy and often not functional. Pillars that carry no weight may be very thick, while those that must support much weight may be much too slender (Jänecke, 1918: 35-43).

Kulas (fig. 67) are found only in the mountainous regions of Oltenia in the district of Mehedinti, Gorj and Râmnicu-Vâlcea. They were built by the boyars, the wealthy landowners. The oldest ones come from the period when the Rumanian rulers were paying tribute to the sultan. The ground plan is a square 7 by 12 meters in length. The width of the walls is 30-70 centimeters. The kula (fig. 67) may have three or four stories, each about 2.5 meters in height. Each story has one room. The ground floor is used for storage; sometimes a well is built into it, and occasionally there is a subterranean escape passage. The upper floors may also be used for storage, but are mainly living quarters. Windows are generally found only on one side; the other walls are provided with loopholes. On the top floor there is generally an open veranda (čerdak) about 3 meters wide, the roof over which is supported by pillars (fig. 67). The exposure is toward the valley and the south. On the side opposite the čerdak there is a simple wooden balcony under the eaves (fig. 67). Many kulas have a privy tower attached to them.

The stairway, about 1.25 meters wide made of massive logs, is generally on the inside of the buildings; when it is located on the outside it leads onto the wooden balcony. The exterior is white-washed. In addition, the surface is decorated with molded bands around each story division. There may also be a vertical division, thus creating a number of large panels. While these areas are symmetrical, neither they nor the molded bands that enclose them have any relation to the placing of windows or pillars (Jänecke, 1918: 62-63).

In 1895 there still existed about 55,000 earth huts (bordei) which were inhabited by the poorest population, generally Gypsies (fig. 63). They are common in the Danubian plain. Over an excavation 1-3 meters deep is placed a gabled roof. The roof is made of boards over which earth is laid. Sometimes reeds are placed over the boards before the earthen cover is added. The entrance is on one of the gabled sides, generally with a southerly exposure, and a window is placed on each gable side (Jänecke, 1918: 4).

Farm Buildings. In the lowlands the buildings are arranged in no definite order; though generally the house is closest to the road. The corn-house (coşar) is either opposite to or at right angles to the house so that it can be watched. The yard and orchard are surrounded by a fence. The simplest fence is made of wickerwork between wooden poles. More often, however, it is made of boards that have intricate excised designs (fig. 60). The wealthy people may add an imposing gateway with a small door. Flower or vegetable gardens are rare, and the latter are called bulgări, since they are generally kept by immigrant Bulgarians who grow all the vegetables for town consumption (Stratilesco, 1907: 233). The farmstead is surrounded by shady trees, and there is generally a plum orchard at the back of the farm buildings (Jänecke, 1918: 8-9).

In the mountain regions the arrangement of the buildings in the yard differs from that of the lowlands. The stables and other buildings are arranged on the border of the yard in a horseshoe form to serve as protection for the house. The yard is usually very small, and has a strong high palisade with a massive gateway, the whole giving the farm a fortress-like appearance (the author points to the presence of bears in summer and wolves in winter) (Jänecke, 1918: 32-35).

In the lowlands there are generally not many additional farm buildings in the yard, and this fact is correlated with the pattern of building additional annexes to the house, a more economical and practical procedure. Stables are of the simplest lathwork or wickerwork, covered with a straw roof. Sheds for the storage of straw, hay and cornstalks are absent, for the latter are stacked into tall round piles in the open. The baking oven for summer use, made of mud and bricks, has a hipped roof supported by four pillars.

The only noteworthy building is the corn-house (pātule de porumb) (figs. 59a, 59b), which is found, however, only among the well-to-do. Unlike the house, it is a two-story structure. The lower floor has plastered walls, and serves as stable and cart-shed. The upper story is made of wickerwork, often arranged in interesting patterns, permitting the air to circulate. The attic is used for the storage of food and is reached by a ladder from the outside. The hipped roof is of straw (Jänecke, 1918: 25-27).

In the mountain regions stables have only three walls, and animals stay in these half-open shelters even in winter. The imposing corn-house of the plains is rarely found in the mountains. In its place is erected a long narrow building of wickerwork. This rests on short stone pillars about 50 centimeters above the ground and is covered by a shingled roof. Since the ground floor of the house is used for storage there is no need for many additional farm buildings (Jänecke, 1918: 43-45).

CONCLUSION

Having presented an area by area discussion of the village forms and farmsteads, it is desirable to trace the distribution of certain major elements. Roughly, four types of settlement pattern can be distinguished. They are the village consisting of widely scattered hamlets (Cvijić's Stari Vlah type); the agglomerated village (Cvijić's Timok type); the road village (Cvijić's Mačva type); and the čiflik type, the settlement created by Turkish landowners. The first of these is composed of widely scattered houses in no regular order, grouped into hamlets a number of which constitute a village. It predominates in Slovenia, Western Croatia, Bosnia and Herzegovina, western Serbia, and in the mountain areas of central Bulgaria and Rumania. A variant of this form, characterized by more closely spaced houses within the separate hamlets (Cvijić's Ibar type), exists in the Karst regions behind the Adriatic coast, in Albania and southwestern and western Serbia. Hilly terrain and forested regions are conducive to this scatter, but are not the sole determinants. The Ibar type is associated with greater barrenness of soil and the necessity of conserving arable land.

Agglomerated villages are characterized by crowded houses set in an irregular order along crooked streets. They prevail in eastern and southern Serbia and in southern Macedonia. While they are associated with the necessity of conserving arable land in some of the more barren regions of eastern Serbia, this explanation will not hold for the fertile basins of Kosovo, Kumanovo and Skoplje. Here they are no doubt the result of diffusion from the Aegean coast, as these areas are on communication lines which run up the Vardar and Morava River valleys from the coast toward Beograd.

The third or Mačva type is that of the more or less planned village lying on both sides of the highway. These villages tend to

be larger than those of the widely scattered type and consist of farmsteads arranged in a regular fashion along an often exaggeratedly wide road. They are restricted to fertile lowlands and are found in Slavonia, the Sava Plain, the lower Morava valley, the plains of eastern Bulgaria, and the Wallachian lowlands of Rumania. In Slavonia they were the design of the Austrian military border authorities; those in the area of Beograd appear to have been an imitation by the Serbian government of the Austrian-imposed forms of Bačka and Banat. Their occurrence in the plains of eastern Bulgaria and Rumania must also be attributed to planning by the respective governments, perhaps connected in east Bulgaria with the population resettlement that occurred there in the 19th century. It is not known whether this form is indigenous in any of these areas, nor from what area the Austrians derived it. It may very well be an artificial creation designed for colonization and control.

The čiflik type of settlement was created by Turkish landowners, and consisted solely of the dwellings of the bey and his peasants. This feudal village plan is commonly geometrical, and comprises the well-constructed landowner's house and the standardized, shabby buildings of his tenants (čifci). Ciflik settlements are most densely distributed in southern Macedonia and south Serbia, especially in Skoplje and Kosovo regions. They are also found in Bosnia but here they do not follow the geometrical pattern; the reason for this lies in the better relationship of the Slavs and Turks in this area. Many of the Bosnians accepted Islam; consequently some of the landowners were Slavs themselves. What has happened to the čifliks since liberation from the Turks is not reported, nor is it known how many have persisted.

As far as geographical location of settlements is concerned, a preference for settlement on slopes, possibly in a zone between the valley and the mountains, is evident. With a mixed economy, the desirability of having fields, pasture and forests near at hand is clear. On the Adriatic coast and in the mountainous hinterland consideration must be given to the strong winds from the sea, hence the leeward side is sought. Similarly, the sunny slopes have more settlements than those with northwestern and southwestern exposures. Running water is also a factor in choice of location, but there the shape of the valley is important; villages of northern Albania and the Sub-Balkan regions of Bulgaria are not found in steep valleys even if water is available there. The zone of springs on the Dalmatian coast is a zone of habitation, and in the hilly regions of Oltenia and Moldavia, as in Bosnia and Herzegovina, settlements are located close to a river. In fairly level terrain slopes are preferred, and isolated hills in a valley are popular; whereas at high altitudes the villages descend into depressions. In the Karst regions, where arable land is only found in depressions and basins, settlements occur at their edges.

The distribution of building materials is closely related to natural resources. In forested mountain regions wood and stone are

predominant, stone being used mainly for the foundations of the house and the basement, rarely for the superstructure. Most houses built on an incline have basements of stone. Wooden houses with stone understructures are found in northwestern Slovenia, Bosnia and Herzegovina, western Serbia, and the mountain regions of Rumania. Houses of boards, without stone foundations, are found in the flatter terrain of eastern Slovenia and in western Croatia, where stone is naturally scarcer. In this region straw roofs are more common than in mountainous areas, where shingled roofs predominate. This may be correlated with the more developed agriculture and the greater abundance of straw in the more level terrain.

The buildings of the barren Karst region, extending from northwestern Slovenia to Albania in the south, and eastward into Metohija and the mountain areas of southern Macedonia, are made almost exclusively of stone, due to the scarcity of other material. Roofing is of stone, as are frequently enclosures of the yards. Wood is scarce in these areas, and greater use has to be made of brushwood and wicker as a result.

In the lowlands where both stone and wood are less common, greater dependence is placed on wattle and daub and unfired brick, these methods being frequently found in association with one another.

Wicker and daub is the chief material used in the lowlands of Rumania and in the coastal regions of Albania. In all the rest of the Balkans its distribution follows that of unfired bricks. Its usage extends as far west as Bijelovar in northwestern Croatia, and is found in Slavonia (wherever it has not been replaced by bricks) in the lower regions of Bosnia and Herzegovina, in eastern and southern Serbia, southern Macedonia, and eastern and central Bulgaria. In barren regions, wattle and daub may be supplementary to stone (Metohija); its combination with wood appears to be less frequent, and the half-wood, half-timber framing and daub houses of western Serbia would appear as a rather specialized form.

Roofing material in the areas under consideration is limited to straw, shingles and boards, stone and tiles. Wooden shingles are associated with wooden buildings; however, they occasionally are found on a stone kula or a wicker and daub construction (as in Slavonia). Straw has the widest distribution in relatively flat terrain. It is found in eastern Slovenia, Croatia, Slavonia, eastern Bulgaria, and the lowlands of Rumania. Stone slabs are limited to the Karst region of Yugoslavia and Albania. A number of different forms of tile occur, their shape and distribution indicating origins. Thus, the cylindrical tile is found in the Vardar and Morava valleys and predominates in southern Macedonia, southern and eastern Serbia, central and western Bulgaria, and is also found in Albania. Tiles are also used in the Adriatic coastal region, in northwest Slovenia, and in the Sava valley. Those of the Adriatic coast do not appear to be curved, but are rather flat and circular; in northwest Slovenia they are unusually large, curved, and deep in

cross-section. These may have been introduced from Italy. Those of the rest of Slovenia and Slavonia are different again, and point to central European origin.

Two basic forms of floor plan seem to stand out; that of the two-unit house which either consists of kitchen and living room or kitchen and stable, and the three-unit house, consisting of a central kitchen with anteroom and two side rooms. In the latter the kitchen has a more specialized function and is of smaller dimensions, most of the daily activities taking place in the side rooms. In the two-unit house the kitchen has a greater function in that it is the center of all activity, the other unit being used mainly for sleeping. The tripartite form is characteristic of Slovenia and extends into Croatia; it is typical of the less mountainous regions of Bulgaria and Rumania. It has been suggested that this is a modification of the so-called Frank style of house, a Western introduction. The two-unit type is more frequently found in areas of less contact with the West. In the northern parts of the area the second room is more usually used as a living room, while in the Karst regions and in southern Serbia, it tends to be transformed into a stable. This regional variant may be due to increased poverty; at least no other explanation can be offered. On the other hand, in southern Serbia there seems to be an inclination to use as few rooms as possible even when others are available. Hence there is no necessary correlation between crowded quarters and poverty. Albania forms an interesting contrast to other regions in the lack of a central kitchen and the presence of identical fireplaces in each of the two rooms. The better houses of the Dalmatian coast also show a basic tripartite division, but here the central room is either an anteroom or expanded into a large hall. The two-story Moslem houses with a squarish foundation in Bosnia and Herzegovina and Metohija show much uniformity in their interior division, and point to their common origin in the house of the bey.

The veranda or balcony under the extended eaves is a characteristic feature of Balkan architecture. It is rare only in the Karst regions and the Dalmatian coast (perhaps related to the use of heavy roofing slabs which might militate against great extension of the eaves). In the alpine regions of Slovenia and the mountains of Rumania it is located on the second story and runs along two sides of the house; in less mountainous terrain and lowlands it is generally only along the front, and frequently a railing may be absent. A common variant is the veranda enclosed by the protrusion of the two side rooms, identical forms being found in Slavonia and Bulgaria. In the lowlands of Rumania and also in Albania, on the other hand, the veranda always extends the full length of the house. The location and form of the veranda is also influenced by the ground plan of the building. In long rectangular buildings the veranda is generally found in the front of the house. When the building tends to be of square plan the location may be more variable, for example in the houses of eastern Serbia.

Taking this area as a whole, the hipped roof appears to be dominant. It prevails in Bosnia and Herzegovina, in Serbia, Albania, Bulgaria and Rumania. Gabled roofs have a more westerly distribution, being found in Slovenia, Croatia, Slavonia, and also in the Adriatic coastal and Karst regions. In the latter case the stone slab roofing may be more conducive to the simpler form. The jerkin-head roof appears to be limited to Slovenia and western Croatia. While roofs are naturally higher in the mountainous regions, they tend to be lower as one proceeds eastward, probably as a result of increasing eastern Mediterranean influence. Their association with curved tiles would support this thesis. The reason for the low roof of the Adriatic coast and Karst regions, however, is the danger from heavy winds in these areas.

Chimneys are not the general rule. The smoke is left to escape through lidded openings in the roof or through chance cracks. A number of different forms of openings occur. Only one chimney form stands out, namely, the large squarish stack topped with a special roof; it is found in eastern Slavonia, northeastern and western Serbia, and, interestingly enough, in southwestern Rumania, which borders on Serbia. This distribution would suggest a Serbian origin.

Two heating devices can be distinguished, the hearth and the stove. The latter is always located at the partition to the kitchen, from where it is fired. The combination of hearth and stove is predominant in Slovenia, Slavonia, Bosnia and Herzegovina and Rumania. Greatest specialization in stoves occurs in Rumania, with Bosnia and Herzegovina forming a close second. In more southerly, warmer regions, the stove is lacking, and the hearth is used for both cooking and heating. While hearths vary in form, they tend to be higher in Slovenia and Croatia, but are raised only a few inches from the ground in Dalmatia, Albania and Rumania. It probably makes a significant difference whether the hearth approaches the height of a table, or is so low that one must stoop to work at it.

Finally, consideration must be given to the exterior decoration of houses, which is limited to the northern portion of the area studied. Intricate woodwork is found only in the Alpine regions of Slovenia, Croatia, Slavonia and Rumania. Painting of the exterior shows the same distribution. Northern areas outside of the Balkans would have to be investigated to throw light on this distribution.

A number of alternative methods exist for the placement of farm units. A continuum exists--ranging from numerous separate, scattered units to the compact organization which strives to encompass all units under one roof. A central point in this continuum is the placement of a number of units under a separate roof. Greatest consolidation is achieved in the alpine regions of Slovenia; in eastern Slavonia and Croatia there is a tendency to house the farm units in rows under a single roof. East Bulgaria and Rumania share the same pattern of adding annexes to the short sides of the main

house. In two-story buildings the basement is generally used for storage and stabling. The greatest number of small farm units is found in western Serbia. It would almost appear that the more compact arrangement is associated with the more fertile regions.

High yard enclosures are characteristic of only a small number of areas; in northwest Slovenia and south central Albania are found high masonry walls which are built onto the houses, together with which they enclose the yard. In the mountainous regions of Rumania high palisades form the enclosure. The only other type of settlement with high walls is found among the Moslem population of Bosnia and Herzegovina and southern Serbia and Macedonia. While it has been argued that high walls are a means of defense, it is important to note that the defensive kulas of Albania and Metohija have but the flimsiest of yard enclosures.

An extensive analysis of the house form cannot be made without consideration of the whole of the culture and its history. Nevertheless, in this limited paper, a few factors can be indicated which are important. Certain political factors have influenced the type of settlements. Mountain regions have tended to maintain their independence from foreign domination by withdrawal, their rugged terrain being an asset in this reaction. There they were joined by refugees from the lower regions. Consequently one finds in Bosnia, Serbia and the Carpathians of Rumania settlements that are highly inaccessible. In the lowlands, however, no doubt due to their greater value for the dominating power, one finds the introduction of planned villages either of the Mačva or the čiflik variety. They are generally associated with greater uniformity of house type as well. Associated to some extent with conflict with the Turks is the presence of fortress-like kulas in the Kossovo region and also in Bosnia and Herzegovina, many kulas being centers of famous battles in Serbia.

While kulas are regularly associated with the need for defense, their origin has not as yet been satisfactorily traced. On the one hand they are related to Turkish rule, and in Bosnia and southern Serbia they were almost exclusively owned by Turks. On the other hand they are characteristic of the feuding areas of Albania and Metohija, and were also erected by the boyars (landlords) in southwest Rumania. In this last region they were copied after those of Serbia. While some authors would point to a Near Eastern origin for the kula, Nopcsa (1925: 55) would derive them from the Longobards of northern Italy. Haberlandt, in his "Kulturwissenschaftliche Beiträge" (1917), claims that kulas were common in Albania between 890 and 1274 A.D., and believes them to be of Swiss and south German origin (cited in Nopcsa, 1925: 54). However, the Arabic term kula is found among Byzantine writers of the 11th century and among Serbs by 1350 (Nopcsa, 1925: 52). A Turkish origin is therefore unlikely.

Comparatively few Turkish traits have been adopted by the Slavic population, there being a sharp segregation of the two ethnic

groups in all regions except Bosnia. One of these traits is apparently the two-story house with a square foundation with the upper story protruding over the lower. Another is the long barn with one rounded end. Whether the upper story balcony, frequently called by the Turkish term čardak, is a diffused item, is debatable. It is interesting to note that this term is applied to the balconies of mountain houses of Rumania. In what manner the "čardak" balcony differs from any other is unclear. The question may also be raised whether balconies on the upper story were not known prior to Turkish influence. Matters are complicated by the extremely varied usage of this term čardak, which may refer to a Moslem house (in Bosnia and Herzegovina), a special house built for sons (in Croatia), a barn (in west Serbia), or the pavillion of the čiflik bey (in southern Macedonia). The most common usage is that referring to a balcony of a two-story house. One gets the impression that the term čardak is associated with any improved construction that was introduced into the area. Whether the derivation of the form was always Turkish or not is uncertain.

Social organization is reflected in the dwelling patterns. All over Bosnia and Herzegovina, Slavonia and Serbia one finds the one-unit, heatless houses of the zadruga members, which are often built one next to the other, sharing a common roof. A different pattern, also associated with the zadruga, is the splitting up of the house to form two complete dwelling units. This pattern appears to be followed in regions where arable land is scarce. In Albania houses are also modified in this manner. There separate dwellings are deemed undesirable, and one prefers to build an annex onto the house and keep the family members under a single roof. In Albania, however, the social form is that of a lineage rather than the zadruga. In the zadruga regions the prestige of the patriarch is indicated by his residing in the guest-house, whereas the younger married and unmarried members must occupy the less favorable separate units.

Even value systems find their expression in architecture. In Bosnia and Serbia one frequently finds a separate guest-house or a special room reserved for that purpose. When the kula consists of three stories the entire uppermost story is reserved for this purpose. Hospitality is one of the major values, and reflects the honor of the family in these areas. There also appears to be preferential treatment of certain livestock. Horses and cattle are generally kept in the lower story of the house, whereas smaller livestock are quartered elsewhere.

A final interesting example is that of the contrasting prestige values of grain and maize. This finds expression in the separate storage of these two commodities and in the more careful construction of the granary than of the corn shelter, for example in Slavonia and Serbia. It is significant that in Rumania, the most outstanding farm unit is the corn-house.

This study of Balkan house and farmstead types can only be regarded as a preliminary survey. I have indicated some of the more obvious distributions and determinative factors. A more thorough analysis will have to wait until intensive mapping of material traits, and extensive cultural comparisons, have been done in this area.

SLOVENIA

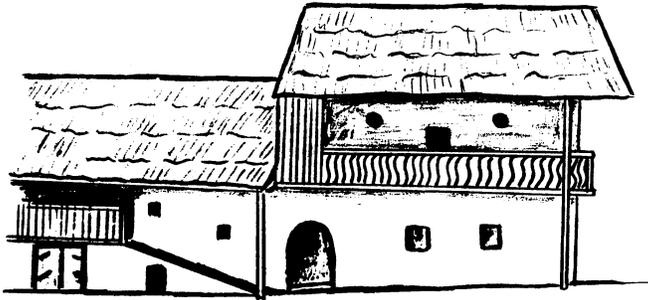


Fig. 1 Alpine House

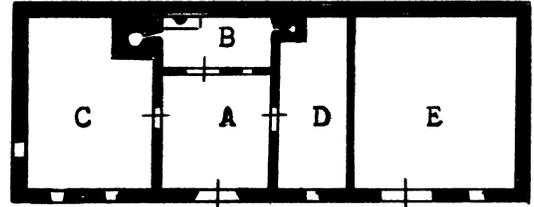


Fig. 2 Floor Plan of Alpine House

- A) Anteroom, B) Kitchen with Fireplace,
C) Living Room with Stove,
D) Bedroom, E) Stable

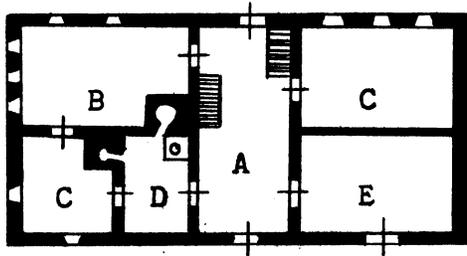


Fig. 3 Floor Plan of House from Skofja Loka

- A) Anteroom
B) Living Room
C) Bedroom
D) Kitchen
E) Stable

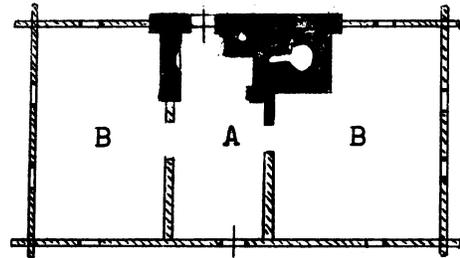


Fig. 4 Floor Plan of House from Bela Krajina

- A) Anteroom
B) Living Room

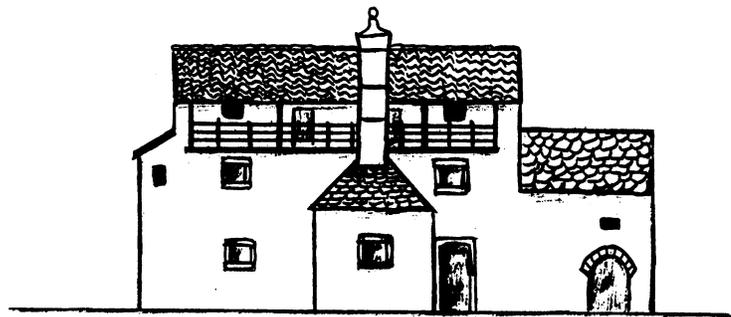


Fig. 5 House from the Slovenian Karst

SLOVENIA

Arrangement of Farm Buildings in
Prekmurje

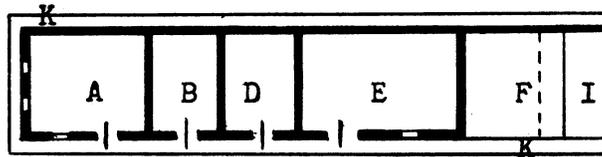


Fig. 6

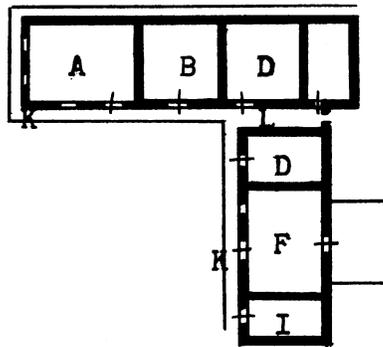


Fig. 7

Key

- A) Living Room
- B) Kitchen
- C) Anteroom
- D) Bedroom
- E) Stable
- F) Threshing Floor
- G) Storeroom
- H) Hay Barn
- I) Straw Storage
- J) Wood Shed
- K) Podstenj
- L) Pojata

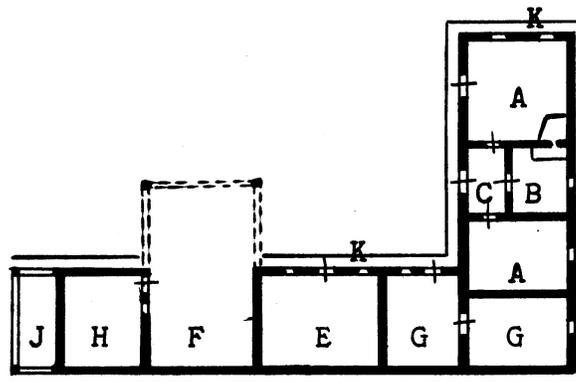


Fig. 8

SLOVENIA

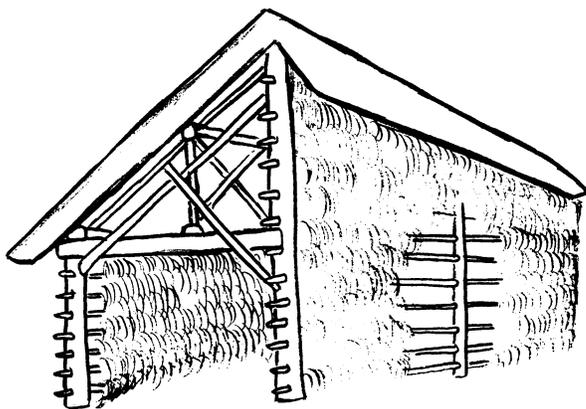


Fig. 9 Kozolec

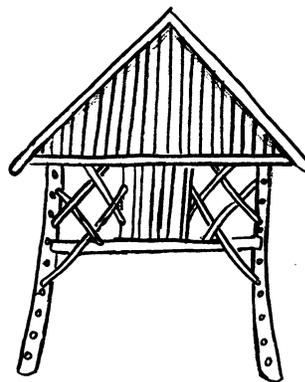


Fig. 10 Kozolec



Fig. 11 Structure for the Storage of Corn



Fig. 12 Pigsty

CROATIA and SLAVONIA

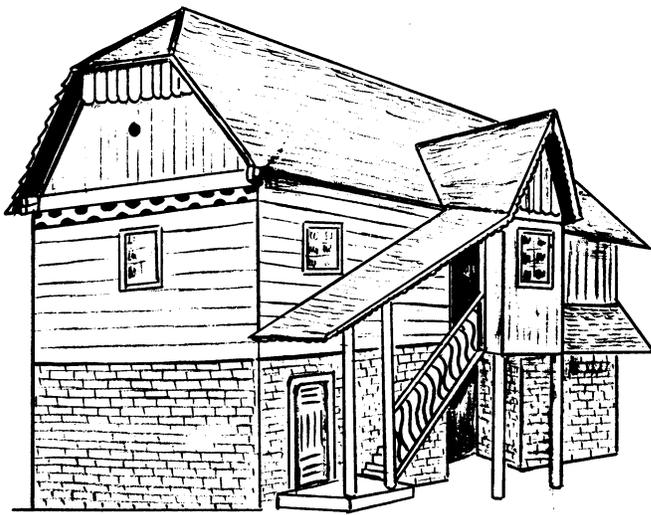


Fig. 13 Croatian House from the Vicinity of Sisak

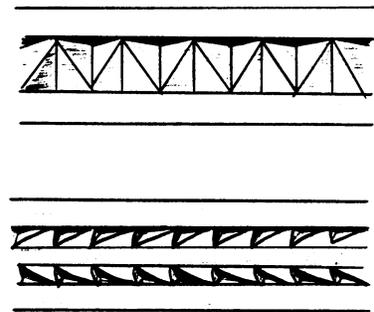


Fig. 14 Kerbschnitt Designs

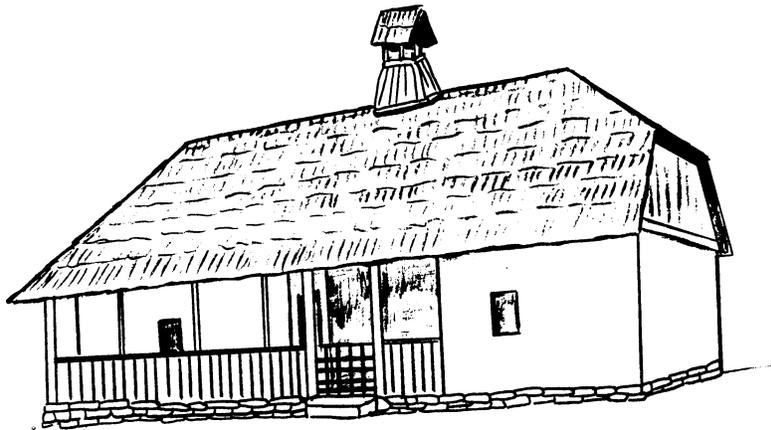


Fig. 15 House from Slavonska Požega

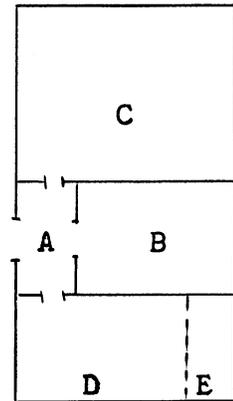


Fig. 16 Floor Plan of Farmhouse near Bjelovar, Croatia

- A) Anteroom
- B) Kitchen
- C) Living Room
- D) Sleeping Room
- E) Location of Further Partitions

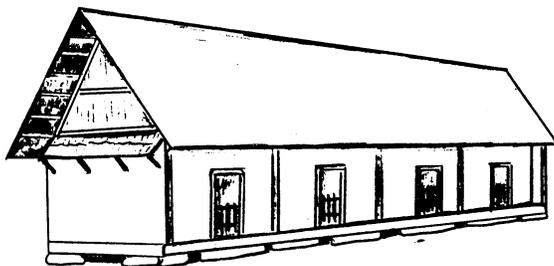


Fig. 17 Building Containing Rooms of the Zadruga Members (East Slavonia)

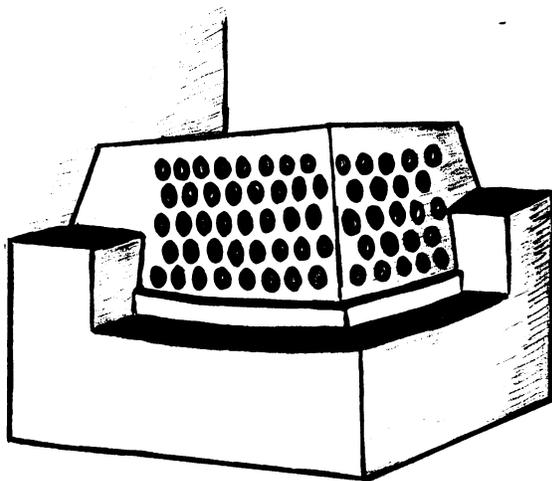


Fig. 18 Stove with Concave Tiles,
Bench, and Side Seats
(Kupa R., Croatia)

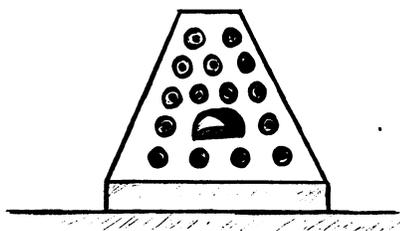


Fig. 19 Stove from Lika, Showing Earthen-
ware Bowls and Niche

YUGOSLAV LITTORAL and the KARST

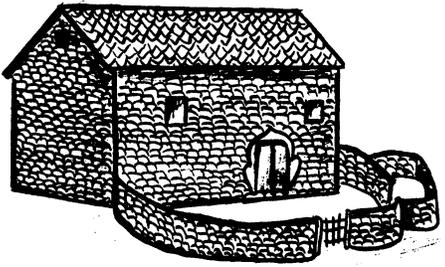


Fig. 20a One-story House from the Vicinity of Boka Kotorska

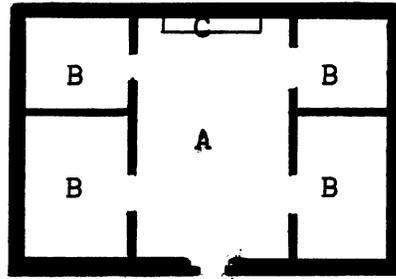


Fig. 21a Ground Floor of Two-story House. A) Main Room, B) Room, C) Staircase

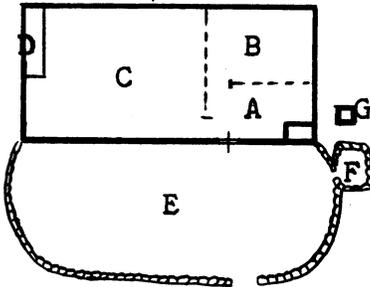


Fig. 20b Floor Plan of Fig. 20a
 A) Kitchen with Fireplace,
 B) Sleeping Room, C) Stable,
 D) Crib, E) Yard, F) Sheep Pen, G) Dog House

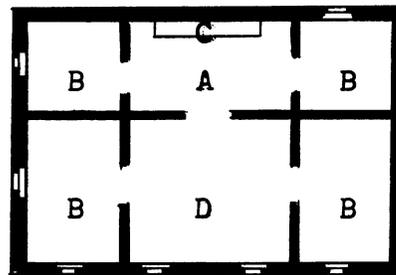


Fig. 21b Upper Story of Fig. 21a
 A) Anteroom
 B) Room
 C) Staircase
 D) Saloša

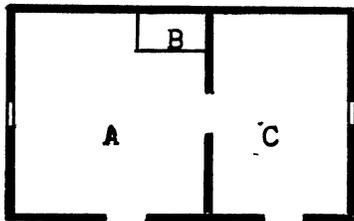


Fig. 22 Floor Plan of Kitchen
 A) Kitchen, B) Fireplace,
 C) Storeroom

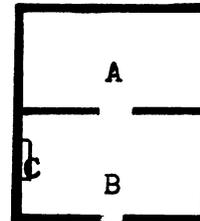


Fig. 23 Cross-section of Pigsty
 A) Pigsty, B) Enclosure,
 C) Trough

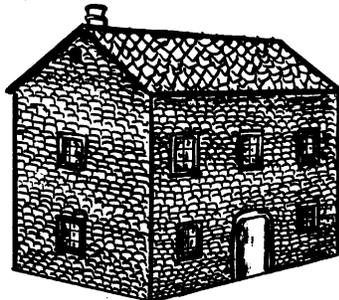


Fig. 24 House in the Vicinity of Boka Kotorska

BOSNIA and HERZEGOVINA

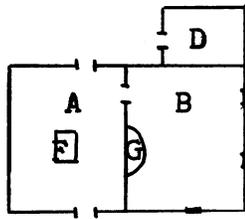


Fig. 25

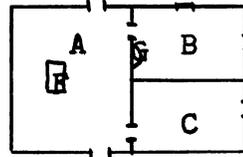


Fig. 26

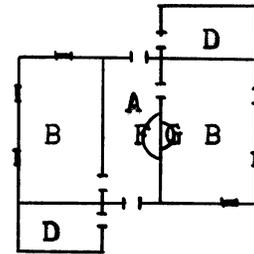


Fig. 27

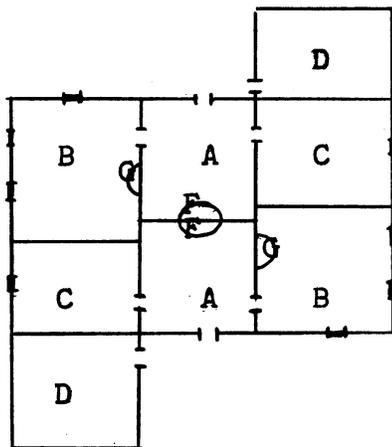


Fig. 28

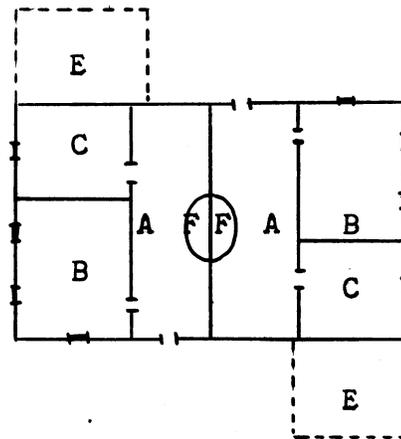


Fig. 29

Key

- A) Kitchen
- B) Living Room
- C) Second Room or Storeroom
- D) Annex
- E) Place where Annex Would be Added
- F) Fireplace
- G) Stove

S E R B I A

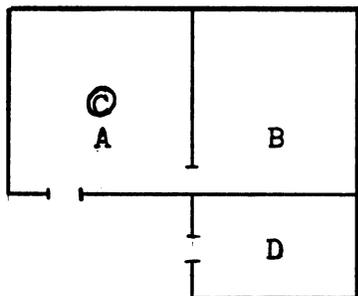


Fig. 30 Floor Plan of House in Eastern Serbia. A) Kitchen, B) Soba, C) Fireplace, D) Storeroom

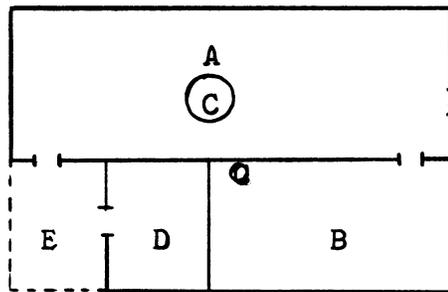


Fig. 31 House in Eastern Serbia A) Kitchen, B) Soba, C) Fireplace, D) Store-room, E) Odvod

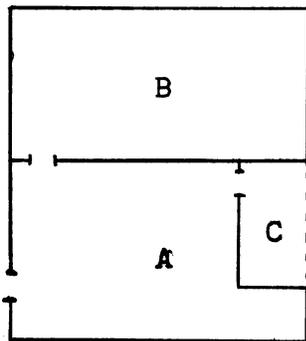


Fig. 32 House with Porch in Rear A) Kitchen, B) Soba, C) Krevet

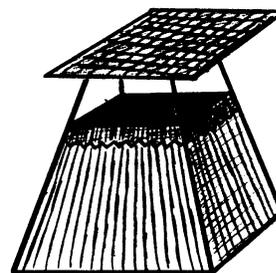


Fig. 34 Chimney Stack of Morava House

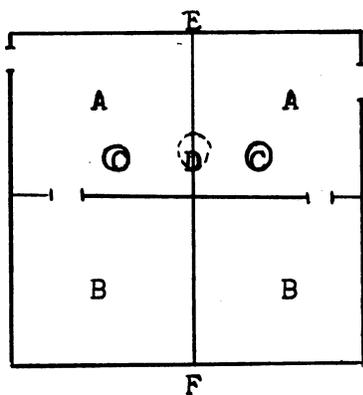


Fig. 33 Interior Division of House with Two Chimneys. A) Kitchen, B) Soba, C) Fireplace, D) Old Fireplace, E-F) Partition

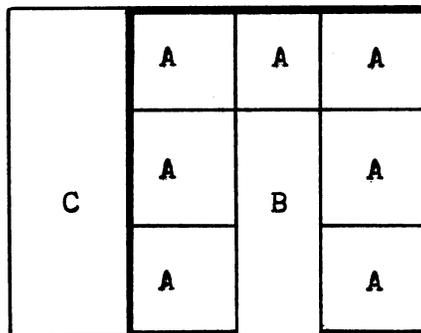


Fig. 35 Ambar with Koš A) Compartment for grain, B) Open Passage, C) Koš

S E R B I A

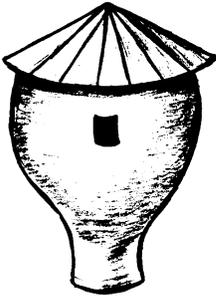


Fig. 36 Koš of Woven Twigs

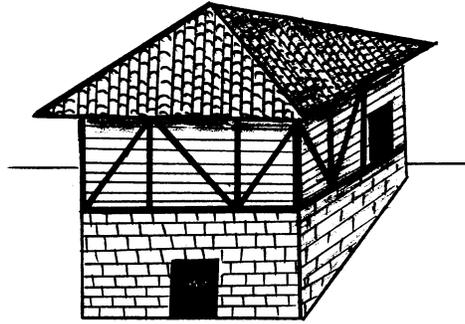


Fig. 37 Barn with Stable



Fig. 38 Chicken Coop

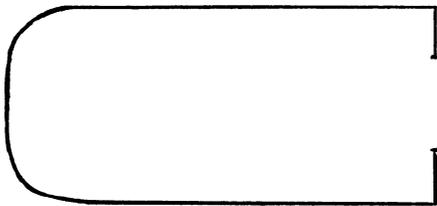


Fig. 39 Floor Plan of Barn in Northwestern Serbia

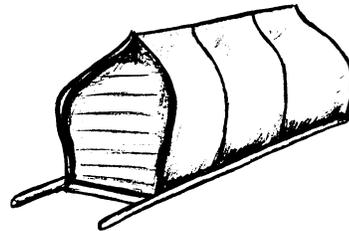


Fig. 40 Portable Sheperd's Hut of Western Serbia

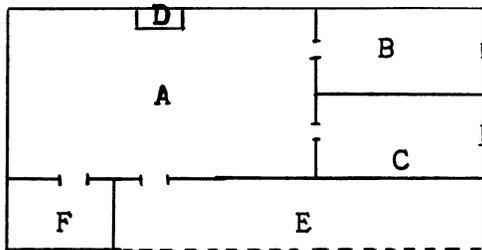


Fig. 41 Floor Plan of House in Kumanovo Region

A) Kitchin, B) Sleeping Room, C) Guest Room, D) Fireplace, E) Veranda, F) Room for Clothes Storage

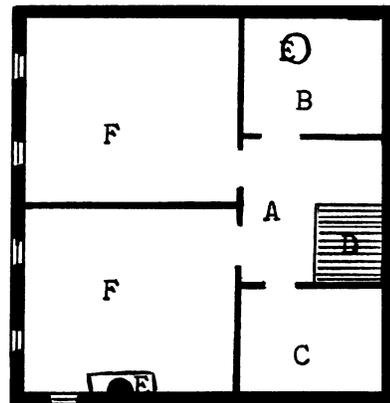


Fig. 42 Upper Story of Kula
A) Anteroom, B) Kitchen, C) Storeroom, D) Staircase, E) Fireplace, F) Soba



Fig. 43 Farmstead in Southeastern Albania

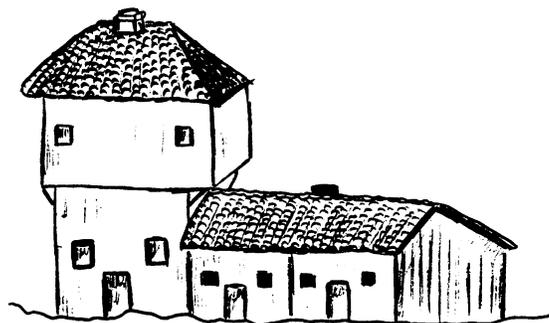
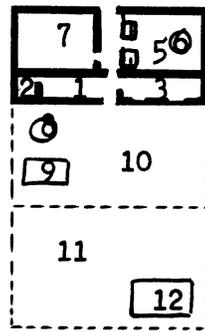


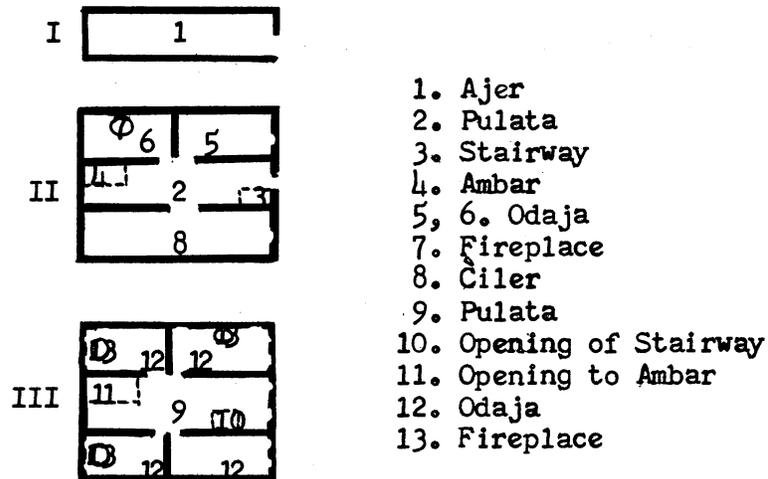
Fig. 44 Houses of Bey and Čifči
(Southern Macedonia)

SOUTHERN MACEDONIA



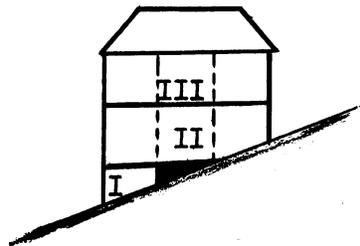
1. Trem
2. Keral
3. Odaja
4. Ambar
5. Kuća
6. Fireplace
7. Aur (stable)
8. Chicken Coop
9. Košara
10. Yard
11. Threshing Floor
12. Plemnja

Fig. 45 Čifči House



1. Ajer
2. Pulata
3. Stairway
4. Ambar
- 5, 6. Odaja
7. Fireplace
8. Ciler
9. Pulata
10. Opening of Stairway
11. Opening to Ambar
12. Odaja
13. Fireplace

Fig. 46a House of Independent Peasant



- I. Ajer
- II. Second Story
- III. Third Story

Fig. 46b Vertical Cross-section of Fig. 46a

ALBANIA

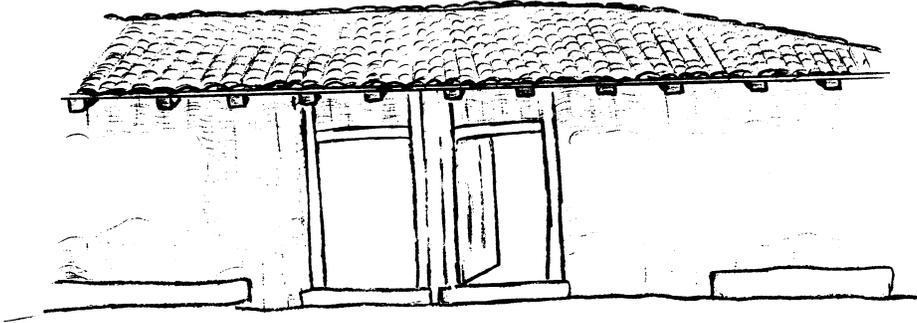


Fig. 47 House of Wattle and Daub

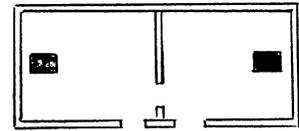


Fig. 48 Floor Plan of Fig. 47

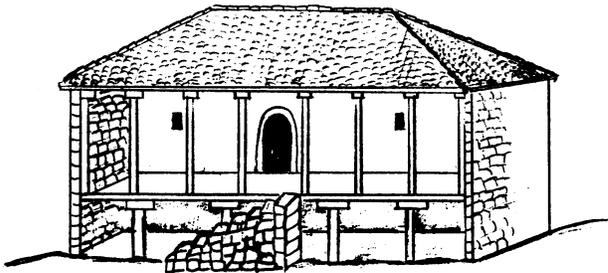


Fig. 49 Veranda House

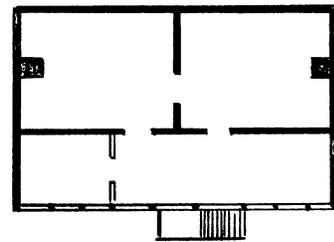


Fig. 50 House with a Room on the Veranda

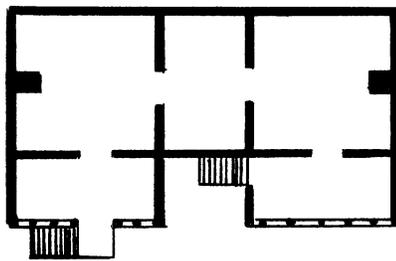


Fig. 51 House Transformed into Two Separate Dwellings

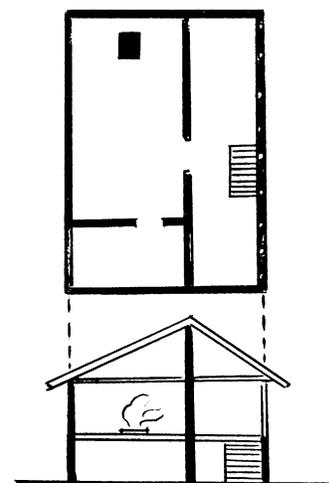


Fig. 52 Floor Plan of a House of the Hoti

ALBANIA

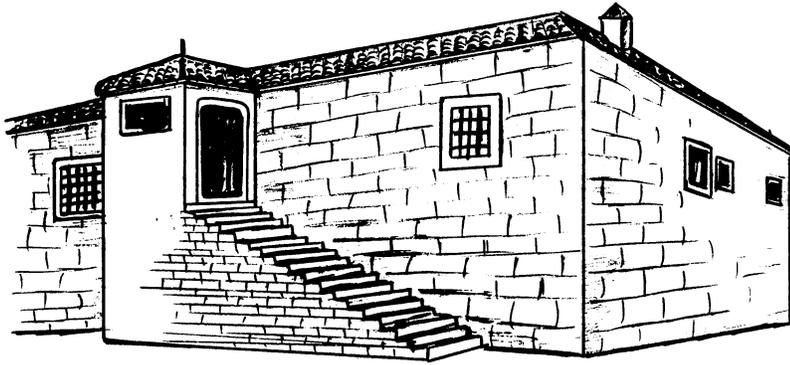


Fig. 53 Building with Stairway House

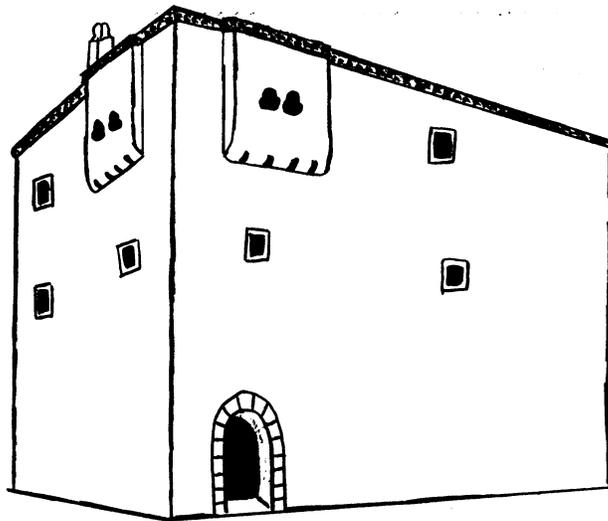


Fig. 54 Kula in Northern Albania

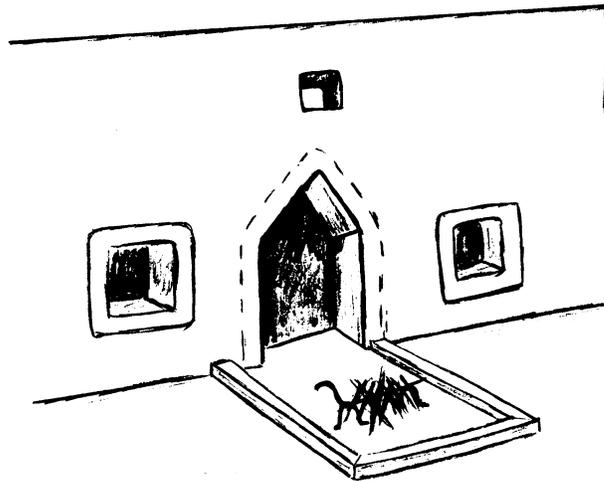


Fig. 55 Fireplace with Niches and Opening for Smoke

B U L G A R I A

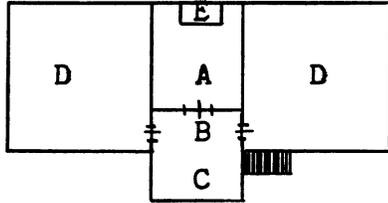


Fig. 56a Upper Story

- A) Kitchen
- B) Anteroom
- C) Balcony
- D) Living Room
- E) Fireplace

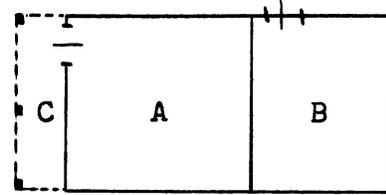


Fig. 56c East Bulgarian House with Stable

- A) Living Quarters
- B) Stable
- C) Veranda

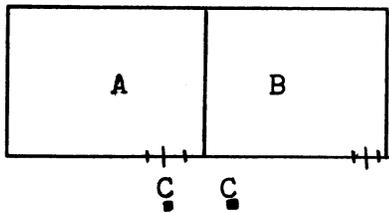


Fig. 56b Ground Floor

- A) Stable
- B) Storeroom
- C) Pillars

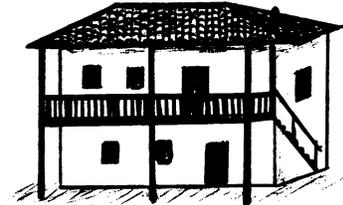


Fig. 56d Balcony House in Central Bulgaria

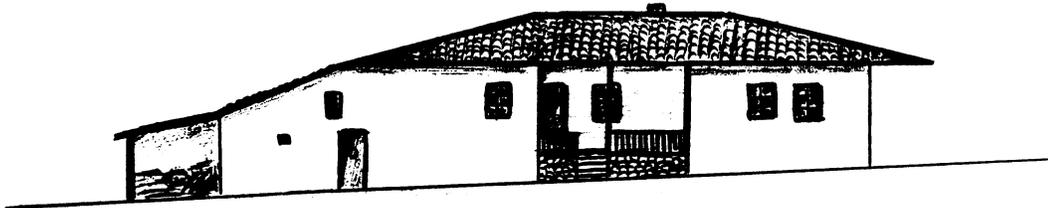


Fig. 56e House with Side Annexes

RUMANIA

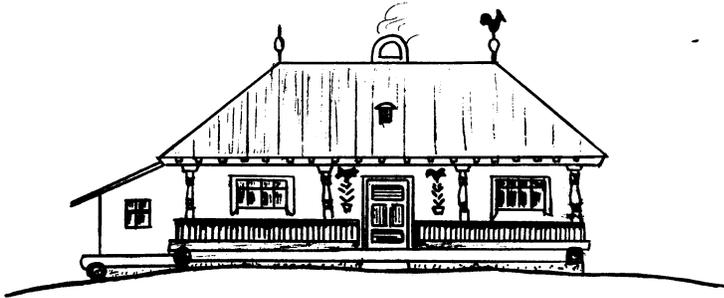


Fig. 57a House of the Lowlands

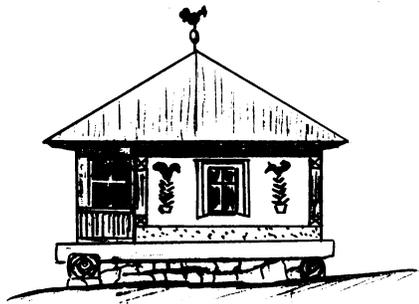


Fig. 57b Side View of Fig. 57a

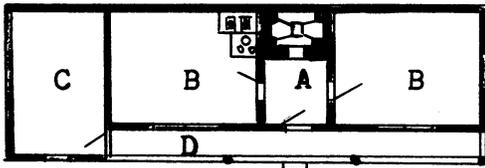


Fig. 57c Floor Plan of Fig. 57a

A) Anteroom, B) Living Room
C) Storage Room, D) Veranda

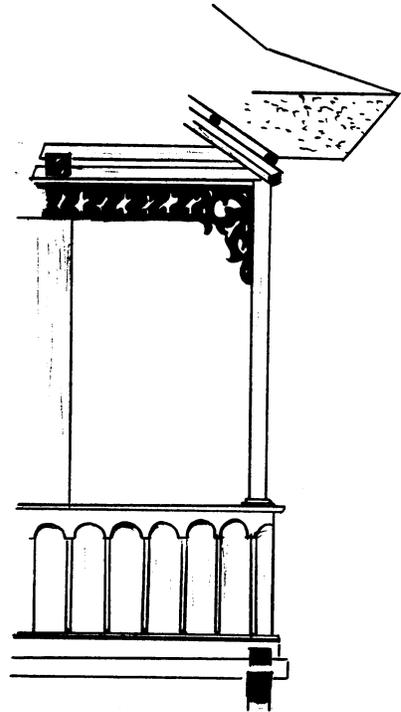


Fig. 57d Woodwork on the Veranda

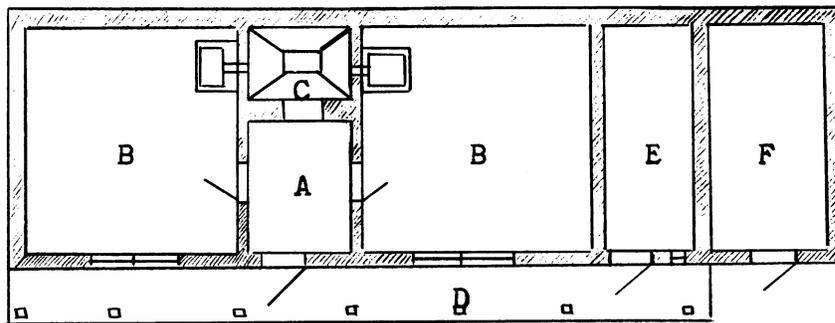


Fig. 58 House with two Annexes. A) Anteroom, B) Living Room, C) Fireplace, D) Veranda, E) Stable, F) Chicken Coop

R U M A N I A

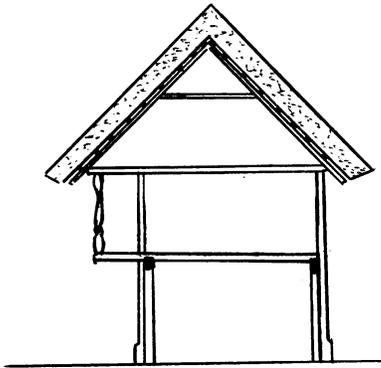


Fig. 59a Corn-house

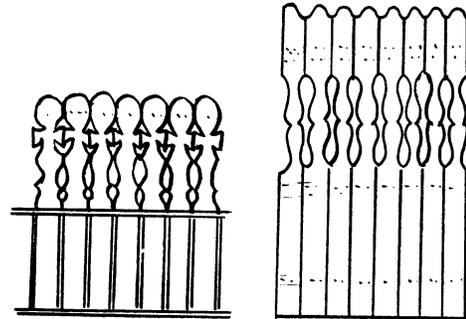


Fig. 60 Fence with Excised Designs

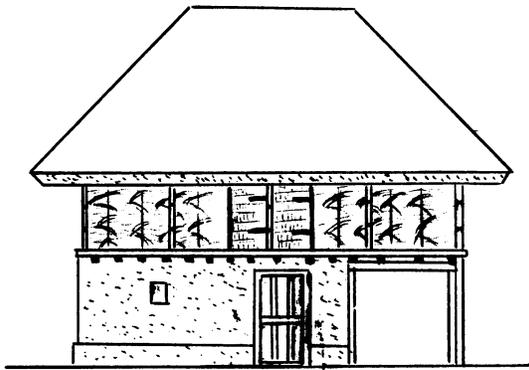


Fig. 59b Front View of Fig. 59a

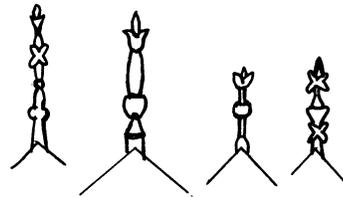


Fig. 61 Decorations at End of Ridgepole



Fig. 62 Arrangement of Shingles at Ridgepole

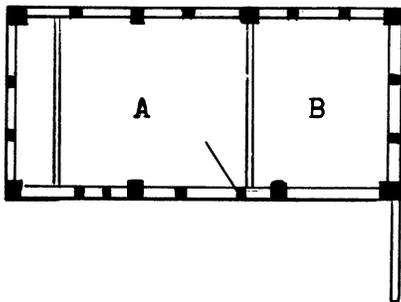


Fig. 59c Floor Plan of Fig. 59a
A) Stable
B) Cart-shed

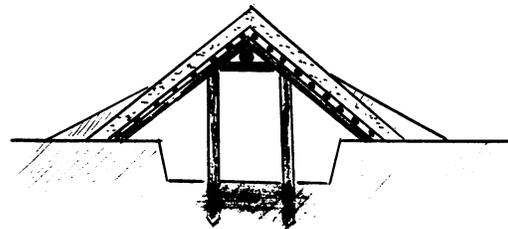


Fig. 63 Semi-subterranean House of the Danube Plain

R U M A N I A

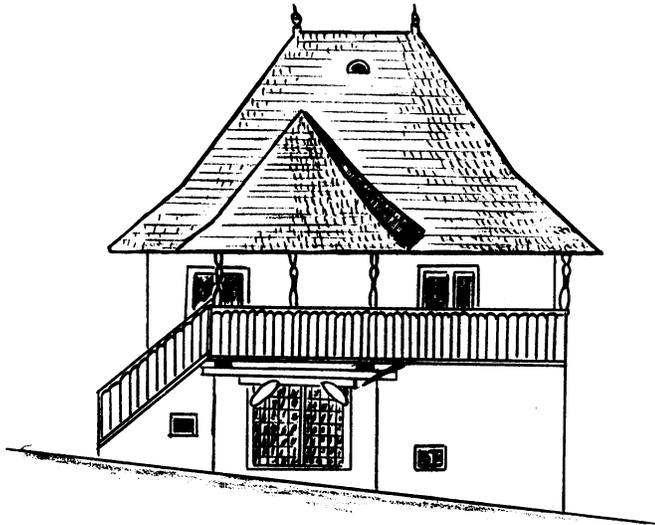


Fig. 64a Mountain House

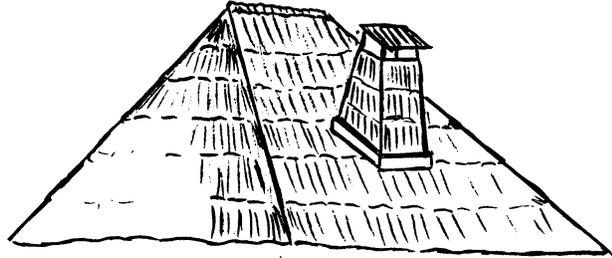


Fig. 65 Chimney in Oltenia

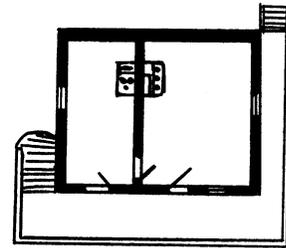


Fig. 66 Floor Plan of Mountain House

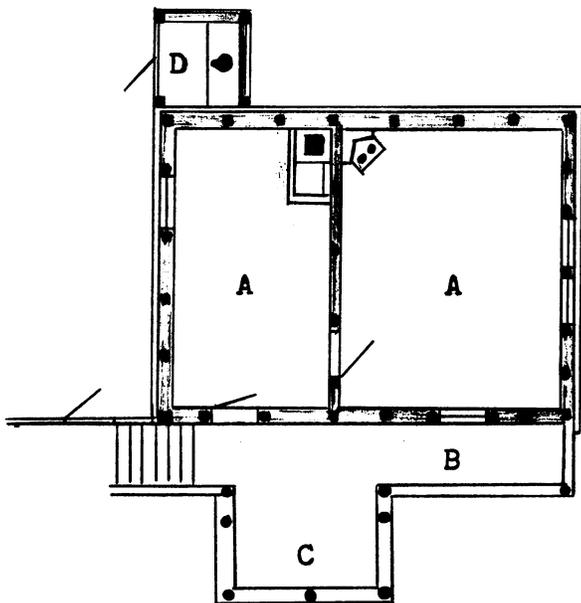


Fig. 64b Floor Plan of Fig. 64a

A) Living Room, B) Veranda
C) Foişor, D) Privy

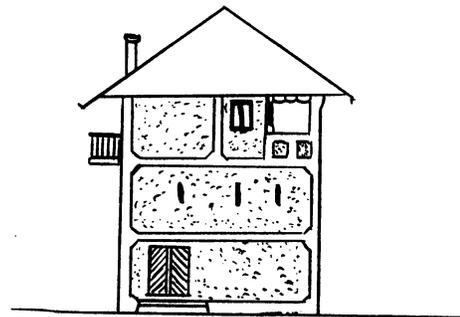
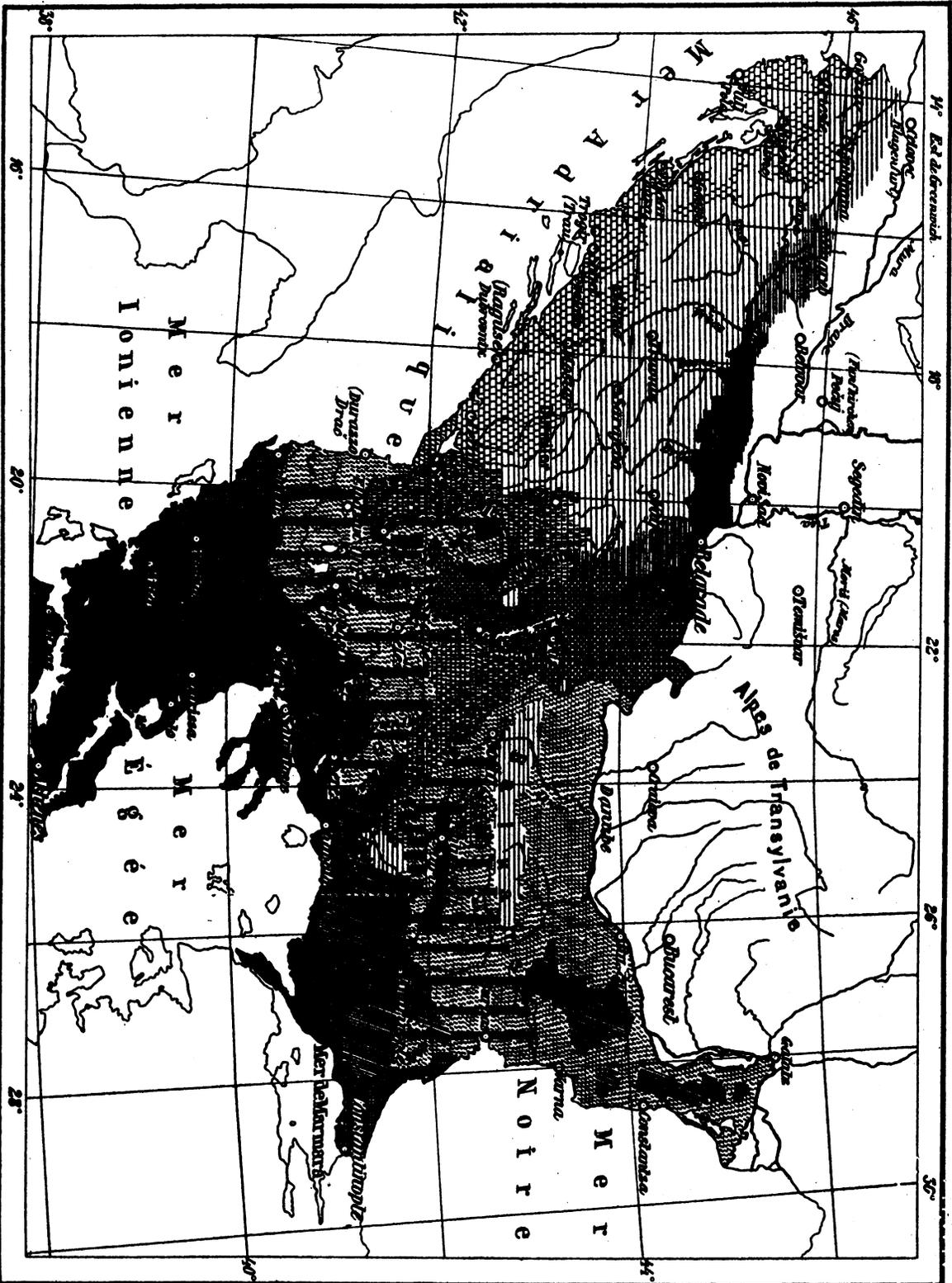
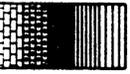


Fig. 67 Kula



TYPES DES VILLAGES

Villages à maisons disséminées Villages à maisons concentrées



- Type de Scandinavie
- Type de Scandinavie
- Type de Scandinavie
- Type de Scandinavie
- Type d'Irlande
- Type d'Irlande

- Type de Turquie
- Type des villages-tyrles
- Type grec-méditerranéen
- Type turco-oriental
- Type mixtes

Échelle de 1:6,000,000
0 50 100 200 300 km.

Librairie Armand Colin

NOTE

- (1) The term, "cylindrical tile," as used in this paper refers to the roof tile described as "normal tile, imbrex" by Morse (1892: 9). It is the type commonly found, for example, in the Spanish missions of California.

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