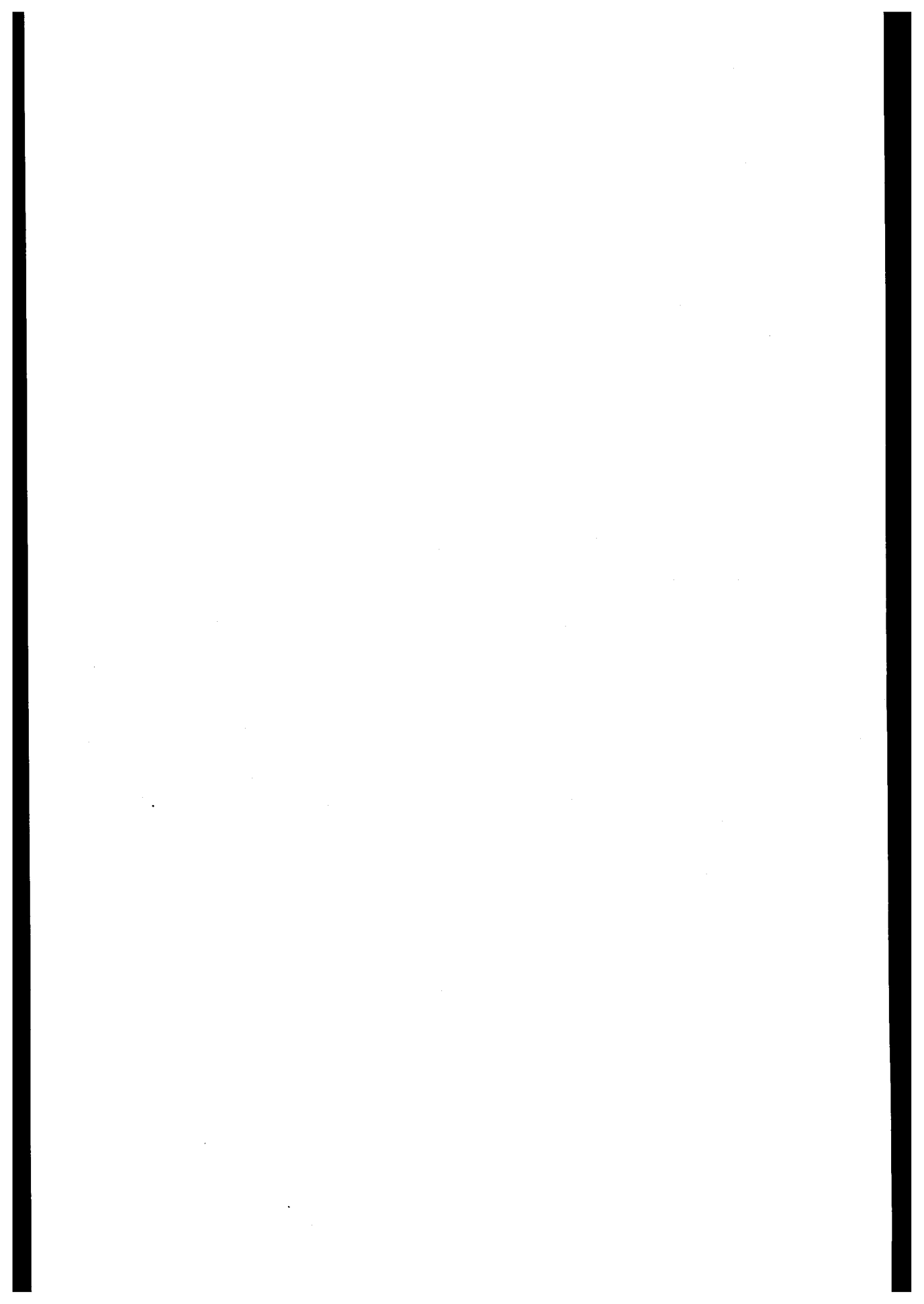


The Cultural History of the Japanese Farmhouse.

By Matthias Eder

Disposition

- I. Dwelling in pre- and protohistoric times
 - 1) Jōmon period
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Reconstructions of prehistoric houses in the *Kyôdokan* in Koganei, Tokyo

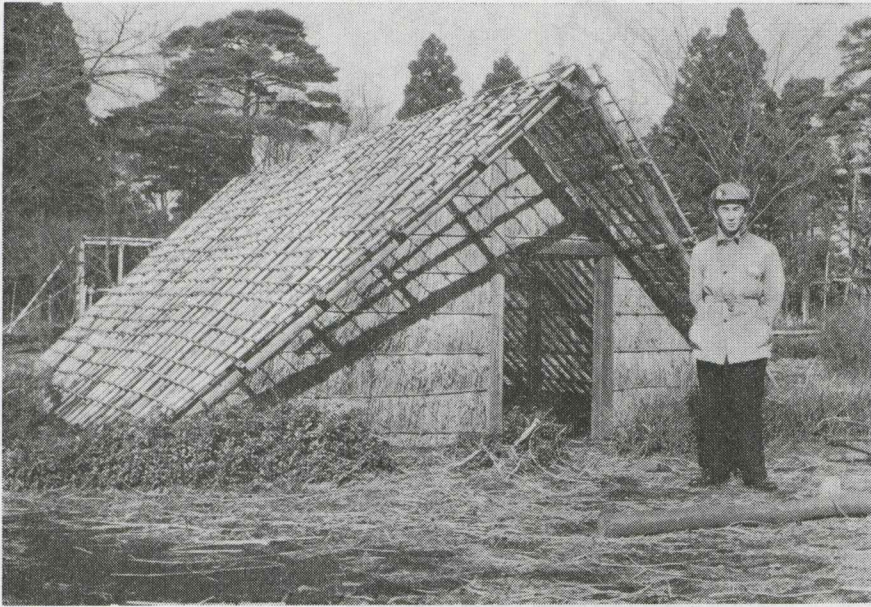


Photo 1, a

Photo 1, a, b: Late Yayoi. Central posts, 4 corner posts.

On the frontside and in the rear one post each for the support of the ridge-beam. Fire-place in the center. Saddle-roof. After a site in Tsutayama near Kawasaki, Kanagawa Prefecture.

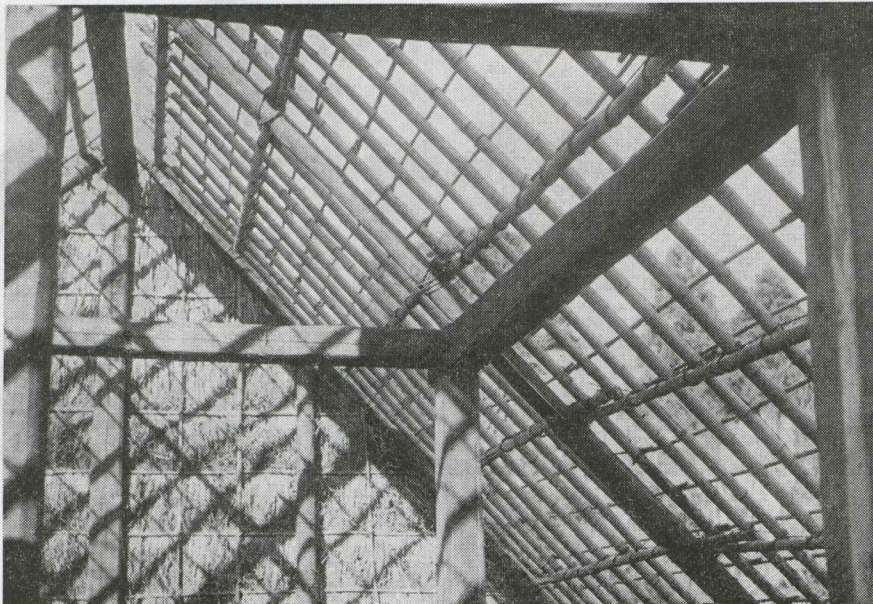


Photo 1, b

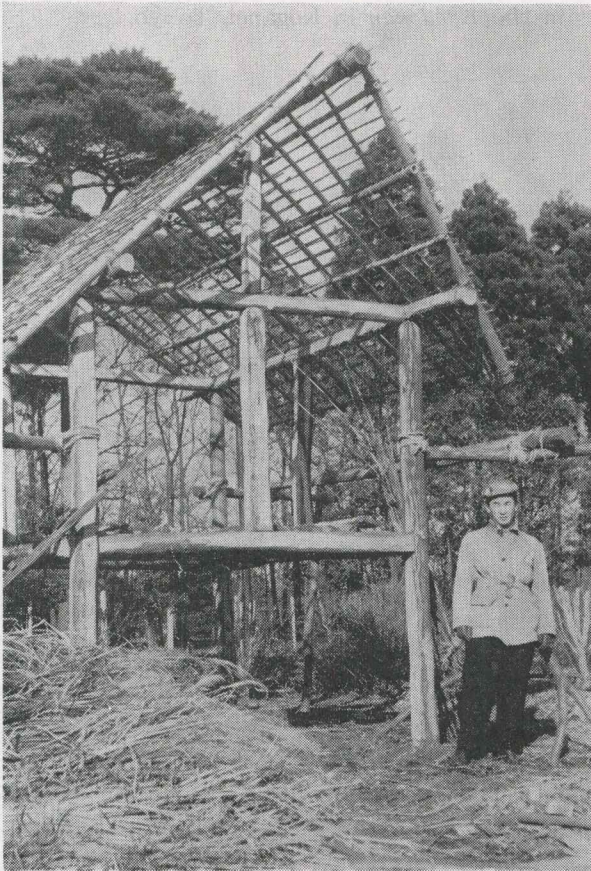


Photo. 2

Photo 2:
Yayoi grain-store. Walls made of split boards (in photo not yet added). On the four corner-posts protruding boards to keep rats away (*nezumikaeshi*) (on photo not yet added). As ladder a log with carved-in steps. After a site in Toro, Shizuoka Prefecture

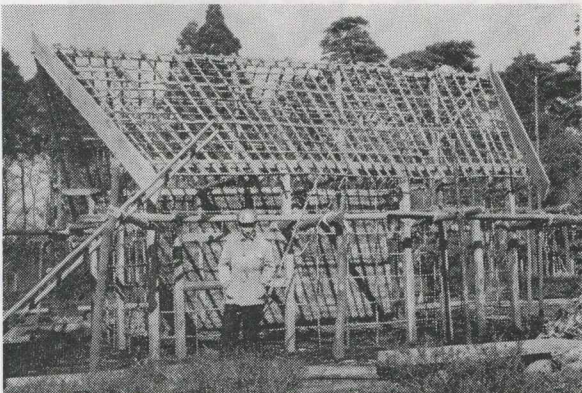


Photo 3. a

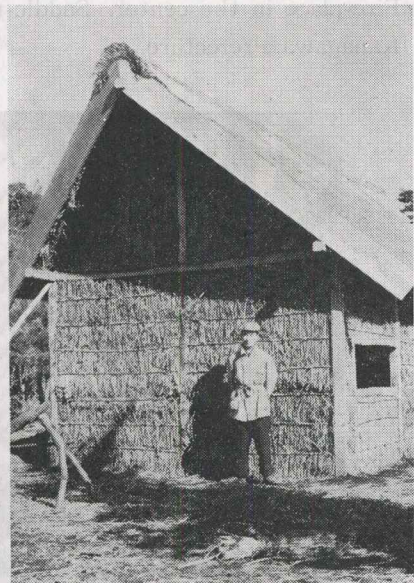


Photo 3. b

Photo 3, a, b:
Dwelling-house from the *Kofun* period, on flat ground. Timber worked with iron tools. After a tomb-figure from Akabori, Cha'usuyama, Gumma Prefecture.



Photo 4, a

Photo 4, a, b:

Pit-dwelling from the *Kofun* period.

Rectangular, 4 posts, fire-place on the North side.

Many such pit-dwellings were found in Musashino.



Photo 4, b



Photo 5. a

Photo 5, a, b:

Pit-dwelling from the Nara period. After a site in Kokubunji, Tokyo. Ground-plan about 16 sq.m. No posts. Roof built with poles. House-top separately thatched, on its both ends smoke-holes. Oven of burnt clay on the North side.

Another reconstruction shows a dwelling-house of middle Jōmon (4000 B.C.). A round hut with a pointed roof. The 6 posts round, sunk into the ground.

Fire-place in the center. Tokyo, Suginami-ku, Shimotakaido 2.

(Not photographed because of bad light conditions).

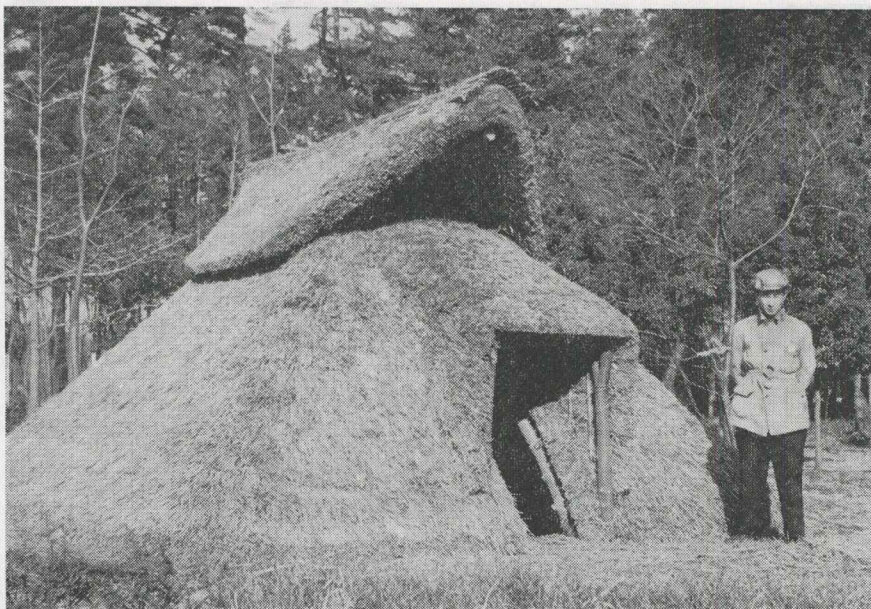


Photo 5, b

I. Dwelling in pre- and protohistoric times

1) Jōmon period

The oldest known dwelling site in Japan dates back to the mesolithic early Jōmon (string-pattern ceramic) period. In this period the economic basis of livelihood was hunting and food gathering. The Jōmon time is found to have lasted from 4500-200 B.C.① The first dwelling sites were excavated together with pits mostly filled with shells. About 2000 such shell mounds became known, most of them in the Kantō Plain along rivers, others along the bays of Matsushima and Ishinomaki in Northeast Honshū (Tōhoku), along the Atsumi Bay in Aichi Prefecture, along the Kojima Bay in the Inland Sea, along several bays in Kyūshū, and along all coasts of Hokkaidō. These shell mounds often contained also other objects, were sometimes used as burial places and covered pit dwellings or such were found nearby.② Though from early Jōmon pit dwellings have not yet been found, the condition of the shell mounds suggests that people were already living on the same place for a prolonged time. Thus the shell mound of Natsushima near Yokosuka, Kanagawa Prefecture, presupposes ten years of living time. In this shell mound traces of burning on stones were noticed, the first use of fire found so far. This site is assumed to date back to about 5500, that is mesolithic age which in Japan descends close to 3000.

The existence of the above mentioned dwelling sites was only indirectly attested. Direct evidence is given for the first time for a dwelling site in which the holes for keeping the construction posts are still visible. The site in question is a shell mound in Tone Town, Kitasōma District, Tochigi Prefecture, in the village Hayaohanawadai. The dwelling-pit is rectangular, as it is also in other sites of early Jōmon.③ The oldest fire-place, not only traces of burns on stones, was excavated in Murakami, Okasaki City, Aichi Prefecture. It was also found in a dwelling-pit and measured 1 m. in diameter. Throughout Jōmon dwelling-pits were dug about 50 cm. deep and covered with a roof. Such a pit was used 40-50 years. In Kantō the dwelling-pits of early (5500-4000) and late Jōmon (1500-300) were rectangular with more or less rounded corners; in middle Jōmon the pits were round. An example of a site with traces of a round hut is that in Ubayama, near Ichikawa City, Chiba Prefecture.④ By the end of middle Jōmon dwelling huts were built on the flat ground, not over a pit. The roof came down to the ground. The fire-place was more or less in the center of the hut. The hut was 4-5 m. long and provided sleeping space for one family, in modern terms corresponding to a room with 7-8 *tatami*, certainly a not very comfortable condition.

As early as about 3000 B.C. we find a more or less definite dwelling type in existence. From middle Jōmon on huts with stone pavements are found. Village-like accumulations of dwellings exist at the latest already after middle Jōmon, comprising 10 households or so. The site of Hiraide in Higashichikuma District in Nagano Prefecture, consists of 17 dwelling huts from middle Jōmon.

2) Yayoi Period

People continued to live in pit-dwellings throughout the Yayoi and the bronze and

iron period. From the Yayoi time we can already imagine how a village looked like, with its living and storage houses, its situation between the fields and the size of the latter, and the tools with which the fields were worked.^⑥ Houses built on flat ground gradually increase, having either a roof coming down to the ground or resting on walls, first low ones, later higher ones, with windows and a door. An innovation inside is the partition between the space for living and that for storing purposes, that is, for keeping edibles, vessels, and implements. Farmsteads with several buildings existed. The additional buildings served as hearth-houses and for storage. This advanced farmhouse construction we find reflected in house pictures on bronze mirrors and bells (*dōtaku*) and in the *haniwa* house figures. Furthermore, the Great Shrine of Izumo shows us how houses for living were built in the later Yayoi and the following Kofun period. Already in the Yayoi period houses begin to be built with an elevated floor. The size of the settlements increases. Thus in Kugahara near Tokyo the remains of about 100 pit-dwellings were found within an area of 500 sq.m.

3) Haniwa House-figures.

The *haniwa* house-figures among the tomb-figures are important documents for the history of farmhouse construction for the time-span from the third to the seventh century A.D. On tomb-hills about 3-4 m high a tomb was dug out 2-3 m. deep into which a stone or wooden coffin was placed. The walls of the chamber were clad with stones. The largest tomb-hills belong to the fifth century. The tomb-hills and the figures on them reflect the culture of the upper-class of the contemporary society. Clay figures were placed either inside the tomb chamber or on top of the tumulus. The figures represent persons, houses, and horses. The house figures inform us on the house construction from the fifth to the seventh centuries. They tell us of course nothing about the interior of the house of that time, but much about its outward appearance.

In the *tumuli* (or Kofun) period round huts, which in the Yayoi period made up 60%, disappear entirely; the pits were 15-20% rectangular and up to 85% quadratic. The dwelling space measured only 12-24 sq.m. in the Yayoi period, but in the tumuli period up to 110 sq.m. in a pit about 40cm. deep. With the help of the post holes found in numerous dwelling sites reconstructions of houses were attempted.^⑦ Some house figures show walls, others not. Also figures of houses with an elevated floor were found. The figures show that houses without walls, with roofs coming down to the ground, still existed at the end of the tumuli period. Since the roof makes up the greatest part of the house, the house figures are best classified according to the shape of the roof. Thus we can arrive at a relative chronology of house types. The majority of the pit-dwellings of the Yayoi culture had saddle-roofs, the door was in the gable-wall under the roof top. The roof types of the Yayoi period continue into the tumuli period, which however later developed also new roof forms. Meanwhile walled huts increased. Another roof type is that with four roof plains, the two on the long side of the roof being trapezoid, the two on the small side triangular. Not unfrequently both roof types are found among the house figures of the same tomb-hill. A new roof type is a combination of the two described types. About the middle

of the tumuli period a complicated roof form emerges among the house figures,^⑧ certainly not just a fancy form for the sake of stylisation, since the same form still existed in the Nara period (710-784). We cannot declare the houses consisting of only a roof as the most primitive and therefore the oldest ones since their construction is very complicated.^⑨ We know also from a house picture on a bronze mirror that a house with a saddle-roof can go together with a house on the roof of which a saddle-roof is superimposed on a four-sided roof. In the picture on the bronze mirror the house with a two-sided roof is two-storied, that with the combination roof type has no walls and seems to represent a pit-dwelling.^⑩ It seems that at the beginning of the tumuli period pit-dwellings with a combination roof had not yet been built.

A two-storied storage house we find pictured on a bronze-bell (*dôtaku*). The bronze-bells belong to the Yayoi culture. It follows that already before the tumuli period carpentry must have reached an advanced stage. The tomb figures tell us that already at the beginning of the tumuli period all house forms existed except that with a four-sided roof (hipped roof), which must have been made from the fifth century on.

One third of all sites with tomb figures and one-fourth of all house figures were found in the old country of Kôzuke in the Kantô Plain. In Chausuyama 16 house figures with a saddle-roof were excavated, while at other places houses with a combination roof and houses with variations of the hipped roof, and houses with only a roof, all together 39 house figures or two-thirds of the excavated total were found.^⑪ In Yamato, Kawachi and Izumi in Central Japan only a few house figures were found so far (1962), although these provinces lie on the central axis of the tumuli culture.

House figures were used until the end of the tumuli period. According to the excavation results so far available realistic figures with combined roof forms were found in Central Japan, but not in East Japan, which has only roofs in stylized forms. It can be that this house type was not constructed in East Japan, unless further excavation results teach us otherwise.

We need not enter here into a discussion of the meaning and function of the Japanese tomb figures in general. Mention may be made of the possibility that these figures symbolized the migration of the dead to the other world. The armed warriors look more like parading soldiers than soldiers going to war. With the other human figures they fit best into a retinue of the lord who is migrating to his new domicile. The soldiers look like guardsmen, the female figures like court ladies of the Heian time. The horses are richly decorated, seemingly for a solemn precession. With the idea of a change of residence the house figures can be said to fall in line. They are the symbols of the new residence of the dead grandee in the other world. The decoration of the house figures points to a residence of high ranking persons. The oldest house figures show a round beam as ridge-pole. Then follow house figures on the ridge-pole of which several short and cylindrical pieces of wood are laid across which are called *uogi*, lit. "fish-wood". Their name comes from their cylindrical, more or less fish-like shape. This decorative element on the roof was the privilege of high ranking persons. Such *uogi* appear most numerous on house figures of the

late Kofun period. In a group of house figures assembled on a tomb-hill the one with the *uogi* stands for the main house, which is also marked as such by its big size. First only the emperors had this decoration on their residence; later his retainers usurped it. The *Kojiki* (712 A.D.) has a passage in which the emperor Yuryaku (457-479) reprimands a vassal for such an arrogance.¹² Since to have *uogi* was an Imperial prerogative, they are not found on house figures which consist only of a roof, and also not on house pictures on bronze mirrors from before the fourth century. The emperors have hardly dwelt in pit-houses, but in houses with an elevated floor built on the flat ground. The bronze mirrors belong to a time in which the usurpation of the *uogi* had not yet happened. The oldest shrine buildings permit us to imagine how the Imperial palace looked. It is not yet established which practical purpose the fish-shaped wooden cylinders on the roof served. We may perhaps assume that their main purpose was to fasten the reed-grass thatching,¹³ but we do not know how this could be effected. Whatever their practical purpose was, later they became a mere decoration. Except on Shintô shrines they are no longer in use in roof construction. If the interpretation "fish-wood" is correct, we may eventually think of a magical function of them since the fish has, as a symbol of luck and fecundity, a world-wide distribution.

Another peculiarity of the roof on the *haniwa* house figures are the two crossing beams on both ends of the ridge-pole. On present-day shrines such beams or boards can still be seen. Their practical purpose is unknown, they are simply a tradition. But the *haniwa* house figures tell us something about their original function. Along the edge of the roof thatching boards were attached, and the ends were crossed on top where they protruded beyond the ridge-pole. Such boards are seen on the three house pictures on bronze mirrors. On clay figures such protrusions are rare though boards are attached along the edge of the roof.¹⁴ No such crossed boards became known on combination roof. On house figures consisting of only a roof however these boards are frequently seen. Since these roof-house figures look very realistic, they have to be dated very early.¹⁵ The most plausible function of the edge-boards is to prevent the wind from attacking and tangling the reed-grass thatching.¹⁶ On house figures we see such boards with a considerable breadth but not crossed, though they protrude over the roof top. Such small details were difficult to model out in clay. Nowadays these crossed boards are only a formality still seen on shrines and on farmhouses in some districts, e.g., in the Matsumoto Plain.

The house figures show us furthermore some kind of trellis-work laid over the ridge-pole and coming down on both sides of the roof. It seems that it was made of boards and split bamboo, probably fastened to the ridge with strings and ropes. The present-day farmhouse shows a great variety of this reinforcement of the ridge-section of the roof. The *haniwa* house figures make it clear that already in the fifth cent. at the latest this functional and decorative element was given much attention.

The material for roof thatching was in the old time reed, grass or straw.¹⁷ As to the tiled roofs, the *haniwa* house figures do not give us any hints. Bark of cryptomeria trees (*sugi*) was in use for this purpose. From the Nara period (710-784) we know that the houses of the common people were covered with wooden planks as it

is still done in some mountain areas.

To sum up, the tomb figures of the Kofun period show us that at the latest in the fifth century the roof of the farmhouse looked in most parts already like that of the present farmhouse. This holds true for the three main roof types, that is, the saddle-roof, the hipped roof, and the combination roof, and for details of the thatching. As it is now, the roof was the most important and best built part of the farmhouse, which is not surprising since not long ago the "house" consisted of a pit with a roof over it.

Except for the roof, the ancient house differed in several ways from the present. First, there was no verandah outside. The present house has one at least on two sides. When and how this improvement was added, shall be said in its place below. Then the posts which support the roof and its framework were rammed into the ground as it was here and there still done not long ago in our time. The earliest Buddhist temples have already posts standing on a stone foundation. Certainly the houses of the upper classes were built likewise. To do this required a higher skill of carpentry and more timber. To keep posts and pillars in their position they must from the bottom on be joined with strong beams and mortised.

The present farmhouse is open on three or even four sides. The house in the tumuli period had walls with openings for the entrance and the windows. The windows were small and could be covered with mats. The inside of the house was consequently darker than in the modern farmhouse, but still better lit than the old pit-dwellings. In [the later tumuli period the inside of the houses seems to have already been partitioned, as it is suggested by the difference of the ground level of different parts of the house, or by the stone pavement on a part of the ground, but more than two rooms did hardly result. From the earliest shrines we know that the building had four rooms, but it is not known whether the old shrine buildings are documents also for the houses of the commoners or only for those of their overlords. The living-room and the storage space in the houses of the people may have been separated; however, we do not know whether an elevated floor existed in them. The ground was probably only covered with straw or mats. Even in recent time in mountain districts we can still find farmhouses without an elevated floor; on the bare ground thick layers of mats are laid on which people sit and sleep.

Since the oldest shrine buildings are a good source of information for the house of the upper classes, we know that long before the Nara time, that is, already in the tumuli period, the house had a wooden floor built with planks above the ground. For the dwelling house this floor was not as high above the ground as it is in recent shrines. Only in storage buildings it was so high that a ladder was needed for climbing in.^⑥ The Shôsôin, which is a storage building from the Nara period, has an elevated floor, but not so high that a ladder became necessary. Storage sheds with an elevated floor are still found in Tsushima, Hachijoshima, Amami-Oshima, and Southern Satsuma. They require a ladder as do also the storage huts of the Ainu. The living room in an Ainu house with the fire-place in the center is not elevated. In storage huts the floor is elevated to keep rats and ground moisture out. No instance is known from the *haniwa* house figures which could suggest that an elevat-

ed floor existed in a living room.

In the assemblage of house figures on tombs the high houses without windows represent storage sheds. One house, more respectable than others, is the residence of the Lord while the smaller houses are for his retinue and underlings. In all probability the house figure on a bronze bell and on mirrors is a storage shed. If the old shrine buildings had a floor, this could mean that they were in the first instance intended for storing sacred treasures and not for residences for the divine spirit. An old word for shrine is *hokora* which means "store-house".¹⁹

On the construction of the interior and exterior of the house we find a passage in the *Kojiki* from which it is evident that posts and pillars were connected with many ropes.²⁰ No nails are mentioned. The houses, as represented by the *haniwa* figures, were built with the help of carpenter tools of iron, such as were also found among the offerings placed in the tombs. Iron nails were found, bamboo nails, as were still used in modern times, of course not. No doubt, primitive construction methods went together with advanced ones during the tumuli period. The commoner lived in a house with posts kept together with ropes, all blackened from smoke, under a roof of grass, within walls of the same material, with a door and small windows, the floor being covered with mats, the most comfortable place on it reserved for the parents.²¹ An example from Musashi in Kantô shows a ground-plane of $8 \times 5.38\text{m.}$, which must have been a dwelling of a considerable size (see Photo No. 4). When examining the house-figures of Cha'usuyama²² in Kantô, we see that in the fifth century a local aristocrat had a mansion with three dwelling houses, six storage houses, and a shack, a total of ten buildings. The mansions were probably fenced in with a fence of reed-grass or a bamboo wicker-work. A source from a somewhat later time, 2nd year Keiun (704-707) says: "On the tombs of clan ancestors and on the farmsteads trees are planted which form a grove and for twenty to thirty steps around it is not prohibited [to have a grove]".²³ Farmsteads at that time must have been similar to those of today. The tendency to have scattered settlements must have started during the tumuli period, before there were compact group settlements. We must, however, take into account that not all excavated sites of group settlements must always have been used at the same time, as old pits were used again by newcomers.

b) *Daisha* Construction and Dwelling-house.

The tumuli period was a time of intense economic and social stratification. The mansions of the aristocrats differed from the houses of the common farmers. The dwelling culture of the upper and the lower class went each its own way. Concerning the house of the common people we can gather information from excavation sites of the Yayoi and the Haji periods. Typical of the Yayoi culture is the excavation site of Toro in Shizuoka Prefecture, whereas Hiraide is typical for the Haji culture,²⁴ that is, for the house of the common people. Something of the dwelling of the upper and lower classes we can learn also from the *haniwa* house figures and from those on bronze mirrors and bronze bells (*dôtaku*). Sites of dwellings of the aristocratic stratum have not been discovered yet. From the tumuli period, besides the tombs no

other architectural remains have come to light, except some remains of fortresses and palisades which were erected against enemies from the East and the West. Also found were remains of palaces of emperors and aristocrats from the end of the tumuli period, such as holes in the earth for the construction posts, fountains and water ditches. Some peculiarities still point to the construction techniques of the tumuli period; others probably announce already Chinese influence.²⁶ Some details are given below. By far the most numerous remains of Imperial palaces no longer belong to the tumuli period but to the pre-Nara period, when each emperor moved away from the palace site of his predecessor. Other emperors changed the site of their residence during their own lifetime.

It is an accepted thesis of the history of Japanese architecture that the Grand Shrine of Izumo, or Izumo Daisha, as well as the other oldest shrines, have been built like a dwelling-house of the aristocrats of the tumuli period. These oldest shrines can therefore be considered as a source of information on the construction of dwelling-houses of the time immediately before the introduction of Chinese architectural techniques. In relevant literature this thesis is generally accepted. In the following we must see how it is proven.

About the construction of the Izumo Daisha historic sources give us some answers. The construction of the other great shrines of antiquity falls more or less in line with that of the Izumo Shrine. If gradual deviations happened we can still notice the relationship with the earliest type of construction. The shrine of Izumo is built like the palaces of the emperors and noblemen of the time. This is corroborated partly by what we know from the *haniwa* house figures and still more convincingly by the fact that in Central Japan, in the center of the old culture, dwelling-houses still exist which have the same ground-plane as that of the Izumo Daisha.

First we must present a description of the Izumo Shrine, its construction and room partition, the form of its roof and the decorations on it.

The ground-plan of the shrine is quadratic. On each corner stands a pillar, another one in the middle of each side, and one in the middle of the ground-plan. The ridge-pole rests directly on the three middle pillars. The pillars are rammed into the ground. The roof has two sides and is thus a saddle-roof. The entrance is found between the central pillar and the pillar on the right side corner. Between the pillar in the center inside and the pillar on the right side of it a partition is made of boards behind which Okuninushi, the god of the shrine, is worshiped. The floor is elevated much higher than is now usual in living-houses, namely 12 *shaku 6 sun*, or about 3.65m. From the ground stairs with 15 steps leads up to the entrance. The inclination of the reed-grass roof is 45 degrees. The shrine must have been built in the mythological age, or at least the worship of its god must go back to it. In 659 Empress Saimei (655-661) ordered the repair of the shrine. At the latest at this time its ground-plan must have been defined. The present building dates back to 1744. The tradition of the shrine gives phantastic measurements of its height, 18 *jō*, or about 54.54m. It is said that earlier it measured 32 *jō*, or 96.96m. Such a height cannot simply be marked as incredible. At the temple of Tōdaiji there stood until the war fire of 1108 a wooden tower 33 *jō* (99.99m.) high. The sources say that the

building in Izumo collapsed several times.²⁶ With a view to the gigantic Imperial tombs of the tumuli period we can not deny the possibility that those in power at that time could enforce such a monumental construction. At the present shrine building the floor lies 4.5m. high. At the time of its previous height the shrine must have had its floor 30m. above the ground. Professors Fukuyama Toshio and Horiguchi Sutemi of Meiji University in Tokyo have on the basis of old sources reconstructed the elevation plan of the shrine and they arrived at 48.48m.²⁷

A bridge about 100m. long connected the sea-border with the verandah and the entrance instead of the present stairs. With its height of 24.24m. the Izumo Shrine is still considerably higher than the Grand Ise Shrine. Other still extant high wooden constructions are a 36m. high tower of the year 902 at the temple Daigoji Southeast of Kyôto and a 54m high tower built in 796 by Kôbô Daishi at the temple Tôji South of Kyôto.

The first sources concerning the construction of the Izumo Shrine are the *Kojiki* (712) and the *Nihongi* (720). They say that the shrine was built in recognition by the Yamato clan ruler of the cession of his country by its ruler Okuninushi. The latter should live in a palace equalling in size and beauty to the palace of the Heavenly Grandson the Emperor. According to the *Nihongi* Okuninushi received the palace of Kamumusubi, an Imperial ancestor deity.

The fifth century is the time of the giants among the tomb-hills.²⁸ The tomb of Emperor Nintoku covers an area of 32 hectares and is 820 m. long, surrounded by three water ditches. On it an army of forced laborers must have worked for several months. At the death of Emperor Ingyô (412-453) the King of Silla in Korea sent 80 ship-loads full of mourning guests to the funeral rites. From the inland the number of guests must have been many times larger. Tombs of such an enormous size were possible only together with a great economic, social, and political disparity between the rulers and the ruled, and they presupposed considerably advanced techniques. Thus it is conceivable that a despotic ruler of Izumo could force the materialisation of the extravagant plan of the palace construction.

Since the Izumo Shrine is built on a bay which served as a port for traffic with Korea, its size probably was intended as a show-piece for the ruler's might. Palace or shrine buildings of such gigantic height are known from no other period of Japanese history. The palaces of emperors and those of noblemen seem to have differed in size. From the tumuli period we know that there existed houses with a raised floor and others built on the flat ground. The tomb-hill in Cha'usuyama with the many *haniwa* house-figures on top of it is rectangular on the frontside and rounded at the opposite side, which shows that it must have belonged to a very rich grandee. Back in the rear over the rounded section of the tomb-hill there stood a house-figure with a ridge decoration, across the ridge-pole long logs were fastened such as were only the privilege for Imperial houses, which however aristocrats tended to arrogate for their own residences. As already said above, there are ten house-figures. Only the largest of them shows the said roof decoration. The next in size does not have the decorations; perhaps we might take it for the house of the children of the Lord. The six store-houses leave no doubt that the tomb belonged to a

wealthy local nobleman. The house with the five decorative logs over the ridge-pole does not have a raised floor.^⑳ This shows that at the height of the tumuli period in the fifth century the raised floor was not yet the rule in the aristocratic residences.^㉑ Still, that it was a privilege of the grandees to have an elevated floor in their houses and certain decorations on their roofs, and a fence around their mansions, we know from the excavated house-figures with an elevated floor. The Izumo Daisha is a residence with an extraordinarily high floor. This height may have been a despotic whim, but still it seems that there was a time when the floor was raised much higher than in later times. Today we find stilted houses (*takatoko sumika*) in Okinawa and Hachijōshima. They are surely not buildings erected on poles and standing in water. House remains in the excavation sites along the Tokyo Bay were probably of houses built on posts in the water.^㉒

As already said, raised floors were made already in the Yayoi time. They existed during the tumuli period. It is not likely that the picture of a house with a protruding veranda on a mirror meant a storehouse. But both dwelling-houses and storehouses could have an elevated floor (*takatoko*). The storehouses in Okinawa consist of an elevated floor and a roof over it, without walls. In a house picture on a pottery fragment we see a ladder going up to the roof. The house has no walls. It is probably a storehouse, though the possibility of a living-house cannot entirely be excluded.^㉓ The houses of the Igorots in the Philippines are built on high posts and have no walls. The people live under the roof and even manage to have a small fire-place under it. As a ladder they use a log into which steps are hewn. Could not in Japan too for good reasons a "roof-house" have been built on posts with a floor high above the ground?

How did this transition from the bare floor on the ground to a raised floor happen, or how did the pit-dwellings change to a dwelling with a high floor? Fukuyama Toshio offers the tentative opinion that the shrine construction of the Shimmei type, like the Grand Shrine of Ise, is the continuation of the storehouse construction built on pillars with a raised floor, going back to the Yayoi period.^㉔ A saddle-roof, a raised floor, walls made of wooden planks between round pillars we find both on the Ise Shrine and on storehouses for grain. Also the Shōsōin in Nara is a wooden storehouse. Storehouses, originally built for keeping sacred treasures given as offerings, may gradually have become shrine-halls and also dwelling-houses.

In the Izumo Shrine the adaptation for worshipping purposes of an aristocratic residence, originally a storehouse, is not yet accomplished. The elevated floor, an aristocratic privilege, is overstressed. The single room the shrine has in common with the ancient dwelling-house. Also many other shrines in Izumo have only one room.^㉕ The wooden partition between the entrance and the throne of the deity has parallels in pit-dwellings. In order to arouse the religious awe and reverence in the visitors, the throne of the deity was shifted to a place opposite the entrance without however dropping the characteristics of a dwelling-house. At the shrine in Izumo, and that of Otori and Sumiyoshi, the entrance is on the small side of the building. As in Izumo, also in Otori the ground-plan of the shrine is quadratic, in Otori however without the central pillar. It stood in the way as soon as the throne of the

deity was moved opposite the entrance. The whole interior was partitioned into the anteroom and the main room. Both rooms were connected with a door. Things are the same in the Sumiyoshi Shrine, only the ground-plan there is rectangular.³⁵ The Ise Shrine is rectangular too. Its entrance, however, is already on the long side, as it became the rule for all shrines. The interior of the Ise Shrine has only one room, with the throne of the deity opposite the entrance. With the Ise Shrine the evolution of the aristocratic dwelling-house to a cult house came to a conclusion.

Besides the elevated floor we find some more coincidences between the dwelling-house of the tumuli period and the Shrine of Ise. In the Nara period the common dwelling-house had walls of wooden boards. The cutting of such boards and the use of them for house construction is the outcome of a long development of continental carpentry in Japan. The pit-dwellings were without walls and windows; over the entrance mats were hung up. The transition from the dwelling-house without walls to one with walls we see in the pit-dwellings of Hiraide which belong to the Haji period.³⁶ The striking feature of house construction in the Haji period, as shown in Hiraide, are the small walls, rising only 60cm. above the ground. The transition to the house built on the flat ground and with door and windows we cannot follow up with excavation results. However, from a written source³⁷ we know that an official in Echizen, belonging to the Tōdaiji in Nara, had a "taya", or "house of boards", that is, a house with walls of boards or planks. It was thatched with grass, the ground inside was covered with boards (*itajiki*). That it had walls of boards is suggested by the existence of a storehouse with plank or board-walls on the piece of land the man had. The windows could be closed with mats. This is substantiated by a sentence in the *Engishiki*.³⁸ The use of straw or reedgrass-mats plays a great role in various rural living quarters still in our time. On the island of Iki in Nagasaki Prefecture an entire wall of straw is built on the side of the house where the entrance is, only an opening of about 1m. is left over which a straw-mat is hung which is unrolled during night and [rolled up again during daytime. In old times a temporary ceremonial hall was built, the *daijōkyū* 大嘗宮 for the throne succession ceremony of the Emperor, roof, doors, walls, and fence around the hall were woven of reed and grass.³⁹

On the Izumo Shrine the window on the left side of the entrance is another item which establishes a relationship of the shrine construction with the dwelling-house. Another, more important one, is the pillar in the center of the room by which the ridge-pole is supported. With this pillar in the center the partition of the interior into three rooms is the most natural and convenient one. The three-room house is considered to be the oldest. It is still found here and there in our time, with a central pillar. It is part of the Yamato culture which already travelled far and wide at an early time. There exists a basic difference between the room partition by the wall which starts from the central pillar and the much later adopted partition with framed and sliding paper walls which are not part of the architectural construction of the house.

In the word *miya* "shrine /mi/ is a honorific prefix, /ya/ means "house". Originally *miya* was used to designate the residence of the Emperor and the highest dignitaries.⁴⁰

In the construction of the Imperial palace the oldest traditions were followed until modern times.① At the court of the Empress Saimei (655-661) a main building for ceremonial purposes - *seiden* -, something like a throne-hall, was made the rule. This hall shows still nowadays similarities with the palace construction along the lines of the Izumo Shrine. It has a saddle-roof, is reed-thatched, on the ridge the decorations called *uogi* "fish-logs" are attached as they are still found on Shinto shrines, the floor lies 4.75m. high. In the center there is an extraordinarily strong pillar with a diameter of 1.2 m. (31/2 *shaku*). In front of it and behind it stands a pillar with a diameter of 80cm. (2 *shaku* 8 *sun*). The ridge-pole rests on the central pillar and on these two additional pillars. On both sides stand three more pillars, and thus the building has all together 9 pillars. On its outside the house in the height of the floor is surrounded by a verandah. The entrance is in the SW corner, that is, as on the Izumo Daisha, between the middle outside pillar and that in the corner. Stairs with 15 steps lead up to the entrance. The inclination of the roof is 45 degrees. All timber used is "white wood", wood in natural color. The conformity of this throne-hall construction to the Izumo Daisha is striking. Many shrines on the Izu Peninsula are of the same type, with a quadratic ground-plan, with nine pillars and a saddle-roof. This type of construction is called *karakasatate* "umbrella construction". It is found in Shinto Shrines, Buddhist temples, and here and there also in dwelling-houses.②

In the following we shall draw our attention to this kind of construction as applied to the dwelling-house. We find that the location of the throne or see of the deity in the Izumo Shrine corresponds to the room allocation to the most respected person of the house. This condition we find in Kuninaka and Ika, two regions in Shiga Prefecture. Like the old shrines the dwelling-houses there are of the above described so-called umbrella type. They have four rooms, a central pillar and pillars on which the ridge-pole directly rests (*uzubashira*). Also the first buildings for the use of Buddhist worship were built like dwelling-houses. When Emperor Kimmei (540-571) had in 552 received a Buddhist statue from the king of Kudara in Korea, his minister Soga no Iname placed it in his dwelling-house. This was the first

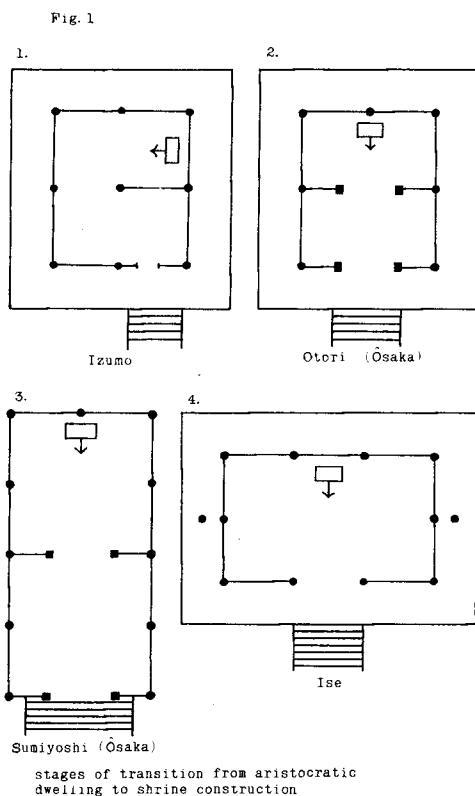
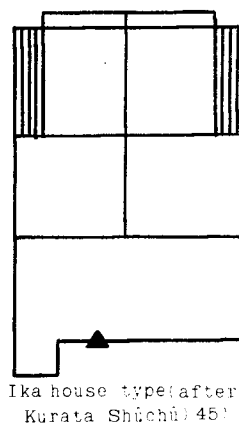


Fig. 2



Buddhist temple in Japan and called Kôgenji. The great temple Zenkôji in Nagano, built in 670, is basically an adapted dwelling-house of which the old room arrangements can still be ascertained.^{④③} The inside was partitioned into four rooms with a central pillar. There is a saddle-roof, and the entrance is on the front wall. The statue of Amida was placed in the rear opposite the entrance, in a room of which the floor is higher than that in the large room in front of it. In the Izumo Shrine the throne of the deity is placed to the West of the entrance, as in Zenkôji the Amida statue is also on the West side. The room arrangement in the inner section of Zenkôji shows the same ground-plan as the shrines of Izumo and Otori and the farmhouses of the Ika type, that is the four-room partition and "umbrella construction".

The farmhouse in the Ika District to the North of Lake Biwa has drawn much attention.^{④④} Unlike the other parts of the old province of Omi in which the Ika District lies, the Ika District has many saddle-roofs, whereas the other districts of the province have four-sided roofs (hipped roofs) and combination roofs. The room partition in these two-sided, or saddle-roof houses, has its peculiarities too. Inside the entrance there is an anteroom without a floor, called *niwa*, with a partition. In one part we find only the bare ground where cauldrons and fire-wood are placed. The half in the rear is separated from the first room by a small board five cm. high, behind which the ground is two inches deeper. This space is filled with rice-chaff (*momnuka*), over which coarse straw-mats are spread out and over them thin straw-mats (*goza*). Behind this matted room is a floored space about 30cm. above the ground, divided in two rooms, a sleeping room and a parlor (*zashiki*). The ceiling over the matted rooms consists of mats woven of split bamboo, and over the two other better rooms there is a solid ceiling. The good room (*zashiki*) has an alcove (*tokonoma*) where pictures can be hung up or a house-shrine (*kamitoko*) or a Buddhist altar (*butsudan*) be placed. Only distinguished guests are brought in here; common visitors are met on a good place in the matted room. Nowadays the room is rarely matted anymore but rather floored as the inner rooms are, but the floor of the former is about 13cm. lower than that of the inner rooms. In mountain villages farmhouses have still clay-walls and can thus not be opened on all four sides, reminding one of the *haniwa* house figures of the tumuli period. European missionaries in the second half of the sixteen cent. reported that the nobility in the cities and in the countryside lived in beautiful, two-storied buildings in which one room was always especially beautiful. They liked, it was reported, to have painted walls and golden folding-screens and to hang famous pictures in the alcove (*tokonoma*), put many flower vases there, display tea utensils and swords. The houses of the common people were built of wood, while the better houses had walls beautifully plastered in white. The poor houses had straw-thatched roofs and walls of clay.^{④⑤} Houses with walls of clay, or better, plastered only with mud or clay-mortar seem to have been common at that time. In the mountains of Ika they are still found now. They have no verandah (*engawa*) and therefore no wooden sliding boards (*amado* "rain-doors") for closing the house and inside no paper sliding doors (*shôji*) as room partitions.

Another peculiarity of the Ika house is the designation of the size of the rooms.

Elsewhere rooms are measured by the number of good mats (*tatami*) with which the floor is covered, in Ika by the number of coarse mats (*mushiro*) which are spread out. Basically the same room arrangement as in Ika is found also in Amatsu Village, Nifu District, Fukui Prefecture (Echizen). In a deepening on the ground (without floor) right inside the entrance rice chaff and straw are laid out, the rear half of the house has an elevated floor of boards. In the center of the house stands a pillar so that also here an "umbrella construction" (*karakasatate*) results. One more parallel therefore to the ancient shrine construction. By the way, there are also shrines in which the frontal part (*gaijin*) of the interior is one step lower than the rear part (*naijin*) where the sanctuary is.

The ancient Imperial residence (*miya*) had probably the same room arrangement as the Ika house. The center of the house was in old times the fire-place on the mat-covered ground. In the present Ika house we find the oven with the fire-wood stored beside it on the ground without floor (*niwa*) but just on the boundary line between this ground and the mat-covered adjoining room without floor. It is possible to attend to the oven while sitting or standing in the matted room. The fire in the oven keeps both rooms warm. The elevated floor with the good room (*zashiki*) on it and the sleeping room of the head of the house and his spouse is very probably a more recent innovation. This is suggested by the name of the lower part which goes under the name *oyue no shimo*, *oyue*>*o-ie* "house", as distinct from *oyue no kami* "upper (part) of the house". These two rooms do not comprise the floored part of the house. The floored part with four rooms arranged in the regular chess-board pattern (*yonmatori*) presents itself as a later addition.

There have of course been made variations of the given possibilities in further room additions and adaptations, but the essential characteristic of the Ika house-type is the three-room partition, one room bare ground, the next one covered with coarse mats (*mushiro*), and behind these two an elevated floor with the usual room partition and fine mats (*tatami*).

With the above elaborations we wanted to show the genealogical connection between the old shrine construction with at least one local type of house construction. Because of this connection we can in that particular local type see the oldest form of room partition in the farmhouse. This old form points back into the past, at the same time into its future since we still find elements of it preserved until our time.

II The Dwelling-house of Asuka and Nara time.

Above we dealt with the house of the tumuli period from its archaeological and actual remains. The Izumo Shrine underwent repair in 659. It must therefore have been built at the latest in the sixth cent., that is, still in the tumuli period. This period came to its end in the seventh century. The Nara time, which brought the first definitive capital, lasted from 710-784. The time immediately preceding the Nara period is called the Asuka period.⁴⁷ In this time architectural accomplishments are on record which are lasting highlights of Japanese art. In our essay we are however more interested in the housing of the common people. Somehow we are informed

about it through the yield of spade-work.

In 1940 the site of Izumi in Koemachi, Kitatama District, Tokyo County, was examined. Found were pit-dwellings belonging to the Haji period.^④ One of them measures 4 sq.m. It has rounded corners, and the pit is about 15cm. deep; no post holes were found. Remains of a fire-place show a lateral position, in one corner was a hole, obviously used for storing things. The question is now whether this house had no posts or these were perhaps standing on boards. There were 10 pit-dwellings assembled within an area of 100 sq.m. In Fujimidai, Nakano Ward, Tokyo City, in 1948-1949 five pit-dwellings from the so-called Onitaka period (which follows the Izumi period) were studied. These dwelling sites have almost all a quadratic ground-plan, 3.5 to 6.4 sq.m. The pit is 60cm. deep. Around it runs a ditch. In the middle of the wall on the North side is an oven, of which a part cuts through the circumferential ditch. On the East side of the oven there is a storage pit. As a rule four posts face each other. In one case a post hole is in the middle of the ground, in another case no post holes at all were found. One house was destroyed by fire; in the pit a part of a post was found and a charred board. There must have been a room partition, as it is suggested by ditches in the direction of the four main posts. Particles of reed-grass stalks were found, they probably belonged to the roof thatching. The remarkably large assemblage of 25 dwelling-houses of potters within an area of 90×70 sq.m. was found in 1938 in Azusawamachi, Itabashi Ward, Tokyo City. The site belongs to about the same time as that of the above mentioned Fujimidai site. The most frequent size of the pits is 4.5 sq.m., smaller ones are 2.6 sq.m., the biggest are 8.2 sq.m. The oven is made of clay, as a rule built on the North side, in a few cases on the East side. The holes of the main poles are lying diagonally opposite each other, as they are also in Fujimidai. There are mostly four holes, but sometimes there is an additional hole between each two holes. These houses must have had eight posts and were therewith of a considerable size. Other dwellings show no regular arrangements of post holes, and of the smallest houses there were no post holes at all left. As in Fujimidai a ditch is dug around the dwelling. Also here traces of a room partition are visible. The roofs must have been thatched with miscanthus and bark of trees.

Another site with a quadratic ground-plan is the 50cm. deep dwelling in Sakura City, Chiba Prefecture, excavated and examined in 1949. Four main posts, an oven on the West side. A typical Haji dwelling, resembling that of Azusawa and Fujimidai. A good number of such dwelling sites has been found and examined. Among them the most illustrative is Hiraide in Nagano Prefecture, found and examined from 1947-1951. About 50 pit-dwellings of potters were assembled there, 5 of them belong to the early Haji period, about 20 to the middle, 17 to the late Haji period. Early Haji coincides with the middle tumuli period (fifth cent.).

Hiraide No. 43 is rectangular, 5.3×4.8 sq.m., the pit is 25cm. deep. The post holes are not found on the bottom of the pit, but on the top of the enclosure wall. In the middle of each of the four sides is a hole for the main post. Beside it many small holes were found here and there in irregular intervals. Approximately in the middle of the ground, a little towards the Western wall, there are traces of a big fire-place. In

the center there is also a storage hole. The fire-place is in general the peculiarity of the early Haji dwelling sites of Hiraide.

Hiraide No. 46 is rectangular too, 5×4.9 sq.m., has rounded corners, and a pit 40cm. deep, with an enclosure wall, but 6 small holes on the bottom, a storage hole in the SE corner, apparently no holes for main posts. In the middle of the wall on the West side there is an oven built of stones and covered with a layer of clay. Such an oven exists in the middle and late Haji period. No. 3 has a rectangular ground-plan. 6.3×6.05 sq.m., rounded corners, bottom 30cm. deep. In the middle of the East wall there is an oven of clay (*kamado*) built. On the enclosure wall 55 small holes could be counted. They do not belong to rafters of a roof that came down to the wall but served for the construction of the wall. This site No. 3 was reconstructed in 1951.

No. 11 is the remains of the largest dwelling-house of Hiraide: ground-plan 11sq.m., pit 40cm. deep. It had four main pillars with a diameter of 35-77cm., 70-110cm. deep holes for them in the ground, at the bottom of which flat stones of fist size were found. The distance between the main poles is 6.6 to 7.3m. Between the holes for the main posts are 6 holes for smaller posts. In the middle of the wall on the West side is a fire-place, another one close to the center of the pit. On the enclosure wall 11 holes. Quadratic ground-plan.

We can find several innovations in the dwelling construction of the Haji period: an increase in the measurements, timber of a remarkable size, technical advances in carpentry for which perfected iron tools were used. Wooden boards were extensively applied. In Hiraide there are dwelling sites with a diameter of 11m. Store-houses did not come to light. The construction of an oven with the smoke going out through a chimney made of clay is the most striking progress in home building. Posts and pillars are strong and numerous and there is an enclosure wall built around the pit preventing water from flooding the house interior. Houses in Hiraide with a diameter of 11m. must have belonged to wealthy owners, the gentry of the village.

About the dwelling-house in the countryside during the Haji period we are thus quite well informed. About the house construction in the ever moving "capital" practically nothing is known. Towns and still less cities had not yet developed to any sizable extent. Only about the size of the ground allotted to persons of rank for building their residences some sources have something to tell us. The largest plot of land seems to have been 4 *chô*, or 6.940 sq.m., the next smaller plot 2 *chô*, or 3.470 sq.m. From the Nara time many temples with tiled roofs still exist. The grandiose architecture of the periods Hakuhô (673-687) and Tempyô (722-748) belong to art history. The contemporary houses of the common people had roofs covered with wooden planks or were thatched with reed-grass, the walls were often made of planks too. Also houses with a floor of boards became known besides others with an unfloored interior. Archaeological findings permit us to imagine how the people lived in their homes. On the wall opposite the entrance was a clay oven with a chimney that emitted the smoke outside. About halfway between the entrance and the oven there was an open fire-place. Many houses were big enough so that sleeping in a right angle to the wall was possible on both sides of the fire-place. There were however smaller houses in which the sleepers had to lie down parallel to the

wall, that is, between the wall and the middle line or axis of the house on which were lying the entrance, the fire-place, and the oven. Ample use of straw-mats to cover the bare earthen ground and to close the door and the small windows has certainly been made. The handling of timber with an advanced carpentry, a smoke-eliminating oven for cooking food, the draining of water from the ground outside the house, all these improvements must have, together with the fire-place, given some living comfort.

III. The Dwelling-house of Heian Time (*shindenzukuri*).

New ideas in the construction of the aristocratic residences of the capital: the "sleeping-hall" (*shinden*) construction.^④ - The Heian time (794-858, Fujiwara 859-1191) saw a great innovation in the dwelling culture of the capital. Though this innovation was first confined to the residences of the uppermost classes, they in the course of time left their impression on the houses of the lower classes too. As it happens everywhere, genuine progress in the mode of living, achieved on the higher levels of society, is gradually imitated by the lower levels and adapted to their much simpler conditions. In our essay on the cultural history of the Japanese farmhouse we do therefore well to look closely at the so-called "sleeping-halls" (*shinden*) of the high aristocracy of Heian. In the next chapter we shall see how elements of Heian architecture underwent changes, reached other classes of society, and were perpetuated, still visible in our time in the so-called "big-room-type" (*hiromakei*) of room partition in the farmhouse of the Northeast (Tōhoku).

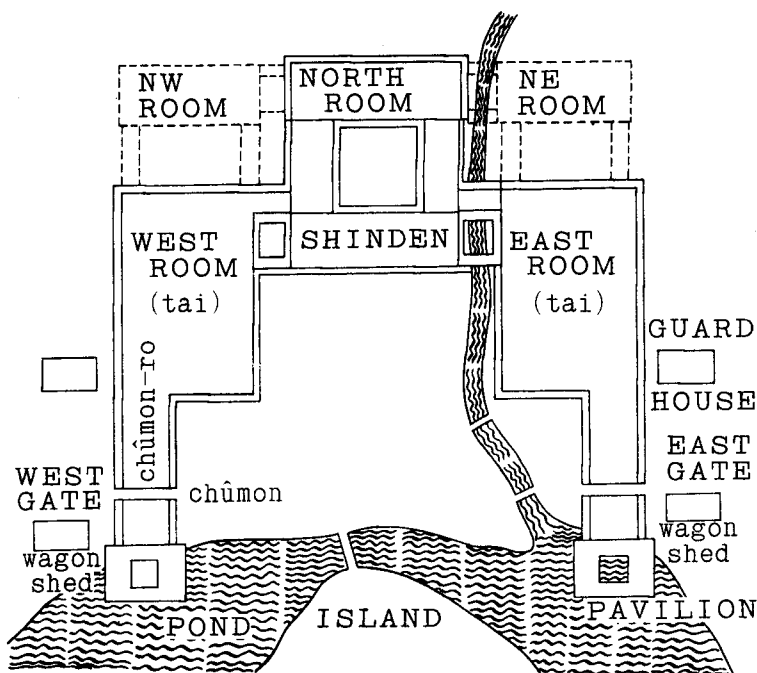
From early Heian on documentary evidence is left on the construction of residences. From the eleventh century on *Nikki* (diaries) and *Emaki* (roll pictures) give us information on how these residences were built and what they looked like. Because of the far reaching effect of the new refinements on the dwelling-house construction of the Japanese we must now take a close look at various details.

The average size of the plot of land needed for a palace construction, including the garden, was 40 square *chō*, or 7,920 sq.m. The residence comprised several independent buildings. One of them, that in the center and facing South, was the main house. It was called *shinden*, lit. "sleeping-hall". After it the entire construction complex was called *shindenzukuri*. On both the right and left side of the main house and behind it annexes were built. The various buildings are connected with roofed gangways with an elevated floor. The main building has of course such a floor too. To the South of the main building there is a garden with a pond in it, in which there is an islet to which a bridge leads. On both sides of the main house a roofed gangway leads to a summer-house in the garden, one in the East and one in the West. A summer-house is called *tsuridono* "fishing-hall", implying that while sitting there one can angle fish in the pond. From both gangways an exit opens into the garden. The exit is called *chūmon* "middle door", a name which we find still in use in Tōhoku for a part of the farmhouse there. Because of this exit the gangway to the summer-house is called *chūmonro* "way of the middle door". Outside this door there is a shack in which guardsmen can be accommodated or carriages parked, the

shack being called *kuruma-yadori*, lit. "lodge for carriages".

The entire garden compound is enclosed by a wall with an entrance door opposite

Fig. 3



Sleeping-hall (*shinden*) construction of Heian time (after Ota Hirotarô, (NBD, V, p. 246)

each of the two *chûmon* ("middle door"). If one wants to go inside the palace, one has to come in first through the door on the outer wall, then walk through the middle-door on the gangway in the garden, arriving finally at an anteroom which is connected with the main building, the *shinden* ("sleeping-hall") by a short, roofed gangway. The rooms of the main building consist of the sleeping-hall proper and one or more rooms under the eaves (*hisashi*). From early to middle Heian a small room was cut out by a partition from the main room, the *nurigome*, in free translation the "lacquered private room". Probably the pillars of that partition were lacquered. Both on the East and West side of the main room was a folding-door. Around the inner room a verandah is built with a floor made of split bamboo (*sunoko*) and with a ramp. The pillars of the house are round. For sitting down on the floor round cushions (*enza*), woven of straw, were used. Folding-screens stood in the room, on the walls are boards as shelves for keeping various objects and utensils.

The main room is on both the right and the left side flanked by a side-room (*tai*). The word *tai* means "opposite". The side-rooms are rectangular and arranged from North to South. On the South side they have a separated room under the eaves, open on the front-side. The roofed corridor outside this room lies one step deeper than the room and has cornered pillars.

In the "sleeping-hall" the head of the household lived, his family being quartered in one of the two side-rooms (*tai*). In the *shinden* meals were taken and work was

done, and in accordance with its name the night's rest found here. Toilet and bath were found in one of the corridors which connect the main hall with the side-halls. In addition to the main room the head of the house claimed for himself at least one of the side-rooms and the adjacent gangway leading to a summer-house in the garden. From middle Heian on the lacquered separate rooms within the main room disappeared, in its place a curtain was hung up in the middle of the room behind which a sleeping-place was set up. Outside the curtain-enclosed sleeping-place a floor-covering consisting of a thick layer of woven straw was spread out which is the beginning of the use of the later *tatami*, as they are now seen in every house. No tables, no chairs, and no bedsteads served as furniture. They never existed in a Japanese house; sitting on the floor is a custom observed from prehistoric times on. In middle Heian a second floor came in use among the wealthy classes, where toilet articles, writing utensils and other household items were stored away.

The main hall was also used for social life. Throughout the year seasonal gatherings took place here. If there were many guests revelling all night, the Southern half of the hall, the adjoining side-rooms, and the gangways (*chûmonro*) in the garden were used. When life became more complicated and the need for a separation of one's private and public life was more keenly felt, the living room (*ima*) of the master of the house was moved to the rear of the main hall where under the eaves a room was set up. This North room had from the beginning a distinctly private character. On the same North side were also the quarters of the female attendants, growing in number with the years. The main room was connected with the side-rooms with roofed corridors (*wataridono* "passage rooms"). By middle Heian there existed a passage from the NE and SW corner of the main hall to the next side-room. The passage to the garden-house was called *sukiwadadono* "passage-room to the outside". Before the main hall was connected with the adjoining rooms only at its corners in the rear, the passages were called *wadadono* "passage halls (rooms)". From middle Heian on these passages were given up, and two rooms were set up there instead. There were then the quarters for the children and maids, the toilet and bath. In the NE corner of the main hall a room was built, called *dei* and meaning "exit and entrance". This name was given because in daily life ordinary and purely personal visitors were not admitted into the main hall which was more and more reserved for formal social life. This *dei* was a kind of private day-room, living room and parlor at the same time. Special rooms for receiving guests (*ôsetsuma*) did not yet exist. The *dei* was part of the private rooms (*ima*) in the rear of the main hall.

Into the residential complex people entered through the door on the gang-way to the garden-house (*tsuridono*). In the present-day house the *genkan*, or vestibule, corresponds to this entrance. In a Heian residence the ordinary caller went not through the garden but through the gang-way, then through a large side-room, from there through a small passage (*wadadono*) and finally into the main hall.

In the garden- (or summer-) house (*tsuridono*) people were angling, looked at the moon and praised the snow. There was no furniture in the open building. In the pond a boat was floating, sitting in it guests enjoyed social life, music and poem

making. Water was flowing into the pond between the main hall and the Eastern side-hall (*tai*). The corridor which connects these two rooms is in fact a roofed bridge over the small river. From the pond the water flows on to the South.

Towards late Heian the symmetry in the sleeping-hall construction was gradually given up. It had probably originated in the Imperial palace (*nairi*). The external symmetry in the horizontal line did not correspond with the use of the rooms inside. During ceremonies the place outside the *nurigome* ("lacquered private room") was the seat of honor, but it was not in the center. The axis did not lie in the direction North-East, but East-West. Seen from the purpose for which the rooms were used, the center of gravity was either in the East or in the West, depending on the side from which one came in and where the daily living room was. The other half of the entire complex became more or less a luxury. First the rooms there were kept, or tolerated, as open halls, but in the course of time they were given up. New ones were no longer built, when the old ones fell apart and were demolished. Also economic considerations did not favor duplications for the sake of a pleasant symmetry. As the Heian aristocracy (*kuge*) was losing its economic strength in the course of a change in the manorial system (*shôen*) luxurious representation was no longer possible to the same extent as before. By the end of Heian and in early Kamakura time the symmetry between East and West in the residential ground-plan was all gone. Less wealthy lords had already before neglected it, though the symmetry was the classical ideal. What remained was the main hall and the gang-way leading to it, without the garden-house. A good example of such a simplified building is the residence of Fujiwara Sadaie (1162-1241).

Already in a farmstead of the tumuli period the main house was in the center. It is possible that this tradition was preserved in the palace construction. The supposed remain of the palace of Prince Shôtoku (572-621), the Ikaruga palace, were excavated.⁶⁰ It looks as if in that palace there was a large central building as the Heian residences had. However, spade work has not yet brought enough to light concerning additional buildings.

The sleeping-hall construction, that is the aristocratic Heian residences, are somehow a replica of the residence of the Emperor. Since the Imperial residences lasted only a short time, very little is known about them. In 645 the Imperial residence of Yamato was given up and moved to Naniwa, where also a number of government buildings were erected. In the years 650-652 the palace of Nagara no Toyosaki was built anew. The *Nihon shoki* (720) describes its beauty; it was built in T'ang style. Naniwa was the capital only for nine years. Emperor Saimei moved his capital back to Yamato. His plan to build a palace with tiled roofs did not materialize. It is noteworthy that tiled roofs were planned which hitherto were used only for Buddhist temples. The Fujiwara capital was built under Emperess Jitô in the years 691-694. Its NS length measured 203 ft. (ca. 64 m.), its EW length 780 ft. (ca. 260m.). The following Heijô palace was smaller and still smaller was the Heian palace. We do not know which buildings of these palaces the emperor used for himself. In 960 fire destroyed the Imperial residence. During its reconstruction the emperor had to live in a residence of the aristocracy. Until 1048, that is within 88 years, the Imperial

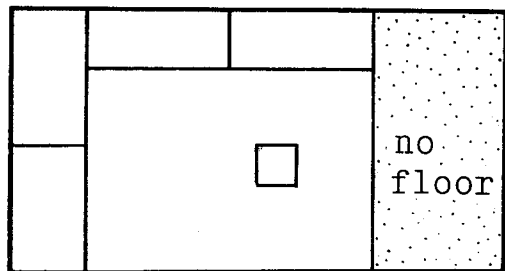
residence burnt down eleven times. Each time the Emperor was temporarily accommodated in the residence of a nobleman. The temporary residence was called *sato-dairi*, *sato* meaning "village", *dairi* "Imperial palace", more precisely: the buildings used personally by the Emperor within the palace complex. After the conflagration in 1048 another fire broke out during the reconstruction of the palace, and the palace was finished 18 years later in 1071. Because of these frequent fires in the Imperial palace it became the practice that a "village residence" (*sato-dairi*) was used simultaneously with the regular residence. Style and construction plan of the country-residence of the Emperor were kept similar to the residence proper. Later the residence in the city was rarely used, and the Emperor resided most of the time in his country-residence.

The *shindenzukuri* (sleeping-hall construction) was developed both by the Emperor and the aristocracy, most probably under the leadership of the Emperor. The residential palace had, besides its social, also religious functions. When a Fujiwara N. N. worshiped Buddha, he took the Buddha statue or picture from his private chapel into the big main hall. The monks in his employment sat down there before it and prayed for the well-being of the Imperial family. The family members sat in the anteroom and joined in the prayers. The house, planned with a view on this worship, had as its center the worshiped deity with the seats of the family around it.② The above statement is borne out by the existing Imperial palace in Kyôto with its ceremonial hall (*seiryôden*). In the old Imperial residences (*dairi*) it was already one of the buildings. Of it, the Emperor being a god, was the center. Adjoining the big sacral main room additional smaller rooms were arranged, as was the custom in the sleeping-hall construction in the Heian time. The aristocrats of this time had in fact very little power and what they had they tried to keep with the help of the Buddhas and gods. Therefore their house was planned with the worship hall in the center. Guardian-gods had always lived together with man. The worship of gods in the unfloored part of the farmhouse is the continuation of this old practice.

A farmhouse consists of three parts: an unfloored one (*doma*), a floored one (*itanoma*), and a third one, floored and the floor covered with thick straw-mats (*tatami*). The unfloored part originates in prehistoric times, the floored in Heian time, the part with the heavy straw-mats in Kamakura time (1192-1333), in which the warriors developed the house type called *bukezukuri* "warrior construction", basically an abbreviated and simplified sleeping-hall construction.③

The old tripartite house partition is still clearly in evidence in the farmhouses of Northeast Honshû with their *hiroma* "large room". There the unfloored part of the house occupies much space. The adjoining big room has a floor of boards without any covering (*itanoma*). Here is the fire-place around which the family gathers. The next room is smaller, it is a *zashiki*,

Fig. 4



"big-room" house-type
(*hiromakei*) of Tōhoku

a room with fine straw-mats (*tatami*) and is used for guests. In mountain villages one finds occasionally farmhouses in which the family still sleeps on coarse straw-mats in an unfloored room which is a shallow pit. This kind of living is a direct continuation of the old pit-dwelling. Especially retired old farmers, farm laborers and young people are accommodated in a room without any raised floor. A deepening is dug out and filled in with chaff and straw. Also the domestic animals are kept in a room with straw filling. From such an unfloored part of the house we can reconstruct the house interior of prehistoric times. Here the gods are worshiped, on the hearth the hearth-god Kôjin, on the well inside the house the water-god. The gods have a small board on the wall where sacrifices are placed for them at the end of the year. They are gods without connection with public shrines, i.e., exclusively house-gods. The oldest gods were worshiped in the house, probably from pre- or proto-historic times on.

A good example of the dwelling-house as place of worship is found in Hyûga in Kyûshû. An old tradition has it that from Kashiwabara over to Takachihô partisans of the defeated Taira clan have settled down. Beaten by the Minamoto clan they took to farming in remote mountain areas. Typical for many others is the farmstead Tsurutomi. Its architectural peculiarities do not interest us in this context, only the religious aspects. There is an unfloored anteroom (*doma*), behind it a suite of four rooms. The first and the second room must be avoided by people who have contracted impurity by menstruation or contact with dead. In these two rooms gods are called down and worshiped. In the whole area, as defined above, *kagura* are performed as acts of worship. The house is built in such a way that there is space for *kagura* playing indoors. It is decided by lot in which house the plays are to be performed. Houses without suitable space do not come in question. The house decided upon is cleaned a few days in advance, and its inhabitants retire temporarily into some barn (*naya*) on the compound. On the day of the theatrical performance, from a small shrine on the mountain slope a *shintai* (object in which a god resides temporarily) is welcomed in the house. Young men in ceremonial dress carry a small palanquin (*mikoshi*) for the reception of the god, here a divine pair, male and female. The *shintai* is carried in the palanquin into the cleaned house and placed in a good room. Then *kagura* are performed all night. An adjoining room serves as resting place for the players. The spectators are sitting along the walls of the good room, in the adjoining room, and on the verandah (*engawa*). All are saying prayers, even those in the garden.

From the above we see that both the house of aristocrats and that of commoners are built in a way that worshipping ceremonies can be carried out in them.⁵³ As pointed out above, the oldest shrines were but houses of aristocrats.

In a very simplified form the construction of the aristocratic house, more precisely that of the warrior aristocrats of the Kamakura period, travelled to the countryside, and elements of this construction came in the course of time down to the farmhouse. In this context the farmhouse of Tôhoku (Northeast Honshû), to bring it up again, is of special interest. Its ground-plan permits us to discern which elements in it originate in the sleeping hall construction of the Heian period. The "big room" (*hiroma*)

with a floor of bare boards is related to the *shinden*, so to say an off-spring of it. The adjoining small rooms, among them the *nando*, the sleeping room of the house-father and his spouse, remind one of the rooms surrounding the main room in the Heian residences. The religious function of the big room can be grasped from the ranks of the sitting places around the fire-place. Upon entering from the anteroom (*doma*) and looking straight forward into the big room, one finds on the right side of the fire-place the seat of the housewife (*kakaza*). From here she can reach the kitchen with a few steps. On the left side of the fire-place the guest is seated, his seat (*kyakuza*) being nearest to the entrance. Behind the fire-place (*yokoza*) sits the head of the family, not in the longitudinal but in the cross (*yoko*) direction. He occupies the most distinguished seat, which he yields only to the head of his sib when this man happens to call. On the wall behind this cross-seat is the house-altar (*kamidana*) of which the head of the house is the guardian and officiant. The gods worshiped in the big room are considered the "inner guests" (*naikyaku*) and thus distinguished from those in the unfloored anteroom (*doma*). The gods on the shelf inside are propagated gods, first of all gods which the overlords wanted their subjects to worship. Their worship has a political and social function, either for the State or the feudal master (*daimyô*). Thus we find Daijingû, that is the Sun Goddess Amaterasu, the ancestress of the Imperial family. Chinshû is the tutelary deity of the fief to which the area belongs. On a shelf behind the seat of the housewife Ebisu and Daikoku, gods of good luck, especially of economic success, are worshiped. There also hang the amulets against fire calamity as issued by the Buddhist Shingon sect. Other amulets are pasted on the door-posts of the house entrance. In a corner behind the seat of the housewife stands also the Buddhist house-altar (*Butsudan*). The Shinshû and the Nichiren sect however have their *Butsudan* stand in the rear of the good room (*zashiki*). The gods worshiped in the big room reflect the political, social and religious affiliations of the family.

In the ceremonial room (*seikyôden*) of the Imperial palace, as mentioned above, there is a small room (*futama*) adjoining the sleeping-room, in which the Buddhist court chaplain has hung up a picture of Kannon to invoke the blessing of the Goddess of Mercy upon the Emperor. This may be the inception of the worship of Buddhist pictures in dwelling-houses. The place where that Kannon picture is hung up, corresponds to that of the Buddhist house-shrine in the farmhouses of Tôhoku.

The construction of the aristocratic residences in Heian was adapted to the economic, social and religious conditions of the high classes of the time. A residence was built for only one family. The influence of Chinese architecture made itself felt only indirectly. The great living-room of the family-head, the adjoining side-rooms in special buildings which were connected with the main building by roofed gangways, and also the garden with its summer-houses are inspired by Chinese prototypes. In China however it is because of the enlarged family system there that the residence consisted of a complex of several courts, each one forming a dwelling unit for one of the several married male family members, all units being kept together by a common enclosure wall. In a Heian residence, on the other hand, the center is a main hall for the family head and his own family. The entire complex is built for his

daily life and his changing religious and social obligations. Also the construction material differs in China and Japan. The Chinese have brick buildings; also the elevated floor is built with bricks. The Chinese room partitions are made with wooden frames (*ko-shan*) over which silk cloth is stretched. In Japan curtains, wooden boards, and hurdle-work covered with plaster are used for this purpose. In Japan Chinese inspirations were at work indeed, but they had to be adapted to Japanese living conditions.

The Heian society with its dictators from the Fujiwara clan lost its predominance to the rising warrior class. Fujiwara Yorinaga was the last autocrat of his clan. From the middle of the 12th century on the provincial warriors were in control of the whole country and they stayed in power for the next five centuries.

IV. The House Construction of the Warrior Class (*bukezukuri*). ⑤⁴

1) Kamakura Time.

The old aristocratic families in Kyôto preserved their class consciousness and looked down on the upstarts in Kamakura. On the other side, the warriors now in power emulated the refined culture of the old capital. This holds true also in matters of dwelling-house architecture. The living conditions of the warriors in their provinces however forced a certain measure of austerity on the construction of their residences. The construction had to take cognizance of the differences of military ranks, and for the purpose of defense a strong enclosure had to be built complete with a heavy door and small towers. Occasionally a moat was dug around the residential building. The precedence rules for the sitting order inside the house were meticulously developed. Farmers and other folk were not admitted into the house. They had to wait for their lord in the garden and then prostrate before him. It was already a sign of distinction if a commoner was allowed to sit on a mat while waiting. The next higher distinction was to sit on the verandah, followed upwards by sitting on the floor on cheap and thin mats (*usuberi*) and then sitting in a room with good mats (*tatami*). To sit on a cushion (*zabuton*) was already a special privilege. When an unknown visitor called, his clothing was first examined from top to bottom, and then the treatment found appropriate given him. The quality of the chinaware used for serving tea expressed also the degree of respect shown to a visitor. For keeping the tea serving utensils and various clothings a special room (*nando*) in the house was used or a fire-proof storehouse (*dozô*) built in the garden. In the warrior class a visitor of rank was made the center of the house.

The religious traditions of the Heian palaces were given due attention also in the residences of the Kamakura period. Believers of the Amida sects set a room aside for worship, called *Butsuma* "Buddha room". In the Heian time the function of the residence as a place for religious gatherings was given due attention in the architectural planning. In the later Edo period (1603-1867) the rooms near the entrance were used for receiving visitors; for praying a dark room in the rear of the house was used. But the followers of the Jôdo-Shinshû, one of the Amida sects, returned to the Heian tradition and put the *Butsudan* (Buddhist house-altar) into the best room

opposite the entrance. For religious gatherings the removable room partitions (*fusuma*) were taken out whereby the whole house became a great prayer-hall where people could sit on the floor. The followers of the Zen sect, which was the most popular among the warriors, made the Buddhist house-shrine more or less a piece of furniture of their "tea-room" (*chanoma*), which was the daily living-room of their family. In the good room (*zashiki*) was found neither a Shintoistic nor a Buddhist house-shrine. In their houses the religious atmosphere was pushed aside by the social function of the house. We can see from the house construction that the dominant ideology of the warriors differed from that of the Heian aristocrats.

The change from the sleeping-hall construction to the warrior construction (*buke-zukuri*) went on gradually. Already by the end of Heian the symmetry in the construction was abandoned when one of the two side-buildings (*taiya*) was left out. As already mentioned above, an example of a simplified Heian residence was the palace of Fujiwara Sadaie (1162-1241). It consisted only of a main hall and a short front building or porch, the remains of the former roofed gangway that had connected the main hall with a summer-house in the garden. Additional rooms were provided under the eaves, main rooms and side-rooms all under the same roof. On the property there were furthermore a Buddhist chapel, a house for servants and a shed for wagons. A door into the garden opened in the enclosure wall. The hall in the main building was used for ceremonial gatherings and at the same time it served as living quarters for the master of the residence. What remained of the former gangway (*chûmonro*) became a representative house entrance. The double function of the main hall (*shinden*) carried with it the tendency to have separate buildings for each function. Because the space on the frontside of the main hall and the room under the Southern eave were used for public social purposes, there were only the rooms under the Northern eave left for private life. Under this eave the room for private daily life (*tsune no gosho*), living- and sleeping-room at the same time, developed. It was with time made more spacious by adding an annex to the room under the eave, or this room was enlarged by reducing the size of the main hall so that the partition between the room in the rear and the main hall was moved southwards. This change had already set in during the Heian time and was commonly adopted during the Kamakura time. Though with reduced measurements the residences of the aristocrats continued the essential traditions of the Heian time into the Muromachi time (1382-1490).

The new class of the warriors was recruited from the provinces. As soon as their social status was established, they developed a construction style befitting their rank. The *Azuma Kagami* reports on the residence of the military governor (*shôgun*) from Minamoto Yoritomo (1117-1199) on the following rooms are mentioned: a main hall (*shinden*), one somewhat larger side-room (*tai*), one summerhouse (*tsuridono*), one room for *samurai*, one private room (*kogosho*), a horse-barn (*umaya*), one room for the daily living of the Shôgun (*tsune gosho*), one reception room (*taimen gosho*), two roofed gangways with separate ridges, one study-room (*gakumonsho*), one shed (*osamedono*). With the exception of the reception room all these rooms with their names do not differ from those in the old Heian residences. We thus see that the transition

from the construction type of the Heian residences to a new one did not happen by leaps and bounds. In a roll picture (*emaki*) about Hōnen Shōnin (1133-1212), the apostle of the Jōdo Sect, we see the residence of Miyamoto Tokikuni in Mimasaka, one of the eight provinces of Sanyōdō in West Honshū, it is typical for the dwelling of the provincial nobility of that time. It has a roofed gangway (*chūmonro*) in front of the main building, however here in Mimasaka it does not connect with any other building, but has been assigned a new function as quarters for the retinue of the lord. The place of the shed for wagons is in the palace of Miyamoto Tokikuni taken by a horse-stable. In other respects the residence does not differ from that of Fujiwara Sadaie of late Heian.

When the warriors in the provinces had built up their social status, their residences became more portly. For representation the Heian sleeping-hall construction recommended itself best. However its corridor on the frontside of the sleeping-hall (*sukiwadono*) and the gangway to the summerhouse in the garden were left out, but the other side-buildings (*taiya*) were made large and additional buildings added. The functions of the various rooms were in the beginning but little developed and therefore the room partitions were only few.⁶⁶

From the *Gempei Seisuiiki* it is evident that the residence of Minamoto Yoritomo was built well in accordance with Heian traditions. In the Kamakura period the peculiarities of the warrior construction (*bukezukuri*) are still little in evidence, only from the Muromachi time on they begin to fully manifest themselves. The room partitions became more complicated, effected with movable sliding walls (*fusuma*), consisting of wooden frames over which white paper is pasted. The greater part of the floor was covered with good straw-mats (*tatami*), and the rooms had ceilings.

2) Ashikaga Time (*shoinzukuri*)

The palace buildings of Ashikaga Takauji and other military governors.⁶⁷

The residence of Ashikaga Takauji (1305-1358) in Ogawa consisted of two main buildings of which that on the West side comprises the private rooms and that on the East side the ceremonial hall. A Buddhist chapel also stood on the compound. Each of the two main buildings is partitioned, both on the front and the rear side, into a number of rooms, and has a verandah (*en*). The later Ashikaga governors did not hesitate to build for themselves palaces in no way second to those of the Heian grandees. There were magnificent doors, connecting corridors, gardens and garden pavilions.

The residence of Ashikaga Yoshimitsu (1358-1408) in Muromachi was called "flower residence" (*hana no gosho*) because of its many flowers in the garden. The Saionji family built for itself a palace in Kitayama, in the years Oei (1394-1426) Ashikaga Yoshimitsu interfered and made of it the Kitayama palace, now Rokuonji, a Buddhist temple. The still extant part of it clearly shows a palace in Heian style. The Higashiyama palace was built by Ashikaga Yoshimasa (1435-1490) in 1483. It consists of five buildings, one of them with many rooms was used by the lord himself, another one of equal size served for social meetings, it too had many rooms. In the garden stand a Buddhist prayer hall, a Kannon chapel and a summer pavilion. The Kannon

chapel was later called Ginkaku 'silver pavilion'. The Kinkaku 'golden pavilion' built by Ashikaga Yoshimitsu in 1397, is a garden pavilion, in the Heian time it would have been called 'fishing-house' (*tsuridonô*). The Ashikaga governors were very fond of such buildings, they called them "cherry-blossoms buildings". The Ginkaku had two, the Kinkaku three stories. In Zen temples an upper storey was built for religious gatherings and banquets. In the Kinkaku the third storey was built by Zen priests. It had an influence on the construction of high class residences. Two storied garden-pavilions existed already in the late Heian time. The Saionji villa on the Kitayama was surrounded by cherry-trees. The Zen Buddhists showed a special predilection for cherry-trees in the garden. People with refined culture liked to look from a high building into clouds of cherry-blossoms. Roof and pillars of the Kinkaku are light, the building is graceful and bright. The second and the third floor are gilded, for the first floor simple timber has been used. The pond in the garden reflects the gold. The Ginkaku, built in 1489, has two stories, the upper storey is silvered and shines dimly. Its lower storey is a so-called "writing-room" (*shoin*), a construction about which some more will have to be said below. It has paper sliding-walls, of which the lower part is made high up with boards (*koshitaka shôji*). The upper floor with its rounded windows shows Zen atmosphere. The eaves of the roof are heavy, which is Zen style. The old Heian style has here disappeared.

The Higashiyama palace has rooms for Samurai and for the reception of guests. The meeting house (*kaijo*) and the guest-house still remind us of a Heian residence, in which however only existing rooms of the main hall were used for the same purposes. Separate meeting halls began to be built early in the Muromachi period (1394-1490). It was a big innovation to have a separate house for receiving and accomodating guests. The room partition in the guest-house is similar to that of the master of the residence. The guest-room in a present-day house of the common people is a drastically simplified adaptation of the guest-houses in the Muromachi palaces. In a Heian palace there existed still a difference between the rooms in the heart of the house and those under the eaves of the roofs. Later in the residences of the warriors this difference disappeared. The numerous rooms inside the house occupied the entire space under the roof including the verandah. All rooms had good mats (*tatami*), ceilings, sliding paper-walls (*shôji*) and pivoting doors. The name *zashiki* for a good room was coined at this time, it meant a room with a floor covered with good mats. Even the verandah, which in Heian time had a floor of split bamboo, got a floor with *tatami*. To sum up, the new residential type begins to show up by the end of the Kamakura period, is already formulated in the palace of Ashikaga Takauji, further developed in Higashiyama. Not all buildings are connected with gangways.

The Study-room Construction (*shoinzukuri*). - To the warrior construction (*bukezukuri*) a few innovations were added, the result of which became to be called "study-hall or writing-room construction" (*shoinzukuri*). It was started with the construction of an alcove (*toko*) in a good room (*zashiki*) with the use of shelves (*tana*) on the wall, a small writing-chamber (*tsukeshoin*) and a sleeping place one step higher than the floor of the room. Such things were however in the beginning added at different

places in the house.

Elevated sleeping places were already built early in the Kamakura period. They were set apart from the rest of the room by a wooden partition with a door, on top of the partition small sliding planes (*fusuma*) were fixed. The alcove (*toko*) can be seen on picture scrolls of the Kamakura time, in it a picture is hung up in the alcove in front of which a Buddhist monk is kneeling. Beneath the picture a board, like the boards used for mangling clothes, is laid on which an incense burner is placed. Other scholars however reject the explanation with the 'mangling board'. But that a niche was made in the wall to display pictures is plausible. In the Momoyama time this niche was made deeper and the bottom or floor of it was embellished with a *tatami*. The niche was called *tokonoma*.⁶⁸

Concerning shelves on the wall, in the Heian residences shelves were fixed on the wall in the kitchen. In the Kamakura time sutras were put away on shelves. The book-room construction is also connected with the Zen rooms. The Zen monks chose a quiet room on the Northeast side of the house for writing and looking through books, they called it book-room (*shoin*). By and by the usage grew to have this book-room on the edge of the verandah a little protrude and to have a little and quiet garden outside. This garden was so to say a decoration of the room. It thus happened that there was a garden also behind the house. The term "book-room" gained currency. Two kinds of book-rooms were distinguished, an "attached book-room" (*tsukeshoin*) and a "flat book-room" (*hirashoin*). By "attached" the protruding of the room is meant. In this protruding room the desk is built in into the part that protrudes over the edge of the verandah. In a "flat book-room" no table or desk is built in, only a movable desk is used.

A variation of the book-room construction is a room which became popular among Zen Buddhists. It was called *hōjō*, the word literally meaning "square-jō" (about 3 sq.m.), but used for the chamber of an abbot or chief priest. This designation was first used for the priest's chamber in a Zen temple.⁶⁹ Its ground-plan is rectangular. In the center of the rear there is the "Buddha-room" (*Butsuma*). The room before it has a wooden floor without *tatami* and is called "intermediate room", on its left and right side are other rooms, such as the "room of the master of the house" (*tanna no ma*), the "room for ceremonies" (*rei no ma*), the "book-room" (*shoin*). In the intermediate room there are *tatami* along its walls, the book-room has a niche in the wall (*toko*), a pair of shelves overlapping at different levels (*chigaidana*), and a corner for writing on a built-in desk (*tsukeshoin*). Except the writing-corner all these rooms are surrounded by a verandah. Only the Buddha-room makes the difference between Zen quarters and the ordinary book-room construction (*shoinzukuri*). On the frontside of the house a vestibule (*genkan*) projects from the corner of the verandah. The word *genkan*, meaning 'access to profound understanding' (*satori*) (the goal of Zen meditation), and the object signified by it were both generally adopted by the people at large together with Zen style dwelling. In Zen style dwelling the room next to the frontside was called *omote-zashiki* 'frontside good room', the room in the rear simply *zashiki*. In the room on the frontside of the house was a *tokonoma* (a niche in the wall) and a shelf with boards overlapping each other (*chigaidana*). On

the side of the corner of the frontside of the house there was a writing room with a built-in desk (*tsukeshoin*). The rooms and the verandah have paper sliding-doors (*shôji*). On the edge of the verandah "rain-doors" (*amado*), wooden sliding doors, can be moved in furrows when the verandah is to be closed, and with it the whole house shut. The partitions between the rooms are strong because the sliding-doors are covered with several layers of strong paper. They are called *fusuma*, their white planes are often the field of activity of the painters. In the Heian residences and later in those of the warriors and in the early "writing-rooms" (*shoin*) the room partitions did not reach the ceiling, so that all rooms have one and the same ceiling. In the fully developed writing-room construction each room has its own ceiling. The sliding doors need at the bottom and on top furrows in which they are running. That on top moves a little higher than the head of a man of average size. The space left between the head-beam and the ceiling is filled in with a thin board (*yamma*), usually decorated with fret-saw work or a trellis-work of split bamboo. In the so-called writing-room construction three traditions grew together, that is, elements of the sleeping-hall (*shinden*), the warrior residence and cloister (*jiin*) architecture.

In the architecture of the Tokugawa time (1603-1867) all traces of the sleeping-hall construction in Heian style disappeared. Nothing is left of the sleeping-hall as the center of the house. The guests occupy now the best place in the house.

The Onin revolt (1467-1477) had shattered the government of the Ashikaga clan (1338-1477). Many regional centers of power and culture sprang up. The feudal lords built all their own residences and castles. Regardless of the many wars all over the country in the Sengoku time (1490-1600) culture progressed in several fields. During the Momoyama period (1573-1595) Toyotomi Hideyoshi built a magnificent castle in 1593 on a hill near Fushimi in Kyôto. In the early Momoyama period arts flourished only to become soon formalistic and imitative. The grandees were now building their castles and palaces in the plains. Around them towns grew into which country folk migrated to enter directly or indirectly the service of the warriors. The *jôkamachi* 'towns under the castle' with their *samurai*, traders, shop-keepers and craftsmen developed a culture of their own. The best castles were built during this time and immediately thereafter.⁶⁰ Inside these castles the writing-room style was applied on a grand scale and perfected. During the Sengoku time the room arrangement (*matori*) was standardized. Back in the rear guest quarters were built with a writing-room (*shoin*) and an elevated and enclosed sleeping place (*chôdai*).

Such was the fundament on which the warriors built their type of dwelling. The line which starts with the impressive residences of the great feudal lords (*daimyô*), runs through the dwellings of the priests in the cloisters at the big temples, and higher officials, and finally reaches the lower strata of the population. The residences (*yashiki*) of the daimyô and higher *samurai* had an enclosure of long and small buildings (*nagaya*) with a stately entrance door. In these additional buildings were the living quarter for guards and employees and sheds for sundry items. Farmhouses of better standing considered it befitting their rank to imitate the residences of their superiors. On the side of the street the walls had small windows for a look-

out. The outside of the walls is plastered with white mortar with black ribs in a lozenge pattern. The shape of the entrance door differs in accordance with the rank of the master. Many such beautiful doors from the late Tokugawa time are still extant. The Akamon in Tokyo is a left-over of the Maeda residence where the lord of Kaga lived when in Edo. Its compound is now occupied by the University of Tokyo. Nearby, now the entrance of the National Museum, is another door of a former *daimyô* residence, it was the *yashiki* of the Ikeda family, the *daimyô* of Inshû, with a typical *nagaya* ('long house').

The writing-room house (*shoinzukuri*) was also built by the *samurai* of the lower ranks in the countryside. Many of them had taken to farming (*nôhei* 'farming soldiers'), and *via* them the refinements in dwelling made their entrance into farmhouses. Many examples of better-class farmhouses are still scattered all over the country. Well situated farmers have built for themselves real residences (*yashiki*) with walls and a moat around them. To name a few examples, in Kagoshima Prefecture, Hioki District, Isaku Town, there stands a farmhouse of which the whole ground-plan and room partition shows clearly the main features of a *bukezukuri* or warrior construction. The unfloored part right inside the entrance with the three cauldron-hearths is rather small.⑥ Next to it comes a large room occupying the entire breadth of the house. This is the living-room for the family. Behind it is a small room for maid-servants. A large complex of rooms is connected with this part of the house by a corridor with a wooden floor. These rooms occupy more space than is required for the function of an ordinary farmhouse. A special entrance with an anteroom (*genkan*) leads from the garden into this section which consists of four very good rooms. One of them in the rear is a guest-room with a niche (*toko*) in the wall, the other is a writing-room (*shoin*). Of the two smaller rooms in the foreground one contains the Buddhist house-altar. Behind these four good rooms is still one large sleeping-room (*nando*) and on the verandah a toilet. Obviously more than half of the house serves social purposes in excess of the requirements of a farmhouse. Similar room additions, up to six *de luxe* rooms, with a special access to them from the garden, have been made in farmhouses of *samurai* for the respectful treatment of a *daimyô* or other superior on an inspection tour. In some cases a special entrance door in the garden leads to a separate building, a guest-house with many *de luxe* rooms (*zashiki*).

The meeting hall (*kaijo*) of the warrior construction was in the Muromachi time changed to guest-rooms (*kyakudono*) and writing-rooms (*shoin*). The social functions of the houses exceeded the economic functions of a common farmhouse. The better off a farmer was and the higher his social position, the more developed was the representative part of his house. Not much thought was given to the comfort of the family members. Such was the spirit of the world of the warriors with their social obligations and dependencies and their status consciousness.

Above we have tried to follow the meandering ways which the present Japanese farmhouse has travelled through history. Before Heian time the bare economic function of it was almost exclusively developed, and so it must have remained for a long time thereafter until the impact of the cultural refinements adopted in the capital

reached by detours the countryside. The fact that achievements in comfort and beauty effected in the palaces and residences of the higher classes of Heian, later of the warriors, especially the Ashikaga governors, have in many fields reached the farmhouse, is established beyond doubt.

Of course not yet everything is said about the cultural history of the farmhouse. We have concentrated on those items which make up the "cultured" living of the farmer. Of course, the purely economic side of his living underwent a history too, and this is also cultural history. What is going on in the unfloored part (*doma*) of the house has gone through its evolution. The use of fire and water in the house, horse and silkworm breeding, manufacture of household articles from straw and bamboo, storage of foodstuffs and fodder for domestic animals, the keeping of horses under the same roof with humans, all this and many other facilities have their history. But we have confined ourselves to those aspects of dwelling which make life more than others more pleasant and easier, more human.

V. The Farmhouse in Modern Times.

In the above outline we have tried to lay bare those factors which have contributed to it that the house of the farmers, being up to modern times by far the greater majority of the nation, was made a more comfortable place to live in. These factors have touched on the essential functions of the house, its biological and social requirements. We can say that as early as the Neolithic time, or more precisely, since at least about the middle-Yayoi period, the present Japanese people have already lived on their islands, and no immigrations *en masse* have taken place. Diffusions of cultural and even infiltrations of racial elements from the Asian continent have taken place, but their cultural impact was just good enough to stimulate well selected improvements in the field of house construction. Just as racially and linguistically the Japanese people are uniform, also they have been culturally united at least for over two-thousand four or five hundred years. This fact is due to the insularity of the country which prevented other races with different languages and cultures to mix with the occupants of the area at least to any great extent.

Compared with that of the European subcontinent the typology of the Japanese farmhouse is simple. The same basic structure prevails all over the country. The variations that exist concern the room partition and details of the roof. Japanese scholars have with painstaking effort established typologies based on these two aspects. The typology of the farmhouse in European countries, where many ethnic and economic differences were at work, goes in so far deeper as there exists a variety of structural types, which is not the case in Japan. Structurally the Japanese farmhouse is uniform.

The room partition shows variations in the degree of urbanization, urbanization here meaning refinements taken over from the upper classes in the social history. There is the arrangement and the number of rooms which mean here a progress in refinement.

Perhaps we should mention here the [bath (*furo*), which is the latest addition to

the urban refinements adopted in the countryside. The fact that the bath is for the Japanese people of paramount importance could perhaps be explained by the significance of the lustration (*misogi*) in the old native religion. The history of the Japanese bath is known only in outline. The bath seems to have originally been a steam-bath. Some scholars identify *furo* with *muro*, a word meaning either a cave or a roofed pit. Along the Inland Sea there still exist rock-baths (*ishiburo*). In Yase to the North of Kyôto there are so-called *kamaburo* (kiln-baths). In Sado they have a bath, called *oroke*, in rock-caves or in caves built with stones. In the cave a bucket of hot water is put so that some kind of steam-bath is obtained. Again in Sado hot stones are placed at the bottom of a bucket and hot water is poured over the stones. The bather needed only to cover the bucket with a lid woven of straw and he had a steam-bath. Similar devices to get a steam-bath are known from other places too.

Not long ago not every farmhouse had a bath. Before it was customary to take a bath in the house of somebody else in the village community whose members invited each other to it. It was some time during Meiji time that the private bath became common in the countryside. Before people invited each other, to a *moraiburo*, lit. 'received bath'.

We need here not elaborate on other well-known refinements or modernizations of the farmhouse, such as electricity, ice-boxes, washing-machines, stoves and television sets. As it had always been in the past, every new improvement has harmoniously been absorbed in the traditional structure. It is to be anticipated that the Japanese farmhouse will for a long time to come preserve its traditional face however modernized and progressive agricultural work may be.

Footnotes

- ① J.E. Kidder proposes the following chronology: earliest Jômon ca. 4500-3700, early Jômon 3700-3000, middle Jômon 3000-2000, late Jômon 2000-1000, latest Jômon 1000-250. In: J. Edward Kidder, *Alt-Japan. Japan vor dem Buddhismus*. Title of the original [English edition: *Japan before Buddhism*, London, 1959. German translation by Hans G. Schürmann, Verlag M. Dumont Schauberg, Köln o.J. A more detailed Chronology we find in the first volume of the 13 volumes *Nihon Bunkashi Daikei* Handbook of the Cultural History of Japan, Tokyo, 1958, p. 21. On the palaeolithic time cf. J. Maringer: A Core and Flake Industry of Palaeolithic Type from Central Japan, in: *Artibus Asiae*, XIX, 2, 1956, pp. 111-125.
- ② Prof. Kidder finds it probable that the dwelling-pits under the shell-mounds were used before the mounds had accumulated and that the pits were deserted when the shell-mounds had grown too big.
- ③ In Saitama Prefecture, Iwatsuki City, Kuroya, a rectangular dwelling-pit was found with 3 post-holes both on the long right and left side. The ceramic ware found in it suggests that the pit belonged to middle- Jômon, ca. 3300 B.C. For a picture of the site with the post-holes see *Nihon Bunkashi Daikei* (NBD), I, p. 142, fig. 142.
- ④ cf. NBD, I, p. 142, fig. 184. About Ubayama cf. Kidder, l. c., p. 34, f.
- ⑤ cf. Kawazoe Noboru, *Tami to Kami no Sumai* [The Dwelling of the People and of the Gods,] Tokyo, 1960; p. 56, f.
- ⑥ cf. "Bronze-Eisenzeit", in Kidder, l. c., pp. 77-118.

- ⑦ see in Appendix Bphotos Nos. 1-5.
- ⑧ see Photo No. 5, b.
- ⑨ This was the case in Inariyama and Cha'usuyama. A good study on tomb-figures, especially House-figures, has been written by Gotô Moroichi: *Nihon Kodai Bunka Kenkyû* [Studies on the Culture of Old Japan], Tokyo, 1942; pp. 83-174. Gotô presents a detailed analysis of the tomb-figures and finds that the earliest house-figures were realistic, the later one becoming increasingly stylized. When using the house-figures as historic evidence, we have therefore to take cognizance of this later stylisation. Of the above described house-types we have realistic figures, and these types were occasionally found on the same tomb-hill. Cf. Gotô, l.c., p. 148, fig. 36 (Inariyama), and p. 151, fig. 38,9 (Cha'usuyama). Also the combined roof type has been found on a realistic tomb-figure, Gotô, l.c., p. 159, fig. 45 (Hyûga, Nishitokara), p. 152, fig. 39, 15 (Kawachi).
- ⑩ We refer here to the reconstruction of such a house on the compound of the Kyôdokan, a museum in Koganei, near Tokyo. We show a photo of a house under construction (1, a) another one of the finished house (1, b).
- ⑪ distribution list of house-figures in Gotô, l.c., p. 165, f.
- ⑫ quoted in Gotô, l.c., p. 208.
- ⑬ cf. Seino Sada: *Genshi Jidai no Kenchiku* [House Construction in Antiquity], in: *Chûtô shidan*, VI,1. Quoted in Gotô, l.c., p. 169, note 23.
- ⑭ cf. Gotô, l.c., p. 150, fig. 37, 7. On saddle-roof houses such boards are crossed only on a house-figure from Kaminegi in Kôzuke.
- ⑮ cf. Gotô l.c., p. 155, fig. 42 (35, 37).
- ⑯ In *Nihon kenchiku jiten-i* [Nomenclature of Japanese Architecture]. Dr. Ichimura writes that the crossed boards are a protection of the roof edges against the wind.
- ⑰ In the *norito* for the *ohodono hogai*, a prayer ceremony to protect the Imperial palace against fire, it is said that the roofs of the Imperial palace were thatched with grass. Also the hall for the Great Thanksgiving Festival (*Daijôsai*) had such a roof, one with fresh grass since the hall was only temporarily built for the time of the ceremony.
- ⑱ In the *Kojiki*, section Suinin, it is related that Inishiki no Irihiko no Mikoto said to his sister that he is too old to take care of the divine treasures himself, she should do it on his behalf, Whereupon the sister replied that she as a feeble woman was not able to climb up the divine storehouse. Then the brother promised her to build her a ladder.
- ⑲ In the section Suinin of the *Kojiki* the storehouse is called *hokura*, which is now *kura*. The prefixo *hō* can be a honorific
- ⑳ Gotô, l.c., p. 221, quotes passages from the *Kojiki* which describe in detail how in the house construction posts, beams and rafters were tied together with ropes and climbing plants.
- ㉑ Gotô, l.c., p. 218, quotes for it a source from the old literature.
- ㉒ cf. Gotô, l.c., p. 218.
- ㉓ The source, an Imperial edict, is quoted in Gotô, l.c., p. 219.
- ㉔ The name *haji* was a title for potters who produced a read ware usually without decoration. More about *haji* and *haji* culture in Kidder, l.c., p. 178. and *passim*.
- ㉕ An example of a site with palace remains from the Asuka time is that of a palace which was presumably the Ikaruga palace of Shôtoku Taishi. During repair work on the Tôjiin at Hôryûji in 1939 many pillar holes, wells and water ditches came to light. According to the *Nihon Shoki* the Ikaruga palace was built Suiko 9 (601). A detailed description of the Ikaruga palace site with pictures in NBD, II, p. 245, fig. 319, 320. The lack of fire-places and ovens and water ditches strongly suggests an advanced continental construction

technique.

- ②⑥ The sources are quoted in Kawazoe, l.c., p. 152. As the years of the collapses are given 1031, 1061, 1141.
- ②⑦ According to a picture of the Kamakura time the floor must have been three times higher than it is now. With the help of this picture Horiguchi Sutemi has reconstructed the elevation-plan of the building, it is reproduced in Kawazoe Noboru: *Tami to Kami no Sumai*, Tokyo, 1960; p. 143.
- ②⑧ cf. Kidder, l.c., p. 134, ff.
- ②⑨ The *Nihon Rekishi Daijiten* [Handbook of Japanese History] (from now on quoted NRD), Vol. 13, p. 2, gives a description of the tomb-hill of Cha'usuyama and the figures (*haniwa*) found there. The 10 house-figures were built little formalized. To judge from the additions, the tomb dates back to the 5th century. The figures show in miniature the mansion of a wealthy man.
- ③⑩ In NBD, I, p. 218, fig. 294 shows the main house among the house-figures of Cha'usuyma. Now in the National Museum in Tokyo.
- ③⑪ In Onitaka, Ishikawa City, Chiba Prefecture, some hundred piles from the Haji period were excavated in 1937. Also in Kisarazu in the same prefecture remains of dwellings in water were brought to light, cf. NBD, I, p. 256. The lacustrine dwellings in Lake Suwa are well known.
- ③⑫ cf. NBD, I, p. 340, fig. 441, 1.
- ③⑬ cf. NBD, I, p. 241.
- ③⑭ so Kon Wajiro: *Nihon no Minka* [the folk house in Japan], Tokyo, 1943; p. 55, f.
- ③⑮ Ground- and elevation-plan of the shrines in Izumo, Otori, Sumiyoshi, and Ise in: Kidder, l. c., p. 195, fig. 65.
- ③⑯ By Haji period is meant the time which is characterized by workshops of potters (*haji*). A good example is Hiraide in Nagano Prefecture, where in 1947-1951 about 50 pit-dwellings were excavated. The Haji period falls into late Kofun until early Nara time; cf. Gotô Moriichi: *Sue-ki to Haji-ki* [Sue Ware and Haji Ware], in: NBD, I, p. 254. Photos of a reconstructed typical Hiraide house we see in NBD, II, p. 253, fig. 336, 337.
- ③⑰ quoted in NBD, I, p. 355.
- ③⑱ quoted in Gotô, l.c., p. 213. The passage refers to the construction of the ceremonial halls (*daijôkyû*) for the first offering made by the Emperor at his succession to the throne. These halls had walls, doors, window curtains, all made of reed-grass mats and were in this respect not different from ordinary dwelling-houses.
- ③⑲ Sources which give a detailed description of the ceremonial buildings are quoted in NBD, II, p. 236, ff.
- ④⑰ In NBD, II, p. 243, a list is found of 22 sites of Imperial residences (*miya*) as recorded in written sources, but no longer identifiable. The article in NBD, II, on the construction of shrines, dwelling-houses, and defense-posts wrote Prof. Fukuyama Toshio, a leading expert on the history of architecture.
- ④⑱ Details in Fujita Motoharu: *Nihon Minka-shi* [History of the Japanese Folk House], Tokyo, 1943 (enlarged edition).
- ④⑲ Kita Teikichi has studied these relationships in his essay: *Jinja to Jûin Kenchiku to Jûtaku Kenchiku* [The Architecture of Shrines and Cloisters and the Architecture of Living-houses], in: *Rekishi Chiri*, Vol. 45, 5, and also wrote *Nihon Minzoku to Sumai* [The Japanese People and Dwelling], in: *Minzoku to Rekishi*, I, 3, 4.
- ④⑳ studied in detail by Kita Teikichi and Fujita Motoharu, l.c., p. 228, ff.
- ④㉑ In his *Nihon Minka-shi* Fujita Motoharu devotes to this house-type a detailed chapter.

Further literature in Kurata Shûchû: *Minka Chô* [Notes on the Folk House]. Tokyo, 1955. Important is also Yamaguchi Tadashi: *Kôhoku no Minka* [The Folk House North of the Lake (Biwa)], 1939.

- ④⑤ from Fujita, l.c., p. 169.
- ④⑥ contained in *Koku Shi Gan* [Eye of the History of the Country], a historical work begun in 1885 and concluded in 1888. The work starts with the Age of the Gods (*Jindai*) and ends with the early Meiji time; cf. NRD, VIII, p. 51.
- ④⑦ cf. NRD, I, p. 144, f. Mostly reckoned from the time of acceptance of the governorship by Shôtoku Taishi in 593 till the transfer of the capital to Nara in 710. This time includes also the Taika Reform from 645 on. It was a time of a strong influx of Buddhism and Chinese art and literature.
- ④⑧ cf. NBD, II, p. 284, ff. The article on the architecture of the Asuka time contributed by Prof. Fukuyama Toshio.
- ④⑨ The article on architecture has again been contributed by Prof. Fukuyama Toshio. Prof. Ota Hirotarô wrote the article on the "sleeping-hall construction" (*shindenzukuri*) in NBD, I, b, pp. 244, ff. In writing this outline the present writer is much indebted to these two scholars.
- ⑤⑩ About these excavations cf. NBD, II, p. 245, f. Shôtoku Taishi's Ikaruga palace was, according to the *Nihon Shoki*, built in Suiko 9 (601) and burnt down in 643.
- ⑤⑪ cf. the essay by Kon Wajiro: *Jûkyô no Hensen* [Changes in the Dwelling-house], in NBD, VI, p. 11.
- ⑤⑫ cf. Kon Wajiro, l. c., p. 4.
- ⑤⑬ cf. Kon Wajiro, l. c., p. 10.
- ⑤⑭ We are following here NBD, VI, p. 270, f., that is the article by Prof. Ota Hirotarô: *Shindenzukuri no henka* [Changes in the Sleeping-hall Construction].
- ⑤⑮ The *Azuma Kagami* [Mirror of the East] describes the ascendancy of the warrior class and elaborates on its code of conduct. It covers the time from 1180-1266. The first part was concluded in 1270, dealing with various topics. The second part contains valuable historical statements on the economic and social life of the late Middle Ages.
- ⑤⑯ "History of the Rise and Fall of the Minamoto and Taira", comprises the years from 1160-1185. Ascribed to Hamamoto Tokinaga.
- ⑤⑰ We are here following NBD, VII, p. 268, ff., that is the article on architecture contributed by Prof. Ota Hirotarô.
- ⑤⑱ cf. a short article on *tokonoma* by Prof. Wakamori Tarô in: *Nihon Minzokugaku Jiten*, publ. by Otsuka minzokugakkai, 1971; p. 498.
- ⑤⑲ cf. NRD, XVI, p. 250.
- ⑥⑰ Concerning the architecture of the Adzuchi period we follow NBD, VIII, p. 218, ff., article contributed by Prof. Ota Hirotarô. A castle was built in Adzuchi 1567, Osaka 1583, Matsmoto 1585, Wakayama 1585, Kôchi 1587, Takamatsu 1588, Edo 1590, Wakamatsu 1592, Fushimi 1592, Kôzuke 1592-1595, Marugame 1595, Takasaki 1597, Sendai 1601, Matsue 1607, Nagoya 1609, Morioka 1616.
- ⑥⑱ Ground-plans in Ishihara Kenji: *Nihon Nômin Kenchiku* [Japanese Farm-house Architecture], p. 31, f., fig. 6, 7, 8.
- ⑥⑲ Among the attempts at a typology of the Japanese farmhouse perhaps first should be mentioned the article by Kurata Shûchû: *Iezukuri* [house-construction], in: *Nihon Minzoku Daikei* [Handbook of Japanese Folk Customs], VI (1958), pp. 65-101. Facing p. 74 there is a distribution map of the Japanese house-types. The same author wrote the book *Minka-chô* [Notes on the Folk House], already [referred to in our footnote No. 44. In it he proposes

22 different types of the outward appearance of the farmhouse, not including the Ryūkyū Islands. His distribution map of the types of room partition shows 19 types. The *Minzokugaku Jiten* [Dictionary of Japanese Folk Customs], published in 1951, shows, excluding the Ainu territory and the Ryūkyū Islands, 13 types of room partition. When establishing such typologies it is not easy to decide whether we have to do with a type or only with a variation of a type.

- ③ To the classics of the Japanese farmhouse belong the 15 volumes of the professional architect Ishihara Kenji: *Nihon Nōmin Kenchiku* [Rural House Construction in Japan], Shōwa 9-17, 1934-1942. *Ken by Ken* (prefectures) are covered, with texts, architectural drawings and photos.
- ④ On the history and types of baths we get information in the article by Makita Shigeru: *Koya* [sheds] in: NMD, VI, pp. 154-156. More detailed is Miyamoto Tsuneichi: *Ido to Mizu* [wells and water], in: NMD, VI, pp. 165-188. Something on the bath (*furo*) we find in Take'uchi Yoshitarō: *Yashiki, matori* [mansion and room partition], in: NMD, VI, p. 63, f.; in *Nihonjin no sumai* [the dwelling of the Japanese], pp. 119-122. The *Shakai Minzoku Jiten* [Dictionary of Japanese Society and Customs] has the article *furo* in Vol. 3, p. 1277, f.
- ⑤ A team of anthropologists, sociologists and geographers of the University of Michigan did research work for three years in a village in Okayama prefecture. Their results are found in John. W. Hall and Robert E. Ward: *Village Japan*. The University of Chicago Press, 1958, 499 pages. In the conclusions (pp. 471-483) the authors reflect on the convergence of conservative and progressive forces in the village. The situation is aptly summarized in the one sentence: "Change is absorbed and channeled to profitable ends, while equilibrium is maintained".

