

FEATURES OF VERNACULAR ARCHITECTURE IN FINLAND

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1. ICOMOS Conference on Vernacular
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There has not yet been any precise definition of the term vernacular architecture. This is apparent, for instance, in the variety of papers submitted to the ICOMOS Symposium on Vernacular Architecture, held in Plovdiv, Bulgaria in 1975.¹

In this article vernacular architecture is taken as 'buildings put up by the working people by themselves, without any administrative instruction or aid, in order to meet the requirements of everyday living conditions and culture'. Accordingly, workers' settlements in industrialised societies -if built by the workers themselves for their own use, and peasant buildings in agrarian societies are regarded as vernacular architecture (Figures 1 and 2).

Due to the employment of modern technology in building construction the physical environment is becoming more and more homogeneous all over the world. As a consequence, architects, planners, art historians and conservators are now showing an increased interest in environmental characteristics, particularly in those which will classify as vernacular.

Locally available materials play an important role in vernacular building and builders prefer materials that are easy to work with. In wooded areas timber is the natural building material and houses, especially, are of timber. This building technique is as well known in Japan, South America, Canada, Siberia and in many other countries as in Finland.

In addition to the geographical and natural conditions, the social structure also has an influence on building. In the study of vernacular architecture the extent to which working people take part in the planning and building of their environment is essential.

The environment must be regarded as a product and as an indispensable document of history. It may be analysed and understood only against the historical, political, economical and cultural background.



Figure 1. Kriikus' farm Ylistaro



Figure 2. Pispala, a workers' settlement in Tampere

VERNACULAR ARCHITECTURE IN FINLAND

HISTORICAL BACKGROUND

Finland's indigenous inhabitants, the nomadic Lapps, had only a rudimentary division of labour, worshipped weather-gods and lived in the form of hunting and fishing tribes. Their winter resorts and fishers' huts, still surviving in northern Finland, represent a building tradition of a thousand years. Their culture, not familiar in any way with the concepts of landownership and established administration, has not left behind 'monuments', but merely buildings which are erected out of necessity and given to decay when useless (Figure 3).

In the first half of the 11th century A.D., Finland came into contact with a European culture for the first time upon the invasion of the Swedish conquerors. In contrast with the nomadic Lapps, the newcomers were Roman Catholic and they established their domination by building first timber encampments and, later, stone castles and churches on ancient cult places of the indigenous population.

The Swedish rule throughout the Medieval Period was feudal. The country was sparsely populated, hunting and seasonal migration played an important role in the life of people. Furs were the main item on Finnish markets. All dwellings and stores were built of timber, covered with birch-bark and turf.

The Roman Catholic church lost its influence in Finland in the 16th century when the King of Sweden took over the church properties. This also marks the beginning of a systematic expansion policy of the Swedish throne whereby even the remotest corners of Finland were given a permanent settlement.

With such far-reaching settlements border conflicts became more frequent for the Swedish expansionism inevitably resulted in confrontation with the Orthodox Russia in a struggle for power in Europe.

At that time each village cultivated its own land with fields divided into long strips. In the fertile regions of South and West fields spread out wide with the village in the middle. In the lowlands of Bothnia villages were scattered along the riverbanks. In the eastern parts, on the other hand, houses were built on hilltops as separate homesteads.

Feudal structure began to break down in the 17th and 18th centuries. Specialisation, means of production and the evolution of monetary economy led to an accumulation of wealth and capital, giving rise to bourgeois power. The increasing role of trade was reflected in the founding of several new towns. The agrarian village with scattered strips of fields was transformed into a combined, larger unit of arable land with the dwellings placed together in the middle. New buildings for the emerging administrative functions were erected and their appearance soon began to influence the existing vernacular architecture.

Finland was economically and ideologically strong enough to break away from Sweden only at the beginning of the 19th century. During the Russo-Swedish war of 1808-1809 Finnish notables applied to the Tzar to guarantee Finland a relatively independent economy under the Russian rule in return for resistance to the Swedish. When Sweden lost the war, Finland was established as an autonomous Grand Duchy.

Under Russian rule, open markets of Russia offered Finland better opportunities. The country's forest products and, with the progressing techniques in agriculture, surplus rural population migrating to towns to work in factories helped increase the nation's per capita income considerably. Towns expanded and their character changed rapidly. Workers' quarters and suburbs emerged.

At the turn of the 20th century demands of national independence and democracy were intertwined against the Pan-Slavic policy of Russia which had turned to suppression in Finland. Building activities resorted again to the traditional and monuments of national romanticism began to be erected.

Finland gained independence shortly after the socialist revolution in Russia but civil war broke out between the working class and the *bourgeoisie* which ended with the victory of the latter. This meant that the economy of the country was to be modelled on the capitalistic regime. What with the forest products being allocated only to the pulp and paper industry after the Second World War, timber was used less as building material and, instead, new construction techniques and materials were introduced, building became industrialised and dwellings were treated as consumption commodities the production and renewal of which were dictated by the profit-seeking, capitalistic market.

In this line of development, especially after the Second World War, workers quit building for themselves as they used to and, consequently, vernacular architecture as such is disappearing in Finland today.



Figure 3. Valimaa, a Lapp farm built of timber and turf, is a good example of ancient building tradition.

DEVELOPMENT OF BUILDING TECHNIQUES

The oldest building type in Finland is the hut with horizontal joints of timber. It was used commonly for living in and for keeping the animals. An open hearth in the middle gave warmth. There was a hole on the wall to let out the smoke but there were no windows for glass was then unknown. The roof was clad in birch-barks, split beams or turf.

The countryside became permanently settled in the 16th century and a systematic collection of taxes was to follow. In the name of reformation religious ceremonies were translated into Finnish which formed the basis for public education. Building skills also developed: separate dwellings and barns, sheds, saunas, granaries, etc. emerged with the increasing variety of functions. Buildings which surround a square courtyard protected people from wolves and other beasts and, perhaps, from hostile neighbours. A cottage with two rooms became the common dwelling unit. Its variations were frequent and can still be seen in remote areas. The chimney which was a luxury to be seen only in castles and in the houses of the rich became wide spread in the 18th century providing protection from fire. Soot, grime and darkness gave way to renovations.

2. As early as the time of Charles Wasa, King of Sweden (1523-1560), best carpenters of the country were brought in from Bothnia to build his navy.

At the sea-side and along the banks of Bothnic rivers carpentry was highly developed owing to shipbuilding.² This area, i.e. the entire coast of the Gulf of Bothnia down to Finland proper in the south had closer contacts with Stockholm. This is apparent in the built environment which was heavily influenced by the West.

In the course of time carpentry was even further developed. A group of churches from the 17th and 18th centuries have survived as the masterpieces of vernacular art of building in Finland (Figure 4). As techniques and the understanding of the material improved foreign cultural influences were transformed into timber by able craftsmen. The decorated wooden shingle roofs of these churches may reflect even the far-reaching influences of the Mediterranean roofs.

In medieval churches such as that of Sodankylä, built in 1689 (Figure 5), each member of the congregation donated a piece of hewn timber with his name engraved on to renew the decayed parts of the weatherboarding. A profound knowledge of the material, a complete mastery of the building craft and an even fuller consciousness of the care and maintenance of buildings are the factors that contributed to the survival of these structures despite the effects of time and the harsh northern climate. The Eastern Orthodox and Western cultural influences are intermingled in the forms of the Sodankylä church to a beautiful composition with the skill of the vernacular carpenters.

The biggest threat that faces these buildings today is the modern tourism, a movement which ignores the consciousness of history in search for only sporadic experiences for a moment's excitement. Its injudicious representatives irresponsibly break off the carved, decorated knobs or pieces of the engraved boarding as souvenirs.

The most original timber monuments in the country are the churches of Keuru, Pihlajavesi and Petajavesi in Middle Finland (Figures 7 and 8). Building of churches would be controlled by public administration, but at that time it often happened that instructions given from Stockholm were easily disregarded. The Swedish academic architectural plans did not correspond to the local conception of beauty nor could local people afford to build the recommended buildings. Skilled craftsmen, emerging from among the locals, were aware that their craft would suffice to erect indigenous buildings. In view of the fact that the stagnant Swedish rule with incessant military misadventures was felt heavier and heavier by the people, these buildings created by people themselves may be seen as expressions of a self-conscious protest and of the dawning of the concept of national independence. Art always expresses highest aspirations of people and these examples are the most beautiful manifestations of vernacular art in Finland.

Vernacular building, however, is primarily profane. Vernacular carpentry developing in Bothnia with considerable degree of western influence produced a building tradition which was more or less related to the genre of classical architecture (Figure 9). Desire for symmetry and harmony of proportions is there evident even in the most modest buildings.



Figure 4. The decorated wooden shingle roof of Tyrvä medieval church is a remote reflection of the Mediterranean building tradition.

With the progress in agriculture as of the 19th century, the fertile lowlands of Bothnia witnessed affluence which offered better material conditions for the building of bigger farm houses (Figure 10). Classical norms of architecture which had already been enjoying official acceptance during the Swedish and Russian dominance appealed to the self-conscious Bothnic farmers' conception of beauty. As a result, an original phenomenon of vernacular art in the form of the Bothnic house emerged in the coastal district of the Gulf of Bothnia.

Toward the end of the century, however, the advanced Bothnian carpentry began to degenerate. There was a tendency to adopt fashionable forms from the ostentatious public buildings (Figure 11) and, as a consequence, the touch with the substantial constructivity given by the full mastering of the material was lost. The exteriors were divorced from the internal logic of the building material and turned into mere decorativeness. Gothic, baroque and *jugend stilj* creations appeared on the façades in fashionable trends.

The end of the 19th century also marked the advance of industrialisation and timber was needed even more for the paper and pulp industry as raw material. Therefore the use of timber as building material was soon restricted and it was used only for the framework while new insulation materials were developed for the infill.



Figure 5. Sodankylä church built in 1689.

However, it was possible with the improving techniques to return to the self-made houses by the 1930s using timber as the main building material provided a proper plot was found (Figure 12).

3. An inventory prepared in 1970 indicated that 85 per cent of the dwelling units in towns and 100 per cent of those in the countryside were built of timber.

Houses in present day Finland are largely produced industrially of concrete by a few construction monopolies. The preservation of carpentry is nevertheless economically necessary in order to upkeep the large number of timber houses³ which are a great asset of Finland's cultural heritage as well as an outstanding material resource. In this respect, maintaining the craftsmanship in carpentry is of crucial importance.

Wood is an organic material. Its structure is based on cellular metabolism which continues a long time after felling. It is only in decades that timber hardens and its structure begins to deteriorate. Even then, a well-kept timber lasts very long. A traditional technique of repair and maintenance is to replace the defective parts with the new ones (Figure 13). An extreme example of this method is the case of the Japanese temples which are rebuilt in replicas several times over the centuries. The tradition of rebuilding also exists in Finland. The daughter of the house, when married, moves to her husband's place but she takes with her the timber shed from her father's house to be rebuilt near her new home.

The industrialised exploitation of nature has alienated man to his essential dependence on nature. The industrial products



Figure 6. Details of Sodankylä church.

seemed to have solved the material problems of mankind which is a misconception. As a result, the traditional vernacular craftsmanship is under-estimated and the crafts have nearly disappeared. Yet the technical developments have so far failed to provide sufficient substitutes for repairing old timber buildings and many mistakes are to be found especially in renovations. Some of the more common errors are:

1) The stability and equilibrium of the load bearing walls is hampered by enlarging the openings or altering the plan layout. The original walls are usually substantial and stiff due to the nature of the timberwork. Alterations in plan disturb the stability of the building for no logical reason simply because the traditional plan layout in Finland is usually fit also for modern living.

2) Ventilation is blocked as in the common case of the basement openings being filled in to prevent the draft. Thus the bed of the house is deprived of adequate ventilation and conditions favourable for the growth of fungi develop. The main reason for the decay of timber in Finland is the attack by *merulius lacrymans*, better known as the dry-rot, the spores of which are very difficult to kill.

3) The use of the membrane type water-proofing materials or vapour barriers in old timber buildings prevents the natural 'breathing' of the wood. These cause condensation and it speeds up the process of decay.



Figure 7. Keuru church built in 1756-58 by a folk building master, Antti Hakola.

4) Timber is treated with salts against decay or as fungicide. Hygroscopic salts absorb moisture, swell and break up the cellular structure of timber.

5) Timber is treated with inorganic or synthetic substances which form a water-proof layer on the surface or penetrate deeper in the cellular tissue. It stops the natural drying of the material, causes moisture to stay in and deteriorates the pith.

In Finland there are still living carpenters who possess traditional skills. Their crafts should urgently be recorded.

One personal experience of the author in this respect has been the repairing of Pielpajarvi church. It is a building dating from the end of the 18th century, erected at a market place of the Lapps. The State granted the funds necessary for the conservation of the church. In this area there are still traditional carpenters who could be trusted with the restoration job. It was crucial that modern techniques and materials be avoided as much as possible. The carpenters first removed the lower beams.⁴ The building was then raised to its original height by propping the inner corners. The decayed weatherboards were replaced with new timber. Finally, the building was given a coat of traditional ochre paint for which there are various recipes in different parts of the country.⁵

4. The term for the work in vernacular language is "shoeing".

5. In coastal regions of Finland seal-oil is mixed in the paint while in others tar is used instead.



Figure 8. Pielpajarvi church built in 1780-82 by a folk building master, Matti Åkerblom.

Traditional carpentry in Finland has certain rules of thumb, as it were, which are often regarded as superstitions. For instance, carpenters maintain that timber for the roofs must be felled during the first moon after Christmas. A more careful deliberation proved that this belief reflects a scientific fact: moisture content of wood is at its lowest at the prescribed time. Science will undoubtedly verify many of the seemingly mystical methods which the vernacular tradition has developed more or less instinctively.



Figure 9. Forms of classical architecture in a Bothnic building.

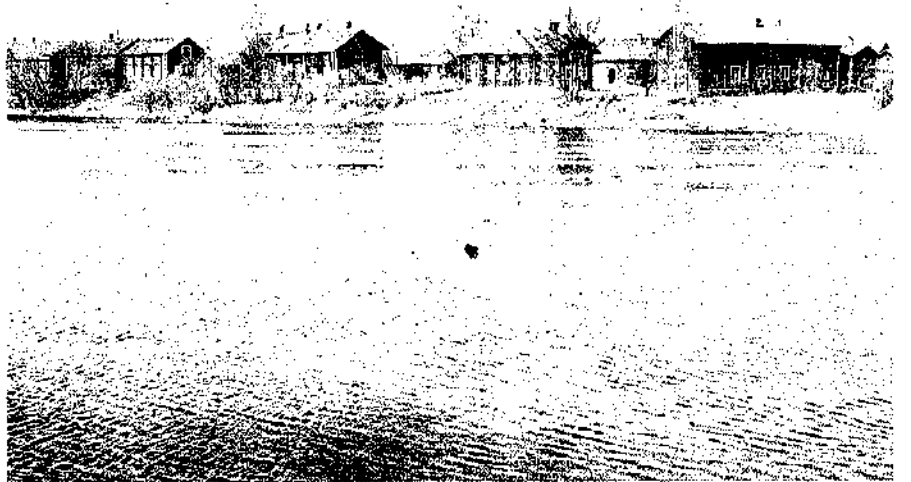


Figure 10. Bothnic houses in Saarenpää village on the edge of the river Kyrö.

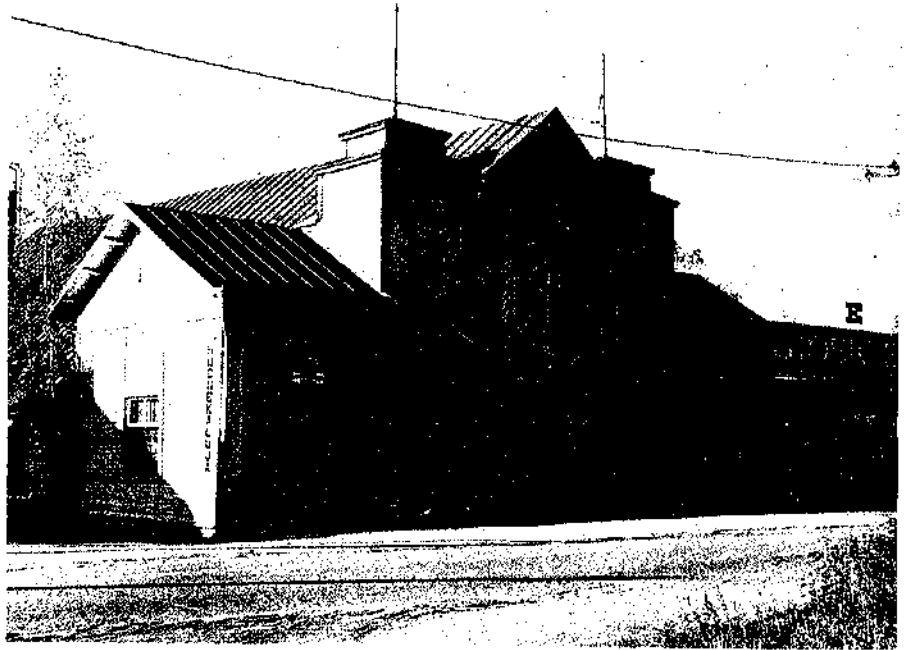


Figure 11. Joutsa building of youth, an example of the degeneration in carpentry.



Figure 12. Vernacular architecture is little by little accepting modern technology and concrete constructions, but self made houses are still mainly of wood. Kalajoki communal centre.

WORKERS' DWELLINGS AND SITES

Houses with courtyards are self-sufficient units. There is no need for public services like playgrounds or parking lots. The density in these areas is around 0.4-0.5. Modern city planning may even disturb and lower this density by introducing services. Pressures for redevelopment are the results of the capitalistic system of economy. The idea in reality is not to improve the living conditions of the inhabitants of these areas but, on the contrary, to give these areas to richer people.

Workers' suburbs at the outskirts of larger cities also represent the tradition of vernacular architecture in Finland (Figure 14). As a consequence of industrialisation, a considerable labour force accumulated in cities and built houses using traditional techniques with the locally available materials. These buildings are one or two storeyed timber structures with small gardens for vegetables and berries. The sauna and other facilities such as sheds are in the form of extensions in areas where there are no conveniences. These quarters are socially very active and offer people with modest means an opportunity for decent living. However, the value of land in these areas has risen sharply in recent years and they are now considered not profitable enough and therefore chosen for redevelopment. It is evident that the prices of the new houses which are to replace them will be beyond the means of the workers.

The house in the capitalistic society is produced and considered a durable commodity. The state and the banks contribute with their financing system to the private building enterprises. This



Figure 13. The rotten timber is changed into new ones during the conservation works in Utsjoki, Lappland.

mechanism speeds up the demolition of old houses in order to promote the selling of the new apartments. From 1960 to 1970 one dwelling for three new ones was demolished in Finland. New houses are meant for people with higher purchase power, not for people with small budgets. There have been very few serious attempts at putting an end to the housing shortage because maintaining the demand is vital for profits. Workers' wooden houses face the biggest threat of demolition. Others stay unattended and decay while waiting for the restoration and proper maintenance.

CONCLUSION

In the primitive economic systems for which nature is primary for living, each member of the community produces himself as many commodities as are necessary for subsistence, including building. Material for the production is taken direct from the nature and the techniques develop from generation to generation in the form of the tradition of vernacular architecture.

Along with industrialisation interaction between society and the nature becomes more complex than ever, specialisation emerges, people fail to see the interdependence of nature and the society.

As the industrialising society develops in the capitalistic system, as is the case in Finland, the commodities for living are produced more and more as commercial market products, including buildings. Working people do not any longer plan or build their own living environment. They become tenants or are bound to buy a ready-made house at free markets.

In Finland, industrialised housing production developed separate from the historical tradition, with the sole objective of reducing the costs in order to gain the maximum profit for the producers. This standardized our living environment and destroyed its local, original characteristics. As a counter-action, roots of architecture are now being explored in the hope of finding means of enrichment for environmental planning. Commercial building enterprises respond to this serious problem of the lack of historical dimension in our environment by producing 'cuckoo-clock houses', furnished with rural decorations such as steep Bavarian roofs which are in essence alien to Finland. This is not vernacular architecture, it is a very poor commercial substitute.

The quality of our buildings in the immediate surrounding can be improved if we understand the characteristics of the vernacular architecture. This entails detailed studies of the vernacular tradition and the scientific exploring of the building techniques. However, the most important of these is that planning is made in full consideration of the people's creative competence. This is only possible with the democratisation of the planning and building processes whereby educated professionals' role is merely one of service.



Figure 14. Pispala, a typical workers settlement. Reconstruction plans were made, but a well organised peoples' movement aroused against demolition of the area. Now the area will be preserved and the inhabitants will be helped to repair their houses with state subsidised loans.

FINLANDIYA'DA YÖRE MİMARLIĞI

ÖZET

Ormanlık bir ülke olan Finlandiya'da doğal yapı gereci ahşap, yöre mimarlığının biçimlenişinde önemli bir etmen olmuştur. Ancak, yöre mimarlığının doğru anlaşılabilmesi için doğal koşulların yanısıra toplumsal ve ekonomik yapının tarih içindeki gelişiminin de iyi bilinmesi gerekir.

Önceleri İsveç, devrim sonrasında bağımsızlığını kazanıncaya değin de Rus egemenliğinde yaşayan Fin toplumu, kökeni ülkenin özgün göçebe Lap'larına dayanan zengin bir yöre mimarlığı yaratmıştır. İrmak, göl ve deniz kıyılarındaki gemi yapımcılarının elinde gelişen ahşap işçiliği yer yer yabancı egemenliğin etkisinde kaldıysa da ilk kez 18. yüzyıldan sonra, tarımdan edinilen varıllık sonucu bozulmaya, kötüleşmeye başladı. Daha gösterişli yapı tutkusu ve değişen güzellik anlayışları, ahşabın doğasından gelen bilinçli yapı biçimlerini yerine Batı kurumsal mimarlığının getirilmesini nedenledi.

19. ve 20. yüzyılın sanayileşme sürecinde ise, bir yandan kağıt yapımında giderek daha çok kullanılan ahşabın yapı gereci olarak kısıtlanması ile yerini yeni gereçler alırken, öte yandan kendi konutunu kendi yapan işçilerin büyük kentler çevresinde yarattığı yeni bir yöre mimarlığı ortaya çıkıyordu.

Bugün Finlandiya'da, çalışan sınıfların yarattığı ve yaşadığı bu kesimler anamalcı değer yargıları ile yenilenmekte, yerine ancak daha varlıklıların satın alabilecekleri nitelikte konutlar üretilmektedir. Diğer yöre mimarlığı örnekleri ise çeşitli bakım-onarım-sağlıklaştırma sorunları ile karşı karşıyadırlar. Koruma-onarım işlemlerinde geleneksel yöntemlerin kullanılabilmesi için öncelikle, azalan ve bozulan ahşap işçiliğinin korunması gerekiyor.