

RE-LEARNING TRADITIONAL METHODS OF BUILDING

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The Finnish tradition of building : The traditional building material in Finland is timber. The axe was an everyday tool and almost every man had at least some knowledge of building. The most remarkable buildings in towns and villages were erected by carpenter teams, led by some highly skilled master-carpenters. These master builders with peasant background constructed and even designed also huge and complicated wooden churches.

This era of timber building continued up till our century. Only at the time of the First World War the high rise in the price of wood led to a remarkable growth of the sawmill industry and thus increased the popularity of wood-framed houses with weatherboarding and sawdust insulation. The professional carpenters had still practical knowledge of how to build and repair timber houses.

After the Second World War in the time of Recovery Programme the shortage of all industrial building materials caused a brief return to timber, the simple and natural material.

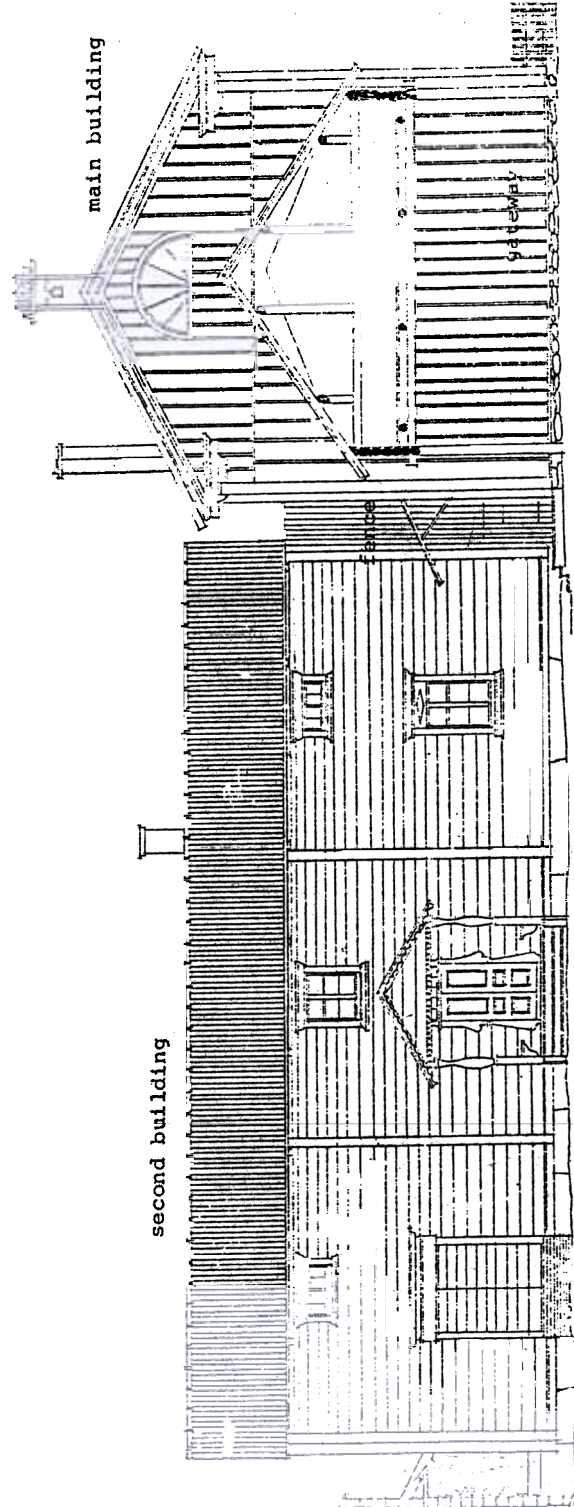
Then came the decisive turn that broke the tradition : the rising standard of living, the urbanization, the new building techniques, the industrialization of building, the marketing of modern materials, the modern architecture. All this seemed to sweep away the old world with its cosy timber houses. The new building was the key word. The town planning served only the new building, generally no attention was paid to the existing old houses; every village and every town was to be totally new within some decades. The financing of renovation was neglected : the state loan with low interest was only granted for new building. It was literally cheaper to demolish a house and build a new one than to repair it without a loan and that really happened in many cases. Also the building branch was little interested in reparations, the new building was far more easier and profitable. In the field of education the skill of reparation was totally neglected, from the carpenters to the architects. Even in the restoration of historical monuments there was a strong trend to apply only modern techniques and materials instead the genuine old methods.

During the worst years in 1960's the abolishment of habitations was 40% of the new production, i.e. for every 100 new habitations 40 was demolished, or, to have 60 new homes we had to build and pay for 100. In 1970's an always stronger opposition was rising against this vast waste of both cultural and economical values.

By now the turn back is happening. Large protected areas are being marked in the town plans. The state loans have become available for renovation as well, in the countryside one even cannot have a loan for a new building if there is an old one valid for reparation in the farm.

The modern techniques fail in restoration : Another reason which created the need of better knowledge of traditional methods were the serious technical failures in restoration. Modern methods and materials were causing





Hämes-Havunen / Kauhajoki
Elevations and a cross section 1:100

disasters, but they were the only that were available any more. The common knowledge of the demands and possibilities of old structures had disappeared, the production of old natural materials had ceased.

Typical example is the large invasion of the dry rot. The old ventilated bottom floors with wooden beams and moss fillings were replaced by concrete slabs on sand bed. The moisture of the earth below gave a good start to the dry rot, which penetrated through all plastic membranes and the concrete slab to the timber walls. Two or three years after an expensive renovation the rot comes in sight, then the only way to rescue the building is the laborious demolition of the reinforced concrete slab and the sill beams, sometimes even a part of the walls. Yet that faulty renovation could have been made with a state loan and according to approved drawings - who will pay?

A still more visible destruction is caused by new latex paints. Painted on lime plaster it makes the plaster fall down - in the monumental centre of Helsinki only this has caused a disaster of millions of marks. Painted on wood this too watertight material scales off partially and is very difficult to paint on again. But, there were no lime paint, no oil paint, no water paint available any more.

Only in the recent years the production of traditional building materials is starting again. There is one small factory producing old paints : you can buy the iron oxide red rye flour water paint that was the only paint in the countryside before, or the genuine cold-pressed linseed oil paint with exactly traditional pigments. Also borders, doors and windows with old mouldings are made, and wood-heated ovens are coming back as an extra heating system in houses with electrical or oil-running central heating. This renaissance of traditional materials is also caused by the new wave of romanticism in the architecture, and serves not only the restoration but even more the new building.

The schooling of unemployed carpenters for restoration : The carpenters training for restoration was started linked with the state free schooling for unemployed workers. There are more than 40 centres for crafts education all around Finland locally owned but mostly financed with state support. These centres are founded to give schooling to the unemployed who receive the normal dole, free food and lodgings plus free training and materials. Also other people than the unemployed are free to participate in schooling, but they must pay a little.

Before there were two lines for carpenters in these training centres : interior carpenter and element assembler. Now a third line was founded : restoration carpenter. There are altogether four successive periods, carpenter I to carpenter IV, and each period lasts three months. The men studying must already have a basic schooling at the craft school and two years of practical work behind. The size of one course is approximately 15 men.

Hämes-Havunen, the first training course : The first training course started in Kauhajoki 1977. The object of restoration was a big Ostrobothnian farm-stead Hämes-Havunen, a stately example of vernacular architecture. This farm had lived a long period of decay and it had been abandoned for years. Yet it had a special historical value as one of the last existing

examples of typical Finish two-yards farm : the many buildings of the farmstead are grouped around two closed yards, the manyard (living quarters, storehouses for clothes, stable) and the cattleyard. These yards are totally closed with buildings, fences and gates so that "neither a wolf can enter nor a dog go out".

Finally the local council bought the farm to be preserved as a monument of local patrimony. The farm will house a centre of culture and tourism. The consulting architect made a careful study of original details and adopted modern amenities clearly and carefully. One new building will be erected on the site of an old that had earlier been demolished, with exactly the same size and nearly the same outlook. This will contain the technical spaces like kitchen, lavatories, central heating plant and the dwelling for the caretaker.

The realization of this plan was made possible by the aid of the training centre. All the work is given freely, the local council pays only for the building materials. An elderly master-carpenter was found to be the practical teacher of the work. He had earlier been working for several years with the National Board of Historical Monuments with the restoration of another vernacular monument, Yli-Laurosela, which was turned into a state centre for restoration. The general methods of work in Hämes-Havunen were the same as in Yli-Laurosela : the use of traditional techniques and materials as far as possible. This first course gave many positive experiences, and after that five more had started.

The situation now : Although practical work is the main part of the training, theoretical lessons should also be given. The National Board of Crafts Education gathered a working group to produce both the training programme and the needed literary material. The National Boards of Housing of Agriculture and of Historical Monuments were represented in the group together with teachers of training centres, master-carpenters and other practical workers. To the next the schooling programme for restoration in the basic craft schools is being prepared. Further education for master builders and architects has also started courses in the training centres and in the technical universities.

It is interesting that this programmes of schooling for the restoration was started with the carpenters, with men who in the old times were able to do all the way without any specialized designers and constructors. Now we are learning from them and with them, to be able to teach a new generation.

RESUME

RE-APPRENDRE LES METHODES TRADITIONNELLES DE CONSTRUCTION

En Finlande, le bois est le matériau de construction traditionnel. Les constructions les plus remarquables, aussi bien en ville que dans les campagnes, sont l'oeuvre de maîtres charpentiers.

Cependant l'urbanisation, l'accroissement du niveau de vie et les nouvelles techniques de construction, l'industrialisation, l'architecture moderne, tous ces phénomènes ont balayé l'ancienne conception des maisons en bois. La nouvelle construction prônait. La rénovation des anciennes constructions était totalement négligée, puisqu'il est moins coûteux de démolir et de reconstruire. Même dans la restauration des monuments historiques, les techniques et les matériaux modernes sont fortement appliqués. Une opposition s'est alors vivement élevée contre la destruction des valeurs tant culturelles qu'économiques. Face à l'échec des techniques modernes dans la restauration, on assiste au retour d'une meilleure connaissance des méthodes anciennes.

La formation des charpentiers en restauration correspond à la formation gratuite des ouvriers chômeurs. Il existe ainsi plus de 40 centres de formation artisanale en Finlande. Le premier cours de formation s'est ouvert à Kauhajoki en 1977 avec la restauration de la ferme Hämes-Havunen, dernier exemple de ferme finlandaise à 2 cours.

Dans la situation actuelle des centres de formation artisanale qui s'attachent particulièrement à la pratique, des cours de théorie vont être donnés. C'est ainsi que s'est créé un groupe de travail, par le Ministère de l'enseignement artisanal qui est composé de professeurs des centres de formation, de maîtres charpentiers et d'ouvriers. Il est intéressant de noter que ce programme de formation pour la restauration soit commencé avec les charpentiers, c'est-à-dire avec des hommes qui étaient autrefois capables de faire tout le travail sans architecte ni constructeur spécialisé.