

PANU KAILA

THE EDUCATION OF CRAFTSMEN
FOR RESTORATION IN FINLAND

The situation

The architectural heritage of Finland consists mainly of wooden buildings. Farms, manors, town houses and even churches were built of timber. This tradition ended only in 1950's with the industrialization of building materials and rationalization of building process. Before that time the care of monuments was concerned only of a limited number of buildings, such as medieval churches, castles & c. The large number of traditional buildings everywhere was repaired and maintained in a natural and relevant way — in the same way as they were originally built.

This traditional way of taking care of timber buildings then gradually disappeared. The lust for fashionable architecture, industrial materials with commercial advertising and a more effective use of land succeeded in destroying the major part of older Finnish architecture. Little by little it was understood that the notion of architectural heritage should not only cover some special monuments of national value, but also the traditional environment in general. Further the economical depression and the high cost of energy made it necessary to stop the large scale demolition of existing buildings to build new ones, and direct more activity and resources to maintenance of houses.

The three principles

The task to preserve and revitalize a house built with traditional technics and materials is facing today many problems. The modern building industry with such trends as prefabrication and standardisation is unfamiliar to con-

servation, as well as the education of builders — from architects to craftsmen — is quite insufficient and one-sided. Now there are three different ways of maintenance of existing buildings:

1. The scientific restoration by conservationists. This can only be used in a very narrow area, like in the conservation of mural paintings in churches. The method is expensive and the availability of specialists is limited. This way seems to be insufficient to meet the large demand of restoration work also in the future.

2. The adaptation of modern building methods and technics to restoration. The starting point being the new building, this means that the old parts and constructions are not repaired but replaced with new ones as largely as possible. This work is no near to the new building that it does not demand special skills for the workers, neither any deeper understanding of traditional materials. It is evident that most of this replacing is done unnecessarily; it only means both wasting of historic values and spending of money. A large Finnish report on the costs of restoration found out that the actual strength and condition of the house does not influence to the costs of the work — i.e. the good and the poor structures are replaced with new ones as well. In this way the total cost of restoration is very near to the cost of new building.

Furthermore the ignorant use of industrial materials combined with traditional ones has caused grave and costly failures. The plastic paints, in spite of being "scientifically tested", have destroyed the plastered facades of most historic brick buildings — the only way to remove it is to cut down all the original plastering. Likewise the use of concrete and plastic folios in timber buildings has provoked hundreds of cases of dry rot — in some case the whole house had to be demolished. Unfortunately this way is the dominant one, especially in public building.

3. The use of traditional methods and materials in the restoration of traditional buildings. This is the real alternative to the previous system. It means that the work is limited only to the imperative repair of damaged parts and the selective raise of standard in insulations, heating system and modern amenities. This is the cheap way of common sense, and it also maintains the historic values of a building. The problems lie in the lack of traditional materials. The worse thing is however the strong opposition that this system is facing from the side of big builders of the previous method.

The traditional materials

The traditional building bases on materials that originate from nature and are processed by simple methods. Thus it is always possible to start the production again. The main difference with modern industry is that the process takes sometimes very long time (like the ageing of pit slaked lime or air-drying of wood) and that the material must sometimes be used as fresh (glue paint, red water paint). Usually the price is not higher than that of a modern substitute. The traditional materials have better qualities in use, longer durability and less risks when used in old buildings, but the new products are more easy for the producer and the builder.

When starting the production of a traditional material it is necessary to find the original way of the process and then see if modern technics can give any help without worsening the result. In the study of original process we can use the analyse of old materials, study of literature and long term field tests (20 years and more).

The traditional skills

The revival of disappeared human skills is more difficult. The study of old tools and structures is more complicated than a chemical analyse of a material. Also the literature does not tell so much of human work in detail than of the production and use of materials. The tests in manual training are unusual.

The most important source of old handicraft skills is the craftsman himself. The mastering of several skills has already disappeared, but because the crucial turnpoint towards industrialized building took place as late as in 1950's there still live elder workmen who are familiar with the traditional methods more or less. It is of vital importance to study and use the living skill. Handicraft workers' knowledge can only be passed to future generations by man-to-man method. Without a master there is no apprentice, without an apprentice there is no future in a skill..

The education in Finland today

The use of traditional methods in restoration was formerly depending only on elder craftsmen, who were usually more happy in doing that type of work where their skill was appreciated than in new building where the speed is more important.

In 1977 the National Board of Crafts Education set up a working group to plan the schooling of builders for restoration. The education goes in two lines: complementary courses for active builders and new subject in basic education. The latter has advanced slowly. It is not easy to add more material to the existing amount of study to be got through — what could be left aside? To take an example: the architects have now only a separate course of some 30 hours about restoration. The craftsmen do not have even this and it depends of the activity of the teacher to add something about restoration works in schooling. When also the modern building technics is advancing quickly it seems impossible to add further the traditional skills to this. A separate specialized line for restoration would be the answer.

The complementary courses have been running since 1977. The schooling for craftsmen is linked with the state schooling for the unemployed. The courses are free of charge and the unemployed receive normal dole plus free food and lodgings. Also people having permanent work can participate the courses by paying some 25% of expenses. This link with the existing framework of unemployment schooling made the starting of restoration courses easy, but on the other side the best workers stay aside. Should we wait for a larger unemployment to get more people trained?

The main line and the most important, too, is that of timber carpenter, or as it is called in Finnish: the axeman. There are four successive periods, each for three months, from carpenter I to carpenter IV. For the lowest period a basic schooling in the crafts school and two years of practice is demanded.

Period I is common with carpenters for new buildings. It deals with basic materials (also — the traditional materials, and — rot and preservation of wood), tools and scaffoldings. In the next periods there are 41 subjects in 10 main groups.

The main groups are:

- laws, general instructions (for instance -the value and significance of existing buildings, and -the history of architecture in Finland)
- temporary supports and demolition works
- windows and doors
- panellings and mouldings
- surface treatments and protection
- furnishings and fittings
- enlargements and additional structures
- special structures
- practical work (which is the largest part)

The forming of right attitude towards restoration and understanding of old buildings is a most important — if not the most important — task of the schooling. Many workmen still think that working with old materials and structures is somehow degrading. "Why did you punish me like this?" asked a carpenter when he was ordered to repair an old door and not to replace it with a new one.

The courses are run by special Centres for Crafts Education, about 40 in number all over Finland. They are owned by local municipalities and financed mostly by the state. There are no classes but each individual can start his own course any day. The students receive theoretical lessons also in written form, one little piece after another so that the amount of the literature of the whole course does not depress a man more used in practical work than in reading. These papers are written shortly and illustrated clearly and visually. The working groups are small, 10-15 men.

The teachers for practical work are elderly craftsmen who pass their skill and also their attitude towards traditions to the students. The personal qualities of a teacher are of greatest significance. The practical training happens in different old buildings where the Centre for Crafts Education does the restoration work from beginning to end. Thus this schooling is also a valuable aid in rescuing especially vernacular monuments and wooden town houses. The owner, usually a public society, museum or municipality pays only the materials, all the work is then done freely by the Centre.

The first results of this type of craftsmen training are encouraging. Small working units of 2-5 carpenters are formed, who more willing to use this traditional method that demands more work in site and less in factory, and less materials. The knowledge of historical constructions is widening and the protection of architectural heritage enlarges.

In the same framework of unemployment schooling there are also courses for planning and running of a restoration work meant for master builders, contractors, building officials, civil engineers and architects. One course consists of 70 hours in two weeks and there are two different courses. As it was said before, all participants need not be unemployed, and in fact these courses have gathered mostly people with permanent position. This shows the great interest and need for more knowledge in the field of restoration.

NOM: PANU KAILA - Architecte - Organisation nationale des Monuments historiques - Finlande.

THEME: PROFESSION

TITRE: LA FORMATION DES ARTISANS POUR LA RESTAURATION EN FINLANDE.

RESUME:

Il existe trois manières d'entretenir et de revitaliser l'architecture traditionnelle: 1) La restauration scientifique faite par des conservateurs, système exceptionnel et coûteux. 2) Les méthodes d'adaptation des édifices modernes. Ces méthodes impliquent des changements superflus et la rénovation de presque toute la structure ancienne ce qui signifie une perte de la valeur historique et un gaspillage des ressources économiques. 3) La méthode traditionnelle qui consiste à restaurer une maison de la même manière qu'elle a été construite. Cette dernière possibilité exige des matériaux et des talents traditionnels.

Une école a été créée en Finlande à l'intention des artisans de la restauration sans emploi. Ce cours est donné en quatre étapes de 3 mois chacune. La formation pratique est réalisée dans différents édifices anciens ou de vieux artisans transmettent leur savoir-faire et leur expérience en matière de construction traditionnelle. L'école est gratuite, financée par l'état. Elle donne également une formation théorique concernant la raison de l'emploi des matériaux utilisés.

NAME: PANU KAILA - Architect, National Board of Historical Monuments - Finland.

SUBJECT: PROFESSION

TITLE: THE EDUCATION OF CRAFTSMEN FOR RESTORATION IN FINLAND.

SUMMARY:

There are three principles in the maintenance and revitalizing of traditional architecture: 1) The scientific restoration by conservationists, which is an exceptional and expensive way. 2) The adaptation of modern building methods. This means unnecessary replacing and renewing of almost all old structures, which means wasting of historic values and spending of money. 3) The traditional method — to restore a house in the same way as it was built. Traditional materials and skills are needed.

In Finland there is a schooling for unemployed craftsmen for restoration. There are four periods of 3 months each. The practical training happens in different old buildings where old craftsmen teach their skill and the right attitude towards building traditions to the students. The schooling is free of charge and it contains also little theory giving the historic background and understanding to traditional materials. The schooling is financed by the state.

NOMBRE: PANU KAILA - Arquitecto - Junta Nacional de Monumentos Históricos - Finlandia.

TEMA: PROFESION

TITULO: LA EDUCACION DE ARTESANOS PARA LA RESTAURACION EN FINLANDIA.

SUMARIO:

Hay tres principios en el mantenimiento y revitalización de la arquitectura tradicional: 1) La restauración científica hecha por conservadores, que constituye un camino excepcional y caro. 2) Los métodos de adaptación de los edificios modernos. Estos métodos implican el remplazo innecesario y la renovación de casi toda la estructura antigua, lo que significa pérdida de valores históricos y desperdicio de recursos económicos. 3) El método tradicional — restaurar una casa en la misma forma en que fue construida. Requiere de materiales y habilidades tradicionales.

En Finlandia hay una escuela para artesanos de la restauración desempleados. Se les ofrece un curso de cuatro períodos, cada uno de tres meses. El entrenamiento práctico se realiza en diferentes edificios antiguos, donde viejos artesanos enseñan sus habilidades y la correcta actitud hacia la construcción tradicional. La escuela es gratuita y ofrece también algo de instrucción teórica para dar antecedentes y comprensión con relación a los materiales tradicionales. La escuela es financiada por el estado.

Имя : ПАНУ КАЙЛА
Архитектор, Член Национального Совета Исторических Памятников, Финляндия

Предмет : ПРОФЕССИЯ

Название : Обучение Ремесленников по реставрации в Финляндии

Краткое Описание:

Существуют три принципа для поддержки и оживления в сфере традиционной архитектуры:

1. Научная реставрация производимая специалистами является редким и дорогим методом.
2. Применение современных строительных методов. Здесь нужно заменять и возобновлять почти все части старых зданий, что означает потерю исторических ценностей и большие денежные затраты.
3. Традиционный метод - реставрация дома тем же способом, которым он был построен. В этом случае требуются традиционные материалы и знания.

В Финляндии существуют курсы для обучения ремесленников по реставрации; каждый курс длится три месяца. Практическая тренировка имеет место в древних зданиях, где пожилые ремесленники обучают студентов своим знаниям и правильному подходу к строительным традициям. Обучение дается бесплатно и включает также некоторое количество теоретических познаний объясняющих историческую основу и понимание традиционных материалов. Обучение оплачивается Государством.

NOME: PANU KAILA - Architetto, National Board of Historic Monuments - Finlandia.

TEMA: PROFESSIONE

TITOLO: LA FORMAZIONE PROFESSIONALE DEGLI ARTIGIANI DEL RESTAURO IN FINLANDIA.

SOMMARIO:

Vi sono tre principi fondamentali nel mantenimento e riadattamento dell'architettura tradizionale:

- 1) Il restauro scientifico ad opera dei Conservatori (un sistema eccezionale e costoso).
- 2) L'adozione di metodi usati nelle costruzioni moderne. Ciò significa però un rinnovo inutile di quasi tutte le antiche strutture e, di conseguenza, uno spreco di valori storici e di denaro.
- 3) Il metodo tradizionale, cioè restaurare un edificio nello stesso modo in cui fu costruito. In questo caso sono necessari materiali tradizionali e molta abilità.

In Finlandia esiste un tipo di formazione professionale per gli artigiani del restauro disoccupati. Si tratta di 4 corsi di 3 mesi ciascuno. L'addestramento pratico si svolge in diversi edifici antichi dove gli artigiani anziani insegnano, in base alla loro esperienza ed abilità, la giusta attitudine verso la tradizione architettonica. La formazione è gratuita e finanziata dallo Stato. I corsi contengono poca teoria, dando solo alcuni cenni storici sull'ambiente e sui materiali tradizionali.

MEREDITH H. SYKES

THE NEW YORK CITY URBAN CULTURAL RESOURCES SURVEY
(UCRS)

The URBAN CULTURAL RESOURCES SURVEY is a unique preservation survey. Fully computerized and comprehensive, the UCRS will be able, by 1984, to furnish detailed information on almost every component of New York City's built environment.

Under the sponsorship of the city's Landmarks Preservation Commission and the direction of Meredith Sykes (who designed this an earlier prototype system, in 1970, for Canada), teams of architectural historians, photographers, and community-group volunteers are gathering data not only on potential and designated landmarks and historic districts but also on garden-variety office buildings, street furniture, cobblestone paving, parking lots, bridges, factories, parks, vistas, wharves, trees, gravestones-every material ingredient, both splendid and ordinary, of New York's cultural heritage.

The result of their efforts will be a system that provides immediate answers to questions about location, size, date, style, architect, materials, level of significance, past and current uses. With similar speed, an answer can be summoned for which data must be selected, counted, and compared. (It will be possible, for example, to locate all pre-1850 buildings that are primarily Georgian and that currently are used as residences and to determine how many of these are outstanding in terms of style and how many have been designated as landmarks or are part of a designated historic district.) Photographs are available for all entries and are keyed in to the computer system.

The data-gathering method is the foundation of the survey's rigorous organization. Using the unique survey forms, staff professionals are able to analyze any feature of the built environment by responding to 99 questions