Wooden towns – cultural heritage in decay

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Abstract

Wooden buildings used to be a common European building tradition in the Middle Ages. Wood was prohibited to use as a building material in towns and villages in most parts of Europe, because of the fire hazard. The authorities in Norway did not make strong efforts to make sure that the buildings would be built in brick, probably because of economic reasons. That is why we still have many wooden towns in our country. These towns are now considered an exceptional contribution to the world architectural heritage.

After the great fire in Ålesund in 1904, wood was forbidden as a building material in towns in Norway. During the 20th century, the wooden towns decayed and many wooden buildings were demolished. From 1970-80 and onwards, there was a change in attitude. The old wooden towns are now restored and represent popular residential areas and their cultural value has been recognised. However, in Norway many of the wooden towns are still threatened. The buildings are not well protected and as time goes by, they are supposed to vanish and replaced by new, modern buildings in concrete and steel. Our historic wooden towns will probably slowly change in the direction of modern conformity.

From an environmental and economic point of view, the authorities now encourage to use more wood as building material, also in towns. In this paper I will discuss how to preserve and develop the wooden towns with their urban character and qualities and discuss the architectural and cultural arguments for using wood in our towns. Should we regard the use of wooden material as part of the conservation principles of our wooden towns?

Keywords: cultural heritage, urban planning, conservation principles and theory.
1 Introduction

The authorities in Norway want to increase the use of wood as building material for both economical and ecological reasons. Wood is a renewable resource and using wood in construction has a positive effect on the environment. Wood is also an important local resource in Norway, and increased use of wood in the construction industry could strengthen the economy in rural parts of Norway. New building codes and technical solutions open up new opportunities for using wood in buildings in urban contexts, to a much greater extent than for some decades ago.

Constructing new towns in wood is, however, not likely unless we talk about constructing new residential suburbs. Neither do we think of using wood as a building material in towns which are originally made of brick nor concrete as most of the towns actually are. On the other hand, in the boreal part of the world, we have wooden towns, or remaining parts of wooden towns established more than hundred years ago, before it was prohibited to use wood as building materials in urban areas.

Beside the stave churches, these wooden towns are regarded as Norway's most important contribution to the world's architectural heritage. In other parts of the world the wooden towns are mostly vanished because of fires and demolition, but since it was allowed to use wood in urban areas until 1904, Norway has an exceptional collection of wooden architecture that should be safeguarded. The renewal of the wooden towns is therefore important for conservation.

Even if there is a broad agreement that the wooden towns should be protected, the criteria, principles and methods for the protection and maintenance are strongly debated. A town is, in addition to a built, physical structure, a living and working environment for the inhabitants and is an ever developing and changing structure, reflecting the cultural, social, technical and economical development of the society. Historic wooden towns are therefore “living organisms”, placed in the tension between conservation and development. This becomes clear in the discussion around the modern development of our wooden towns.

Urban conservation and renewal raises a lot of questions that apparently can be both contradictory and paradoxical. In an urban environment, new constructions will continuously be added as a result of new possibilities or needs. It is a general attitude that “living” urban structure must be allowed to develop. But the main question is: according to which principles?

In this paper I want to present some challenges connected to the preservation and development of the wooden towns and how wooden architecture can be developed in a way that meets the special architectural challenges this kind of cultural heritage represent. There are many factors which enter in to decision on what building material should be used. These include technical, functional and architectural requirements, building codes and building traditions. I will focus on the architectural challenges that preservation and development of the historic wooden towns represents.
2 The Nordic wooden towns – from decay to prosperity

In the beginning of the 1970s, the old wooden towns in the Nordic Countries where characterized by decay and threatened by plans for urban renewals that meant a total demolishing of the old wooden buildings and replacing them with new and modern buildings in steel and concrete. The inhabitants of these urban areas, allied with professionals in architectural conservation and left wing rebels succeeded in stopping some of these plans. ICOMOS (International Committee on Monuments and Sites) and the cultural heritage authorities in the Nordic countries in cooperation with architecture schools, carried out a comprehensive registration and mapping of the wooden towns in the Nordic countries [2]. The project's reports gave an overview over the wooden urban architecture in these countries and discussed the situation and the development of the wooden towns. Alternative development strategies where discussed. The old wooden buildings should be preserved and adjusted to new requirements and possibilities. The project was brought to an end in 1972, but was of substantial importance for the comprehension of the wooden town's peculiar environmental qualities and special historic value and represents a milestone in Nordic architectural conservation. Preserving the wooden towns was continued and encouraged through the European Architectural Heritage Year campaign, organized in 1975 under the auspices of the Council of Europe.

Since the 1970s comprehensive and substantial conservation and maintenance work has been carried out in the wooden towns. Today the Nordic wooden towns are among the most attractive residential urban areas we have with their special environmental qualities, variations, human scale, historic continuity that makes identity and social connection and materials that indicate sustainability with use of a renewable resource. But still we address important questions:

- What is the "identity" and "character" of the wooden towns and which elements are these characteristics mainly connected to: use of material, the layout of the building, the urban fabric with its streets, places, dimensions, heights and scale?
- How should the historic/cultural footprints be expressed in the urban structure?
- Which position should contemporary architecture take in conservation and renewal of historic towns? Should new buildings always reflect their own time as regards to use of materials, technology and contemporary design?

3 Theories and concepts

The principles and theories on urban conservation and renewal are not distinct. The basic theories for architectural conservation have developed from the 1800s when the theoretical main directions were laid. The backcloth for the classic European conservation movement was the industrial revolution that led to comprehensive and rapid changes in the built environment, especially in the
cities. Most of the theories concerning architectural conservation were based on conservation of monuments and not on safeguarding a “living”, urban environment. The discussion focused on restoration principles. An important statement was that the monument should reflect all its historical periods with all its additions, because all historical periods are of the same importance. These theories were followed up by the Athens Charter from 1931 and the Venice-charter from 1964, and are still important in the discussion on conservation of monuments and urban environment [3,4]. They are also relevant for the challenges we are facing in safeguarding wooden towns.

The European Architectural Heritage Year campaign in 1975 put focus on urban conservation. The campaign was followed by the Amsterdam-declaration, which drew up guidelines that also involved safeguarding the urban environment [5].

"Today, it is recognized that entire groups of buildings, even if they do not include any example of outstanding merit, may have an atmosphere that give them the quality of works of art, welding different periods and styles in to a harmonious whole. Such groups should also be preserved".

These principles emphasize the value of the surroundings of the architectural monuments and their meaning for a good life in a turbulent society:

"The architectural heritage is an expression of history and helps us to understand the relevance of the past to contemporary life... indispensable for a balanced and complete life... The architectural heritage is a capital of irreplaceable spiritual, cultural, social and economic value”.

Conserving architectural monuments and urban environments are not longer a delimited subject for a group of scientists, but also important economical and social resources concerning everyone.

The Norwegian Cultural Heritage Act that was amended in 1992 defines the term "archeological and historical monuments and sites" as "all traces of human activity in our physical environment." [6]

Studying the developing of the theories and concepts for safeguarding the urban environment, we can recognize that they have gone through substantial changes and elaborations. Important elements from the first theories are still important principles. But the conservation work has reached a much broader perspective. From conserving the monuments, we have moved on to protecting urban environments for their value not only as historic documents, but also for their aesthetical and architectural values, their meaning to our social life and for their value as material resources. From a static conservation, we have attained a more dynamic perspective that gives room for development and renewal.

This change could be interpreted as a reaction against the post-war development of the cities toward modern conformity and loss of identity. The renewal and development of the cities after the Second World War took place at the sacrifice of existing buildings and monuments that could have given these
cities character and identity. Planning authorities issued guidelines that instructed the planners to take the historical footprints more into consideration when planning urban development or renewal projects. Theories on "city analysis" established historical footprints as premises for urban planning.

**Why** we are protecting and conserving our architectural monuments and sites and our urban environment, is given a much broader content. **How** we are going to do this, which principles should be used, is with the expansion of the term "architectural heritage", given a much more diffuse answer.

## 4 Reconstructing the wooden town

I present some examples from Trondheim to illustrate the challenges we have in developing the character of wooden towns. Trondheim is a city in the middle part of Norway, and one of the most interesting wooden towns in Europe, from my point of view. The city was founded in 997 by a Viking king, Olav Trygveson. Like all the cities from the Middle Ages in Norway, it was naturally constructed in wood. But in spite of frequent fires which demolished the town several times, it was rebuilt in wood every time, until 1845. The city has therefore a very interesting collection of old wooden houses, from big warehouses along the river, wooden palaces by the market place and many wooden buildings in different parts of the town.

Because of fires and demolition, parts of the city centre had to be rebuilt. Since wood was prohibited as a building material, the city was rebuilt in brick, first in a neo-classical style, then in jugend-style and from about 1920 new buildings were constructed in a contemporary style in steel and concrete. In this rebuilding the architects did not take much notice of how new buildings should adapt to the context. In volume, height, scale and architectural style the new buildings differ from the character of the original wooden town. Urban conservation focused on how to safeguard existing, old buildings in the historic town, but did not pay attention to what principles should be used in reconstructing the wooden town.

In 1967 six large warehouses along the river were destroyed in a fire. Some years later plans for a big hotel were displayed. For the first time we had a discussion on how an urban renewal project should adapt to the urban context. After a long and intense debate, a modern project in glass and concrete which adopted some of the elements from the lost warehouses was approved. The project was later given an architectural award.

In this case all the existing buildings were gone and the project had to adapt to an urban context, trying to find the character of the environment. In the next example some of the oldest wooden houses in the town were neighbours to the site of a new office building. The city officer of cultural heritage did not allow these wooden houses to be pulled down and was highly criticized by architects in the town for this. The new office building which was erected behind the old wooden houses, did not take into consideration the existing architectural context. Today these valuable wooden houses are wings in a modern shopping centre.
We had almost the same situation when the City of Trondheim was to build a new concert hall in the old city centre. The architects had to face the condition that the old houses should be preserved as a part of the project. Afterwards the project was criticised for not having demolishing the existing buildings, instead of being criticised for not taking the environmental challenges into consideration.

In December 2002 a great fire destroyed a block of wooden houses in the central part of the city centre. Two large and valuable wooden houses and some smaller houses were demolished. This was a tragedy for the city, which lost some of its most vulnerable architectural heritage in the most important part of the town. The citizens were mourning and wanted the old houses to be rebuilt. For some months we had an interesting debate on reconstructing the historic wooden town.

From different social and professional positions the citizens, the architects and planners, the politicians and businessmen had very different points of view. Many of the citizens who took part in the debate said it was important to reconstruct the character of the wooden town in the new buildings with its volume, height and scale and with use of wood. Most of the architects who took part claimed the principle that a new building always has to reflect its own time in architectural design, use of material and technology. The businessmen were of course most engaged in how the city centre could be competitive to the shopping centres outside the town.
An architectural competition was arranged and a program, which should be the overall guidelines for the competition, was established. The program quoted the planning regulations which said that the purpose of these regulations were to:

...ensure a gradual renewal of the built-up area in a way that conserves and develops the character of the city and the environment. It is of special importance to maintain the character of Trondheim as a wooden town". [7]
The character of the city was described as the special urban fabric, with the large blocks, building lines, its street-character, dimensions, architectural scale and rhythms. The program made it clear that it was essential to strengthen the character of a wooden town by using wood as building material. Reconstruction was from a conservation point of view difficult because it meant that historic footprints could be wiped out. The program, however, concedes that reconstruction could in some cases be relevant as a "mental bridge" between past and presence as a storytelling decor.

The panel of judges for the architectural competition also discussed the "character of the wooden town" and made it a question of using wood in the new construction but in a modern way. The new construction should therefore adapt to the remaining building environment of the block and not to those buildings, which were lost in the fire as regards to volume, heights and scale.

None of the proposals in the competition discussed the character of the wooden town. They made it more or less to a question of using wood to some degree. They all used a contemporary architectural expression.

Even though the competition program told the architects to take the character of the wooden town into consideration, it is obvious that this was a too difficult task. None of the proposals had a thorough reflection on this subject.

5 Conclusion

Is it possible to preserve a “living” structure at the same time as we allow them to grow, change and develop? Is it possible to develop the wooden towns so that they can maintain their special qualities, character and identity and prevent them from crumbling in to modern conformity? The examples from Trondheim illustrate some of the challenges, paradoxes and contradictions. Keeping the character of the historic wooden town is not only a question of using wood as a building material. It is also important to analyse the qualities of the urban environment, the historic footprints, the character of the town with the street pattern, the volumes, scale and rhythm and the use of material. Through a study of the characteristics of the wooden towns it is possible to refine and improve their qualities.

I think we have to redefine some of the doctrines within architectural conservation, for example that a new building, even in a historical context, must express the modern time. We must look for solutions to reconstruct the qualities of the wooden town. That means that the architects must be more modest and humble and try to express the historical footprints in the situation, more than trying to establish their own footprints.

The businessmen's concern about the town centre's competitiveness is serious, but I will maintain that the competitiveness is also a question of preserving and developing the environmental qualities of the wooden town.
References

[1] This paper is based on my PhD-thesis "Wooden towns – culture heritage in decay". The PhD-work is part of a research program by the Norwegian University of Science and Technology (NTNU) "Wood as a Building Material" funded by the Norwegian Research Council. The Research Council wants to focus on how to increase use wood as a building material in urban areas.


