Building in wood in the Netherlands

From early medieval times until World War II, problems and possibilities of preservation

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Introduction
In this short presentation it is my intention to give an overview of the history of wood as building material in the Netherlands over the centuries. After a quick historic survey I will focus first on the only area in the country with a building tradition in wood that survived until present days. My second issue is about the small ‘hausse’ of prefab wooden houses at the end of the nineteenth and the first decades of the twentieth century. I will show some of them and explain how these firms work with the story of one of them. The last part of my presentation will look at one of the three topics at this conference: ‘Sustainable reuse of historic timber housing stock and saving buildings of the past to serve the future’: upkeep and authenticity. As a conclusion I will try to face the problems and possibilities of preservation of these listed wooden houses in relation with the charters of ICOMOS. With my last pictures I will take you, by surprise, to a complete Dutch wooden town on the World Heritage list, also as a kind of suggestion or invitation for a possible venue for a future meeting of this committee.

Wood in the Netherlands
Wood is not only the basic material in the Netherlands for wooden shoes, ships or windmills. Houses were built for centuries only in wood with a thatched roof. Also in town’s wood was the common building material except for important buildings, like churches and town halls. Building in wood has a long tradition in the Netherlands albeit that from 1650, due to fire precautions, the material was restricted more and more from the towns and thus restricted to the countryside. In the first official law on building of 1901 much was regulated and wood was even completely banned as building material for the use in buildings for permanent housing-purposes. The only exception was made for buildings around a few fortified towns which had kept their defensive role until that time. In these ‘forbidden circles’ wood was the only permitted material to make able to get rid of it quickly in case of war. This is the reason that the still completely walled town of Naarden, a little east of Amsterdam, has hundreds of wooden houses, about 150 of them nowadays listed.

Not much left
In the almost two hundred historic towns of the Netherlands only four wooden houses have remained until present times, but none of them original. In Middelburg only one gable is saved and replaced, already in 1888.
It serves the future as an ‘unidentified hanging object’ on the side gable of a former museum, being attached to its brick wall. It has to be said that this 16 C Flemish gothic gable should have been demolished in the Second World War in case it had remained at its original place. In Amsterdam only one reconstructed house and a pub, with the name ‘the Monkey’, outside the former city-walls still have their wooden gables albeit completely restored.

**Waterland**

Of course the name ‘Waterland’ could have been a perfect name for more than half of the Netherlands, as it’s altitude is less than zero, that means below sea-level. Only an area North of Amsterdam bears officially this name. Here wood remained the main building material as it was for a long time in the connected area around Zaandam were in 1697 the Russian Czar, Peter the Great lived anonymous in a small wooden house to learn the skills of wood building, before he founded Petersburg. For this reason much Russian terms for wood constructions and tools still are Dutch in origin. This small area is the only part of the country with a strong and ever continuing history of wooden houses. Tourists who will travel only 10 kilometres north from Amsterdam will discover the wooden paradise ‘Broek in Waterland’.

![Broek in Waterland](image)

I will be delighted to show you this village when you will visit Amsterdam. To ‘warm you up’ a bit, I brought a recent book about this place and added some pictures in my presentation.

**Prefab-hausse**

From the end of the nineteenth century until the economic decay of the thirties an atmosphere that longed for romantic forms of living and an open mind for influences from abroad occurred some demand for wooden houses. This started with some hunting lodges, like the ones the Norwegian Kingdom gave as a present not only to the Dutch Queen, but also to the Belgian King and the German Emperor.
This was followed, around the turn of the century by temporarily weekend houses in the woods or along the coast and finally growing to a little ‘hausse’ in the twenties when some hundreds of completely wooden houses were built all over the country. This revival of wood building was primarily based on the romantic style of the time, where exotic influences from foreign countries were incorporated in the local and regional building traditions, the so-called: chalet-style. But most of these houses were completely build in stone, only the roof construction and some beautiful woodcarving in the ornamental outside truss was made of wood.

**Imported from other countries**

In one way or another this gave way to some demand for completely wooden houses. For the Netherlands had no tradition kept to the present times, wooden houses had to be imported from abroad. Between 1880 and 1930 and mainly in the twenties of the last century, two to three hundred wooden houses were built all over the country, often in pleasant surroundings of (wooded) countryside. Most of these houses came completely prefabricated overseas, from Scandinavian countries, Germany and Austria, but also some from England and even Canada. Almost all of these houses remained until present time. I had a chance to get involved in an inventory of buildings, dating from 1850 – 1940 as a base for listing. I took advantage of this job and the e regular meetings with colleagues from other parts of the country to work out a complete overview of wooden houses. I will give a short overview of the prefab houses and focus on of them, the most important, not only in the Netherlands but at that time worldwide.

**Companies**

The most important companies who delivered prefab houses were Strommen Traevaerefabrik from Norway, Christoph & Unmack and Höntsch from Eastern Germany and Schönthaler Silva from Austria. Al these firms had strong connections with the country or even offices in the Netherlands and representatives who tried to sell these houses. These activities resulted in some 40 – 50 houses of Christoph & Unmack, all built between 1919 and 1923, so at least at a base of ten a year. From the Strommen factory, a colleague of mine discovered about 40 houses. Apart from some individual houses Schönntaler Silva built a row of eleven similar houses. The only English wooden house I found is the ‘Pampacottage’ in Hilversum, built in 1911 by Boulton & Paul Ltd. in Norwich.
In toot some 500 wooden pre-fabhouses were built in this period and one third of them are listed now on the National list and another big part on local lists. This means that the wooden buildings might seem a bit over-represented on these lists, but still not even 1% of all listed buildings are made of wood.

**Transport and construction**
The story how these houses came to the Netherlands is similar. The houses were ordered from a catalogue with numbered types like Strommen, or ‘tailor-made’ like Christoph & Unmack. First the house was built in the factory and then transported by ship or rail. Local craftsman or employees of the factory who came with the houses put it together on a prepared foundation, preferably concrete. It was possible to build the house upon a cellar or ground floor in brick. This construction work took only a limited time. In some cases these examples were copied by Dutch firms who started at small scale production lines of wooden houses. Only around the town of Naarden, due to its building restrictions, some streets have only wooden houses.

**Christoph & Unmack**
My research is mainly focused on the firm Christophe & Unmack. The roots of my interest were planted almost fifty years ago when I moved with my parents in one of these houses located in the small town of Delden in the eastern part of the Netherlands.

Without doubt this brought me to the decision to study architecture and in my professional life I always kept a keen eye on wooden architecture, as part of my job or and in my own time as a life long fascination. After all these years I can say I’ve seen almost every wooden house in the Netherlands and know personally all owners of the houses of Christoph & Unmack. After we had met several times and visited each others houses we decided to visit the place our houses came from. In 2004 we went to Niesky in Germany and had a marvellous day. We saw the factory, the many wooden houses in the town, spoke to the people who lived in these
houses; many of them worked for the factory and with them a lot of family members. At the end of the day an exhibition was opened which gave an impression of almost all houses of Christoph & Unmack build in the Netherlands, both by their documentation at the time of construction as by the present state of the buildings. This exhibition is still on its way in Germany and will be presented at the Denkmalmesse in Leipzig at the end of next month. At the time the exhibition will start its tour through the Netherlands I hope to have finished my book about this firm and wooden houses in the Netherlands in general. It’s my pleasure to give you a preview today.

Leading factory
Christoph & Unmack was at it’s time one of the biggest and leading firms on wood – building. The firm was founded in Copenhagen (Denmark) in 1882 by two men Christoph und Unmack, architect. They used a Danish patent the so-called ‘Doecker bauten’ on prefab and transportable barracks for war-purposes, like field hospitals. In 1887 the firm moved to Germany to become a neighbour of the by family links related Christoph Ironworks in Niesky. Niesky is a small, regular town, grounded by Hernhutters, followers of Czech Duke Zinzendorf in an Eastern outpost in Germany, near to the present Polish border.

Variety of buildings
After the war other purposes were found in schools, barracks for temporarily employees, hunting lodges and small houses, even a plane. In that time Germany also founded some colonies. A special brochure was made for buildings in the tropics. In 1914 a wooden house was built in Darmstadt at the artist colony Mathildenhöhe. Here the enlightened Duke of Hessen Darmstad invited artist and architects to show their skills. Albin Müller was the architect of Christoph & Unmack who built a ‘modern wooden house’ in Darmstadt, later followed by his Villa Sommerfeld in Berlin.

Architects
This was the start of a new expressionistic style in wood building, a mixture of an old traditional material, a systematic design in a new style by famous architects. In this way Hanz Poelzig designed a very smart summerhouse and Hans Scharoun a ‘house for the middleclass’.

Wachsmann
Between the two World Wars the greatest expansion of wooden houses was reached. In 1922 both wood and iron firms merged to one Christoph & Unmack, with production lines in wood, streetcars and railway carriages (at that time built in wood with a frame and wheels of iron) iron construction and motor works. From 1926 to 1929 the production of wooden houses was under the architectural direction of Conrad Wachsmann, an architect who was educated at the famous Bauhaus school. Later he moved to the USA but confessed that his training in systematic building that was theoretically founded by Gropius, had become reality in Niesky at Christoph & Unmack.
One of his famous buildings is the wooden summer-house in Caputh near Berlin, a birthday gift to Albert Einstein, which is now open to the public, after the Einstein year, last year. Wachsmann as the founder of a new way of building and not only in wood but also in concrete as he later started in the USA.

**Henri Van de Velde**
Not only Wachsman was a real architect who worked with the systematic construction types of these wooden houses also the Belgian architect Henri Van de Velde designed wooden houses when he was working for the Kröller Müller family who owned one of the major modern art-collections in the Netherlands. His impressing museum in a privately owned nature-reserve was not build but he designed his own house that was built by Cristoph & Unmack in an expressionistic style.

**After the Second World War**
Just before the Second World War in 1938 the firm had a production list of 5.000 houses, many of them for export, and almost 4.000 employees. The last black pages in the wooden history of this firm are about the building of barracks for the Nazi concentration-camps in the Second World War. After the war it was over. Only some wooden houses were built to be exported to Russia. The iron-construction firm remained until present times. Still railway wagons are made in Niesky but now by Bombardier in the old and still partly wooden construction halls. And the little town itself keeps his memory to its once famous firm by hundreds of wooden houses and a museum that keeps the history alive. The former director’s house built by Wachsman after years of neglect is to become a little wood research centre. In this remote area of former Eastern Germany not an easy task to attract many visitors.

**Three main types**
The wooden houses of Christoph & Unmack can be divided in three main construction-types. Most simple type used the panelling system. These houses were built on a wooden floor with rails to place panels, both for the interior walls as the outside walls. Panels could be closed or with a window or a door. All panels were built in the factory and could be transported on a van. One van fits for one house. This system was very simple, cheap, fast to build and easy to transport from place to place.

A second system had a timber frame construction with outside and mostly also inside panelling. In between isolation material was added like turf, straw, ore shintels. These houses were built with the use of old building traditions and constructed at the building place itself. All material came from the factory and could be put to together with local craftsman. Also these houses were cheap and could be build in a short time.

The third way of building was tailor-made. These houses were built from 1914 and one by one, so no one is the same. From yearly catalogues people could make their choice. There
were at least 36 different types. Most of these houses were also called Blockhouses or Nordic Hauses, because they were based on a Scandinavian building style. This is also the reason that many people think these houses originate from Norway. These ready-houses were completely built in the factory. After a house was completed all parts got a special code. Then the house was deconstructed and put together in parcels that could be transported.

Supply and prices
The firm had its own wood supply from extended forest in the Polish parts of former German Silesia and own sawing-works at the place. The wood was manly first quality pine, without any knots. One of the reasons for the successful export of these houses in that specific period was the devaluation of the German Mark. For this reason it was very cheap to order such a house even if it had to be transported over a long distance. In 1925 prices started at 3000 mark and ended ten times that much for the largest types.

All over the world
This firm in a remote and unknown town succeeded to reach almost every corner of Europe and even beyond. Representatives were located in the Netherlands, Belgium, Luxemburg, England, France, Italy, Spain, Portugal, Denmark, France, Estonia, Latvia, Lithuania, Serbia, Rumania, Bulgaria and Turkey, Palestine, Egypt, South-Africa, Mexico, the Caribbean, Argentina, Uruguay and Chilli. Even in the arctic and Antarctic region polar expeditions carry these houses, some are still there. Of course Germany itself got the greatest variety of wooden houses. On top of its highest mountain, (almost 3000 m) a hotel was built in short time and on the border of the Baltic Sea a large holiday resort was built on request of the German Emperor who was known for his love

Turkey
I must confess I haven’t seen many C&U houses in these countries, so when you might know some, I’m pleased to hear about, but I’m sure that at least in Turkey there is one.

The German Delegation decided in 1924 to built their Embassy in the new founded capital Ankara in the only sufficient way in a country, famous for its wooden buildings: by the skilled craftsmen of Christoph &Unmack. Today this wooden house is saved from the past to serve as one of the buildings for the Museum of Kemal Pascha Ataturk, founder of modern Turkey and founder of Ankara as capital.

Upkeep of wooden houses
A lot of wooden houses vanished through the ages. We can only figure them in the backgrounds of the famous Dutch landscape paintings. A lot of houses, once built in wood
changed more and more to stone and were replaced at once by new stone houses. A wooden house showed as a poor house with an owner who couldn’t afford a stone house. Only a few houses were saved, mostly by removing them, on the initiative of a one rare preservationist.

Open Air Museum in Arnhem

For almost a hundred years, the Open Air Museum near Arnhem shows a complete wooden village in a strange, albeit wooden, surrounding. On the right place, along the river Zaan, many wooden houses from the area were saved after the Second World War in the so called: Zaanse Schans, a popular tourist destination, only a short bus trip from Amsterdam. Farther North, a complete harbour town was rebuilt in the Museum of the (former) Zuiderzee, with wooden houses from an island, now dried up in the new land. Another, abandoned island became the first Dutch World Heritage Site. Next to the church a new village of old wooden houses was built to make the spot attractive for tourist, who will think they see old dwellings.

Maintenance

This brings both owners and preservationist to the question how to keep these building in an eternal good condition. Because there is no nationwide tradition of building in wood the regulations and restrictions for conservation are based on buildings in stone. Craftsmanship on wood is limited to very few and only in specific part of the country. For private owners of listed buildings the tax deduction system is most profitable and since this year the only financial support they can get. Unfortunately the tax deduction rates and criteria are based on maintenance of stone buildings. This means that it is not allowed to get tax reduction on the costs of maintenance of the larger wooden parts that are necessary to be replaced in case of repair at wooden houses.

Main problems

The main problems of preservation of wooden buildings are:

1. Limited knowledge and craftsmanship, and only in specific area;
2. No continuing building-tradition in wood;
3. Regulations for granting based on stone instead of wood;
4. Tax-deduction criteria not based on maintenance of wooden buildings;
5. European environmental restrictions (from Brussels) in the use of traditional materials.

State Department for Conservation

Until some years ago there were only listed wooden buildings in one or two communities. In these communities at least some knowledge was kept both by the owners, building companies and civil servants. Now there are hundreds of wooden listed houses in a large part of the country where this knowledge is missing. The State Department for Conservation felt the need to collect knowledge and skills to serve owners of all these buildings. A working group
was started several years ago but due to other more important issues unfortunately not continued anymore. Nevertheless some hundreds of owners of wooden houses are expecting help in the upkeep of their listed houses. Some of these owners know each other and are used to exchange their experiences. This is the way it went in the past as well.

**Again Waterland**

A good example is the local community of Waterland, one of the areas with mainly wooden buildings. A brochure of almost 40 pages is recently published and spread out over the area to all owners of listed buildings. In this brochure first law and regulations are explained, then maintenance and restoration are described, as is building in conservation area’s before specific chapters give information about gables, separately stone and wood, windows and doors, roofs, shades, fences, painting and colours for the different villages, the gardens and planting. The brochure ends with information about granting and financial support, the provincial and local listed buildings and colour schemes. I brought some of these brochures with me, if are interested you can ask me one, but of course the text is only in Dutch.

![brochure Waterland](image)

Another publication by the same author was issued at the same time. This coffee-table book with beautiful pictures of both exterior and exterior is bilingual. I brought one copy to show here and some information on paper about the book and how to order the book for 30 Euro.

**Authenticity**

If we look at the Venice Charter from 1964, which formed the base for ICOMOS in 1965, the points of view are mainly western and more based on stone than other materials like wood. In 1977 the Turkish professor Cevat Erder (for the non Turkey’s in the audience: he was professor on the Faculty of Architecture, and founder of the Department of Conservation of Historic Monuments at Middle East Technical University in Ankara) took the Venice Charter under Review. The three articles about restoration (9, 10 and 11) have to be seen in their context, just after the Second World War. They are also a reaction on restorations with later additions with the purpose to look historical correct. His conclusion was that the Carter itself should be preserved as a historic monument itself. A polite way to say: ‘the carter has run out of date’ only twelve years after it was written and need to be seen with a worldwide scope.

**ICOMOS**

In 1994 ICOMOS, with contributions of ICOM, ICCROM, and UNESCO World Heritage Centre discussed about authenticity in Nara, Japan, another country with a strong tradition in wood. The example of the Buddhist temples in Horyu-ji, some of them dating back to the 8th century are maintained by conservation works for some thirteen centuries. This included total or partial dismantling, repair and reconstruction. The authenticity of these buildings is seen from the function and tradition above the authenticity of materials.
If we look at these subjects with our western, ‘stoned’ eyes we might close these eyes at the same time for the importance of the wooden heritage as to be found until present times in almost every country of the world but mainly concentrated in the Northern hemisphere in countries like Scandinavia, Russia, Japan and Northern America.

A new ‘wood tradition’ seems to be necessary, but it can only be based on old knowledge. The biggest target is to solve the contradiction between the ‘temporarily’ life of the material and the ‘eternal’ future we think the buildings we made of it deserve.

**Conclusion**

From the lines above lines it has become clear that the Netherlands are not an important country for wooden heritage. Less than 1% of its listed buildings are completely wood. I showed you the only remaining area with a well kept and perfectly researched and documented wooden tradition. The other wooden monuments like the hundreds of prefab-houses that are listed now can hardly be seen as Dutch heritage, while they have their roots abroad. In these cases we might try to talk about mutual heritage. But, there is a rare example, the other way round: of Dutch wooden building tradition in another part of the world:

**Paramaribo**

Far outside the Netherlands, but nevertheless of Dutch origin is the historic inner city of Paramaribo in South American Suriname. This World Heritage Town (since 2002) is one of the most beautiful and still well kept wooden towns in the world. However its future is unsure, many buildings are neglected and from time to time one or more of them burn down and remain as a ruin or to be replaced by modern constructions. The country is too poor and has only some 300,000 inhabitants. Among them are very few skilled experts for the upkeep of their wooden heritage. To bring experts to the country is not easy, especially for my fellow countrymen, after the independence, 30 years ago. Still we feel a responsibility for this, now also, mutual heritage.

So I would like to finish with the suggestion to organize a next meeting of the ICOMOS International Wood Committee in Paramaribo in combination with the ICOMOS Committee for Shared Built Heritage. January next year I will suggest the same at the third meeting of that committee in South-Africa. It will be a pleasure for me helping to make this idea realistic in the near future and to show both you this wooden gem as to give to the local and national authorities reasons why they should save historic timber structures as a common, mutual wooden, heritage.