

MAJ VOGT REITHER:

Bergen, The Timber Town

At one time Bergen was a purely timber town. The Inventory of Immovable Cultural Heritage (all buildings before 1900 have been registered gave us the opportunity to study the aggregate number of dwellings in the city centre where continuous districts with wooden houses still exist. Many of them have been reconstructed, altered and built again after large fires up to the end of the last century. The timber town is interesting because of these factors, and also because we here have buildings that are typical and widespread, and because they have been used by a majority of the local population. Even if the analysis of the gathered material is not completed, we are now able to note some clear trends.

Historical background

The history of Bergen is closely connected to the unusually good harbour, one of the best in Europe.

In addition, Bergen's situation makes it a natural meeting point for the shipping routes north and south along the coast as well as the routes to England, Iceland, Greenland and the Orkneys. The nucleus is the harbour. Trade and shipping have provided an incentive for the growth and development of the city over the past 900 years.

Most of the town has consisted of simple wooden houses, built according to the traditions of rural Norway and adapted to the special conditions found in the urban agglomerations.

«Vågen», the maritime market place, and the surrounding areas have been the town's most important commercial resource. This fact has been registered in the shape of the building sites. Dividing the land into narrow sectors has been the most profitable solution for owners of real estate. In this way both the valuable frontage and the less valuable areas at the rear could be employed by the same users.

The trend towards this division into long narrow sectors is seen most clearly today in the buildings along Bryggen. The trend is somewhat less apparent in the remainder of the oldest parts of the historical timber town, but is nevertheless visible.

Ground plan

As far as we can see, the statistical average width of the building sites is about 6 or 7 metres. This agrees with our investigations of individual houses, the width of quite a



*Map of Bergen: extension of the timber town.
Carte de Bergen: extension de la ville en bois.
Municipality of Bergen.*

number of which is $6,5 \pm 1,5$ m. or some combination of these two units of measurement.

This trend agrees with the width of the oldest houses at Bryggen, and the length of obtainable logs.

A long narrow site is best utilized when access and horizontal traffic is directed along one of the long sides of the building. This solution provides an acceptable room size as well as access to several rooms and space behind the frontage when the site and building are about 6 m. wide. We also find that relatively narrow buildings with side alleys are a general feature of large parts of the old timber town.

Craftsmanship

Timber has been the cheapest and most easily available building material in Bergen as well as in other parts of the country. Not only houses, but also ships, tools, furniture and household utensils have been based on the use of timber. Tools and technology that were developed at the time the city was founded have retained much of their original appearance up to the present. The skills necessary to make use of timber have to a large extent been maintained and must be considered an important aspect of our cultural heritage.



Scholeus etching from 1580
Gravure de Scholeus 1580
Historisk Museum. University of Bergen

The Execution of timberwork

The construction of houses in Bergen was carried out by farmers from the surrounding rural districts. This activity provided them with welcome additional income, and the town dwellers with a necessary service after the great fires that swept through the town.

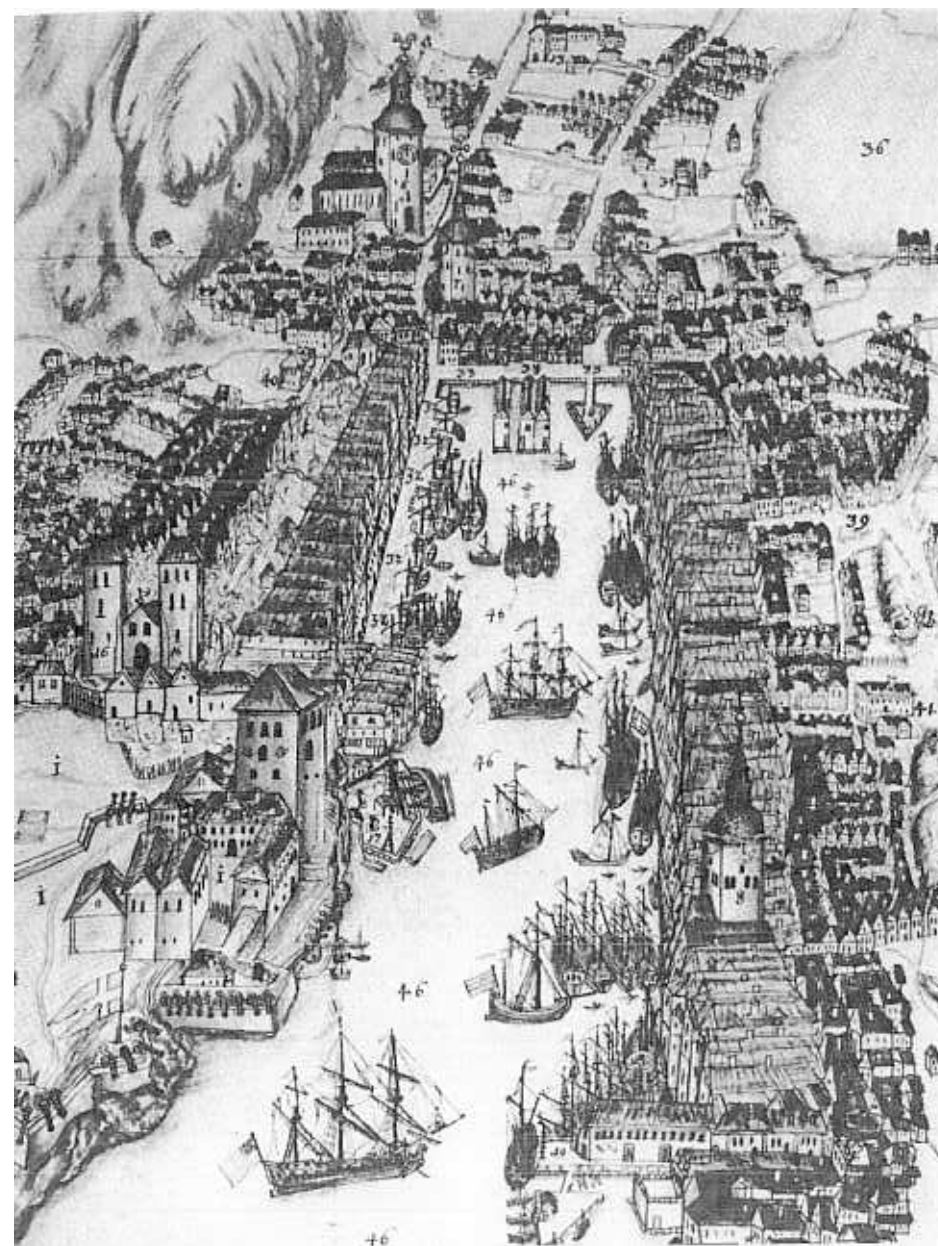
The farmers erected the buildings at home. Later, they marked the timber, dismantled the building and transported it into the town where the dwelling was quickly re-erected on its permanent site.

The technique used to build log houses had been fully developed in Bergen at least about 1300. As far as we know, for a long time, the town consisted of tarred log houses without cladding. As it is well known, timber is sensitive to water and moisture. The weak point in log houses is found in the endgrained wood at the corners. In this damp climate, walls are subjected to the lashing rain and constant dripping from roofs.

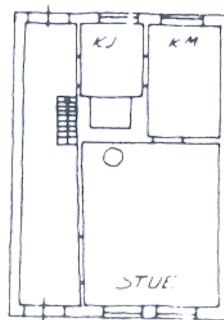
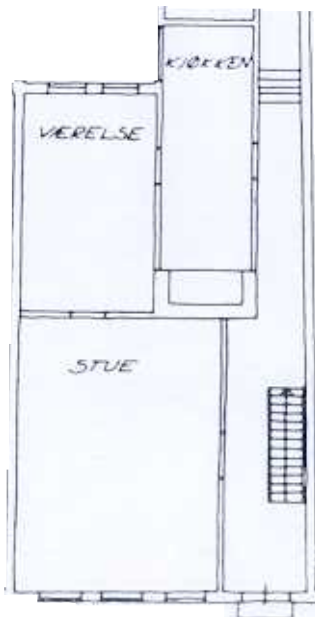
The same is the case with sole plates in contact with the soil.

Technical improvements

There have been only insignificant changes in logging techniques over the centuries. Technical improvements in log houses in this climate entailed producing a water-



View of Bergen 1743
Vue de Bergen 1743
Historisk Museum, University of Bergen.



Examples of primary forms with side alleys.
Exemples de formes type avec passage latéral.
K. Bjørknes «Gamle borgerhus i Bergen»

house faced the street. This was prohibited after 1757 when it was decided that all roof ridges had to run parallel to the street. In 1800 regulations concerning hipped roofs and gabled roofs were introduced for the same reason. Part of the aim of these regulations was also to create visual orderliness in the landscape. These regulations came from Denmark, the seat of the government, and also had some basis in stylistic ideas.

Attempt were made to introduce compulsory brick walls but the town dwellers opposed these regulations. As a compromise solution it was decided that new buildings should have brick walls facing the street. This was placed outside the timber facade as a false front.

Cultural trends from Europe

Stylistic ideas from Europe also reached Bergen. These ideas were adapted by local carpenters, and European styles in brick or stone were reproduced in timber. Stylistic elements were applied to the unchanging simple primary form in the shape of various ornamentations. Those could be changed relatively simply as cultural trends changed.

Conclusion

We have made an attempt to describe how the variegated urban landscape with its large number of wooden buildings is a product of a long period of development.

The development of the *primary forms* and the *applied buildings elements* have taken differing courses. It may therefore prove useful to consider these two features separately.

The development of the *primary form* has been affected by the accessibility of materials, construction principles and technical solutions, rational use of building sites and ground plans. The development of the primary form is first and foremost connected with the ecological adaptability of the urban dweller, which has not changed significantly throughout the history of the city. The primary form is characterised by continuity and this is what creates the structure of the urban landscape.

Applied building elements depend on changing social phenomena, aesthetic examples and the political balance of power. The buildings elements that are applied to the primary form are a result of the social adaptability of the town dweller and are hallmarked by change. These applied element provide buildings with expression.

The authenticity of the city landscape and the individual building may be considered in the light of the above. A discussion on authenticity should clarify the way in which continuity in primary forms and the changes in applied structural elements should be handled.

It may be useful to formulate some questions: Can primary forms that have been lost be replaced by constructions similar in form, without taking use of materials, technical solutions and ground plans into consideration? If we say yes to this, is there a limit to the city capacity, or is continuity ensured when the structure is continued irrespective of the extent of the new construction?

This is a constantly recurring problem in the vulnerable and inflammable timber town.

We run the risk in Bergen of having the majority of our wooden houses pulled down over a period of time and replaced by reconstructions in fireproof materials with modern



*Traditional houses with gables facing the street.
Maisons traditionnelles avec pignons sur rue.
Photo Espevoll 1930*

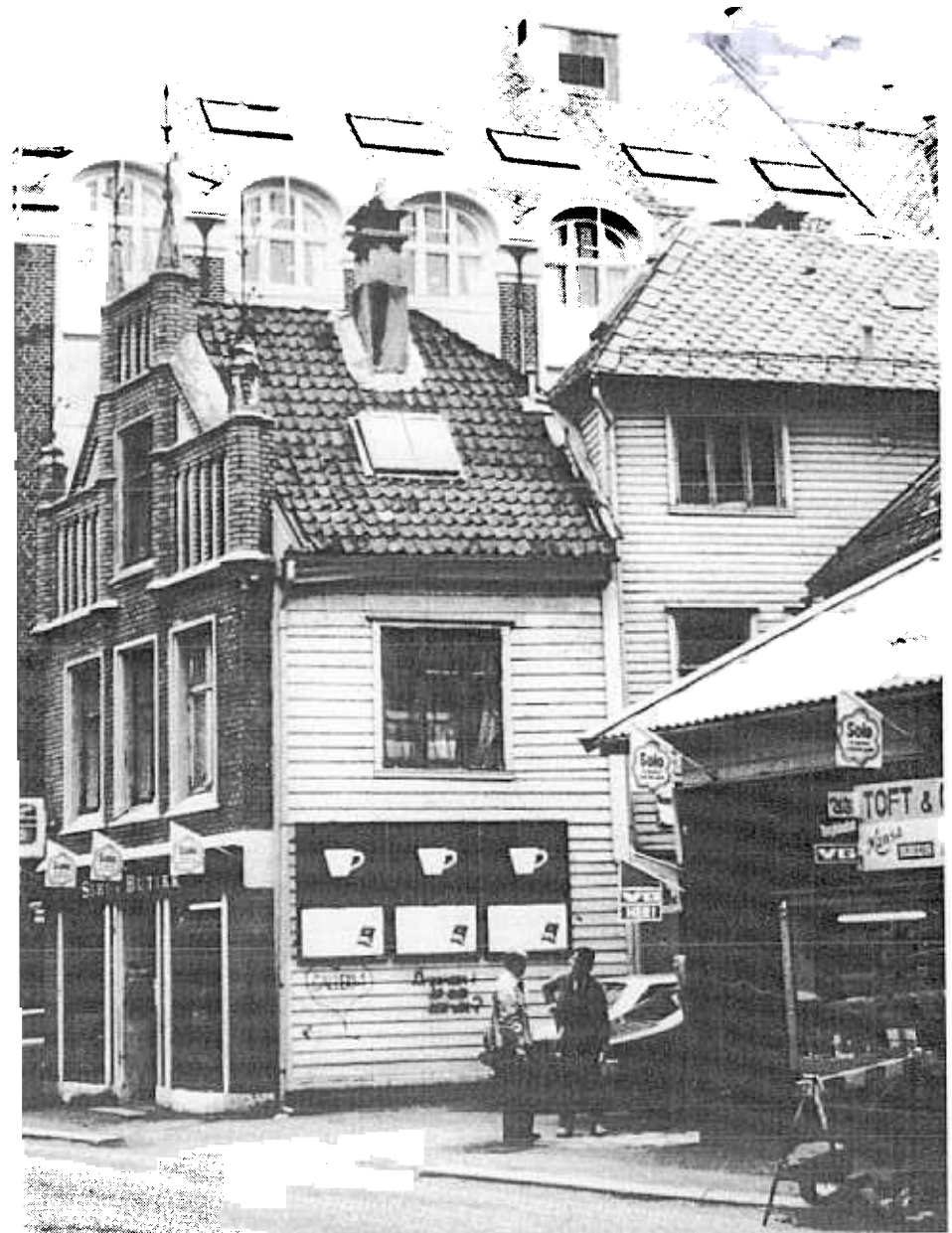
ground plans. They may also be replaced by modern «adaptations», where the primary form resembles the original and where some features called *applied buildings elements* bear a certain resemblance to the original elements.

How should we handle buildings where the primary form remains intact, but to which stylistic elements from a series of different epochs have been added?

Can we here regard these changes and the elements telling of the building's history as part of the authenticity of the structure – and thus of value and something we should retain and care for? Or should the building be brought back to one particular point in historical time? This is another constantly recurring problem in the timber town where continuous rehabilitation and maintenance is taking place.

The starting point for the discussion on authenticity should, in my opinion, be the various framework conditions and influencing factors that have created both the primary form and the ornamentation. Authenticity must thus be connected both to continuity and to change, to structure of the city landscape as a whole and to the expression of the individual building.

Against this background I would argue that authenticity must be considered a question of degree.



*A traditional timber building with a newer brick wall facing the street.
Une maison en bois traditionnelle parée d'une façade en briques vers la rue.
Photo. Maj Vogt Reither 1983.*

Résumé: La ville en bois de Bergen

Autrefois Bergen était une ville entièrement en bois. Des constructions en maçonnerie ou en béton sont venues petit à petit remplacer les bâtiments en bois, mais il reste encore de nombreux quartiers anciens dans le centre de la ville aux alentours du port. L'inventaire entrepris il y a quelques années n'a pas encore été analysé, mais nous donne déjà quelques indications certaines sur le type de construction le plus habituel.

L'histoire de Bergen remonte à des temps reculés. Après avoir servi de point de départ à de nombreux raids viking, Bergen devint un port commercial. La fondation de la ville date de 1070, quand le roi Olav Kyrre, ayant survécu au dernier grand raid viking en Angleterre, invita la noblesse Norvégienne et Islandaise à venir y conclure leurs marchés. Il leur promit un point de mouillage pour leurs navires et des entrepôts pour leurs cargaisons. Le nerf de toute activité a donc depuis le moyen-âge été le commerce par voie maritime. Bien qu'ayant été le centre de transactions commerciales, on peut s'étonner que si peu de traces en reste architecturalement parlant. À part quelques monuments et églises, l'architecture de Bergen est modeste et ne reflète en rien l'aisance de ses citoyens.

Le centre géographique et social a été concentré autour de l'excellent port naturel (un des meilleurs de Scandinavie) que constitue le fond du fjord. Cet emplacement a également déterminé la forme et l'emplacement des terrains, donnant à chaque propriétaire accès au port. Ceci explique donc l'étroitesse de ces terrains qui n'ont qu'une largeur de 6 à 7 mètres de large. Ces terrains à bâtir étant de longues bandes étroites ont également défini le plan des constructions. Pour tirer partie au maximum du terrain, l'emplacement de l'entrée et la répartition des pièces sont sur la longueur, c'est à dire sur le côté des bâtiments et donnant sur des ruelles.

Le bois a été le matériau le plus accessible comme partout ailleurs dans le pays. Ce sont les paysans des alentours de la ville qui en ont été les charpentiers. Les matériaux taillés à l'avance et marqués, pour ainsi dire pré-fabriqués ont ensuite été transportés en ville pour y être montés. Cet artisanat a constitué une source de revenus appréciable, surtout après chaque incendie.

Pendant longtemps les parois en rondins sont restées à nu, simplement passées au goudron. Mais le climat très humide et le risque de détérioration des matériaux sont la cause des revêtements en planches sur les murs extérieurs. La tuile et l'ardoise remplacent la tourbe sur les toitures, pour la même raison. Les gouttières font également leur apparition. Enfin, les soubassements en pierre isolent les constructions de l'humidité des sols.

Cette forme-type de construction a aussi subi certaines transformations pour d'autres raisons, cette fois imposées par des décrets officiels. Pour limiter les incendies, on a percé de larges rues entre les quartiers. La forme des toitures a également été imposée par décret. Ayant interdit de bâtir pignon sur rue, les autorités rencontrèrent une si forte résistance qu'elles durent accepter un compromis. On essaya aussi d'imposer la construction en maçonnerie, mais sans succès. Un nouveau compromis fut le mur en maçonnerie cachant la façade en bois.

L'influence des styles venant de l'étranger est également visible mais constitue plutôt des «accessoires» posés sur un modèle constant.

J'ai donc essayé de montrer qu'un paysage urbain est le résultat d'un long processus dû à deux facteurs principaux: la structure initiale des constructions dictée par les conditions géographiques et sociales d'une part, les transformations et apports dus aux conditions variables de la politique et des apports culturels.

La question qui se pose est de savoir jusqu'à quel point on peut remplacer les structures anciennes par de nouvelles structures qui n'ont que l'apparence de l'ancien, ceci pour conserver une sorte d'authenticité du paysage urbain, et jusqu'à quel point ce paysage restera authentique. À quel moment le paysage urbain nous semblera-t-il falsifié? D'autre part une autre question se pose quant à l'authenticité des bâtiments qui ont subi différentes transformations au cours des temps. Que faut-il retrancher pour retrouver le noyau initial? Et où trouver la limite?

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