

The Blackhouse and *Røykstova*; a common North Sea tradition

Ole Didrik Laerum

DWELLING houses with an open fireplace represent a common European tradition which goes back to the Neolithic period. They were simple rooms, open to the raftered roof and had no chimney. The smoke from the fireplace found its way out either through a hole in the ceiling or in the gable, or directly through the thatch in the roof. Because smoke was trapped under the ceiling, the houses could not have an upper floor. The open fireplace, the hearth, provided both light and heating, and in addition, pots and kettles were hung over the fire for cooking. The early houses did not have a window. Instead, the light came from above and spread into the room through the hole in the ceiling, the louvre (Old Norse: *Liora*). Thereby, the dim light from above and from the open fire created a very special atmosphere which was accentuated by the smoke passing up and out. These houses are witnesses of common life throughout an ancient history, and represent an environment which was totally different from life today.

For most people in our modern society, such houses might seem primitive, uncomfortable and dirty, where draught and smoke presented serious health hazards. Although this might be partly true, blackhouses can not only teach us about life in older times, but also enlighten us about values which have almost become lost in the present day. My own background is in medicine and basic biological research, with a strong interest in medical and cultural history. This led me to investigate the occurrence and functions of houses with an open fireplace in my own home region of Western Norway, a region which has always had a strong connection to the North Sea area. Surprisingly, a high number of such houses are still present today and are used for different functions in their more or less original shape. The

purpose of this article is to describe this type of house as a common European tradition and draw a comparison between different parts of the North Sea area. Above all, I will describe how such houses were constructed and functioned in the daily life of Western Norway.

The Longhouse Tradition: from stave-built longhouses to notched log-houses in rows

IN Europe the longhouse which was stave-built or made of stones or brick, common for people and livestock, dominated until the early Middle Ages. Later, houses built of logs became common. The fireplace could be an open hearth, or a smoke oven made of stone. The house sometimes had interior divisions, with an *eldhus* (kitchen) in one end where the fireplace was usually located. The main part was a larger living room. In the kitchen part of the house, such stoves remained common until the last century, and were used for food preparation and baking (Schäfer 1906; Lachner 1987). For example, museums in the countryside of Germany and Austria still contain several well-preserved examples of such houses (Keim and Lobenhofer-Hirschbold 1990; Mantl and Mantl 1984; Mehl 1990; Pöttler 1978).

In Northern and Eastern Europe, notched-log houses became typical in the early Middle Ages. This construction type may have come from Russia and Eastern Europe and spread to the Scandinavian Peninsula through Finland (see e.g. Hauglid 1980). The size of a single house thus became limited by the size of the timber. In Russia, a rich tradition of log-house architecture developed with dwelling-houses on farms which had the traditional smoke oven in a corner of the main room (see e.g. Lissenko 1989). However, as pointed out by Brekke *et al.* (1982 and 2003), single notched-log houses which were linked onto each other in Western Norway, sometimes also sharing a roof, appear to be a continuation of the much older longhouse.

Scotland and the Isles

A special variant of this house, the blackhouse, became common in the Highlands of Scotland, the Hebrides, Orkney and areas of Gaelic settlements in Nova Scotia. It was usually built with double dry-stone walls which were packed with earth in the middle. It had wooden rafters which were covered with planks and a turf roof, although reed thatch could also be used as roofing material. Generally, the floor consisted of dry, packed earth or was laid with flagstones. Cattle, livestock and people lived under the same roof, and sometimes even in the same room. The family of the farm then lived at one end and the animals at the other end, with or without a partition

between them. The oldest blackhouses in the British Isles date back to the Neolithic period and are found at Skara Brae in Orkney. These had a central hearth and were stone-built. In Shetland, at Papa Stour, the site of a log-built house from the Middle Ages has been excavated (Crawford 2002; Smith 2002). This house was of Norwegian origin, and the timber most probably had been transported from Norway.

The term 'blackhouse' is relatively recent. Blackhouses were so named because they were compared to new houses being built in the late nineteenth century, which were called white houses. The new white houses were designed to separate humans from their livestock and other domestic animals. They had an oven with chimney and could thus have an additional first floor as the smoke no longer filled the rafters (see Fenton 1978a and 1978b). Some of these blackhouses were still inhabited until the middle of the 1970s. For example, in 1960 there were still nine blackhouses in use at Arnol on the island of Lewis. This type of house is also known in Ireland, where it has survived for an equally long time.

Iceland and the Faroe Islands

BOTH in the Faroe Islands and in Iceland, a number of Viking longhouses have been excavated. They are usually 14-20 m long. These houses have curved walls of stone and turf, and consist only of one big room, sometimes with an additional number of smaller rooms at the end or at the sides. The roof is supported by two rows of inner posts, which divide the room into sections. At both sides there are low benches, so-called *set*. In the middle of the room there is a long hearth. The walls of these houses may also have had an inner wooden panel or stave-built lining. The only surviving medieval dwelling house in the Faroe Islands is the *stofa* at Kirkeböur, which is a log-built house with features of the later *røykstova*.

In the Viking Age, when Nordic people populated the North Atlantic islands, the Western and Northern Isles of Scotland and the north mainland of Scotland, houses were exported to these areas. Hence, several such longhouses are known, and some of them even survive today. Thus, old Nordic houses have been found in Iceland, for example at the excavated site of Stöng in South Iceland. In the fourteenth century the timber for the bishop's *stofa* at Hólar in North Iceland (Auðunarstofa) was cut in the Hardangerfjord area and sent by boat. This was a *røykstova* which survived until it was demolished in 1810. Recently, the house has been reconstructed on the site with Norwegian timber and using methods of medieval craftsmanship (Gunnarsson *et al.* 2004).

Later, there followed a long period from the late Middle Ages on, when the export of timber from Norway subsided, and contact over the North Sea diminished or ended. Instead, local building materials dominated, such as stone and turf, which then gradually influenced local architecture. Different traditions are found in the different areas, although the use of an open hearth with free outlet for the smoke remained for centuries. Therefore, some common traditions have prevailed, while different local types of construction of the farmhouse have developed.

In the following centuries dwelling houses in the Faroe Islands mainly consisted of only one room with an open fireplace in the centre. This house was developed with local material, such as driftwood, stone and turf. Usually, there were naked earthen walls which were later covered with paneling, and they also used built-in beds, which could be placed in side chambers added to the room. Wooden benches in front of these beds replaced benches of stone. A typical feature is that these houses had no scullery. All food preparation was done in the main dwelling room, as was common in Norway at the same time. Then in the seventeenth century this *røykstova* gradually became extended with houses with windows, so-called *glasstova*, and these two types of house coexisted. Finally, they were replaced with modern wooden houses containing oven and chimney from 1900 on. Several examples of the old *røykstova* still remain on the islands (Stoklund 1996).

In Iceland, a similar evolution of the dwelling house occurred on the basis of the local building material, turf and stone. A good example which is still in existence today is the vicarage of Glaumbær, which is a large complex of one-room elements. Each of them is under its own roof with a relatively steep angle up to the rafter and has thick turf walls. Between the rooms there are connecting passages leading to the main dwelling room. An open hearth was situated at one of the walls making the gable. The name *badstofa* indicates that it was originally used for steam bathing in one period, although it also served as a dwelling and later as a multifunctional room where people gathered.

In his most readable book on the Faroese house Bjarne Stoklund (1996: 171) divides North Atlantic history into five main periods:

- 1) The period of Viking society, from the *landnám* until about 1050.
- 2) 'Europeanization' from about 1050 until about 1350, where Norse communities took over a number of new cultural features from the south, and were remodeled in accordance with the European pattern.

- 3) 'Marginalization', around 1350-1600, with dried fish as the dominant export product, where the distribution and partly also the catching of fish was in the hands of foreigners.
- 4) 'Peripheral societies in absolutist Europe', 1600-1850, implying a stable, but static period in Iceland and the Faroe Islands under trade monopoly.
- 5) 'Modernization' from 1850 on.

During the first two periods, Norwegian construction types and building material predominated, while in the next two phases the dwelling house was modified in order to use local building material. The *stofa* with an open hearth was then gradually extended to a house with windows, and finally replaced by more modern wooden houses with an oven late in period 5. As will be further described below, this way of living around the open fire prevailed in parallel both in the North-Atlantic area and in Norway until modern times. While peat was used for fuel in the former area, the forests in Norway provided a rich supply of fire logs.

The Nordic Røykstova

THE Nordic countries have a long tradition of the so-called *røykstova*, which is a house with an open fireplace and free outlet of smoke into the room and upward through the louvre. First let us remark on their construction types. As already mentioned, from the Middle Ages notched-log construction took over from the stave-built longhouses. The notches were cut with an axe using highly skilled craftsmanship and fitted extremely well together (Berg 1997; Strømshaug 2001). With timber of large dimensions, this meant thick and tight walls. In order to build a solid house, only the best building material was selected, usually pine which had grown at a high altitude (see e.g. Finne 1970; Berg 1997). The bottom sill log dimension sometimes exceeded 75 cm. As a consequence of the thorough construction, these houses were well insulated. In addition to the thick logs, the roof also provided good protection during cold winters. The roof was made of pairs of rafters with a relatively steep angle, and upon them a layer of parallel, horizontal planks. On top of this there were several layers of birch-bark lining. Finally, the bark was covered by thick grass turves. The floor usually consisted of bare, dry earth, or sometimes flags. Sometimes a house had a cellar underneath and big slates on its roof. A layer of dry earth might be laid as a floor over the stones, which would contribute to the insulation of the house. Along three of the walls there were benches formed as a chest and filled with hard-packed, dry earth or sand, which prevented cold air coming in from underneath (Sundt 1862; Laerum and Brekke 1990).

The door in one of the gable walls was small and simple, sometimes as low as 120 cm in height. Outside the door and in front of the house there was usually a stave-built entrance room with an outer and more tightly fitted door to one of the sides. Often this part of the house was divided into one entrance room and one small chamber made by a thin partition-wall of planks. This chamber had only a door into the main room. There was no direct door between these two, parallel rooms. The chamber usually served as storage for equipment for preparing food. At the other end of the main room there could also be a chamber, either for equipment for cooking or as a separate bedroom (Sundt 1862). Thereby, several types of construction could be envisaged: *stofa* with only one single, all-purpose room; or a house with two rooms, either with a back-chamber or with an entrance room in the front; or a house with three rooms, where the room in front was partitioned into an entrance room and one chamber, both with a door to the main room. The Norwegian terms for these three types are *enroms-*, *toroms-* and *treromsplan* (Sundt 1862) respectively. In several of these houses, only the main, log-built part remains today. If it has two parallel doors in one of the gable walls, this is proof that it originally had three rooms.

On the farms several log- or stave-built houses could be built together, and with the *røykstova* as the center, reminiscent of a longhouse (see above). This row of houses also contributed to the insulation of the main house. On each side of such a row of houses the roof could extend about 1-1.5 m beyond the walls, where it was supported by vertical posts and a wall of planks halfway up. In consequence, people could pass between the houses without walking in the snow or being soaked by the rain.

As already described, there were two main types of fireplace. The oldest type was the hearth (*åre*), a rectangular chest made of slates and filled with smaller stones. The slates were fitted together at the sides by u-shaped iron nails. The chief principle with the hearth was to have an open fire constantly burning good, dry wood. The heat from the fire would draw fresh air from the opening of the door and heat it up, whereby a stream of hot air would go up and out through the louvre. The hot air would also draw the smoke upwards, whereby efficient ventilation was obtained. Smoke would always assemble in the rafters, but by regulating the intake of air from the door drawn out through the louvre above, the smoke could be kept over the heads of the people. Surprisingly, such houses would therefore have only fresh air at the level where people were breathing. Today this ancient principle of ventilation has been forgotten, and people tend to consider *røykstovas* as very dirty and full of smoke everywhere.

The louvre in the roof was of a special construction. It was made like an open chest, narrowing upwards to gather in the smoke. On top of this, on the outside there was a small wooden frame covered with dried, translucent pig bladder or cow stomach. By using a long stick, the frame upon the louvre could be moved, and the size of the opening regulated, so that the heated air and smoke could pass up and out. Thereby, the smoke layer was kept only under the ceiling and away from where people were sitting.

From one of the walls there was a swee for hanging pots and kettles over the hearth, a flexible system which could also be used for turning the kettle over to the table. This is a feature which goes back to the Bronze Age. Instead of the swee they sometimes used a post going horizontally through the room and over the fireplace. From the nineteenth century these houses were termed *årestove*.

Although the smoke oven has existed since early Viking times, it was only in the seventeenth century that it came into general use as fireplace in the countryside in Norway. This was a stove made of stones and placed in the corner of the main room. The stove had no chimney, and the louvre in the ceiling was used as before. The use of the smoke oven led to a dramatic change in the heating principle and in the general conditions in the main room. Usually, they filled the oven with all types of wood, not only fire-logs, but also such matter as smaller branches of trees, bushes, and the like. When this was lit, a strong fire resulted. It would burn for a short period, but the fire was sufficient to heat the massive stones of the oven as well as the room in general. Finally, the glowing ashes were pulled together in a heap and used for cooking. The louvre and the door would be closed after the smoke had passed out, and the hot stones of the oven heated the room for the rest of the day. In the evening, they made a new fire again which would give heat throughout night. From the embers in the oven some smoke and gases, such as carbon monoxide, still entered the room, creating a potentially hazardous atmosphere. Headache and other symptoms were not infrequent among those who lived in these houses. In the nineteenth century community doctors warned against this type of fireplace and claimed that the hearth with the open fire and fresh air coming in was much healthier. However, the hearth required a constant open fire and consumed far more fire-logs than the other type. In addition, all sources of wood could be used in the smoke oven.

Daily Life

THE furniture of a *røykstova* was quite simple: a long table and a bench near to the hearth, a cupboard, and perhaps a stool. Otherwise it contained the

equipment that was needed for daily life. The benches along the walls were for sitting on in daytime and for sleeping on during the night. Not until the sixteenth or seventeenth century did it become customary to use beds in such houses. These were often placed longitudinally on the benches and halfway into the room.

The *røykstova* was the only room in the farm that was heated during the winter. Here people lived together and passed through all phases of life. Children were born and grew up here, people lived their adult life, they grew old and they died. The whole 'theater of life' was displayed around the open fire. The shape and the dimensions of the hole in the ceiling enabled light to come in from above and spread into all corners of the room. Therefore, there were no dark corners, although the light was not very bright.

Old people or poor people who were being looked after usually lived in the barn together with the animals. They sometimes had beds in the stable or on the floor over the stable, only using the heat from the animals. Building a fire here was too dangerous because of hay in the barn. Instead, cooking for everyone was done on the hearth in the *røykstova*. Visitors to the farms often slept on the hay in the barn. Hence, the barn sometimes housed many people (Laerum and Brekke 1980; Hjulstad 1991). The smallest children lived together with their parents in the main house. However, the youngsters and also younger people working at the farm used to sleep on the first floor of the log-built storehouse (Norwegian *bu*, *bualoft* or *stabbur*).

On Saturdays the main room was usually cleaned and small bits of fresh juniper distributed on the floor to give off a good smell. Once a year they washed the interior up to the log where the smoke layer started. The logs at this level could sometimes be decorated with simple ornaments, using chalk. The earthen floor was also renewed regularly.

When the whole family sat together around the open fire in the evenings, they talked together and the older people told the younger ones about life in earlier days. Old stories were recounted, and folk-singing was an important part of daily life, so a strong narrative tradition was transmitted to the younger generations. The special atmosphere of this interior with the light coming from above and the folk culture fascinated several Norwegian painters who went around the countryside during the second half of the nineteenth century. One of them was Adolph Tidemand (1814-1876), whose paintings and prints gave a vivid impression of farm life at this time.

Røykstovas in the Voss and Fjord Areas of Western Norway

RØYKSTOVAS in the Voss and fjord areas have been known through centuries and were described by Eilert Sundt in the middle of the nineteenth century (Sundt 1862), as well as by others (for literature, see Laerum and Brekke 1990). A few of them were also taken into local museums. From the nineteenth century they were gradually abandoned as dwelling houses, and already 100 years ago it was said that they were rapidly disappearing in the Hardanger district (Olafsen 1905). With the exception of Western Norway, Telemark and Setesdal, they had long since been replaced in most other parts of the country by more modern houses with oven and chimney. *Røykstovas*, therefore, were definitely considered to be historic buildings and viewed as museum pieces at the end of the twentieth century.

In 1975 I accidentally discovered a *røykstova* in a small side valley in one of the rural districts of the Voss area, called Vossestrand. This district lies between Voss and the Sognefjord and has always been recognised as an 'archaic' area where the old dialect and customs from older times have been successfully preserved. The house was in very bad condition and was going to be demolished. Although the roof was broken and was partly hanging down, it was obvious that the house had the intact interior of an *årestove*, with the original hearth and furniture. In order to save this historic house, which later was dated to around 1650, I bought it. The house was carefully taken down, all parts were registered, and later it was reconstructed some kilometres away, where my family had a shieling. In addition to experienced craftsmen and antiquarians, all members of my family participated in this project, including small children!

In order to write an article for the local yearbook of the historical society about this surprising discovery, I made contact with the antiquarian of the county of Hordaland, Nils Georg Brekke, a well known expert on building traditions in Norway. This resulted in several larger projects and a collaboration lasting many years. I was encouraged to investigate whether more such houses existed at Voss and to register and make reports and photographic documentation of any I could find. Over a period of fifteen years, about 120 *røykstovas* were found in farms all over the area. Some of them were in good shape, while many needed urgently to be restored. The Norwegian Society of Antiquaries (*Fortidsminneforeningen*) was mobilized together with the county of Hordaland as well as local people. A complete registration report of all the houses together with historical data was submitted after more than ten years of work. The owners received copies of the report and general literature in order to raise awareness of the value of

such houses, and courses were held for local craftsmen to mobilize a workforce for restoration. General symposia were also held together with site visits for architects, antiquarians and interested lay people, and several articles were published about the topic (see e.g. Laerum 1982). An illustrated book about *røykstova* in general and containing a description of the results from the investigations of these houses in the Voss area was published in 1990 (Laerum and Brekke 1990). Through the availability of public money, more than thirty of the houses have been restored and thus saved for the future. Awareness of the historical value of maintaining such houses in local small communities instigated considerable activity to keep them in good shape and also to use them. Several local owners of smoke houses now use them for tourism, where visitors can see how they functioned and eat meals around the open fire.

Through later, systematic, public registrations of old farm houses in Norway, including the Voss and fjord areas, information about such houses has become easily available. On the webpages of several municipalities in the area, detailed descriptions are given about the local, surviving *røykstovas*, both in museums and in private possession. Some of the houses may date back to the Middle Ages, but the majority were built in the seventeenth and eighteenth centuries, while a few were built up to the middle of the nineteenth century. They were situated all over the district, and some stood close to the village of Voss. Hence, they were not 'hidden' in the most remote places or up in the mountains. Later, it turned out that there are almost as many *røykstovas* remaining in the Hardangerfjord area as at Voss, and the same seems to be the case in Sognefjord and the more northern fjords of Western Norway. One fine example of a *røykstova* was even found some few kilometres from the city of Bergen.

Why did so many of this ancient type of house survive for so long? An explanation emerged from our investigations. When smoke houses were no longer in use in other parts of the country, they were in most cases demolished. In the Voss area, new and 'modern' houses with stove and chimney and with two storeys were instead built onto the old smoke house with a corridor between them. The reason was that they still needed them, mainly because of the strong food traditions. While people now lived in the new house, the old one functioned as an extra kitchen and was used for baking bread, smoking meat and brewing beer. During the summer season they were also used for eating in, as the farm people found them cool and comfortable when they had been working and sweating in the fields on a warm summer day. Some of the houses had been transformed to modern dwelling houses with a more modern stove, some of them were simply used

as storage rooms, and some were allowed to remain because old people in the farm adored them. By interviewing old, local people many fascinating stories and valuable information about life in older times was recorded, some of which had been learned from their grandparents and sometimes even great-grandparents. Thus, a living, narrative tradition going back five generations was revealed.

Silent Witnesses

IN the Voss and the fjord districts, these houses are still used for baking bread, brewing beer and for smoking meat. At the same time they represent silent witnesses of a type of daily life which goes back many centuries. In the British Isles, blackhouses were used as dwelling houses until the 1970s. The last places in the Voss district where we have known records or direct reports on the use of *røykstovas* as dwelling houses, date back to around 1905. However, these houses were in regular use for eating during the summer until the late 1950s, and in one case a woman lived in such a house until the same date. Thus, the tradition of the *røykstova* as dwelling house in Western Norway extends more than 1000 years ago and ended only about half a century ago. Thereby, silent witnesses of antique life are still present. Interestingly, these houses never died out, neither in Scotland and the Isles, nor in Iceland or the Faroe Islands. The same happened in parts of Norway, where their use was only changed to other functions.¹

Ole Didrik Laerum is Professor of Pathology at the University of Bergen, and has besides his professional life been actively involved in the registration and preservation of historical houses in Western Norway.

Bibliography

- A. Berg, *Et utvalg av hans artikler om bygningshistorie samlet i anledning hans 80-års dag*, (Øvre Ervik: 1997).
- N.G. Brekke, *Samanbygde hus i Hordaland. Langhustradisjonar i vestnorsk byggeskikk*. FNFB årbok (Oslo: 1982) 51-114.
- N.G. Brekke, P.J. Nordhagen and S.S. Lexau, *Norsk arkitektur-historie. Frå steinalder og bronsealder til det 21. hundreåret* (Oslo: 2003).

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- B.E. Crawford, The historical and archaeological background to the Papa Stour project. *Collegium Medievale* 15, 2002, 13-35.
- A. Fenton, *The Island Blackhouse. A guide to 'The Blackhouse'* (Edinburgh: 1978a).
- A. Fenton, *The Northern Isles: Orkney and Shetland* (Edinburgh: 1978b).
- A. Finne, Om hus og husbygging på bondegardane i gamle dagar, *Gamalt frå Voss* (Voss: 1970) 2, 5-15.
- I.F. Grant, *Highland folk ways*. (London, Boston and Henley: 1961). Reprinted 1980.
- Th. Gunnarsson, G. Gudmundsson, A.O. Martinussen, G. Bjarnason and S.P. Isaksson, *Um Auðunarstofu* (Hólar: 2004).
- R. Hauglid, *Laftekunst. Laftehusets opprinnelse og eldste historie* (Oslo: 1980).
- O. Hjulstad, *Uthushistorie. Driftsbygninger på norske gardsbruk frå jernalderen til i dag* (Oslo: 1991).
- H. Keim and F. Lobenhofer-Hirschbold, *Freilichtmuseum des Bezirks Oberbayern an der Glentleiten. Museumsführer* (Grossweil, Oberbayern: 1990).
- C. Lachner, *Geschichte der Holzbaukunst in Deutschland* (Leipzig: 1887). Reprinted 1987.
- O.D. Laerum, *Der åreelden enno logar – røykstovene i Vossadistriktet*, FNFB Årbok (Oslo: 1982) 35-50.
- O.D. Laerum and N.G. Brekke, *Røykstova – bustad gjennom tusen år* (Oslo: 1990).
- L.M. Lissenko, *Die Russische Holzbaukunst* (München: 1989).
- H. Mantl, *Tiroler Bauernhöfe* (Innsbruck: 1984).
- H. Mehl, *Das Bauernhaus in Baden, Württemberg und der Rheinpfalz* (Hannover: 1990).
- O. Olafsen, *Gamle røykstuer (røykstover) i Hardanger*. FNFB årbok (Oslo: 1905).
- V.H. Pöttler, *Führer durch das Österreichische Feilichtmuseum* (Stübing bei Graz: 1978).
- D. von Schäfer, *Das Bauernhaus im Deutschen Reiche und in seinen Grenzgebieten* (Augsburg: 1906). Reprinted 1995.
- B.B. Smith, Excavations at the Biggings, Papa Stour: the archaeological evidence. *Collegium Medievale* 15, 2002, 95-109.
- B. Stoklund, *Det færøiske hus i kulturhistorisk belysning* (Copenhagen: 1996).
- K. Strømshaug, *Lafting. Emne og omgangsmåte* (Fagernes: 2001).
- E. Sundt, *Om Bygningsskikken paa landet i Norge* (Christiania: 1862). Reprinted 1976.