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Terminology for houses and house remains

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ABSTRACT

Karin Rosberg 2013. Terminology for houses and house remains

In order to obtain lucidity, it is essential to choose adequate terminology when speaking of prehistoric houses. The understanding of house construction requires a terminology with a focus on construction. Very often, archaeologists instead use a terminology with a focus on the remains, and use an inadequate terminology for constructions, indicating that they do not fully consider how the constructions work. The article presents some suggestions for adequate construction terminology.

KEYWORDS: building construction, internal roof support, framework house, earthfast posts, non-earthfast posts, horizontal planking, wattle house, corner timbering, load-carrying walls, stone foundation.

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Terminology for houses and house remains

Introduction

When an excavating archaeologist lays bare that which are clearly house remains, to begin with, s/he has these remains as the only guide to the description of the house that can be assumed to have stood there at one time. Gradually, the interpretation develops in accordance with the position of the house, the sequence of layers, the finds and the context of the site. The description made in the excavation report is dependent on the purpose of the excavation. Sometimes, but not always, the excavation is partly focused on building constructions.

In discussion surveys, the focus also varies; sometimes, but not always, building constructions are discussed.

Not only excavations, but also archaeologists, have varying focus. Some of them are very interested in houses and have extensive knowledge of these, while others have focused on different fields of knowledge.

Often, in some way or another, houses and their construction are discussed in reports.

A common problem is that in most cases, house remains are very rudimentary. There is seldom anything left of that which once existed above ground. Sometimes houses of different constructions can leave similar traces, and if the report author aims to investigate the construction, this issue has to be left open to some degree.

In general, when houses are categorised using a certain terminology, different perspectives can be used.

1. There may be a focus on remains – e.g. "house with a stone foundation" ("stengrundshus") – or "sill-stone house" ("syllstenshus") –, "post house" ("stolphus"). The second case usually considers the hole remaining from the post as the remains, with or without remains of the stone lining. This

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focus concentrates on what is visible and is documented, and to a certain extent leaves out what the house actually looked like when it existed.

2. There may be a focus on plan – "one-aisled house" ("enskeppigt hus"), "two-aisled house" ("tvåskeppigt hus"), "three-aisled house" ("treskeppigt hus"). This focuses on the spatial organisation, which spaces that existed for the house's functions, and the layout of these spaces. In some cases, the construction can be considered tacitly; this concerns two-aisled and three-aisled houses but not "one-aisled" ones.
3. There may be a construction focus – e.g. "framework house" ("ramverkshus"), "corner-timbered house" ("knuttimrat hus"), "house with internal roof support" ("hus med inre stolpbärning"). A construction focus considers how the house was built and how it functioned from a technical point of view.
4. There may be a functional focus – e.g. "dwelling" ("bostad"), "byre" ("fähus"), "multi-function house" ("flerfunktionshus"). A functional focus considers the use of the houses and stray finds often play a great part in the interpretation. This focus is usually devoid of linguistic confusion, and I will not further deal with this.

Within archaeological literature, the remains focus and the plan focus are most common. A construction focus is much less common than a remains focus. By focusing on remains, we only speak of that which is seen and certain, and we do not speak of houses but of their remains.

However, when seeing and discussing the houses that actually existed, or may have existed, a remains focus is not relevant. It makes us still exist in the 20th or 21st century, although we intend to describe prehistory and the Middle Ages. The authors undoubtedly want to go back to the prehistorical times in their minds, but the present perspective, the now, still forms a bit of an obstacle.

When the discussion directly concerns constructions, the construction focus is definitely necessary for lucidity. When other aspects are also discussed, there is a need for clearness concerning what terms denote constructions and what terms denote other aspects.

Nevertheless, sometimes archaeologists use an improper terminology, creating the feeling that the writer/speaker has not quite understood the house construction. In the following, I will examine the house types present in the unclear terminology. The references mentioned are not meant to underline particular authors, but should only be seen as examples of very commonly prevalent ways of expression.

Houses with internal roof support

DESCRIPTION

We begin with the house types that were dominant from the Stone Age up to the Vendel Period, and which continued to exist in later periods. They were built with a construction framework of standing posts dug into the ground. In the early stages, the posts stood in a single row connected at the top by a purlin. In the later stages, a series of trestles, forming two rows of posts, was connected at the top by various purlin constructions. The building was delimited on the outside by light walls, often made from wattle with rods stuck into the ground and joined at the top with wall plates. Later, these wall plates were connected with the closest standing inner posts by means of a tie. At these joinery works, the timbers were simply joined, tied with rope or wicker, or merely put together using a mortise and a tenon. The roof consisted of rafters laid upon the wall plates and the inner purlin construction, and on top of the rafters, battens covered by e.g. straw or turf (Herschend 1989:81ff). See fig. 1.

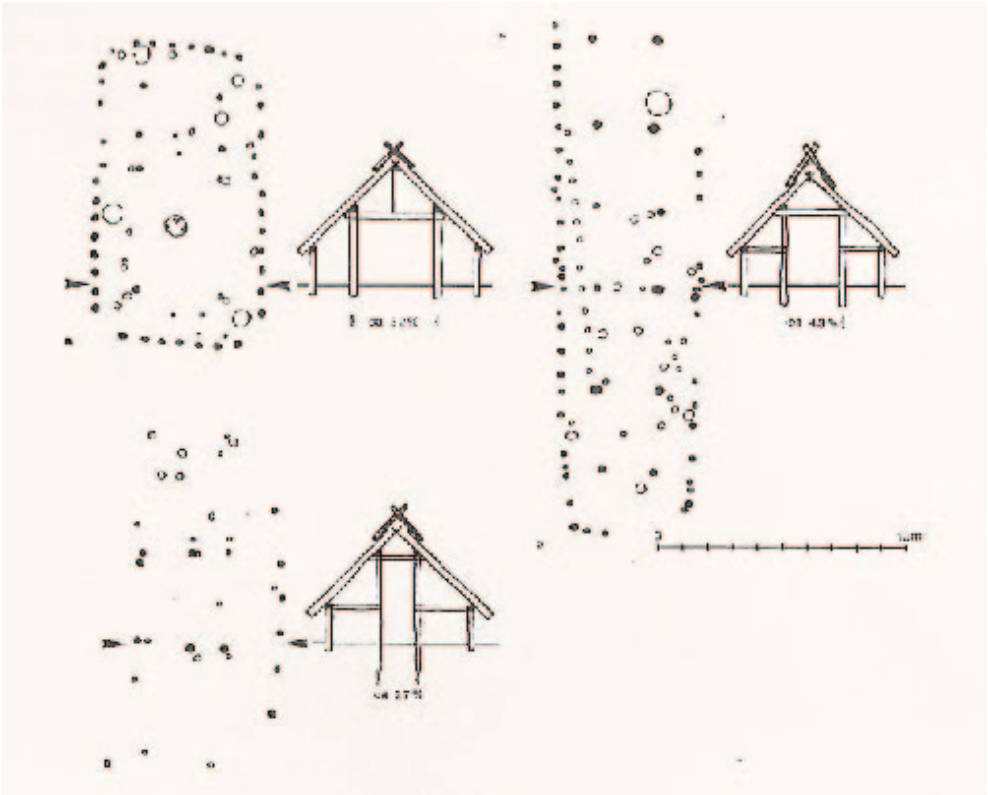

Fig. 1. From Herschend 1989, after Tesch 1983. House with internal roof supports in Scania, Pre-Roman Iron Age, Roman Iron Age and Vendel Period
http://www.arkeologi.uu.se/digitalAssets/196/196985_fig1_800.jpg

MOST IMPORTANT CHARACTERISTICS

A characteristic of these houses is that their stability depended on the fact that posts, poles and rods were dug into the ground, and that the load of the roof was mainly supported by the inner posts and to a lesser degree by the wall construction. The exact division of the weight varied in different stages. The load of the roof also contributed to holding the construction in place, and the posts were not always earthfast. E.g. in Eketorp in Öland, the posts were systematically stood on floors of limestone slabs. Many construction variants exist in different periods and in different regions of Northern Europe. Occasionally, single posts stand on some unavoidable rock surface, while all the others are earthfast.

A further characteristic is that as to plan, the houses were two-aisled and three-aisled, respectively.

REMAINS

These remains usually consist of postholes in clearly defined rows, postholes indicating an entrance or a partition wall and holes from wall poles in the wall line as well as possible hearths.

TERMINOLOGY

When discussing house constructions, such houses are most suitably termed "houses with internal roof support" ("hus med inre stolpbärning"). This is the least complex expression for that which is essential in the house's construction, and differentiates it from houses with other construction ideas.

The expression "house with internal roof support" is simplified, since the outer walls also partly participate in holding up the roof; nevertheless, the term denotes that the internal supports are the most important ones.

A simplification is terming the houses "post houses" ("stolphus"), enhancing the importance of the posts, which here have a different role than in the framework houses. For the sake of clarification, however, the term "houses with internal roof support" is still preferable.

Most commonly, archaeologists term the houses two-aisled and three-aisled ones (Göthberg 2000:20; Seiler 2005:49, 53; Göthberg 2007:405). In practice, this means the same thing as "houses with internal roof support", since two-aisled houses presupposes one inner row of posts, and a three-aisled construction presupposes two. Thus, even though they are not completely synonymous with "houses with internal roof support", the expressions "two-aisled" and "three-aisled" work well in contexts where houses are categorised in a wider sense. However, in a discussion specifically concerning technical constructions, and when comparisons are made with other construction ideas, it is better to use the term "houses with internal roof support".

A common word for such houses is "longhouse" ("långhus") (Onsten-Molander & Wikborg 2006, p. 46; Qviström 2007, p. 219). This is a handy term, but somewhat fuzzy. It usually denotes "a long house with internal

roof support for several functions". Thus, it focuses on neither form nor construction, nor function; nor is it suitable when discussing construction type, or a particular function. "Longhouse" is a common North-European concept, but is similarly fuzzy in German and Swedish. To say that the term is international is not a good enough motive for using it.

Framework houses

DESCRIPTION

During the second part of the Late Iron Age, framework houses become increasingly prevalent (their occurrences vary between different regions). The construction principle for such houses consists of posts in the four corners of the house, as well as one or more posts in the walls, joined at the top by beams; these are termed wall plates in the long walls and tie-beams in the short walls. Posts in the long walls are positioned opposite each other and are joined at the top with tie-beams at right angles. Thus, this is a framework, in principle at right angles in three dimensions. The construction demands more careful joints between the timbers than is necessary in houses with internal roof support. The most common method is mortises and tenons, with a small allowance for the movements of the timbers in the construction. The spaces between the posts may have different fillings: wattle-and-daub, upright planks ("framework with staves") or horizontal planks ("framework with horizontal planking"). The posts are also positioned opposite each other in pairs in the short walls (gable walls), where they reach higher than the connecting ties, meaning that posts and tie-beams intersect. There is a construction between the gable wall posts with a central purlin or side purlins that carry the rafters and battens of the roof. The roof may be covered by layers of wood, turf or straw, and its load is entirely carried by the outer walls (Hauglid 1976; Henriksson 1996; Zimmermann 1998; Rosberg 2009). See fig. 2.

The earliest type of framework shows the posts dug into the ground. At a later stage, sills are joined between the still earthfast posts at the ground level. Still later, the posts are no longer dug down, and the walls are stiffened using diagonal braces (mostly in wattle hoses), or dowels between horizontal planks, to maintain a stable construction. In this case, sills are necessary. If the posts are earthfast, sills are optional. The earthfast posts do not cease to exist with the appearance of the system of non-earthfast posts. In certain areas and in certain time periods, earthfast posts appear for nearly a millennium, but in northern Europe, the non-earthfast posts are most prevalent.

Framework houses with non-earthfast posts can either be positioned directly on the ground or on a foundation made from wood (blocks of wood in some places) or stone (small or larger stones either in a tight or loose pattern or laid only in the corners). Some houses also have the sills superficially dug down.

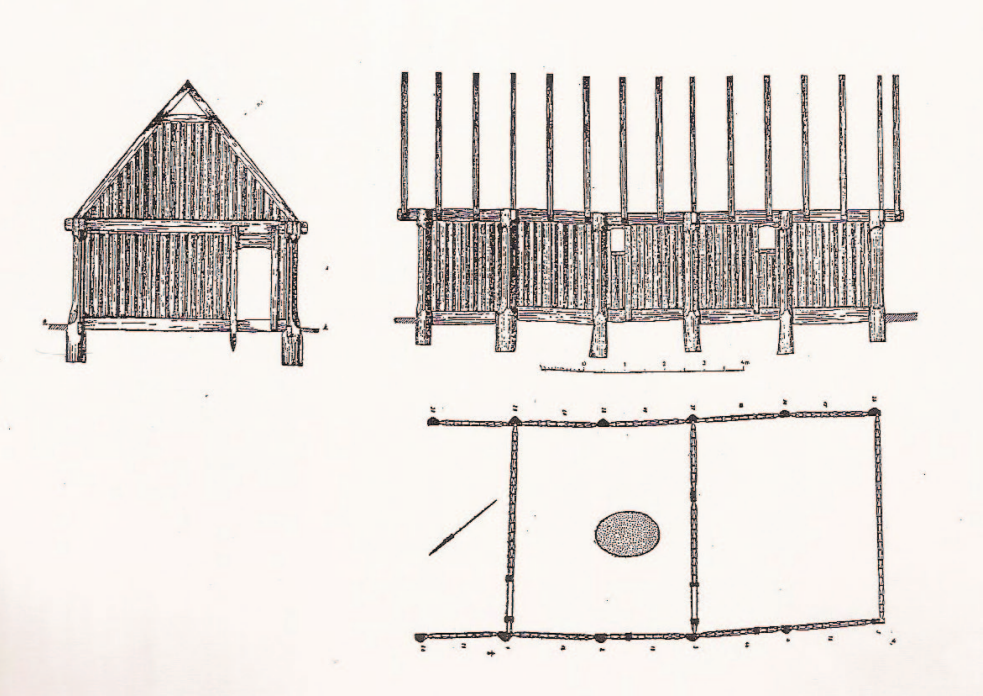

Fig. 2. Framework house with earthfast posts, in this case also with sills. From Henriksson 1996, after Herrnbrot 1958.
http://www.arkeologi.uu.se/digitalAssets/196/196987_fig_2_800.jpg

MAIN CHARACTERISTICS

The primary characteristics of a framework house are its construction of posts, wall plates and tie-beams that form a three-dimensional framework with right angles, and the fact that the outer walls carry the entire load of the roof. Secondly, there is one subtype in which the house is stabilised through earthfast posts, and another subtype in which the posts are not earthfast, the house instead being stabilised through sill and diagonal braces or dowels. In turn, the construction using earthfast posts has two subtypes: with and without sills, respectively.

REMAINS

The remains from framework houses are characterised by whether the posts have been earthfast or not, and whether the houses have had a foundation or not. Earthfast houses leave post-holes in the corners and the wall lines. If the wall filling consisted of wattle, it is possible to see rod holes. If the wall filling consisted of horizontal or vertical planks, it is sometimes possible to see a shallow groove in the ground. If the houses contained sills, this is usually only visible if the sills had a stone foundation, or possibly as a groove in the ground. If sills were present, it is not possible to judge whether the wall filling consisted of wattle, staves or horizontal planks.

In some cases, parts of posts or sills remain as valuable evidence. Houses with wattle wall filling usually have weaker sills and posts than framework houses built with horizontal planking.

In the worst cases, framework houses with non-earthfast posts leave no traces behind. However, they are usually positioned on some kind of foundation. In central Sweden, there is practically always some sort of stone foundation in a more or less clear rectangular formation (Ambrosiani & Clarke 1995:31; Bäck & Carlsson 1994:22). Wooden blocks are present in e.g. Norwegian towns (Christophersen & Nordeide 1994:177; Fett 1989:40ff).

TERMINOLOGY

Framework houses with earthfast posts are commonly denoted "post houses" ("stolphus") by archaeologists (Qviström 2007:225f; Andersson & Hållans-Stenholm 2007:42f, 71f). The term is misleading and makes for uncertainness of what is actually meant.

If the term "post house" denotes the presence of supportive posts, there is equal reason for houses with internal roof support to be termed "post houses". However, since the two types have separate ideas of construction, this difference is not clearly made. As mentioned above, the term "post house" should rather designate the houses with internal roof support, since they are carried by posts but have no framework.

A framework house should be called framework house ("ramverkshus"), with earthfast posts ("med jordgrävda stolpar") or with non-earthfast posts ("med icke-jordgrävda stolpar"). More specifically, we could call it framework house with horizontal planking ("skiftesverkshus") or framework house with staves ("stavverkshus"). The concepts of "skiftesverk" and "stavverk" include that the houses have a three-dimensional frame at right angles with a wall filling. Possibly, the term wattle house ("flätverkshus") is more doubtful. Wattle is commonly present in the outer walls of houses with internal roof support. Nevertheless, the risk for misunderstandings should not be very great, if framework houses with wattle filling are termed "flätverkshus". In addition, framework houses with wattle filling are commonly built with weaker wood in the framework, as opposed to the ones containing a wooden filling, meaning that in such cases, wattle houses slightly differ from other framework houses regarding the framework.

"Three-aisled" and "one-aisled" are words that are sometimes used to describe certain framework houses ("one-aisled": Gustafsson 2007:195, 197; Qviström 2007:220; Göthberg 2000:81ff; Göthberg 2007:406f, 410f; Seiler 2005:59, 80; "three-aisled"; see below). According to the Swedish National Encyclopaedia, "aisle" denotes part of a building formed through a longitudinal partition of the building by pillars, columns, etc. However, framework houses are rarely of such proportions and rarely have such a plan that the term aisle is applicable.

The term "one-aisled" for framework houses is not in accord with the general use of the word aisle, but cannot be misunderstood.

In many cases, framework houses are called three-aisled owing to the presence of load-carrying trestles (Seiler 2005:61, 70, 77; Fagerlund et al. 1999:118f). Remains of inner partition walls are often reported in direct

connection with these trestles (or postholes), and when the spaces are partitioned crosswise, speaking of aisles is misleading. In a framework house with one or more inner trestles, these posts are higher than the outer wall posts—they pass through the tie-beams—and carry the purlins. This is precisely the case also with posts in the gable walls. Such a framework house is actually quite reminiscent of a modern stud-framed house, where both the outer wall and some of the inner walls cooperate in roof load carrying, not through the walls as such, but through the studs.

The main roof support for framework houses are the outer walls, and those houses should thus be called houses with outer wall roof support ("hus med yttervägggsbärning"), if a closer determination of the house is uncertain. The term is somewhat simplified, since there may be additional internal support for the roof. However, the term refers to the main support (Hauglid 1980; Sjömar 1988; Berg 1989-1999; Rosberg 2009).

Corner-timbered houses

DESCRIPTION

From 1000 AD onwards, corner-timbered houses appear and increase in central and northern Scandinavia. While the houses with internal roof support and framework houses share the feature of standing supportive logs, the corner-timbered house instead uses a very different principle of construction. It is based on quite another way of thinking. The house consists of horizontal logs laid on top of each other in a rectangular plan, joined together in the corners. The joints and the horizontal seams between the logs can be constructed in different ways. The load is carried in across the wooden fibres and in time, the logs sink down into the ones below, packing the wall tightly, since there are no upright timbers to stop the sinking. The thick walls are simultaneously supporting and isolating.

In addition, the gables are built from horizontal logs that are dowelled together. Dowels are wooden plugs, 2-3 cm thick, c. 10-20 cm long, that go into pre-drilled holes in both the underlying and overlying logs. The roof is carried by purlins or rafters or by a combination of the two. The load of the roof is completely carried by the walls—with purlin roofs by the gable walls, with rafter roofs by the longer walls and with purlin-and-rafter roofs by all the walls.

Corner-timbered houses can be placed directly on the ground, but mostly have some sort of stone foundation, in simple cases only corner stones. A corner-timbered house is heavier than a framework house and is thus in greater need of a firm foundation. It must also be built on level ground, i.e. horizontally.

MAIN CHARACTERISTICS

A characteristic of the corner-timbered house is that the load-carrying is done by horizontal timbers, laid on top of each other.

REMAINS

The remains of corner-timbered houses often consist of a stone foundation, tight, loose or only containing corner stones. If a house lacked a foundation, there are usually no traces left at all. Occasionally, the bottom layer or part of it remains.

TERMINOLOGY

Should the remains clearly indicate a corner-timbered house, it is often termed corner-timbered ("knuttimrat") in archaeological literature, which is quite unproblematic. However, often the interpretation is not quite as clear. It is often said to be a one-aisled house, which could denote both a framework house and a corner-timbered house (Gustafsson 2007:195, 197; Qviström 2007:220; Göthberg 2000:81ff; Göthberg 2007:406f, 410f; Seiler 2005:59, 80). In this case, the term denotes plan, not construction, and the matter of construction is left undecided.

"Sill-stone house" ("syllstenshus") and "stone-sill house" ("stensyllshus") are commonly prevalent expressions among archaeologists denoting houses with stone foundations (Qviström 2007:224; Göthberg 2000:83; Andersson & Hållans-Stenholm 2007:46, 93). These expressions are completely incorrect. First, a sill is never made from stone, but from wood. Stones beneath a house equal a foundation. "Sill-stone" may denote "stone beneath a sill", but in case of the word being interpreted as a stone as a part of a sill, it is incorrect. Since the term may lead to a misunderstanding, it cannot be recommended. Second, the terms say nothing about the characters of the house on top of the foundation. Using the term "one-aisled house" is honest, in that only the plan is discussed. However, to include material and the construction parts into the term, as in "sill-stone house", implies that the construction as such is discussed, which is not the case. A house may very well stand on a stone foundation, but if it is not known what sort of house it was, it should be termed house with load-carrying walls ("hus med ytterväggsbärning"), which could cover both framework houses and corner-timbered houses.

Hybrids

So far, I have discussed main house types. Different types of hybrids also exist, not only those that constitute transitional forms between different development stages.

Framework houses may be supplemented with inner carrying posts. A house may have internal roof support in one part of the house and some kind of framework in the other. A house may have corner-timbering in one part and

framework in the other, or two corner-timbered parts joined according to the principle of horizontal planking using a post with grooves, through which the pointed horizontal logs run. A two-storeyed house may be corner-timbered in the upper floor with a framework with horizontal planking in the lower one. A corner-timbered house may have a gallery in a framework (with either staves or horizontal planking). The last two cases belong to the Middle Ages or later.

An interesting hybrid is a framework house with thick, possibly hewed, horizontal planks. If the posts are placed fairly far apart (over 3 m), such a house functions partly as a corner-timbered house, since the horizontal logs participate in the load bearing and carry the roof load across the wooden fibres. Into the 20th century, carpenters in southern Sweden spoke about "timbering to corner" (common corner timbering) and, respectively, "timbering to post" (framework with thick horizontal planks and a rather long distance between the posts).

A building may also function according to different principles during its lifetime. When building a framework house with horizontal planking, aiming for a tight one, such as a dwelling, it is a common procedure to make the plank part slightly higher than the surrounding posts. In time, when the planks sink down from the pressure of the overlying logs and the roof, that process will eliminate the gap between the top-most plank and the wall plate, which would otherwise result from the sinking, if the planks do not reach higher than the posts. We would expect that such a way of construction was used during the Viking Age.

There are many examples of hybrids. The flora is so rich, that creating a special terminology with names for each variant is hardly useful. With adequate discernment, it is possible to describe the hybrids based on the main forms.

Summary

An adequate terminology improves lucidity and understanding. In some cases, improper expressions are prevalent within archaeology.

It is important to distinguish between terms for remains and terms for the original houses. Some terms focus on the remains. When discussing house constructions and changes in building techniques, terms focusing on construction should be used. Thus, I suggest four terms: Houses with internal roof support ("hus med inre stolpbärning"), framework houses ("ramverkshus"), corner-timbered houses ("knuttimrade hus") and hybrids.

It is better to use terms such as "house with internal roof support", rather than "two-aisled" or "three-aisled", when discussing the construction as such.

Post house ("stolphus") is a blurry expression that is used in a confusing manner. Both framework houses and houses with internal roof support use posts as their most important construction part. In framework houses, posts are essential both in houses that have earthfast posts, and in houses that do not. When referring to framework houses, the term post house should not be used;

instead, the terms framework houses with earthfast posts or framework houses with non-earthfast posts should be used.

Sills are always made from wood. Stones beneath houses are foundation, foundation stones, stone foundation or cornerstones. Stone-sills do not exist and accordingly, neither do stone-sill houses. The term sill-stone house says nothing about the house.

A stone foundation may exist beneath both framework houses and corner-timbered houses, two types with completely different construction principles. The term "stone foundation house" should not be used; a stone foundation is remains that do not characterise the house on the top of it. In cases where it is not known whether the house is a framework house or a corner-timbered one, the term house with load-carrying walls should be used.

English-Swedish glossary

batten	raft, läkt
beam	bjälke, band
diagonal brace	snedsträva
dowel	dymling; dymla
earthfast	jordgrävd
framework	ramverk
gable	gavelröste
gable wall	kortvägg, gavelvägg
groove	nåt (not)
horizontal plank	bål
joinery work	sammanfogning
long wall	långvägg
mortise	tapphål
non-earthfast	icke-jordgrävd
partition wall	tvärvägg
purlin	ås
post	stolpe
rafter	sparre
short end	gavel
sill	syll
space	utrymme
stave	stav
stud	regel
stud house	regelhus
tenon	tapp
tie-beam	tvärband, bindbjälke
timbering to corner	timra på knut
timbering to post	timra på stolpe

trestle	bock
wall plate	långband, hammarband, lejd
wattle	flätverk
wattle-and-daub	flätverk med lerklining

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