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Historical Perspectives on the Economic Exploitation of the Forest

Pre-industrial exploitation of the forest in northern Sweden

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Introduction

The industrial revolution in Sweden, so we have often been told, started in 1849 when the sawmill at Tunadal, north of Sundsvall, was set up with a steam engine as a source of power instead of the traditional water wheel. This was the beginning of a process whereby Swedish industrial development came to be linked too more developed countries elsewhere, and most particularly to the industrialised Britain. In the second half of the nineteenth century the county of Västernorrland, with Sundsvall as an economic centre, became the largest supplier of forest products in Europe, with as many as a hundred sawmills, increasingly powered by steam, producing ever growing volumes. The traditional version of this development highlights the importance of external features, such as overseas demand, foreign technology as well as of the importance of entrepreneurship and capital from abroad. For obvious reasons much research has been devoted to this spectacular period of change, and our knowledge about these technological and economic factors, as well as its demographic effects, is substantial. An important drawback to this clustering of scholarly engagement is the neglect of other periods as well as of other agendas. In this paper we will dwell upon two such neglected areas. We want to discuss the period preceding the industrial ‘take-off’ as well as concentrate upon the internal development within the region.¹

Our ambition in this paper is to initiate a discussion about these unexplored themes in Swedish industrial development, by presenting a case study on one industrial enterprise, and its relationship to the local communities in the region. The emphasis is thus rather upon an empirical description, on a micro level, than a theoretical analysis, even though the concept of proto-industrialisation might still be useful in discussions about the early industrial development of the Scandinavian forests. Several features of this theory, as regional specialisation, production for a foreign market, limited agrarian production, town merchants organising the production at sawmills and shipyards as well as workers combining agrarian and industrial work, might well be adopted in this framework. However, as Maurits Nyström has stated, it is still hard to generalise about the development as we still lack essential knowledge about the actual organisation of production on a micro level, and more research is

¹ One important investigation is the dissertation of Lars Östlund, *Exploitation and structural changes in the north Swedish boreal forest 1800-1992*, Umeå 1993. In this he is mainly discussing how the landscape was changing during the pre-industrial phase in the beginning of the 19th century.

needed before we can say anything about the long-term development of the pre-industrial period as well as its links to the full industrialisation.²

In this paper we will focus on the 1830s and the question of how one of the earliest forest companies in Sweden, Wifstavarf established in 1798, dealt with the supplies of raw material. As the name indicates Wifstavarf was a shipyard, but from the end of the 1820s it was also a much larger enterprise as it purchased water-powered sawmills upstream on the river Indalsälven. During this period the company also acquired exclusive cutting rights in a number of Crown-owned forests in the counties of Jämtland and Medelpad. From this period Wifstavarf was supplied with timber from these cutting rights as well as from peasants in the region, who sold large quantities from their own forests and played a key-role in the supply-chain. The access to raw material was a difficult task and the deliveries depended very much on the peasants, and to what extent the company could control the whole process, from cutting the trees, transporting them to the rivers, measuring the value of the delivered goods and finally floating the logs down to the sawmills or the shipyard. Our aim is to describe and analyse this.³

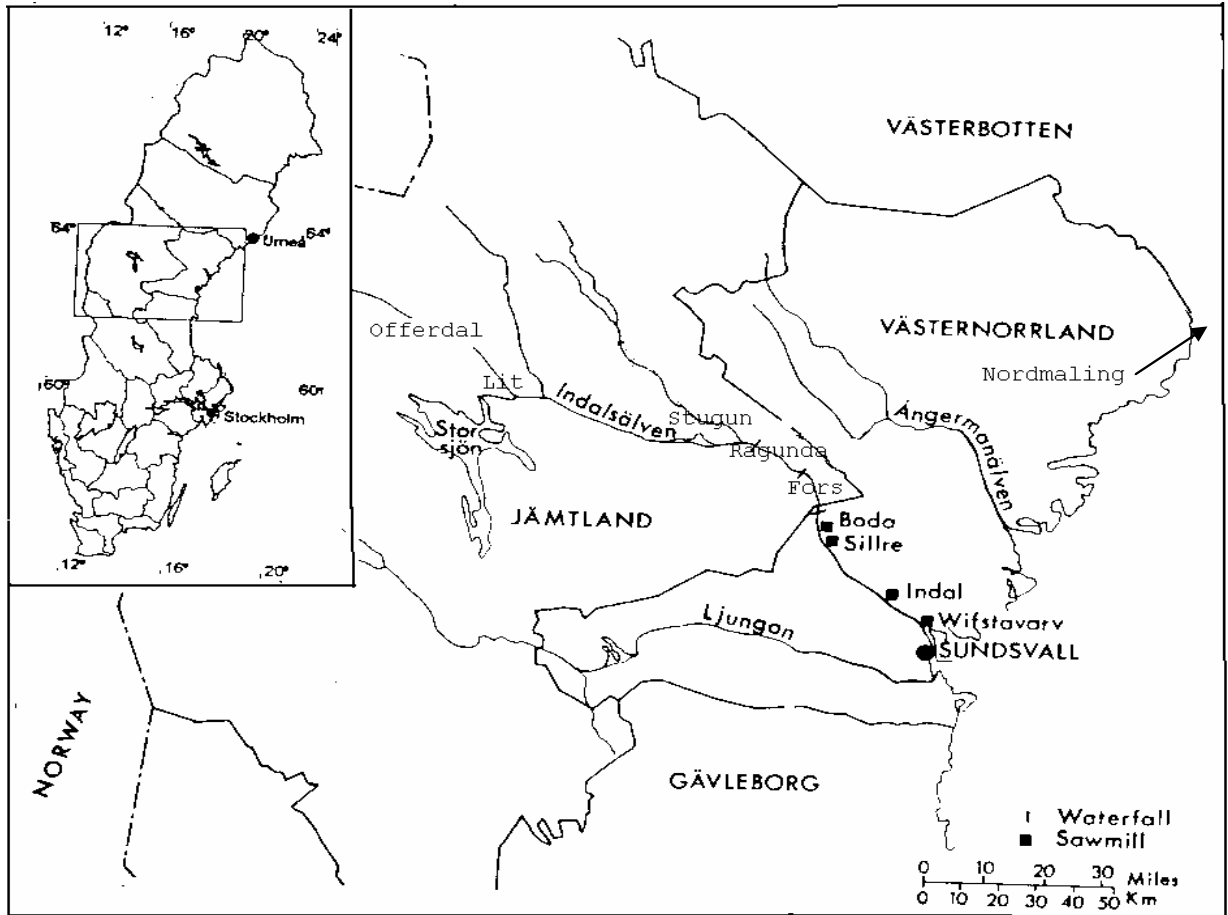
In the beginning of the nineteenth century, large areas of state owned forests were gradually given away, on the one hand to the peasants in the region, of whom the majority was freeholders, with small plots of farm-land but huge areas of forests, aimed for cattle holding and dairy production. On the other hand to people that wanted to establish new and tax-free settlements outside the old villages. This process of property right movement in northern Sweden, called 'avvittringen', was one prerequisite for the industrialisation, especially when the sawmill companies, in competition over timber, began to buy the land from the peasants, instead of just buying the cutting rights. The situation was, however, different at the beginning

² Kjell Haraldsson, *Tradition regional specialisering och industriell utveckling sågverksindustrin i Gävleborgs län*, Geografiska regionstudier nr 21 utgivna av Kulturgeografiska Institutionen vid Uppsala universitet, Uppsala 1989, p 40-42, 62 f. Haraldsson emphasizes the continuity that can be found in the saw mill industry in another part of Sweden and means that this was a part of an ongoing protoindustrial process; Kai Hoffman, "Sawmills – Finland's proto-industry", *Scandinavian Economic History Review*, Vol XXX, No. 1 p 35-43; Mauritz Nyström, "Norrlands industrialisering", in Isacson and Morell (eds), *Industrialismens tid*, SNS förlag 2002, p 108-109

³ Holger Rosman, *Wifsta Varf 1798-1898*, Stockholm 1899, p 3 f; Torsten Althin, *Wifsta Varf 1798-1948*, Sundsvall 1948, p 27; Lars Östlund, "Den tidiga flottningen i ett vattendrag i mellersta Norrland,"...smärre rensningar och tillbyggnader för sågtimrets bekvämare framflytande...'", i Lars Östlund och Erik Törnlund (red), *Flottning, vattendragen, arbetet och berättelserna*, *Skrifter om skogs- och lantbrukshistoria 14*, Nordiska Museets förlag, Stockholm 2000, p 11, 14

of the century. The timber was then very much in the hands of the peasants and Wifstavarf was only slowly striving to control production in a more efficient way.⁴

Figure 1. Map showing a selected number of sites in the middle of Sweden mentioned in the text.



Source: The map is based on a map in Lars Östlund, *Exploitation and structural changes in the north Swedish boreal forest 1800-1992*, Umeå 1993, chapter I page 26.

⁴ Anna Eriksson-Trenter, *Anspråk och argumentation – en studie av användning och uttolkning av lag vid naturresurskonflikter i nordvästra Hälsingland ca 1830-1870*. Uppsala 2002. In this process, when lots of peasants lost their possessions of land, many families left Sweden for a new life in United States. See Lars-Göran Tedebrand, *Västernorrland och Nordamerika 1875-1913, utvandring och återinvandring*, Uppsala 1972

Different strategies from Wifstavarf

Down by the river – out in the sea

The large unexploited forest in the counties of Jämtland and Medelpad was one important factor for the establishment of Wifstavarf. Northern Sweden was, and still is, dominated by huge areas of coniferous forests, pine and spruce, mixed with small pockets of deciduous trees. The trees slowly growing, due to cold climate and long dark winters, made them nearly as hard as oak. Even though pine is a soft material, it had several advantages as shipbuilding material. As it contained resin it did not require so long a time for seasoning, and due to its softness it was easy to convert into form. Vessels made of pine were also light and consequently faster.⁵

Wifstavarf was organised as an old merchant house, in a form that had existed in Sweden and Europe for several hundred years. It was involved in many different economic activities that were kept together by an extended network of persons related to the owner. Its main businesses were shipbuilding and shipping. From the start ships were built at the yard by timber men loosely attached to the company, with a rather independent position, but gradually these skilled workers, with their families, migrated to the yard. In 1837 the small community consisted of 31 households, of whom 15 were headed by timber men and six by workers. This small community contained a manor house, dwelling houses, streets, ship beds, a sail-cloth factory as well as a farm. The timber men and their families worked in different parts of the company. Some of the households owned a piece of land, while others made ends meet just from the wages paid to them. Shipbuilding was a very labour intensive industry, as a lot of work had to be performed even before the ship was being constructed. Timber and other items of wood had to be collected from the forests and floated down the river. It had to be taken from the water and transported to stores, where it was stapled and dried for about a year. From early on the company was dependent upon additional workers to do these tasks, and women

⁵ Pine (*Pinus Sylvestris*) is mentioned as one of four principal timbers that were used in naval construction in Europe before industrialization. This timber could be used for the entire ship from keel to mast. See Robert Greenhalgh Albion, *Forests and Sea Power, The Timber Problem of the Royal Navy, 1652-1862*, US Naval Institute, Annapolis 2000 [Harvard University Press 1926], p 26 f

and children also became an important source of labour for these auxiliary tasks. Besides shipbuilding there was also a need for extra work in other areas, such as shipping.⁶

From the company's point of view it was essential to get timber and other raw material transported to the yard and the water driven sawmills. A wide variety of wooden pieces, in different shapes, were needed to build a ship, from beams of large dimensions, 30-40 centimetres at one side and 10-16 meters long, masts 20-25 meters long, curved pine and strong pine roots. Beams and boards were also exported, processed, as the pieces needed in shipbuilding, at their own sawmills or purchased from a number of small peasant, who owned sawmills in the interior.⁷ According to Wilhelm Carlgren wood consumption in Sweden around the mid-nineteenth century were divided in the following way: fuel 50%, ship-, house- and bridge- building along with fence-building 14%, but the export of wood was only 6%.⁸ As for Wifstavarf shipbuilding was of great concern for a long time, but the export of forest products did grow and in 1870s and 1880s this became the main production for the company. Wifstavarf also erected one of the first steam-powered sawmills in the area, in 1852. The steam sawmills production in the whole of Sundsvall region overwhelmed the water sawmill production in the years 1866-70 nearly three times, but it was not until 1880s that the production from steam sawmills totally surpassed the production from water sawmills.⁹ Wifstavarf main concern for a long time continued to be concentrated in shipbuilding and shipping. The main thing, however, is that the company undertook tasks in relation to the fabrication of woods the whole period, which points to an intriguing connection between the yard, the ships and the logs.

During the first four decades of the nineteenth century 14 ships, 17 brigs and some minor ships were built at Wifstavarf or 34 ships all in all. This means that the average production was below one vessel a year. Production was, however, very unevenly distributed over the period. During a first phase, up until the end of the Napoleonic Wars production was fairly

⁶ This presentation is built on the following texts: Christina Kjellson, "Hushåll, arbete och genus vid Wifstavarf under den tidiga industrialiseringen", in Ann-Katrin Hatje (ed), *Historiens mångfald, presentation av pågående forskning vid institutionen för historiska studier Umeå universitet*, Umeå 2004, p 123-138; Christina Kjellson, "Norrländskt skeppsbyggeri, En av föregångarna till det sena 1800-talets expanderande sågverksindustri", in Christina Kjellson, Sven Olofsson, Per Sörlin (eds) *Blickar bakåt, Elva uppsatser om ett förgånget nu*, Umeå 2004, p 173-193

⁷ F I a 3, part 5, Wifstavarfs Company (WV: s Co), Main Office (MO), Merlo archive (MA)

⁸ Wilhelm Carlgren, *De norrländska skogsindustrierna intill 1800-talets mitt, Ett bidrag*, Norrländskt handbibliotek XI, Uppsala 1926, p 80. Unfortunately there is no explanation over the missing 30 % in the calculate.

⁹ Harald Wik, *Norra Sveriges sågverksindustri*, Geographica nr 21, Stockholm 1950, p 119

intense, with about one ship per year, followed by some very lean years when there was hardly any production at all. During the years from 1817 to 1823 there was a complete standstill, with no shipbuilding taking place. Production was resumed towards the mid-decades with six ships being built between 1824 and 1828. Another five lean years followed before a period with rising production. In 1834 three brigs were built. During the last five years of the 1830s nine ships were constructed, two big ships, five brigs and two minor. The level of shipbuilding in the last five years was much higher than before.

Table 1. Allocation of svåra läster from 1800 until 1840. Five-years –periods.

Five year-period	1800-05	1806-10	1811-15	1816-20	1821-25	1826-30	1831-35	1836-40
Svåra läster	843	798	711	78	369	392	389	1354

Source: Althin 1948, p 65-67

Note 1: According to Althin, the facts concerning the ships that were built at Wifstavarf must be considered with some caution. The source material is in some parts difficult to interpretate and there may be an underestimation of the company's shipbuilding. *Note 2:* 1 svår läst equals 2, 5 ton, *Note 3:* Althin has no figures concerning Eucharis built in 1837, but according to a letter from Pehr Hellzén to Paterson in Stockholm the ships dimension were 374 svåra läster.

As table 1 also makes clear the mid-30s was a water-shed in the development of the company with production rising significantly after about two decades when very few ships indeed were built. The difficult time after the Napoleonic Wars was most likely an effect of the changing economic conditions after the wars. Swedish shipping had benefited from the hostilities and when peace returned that favoured position did not last. One can assume that demand for ships declined as a result of that, and Wifstavarf was, thus, following a general trend. In the middle of the 1830s there was also an important shift in the whole country concerning the production of ships that were to be used in the Swedish merchant marine. There was, probably as a result of the growing population, an increasing demand for both newly built ships and even for second-hand ships. The production rose and the most new ships were built at the coast of Norrland. In 1840 the production was 14 000 bruttoton (= 5 600 svåra läster).¹⁰

In terms of shipbuilding, the area of Sundsvall was important at this time. Along with Wifstavarf there was another yard, ten kilometres south of Sundsvall, *Svartvik* owned by the James Dicksons company from *Gothenburg*. At *Svartvik* there were also built big ships to be

used in the merchant marine. The ships that were built at *Svartvik* were mostly bought of trading companies in Gothenburg. The ships from both Wifstavarf and *Svartvik* were used in the growing overseas trade and usually sent away over the oceans far from Europe. Amongst other things they traded with iron, timber,¹¹ salt, sugar and coffee. In the town of Sundsvall there was also a new shipyard grounded in the end of the 1830s. This yard also built many ships, but the most of them stayed in the towns own merchant fleet.¹² The expansion of the shipbuilding at Wifstavarf and in other yards resulted in a growing organisation that needed more workers. This together with the newly bought sawmills demanded that the company made its organisation much more effective and more efficient. This included a reformed structure of raw material supplies along with a changing organisation of production. All together these changes demanded more workers, which can be seen in table 2.

Table 2. The total amount of workers at Wifstavarf during the 1830s

Year	Total workers	Living at the yard	Non-living at the yard	Children
1831	78	24	10	44
1833	73	17	16	40
1835	95	30	15	50
1837	54	24	20	10
1839	111	33	40	38

Source: Film nr 31692, 31694, 31764, 31766, 31768, Board of Trade, Swedish National Archives, Reports of factories in Sweden (Kommerskollegiums fabriksberättelser, Riksarkivet)

Employment figures for the company during the 1830s might be taken as a first indication of the changes occurring, and the rising production is mirrored by a growing number of employees. From 1831 to 1839 the total number of workers rose from 78 people to 111. Of these a large share was children, but their numbers did not change that much so one can say that the growth was mainly made up by adult workers. Another interesting feature is the distinction between workers living at the yard and workers living in parishes outside the yard. The former group did not grow too much while the latter expanded from ten people to 40. Without making an extensive survey of tasks performed by individual workers it is not

¹⁰ Sven A Björkenstam, *Svenskt skeppsbyggeri under 1800-talet, Marknad och produktion*, Göteborg 1989, p 84. Note: One brig used to be around 100 svåra läster, which means that in 1840 the total production in Sweden equals 56 brigs.

¹¹ As a curiosity it can be mentioned that Wifstavarf sold timber to Brazil in the 1830s. See for example a letter from Pehr Hellzén to Mr John Tarras in Montevideo, sent 1 august 1839. In the letter it is said that the cargo of different timber could either find a market in Rio de Janeiro or in Buenes Aires. Copy of letters 1839, Brevkopieboken 1839, B 4, WV:s Co, MO, MA

possible to say what that can mean, but a tentative suggestion might be that the workers living at the yard were foremost employed in shipbuilding while the others performed tasks in relation to the supply of raw material. Anyway, it is beyond doubt that the organisation of the production was far more complicated than a brief look at the yard itself would imply.

Within this large group of workers, employed by the company, it is obvious that some knew more about shipbuilding than did others. The dexterity and skills were concentrated in the hands of the workers at the yard, and more specifically in the hands of a few particular individuals. Specialised workers had the knowledge about these tasks. From the end of the eighteenth century a master shipbuilder had a prominent position at Swedish shipyards, and this was also the case at Wifstavarf in the 1830s. He was in charge of the organisation, and he was flanked by quarter-men and timber-men. It was they who, from the mid-1830s, were responsible for building in total two ships, eight brigs and one galeas at Wifstavarf.

As has been shown there was an unbalance between the years, with lean years being replaced by a rise in production from 1834, and that this might be related to problems with the supply of raw material. As Robert Greenhalgh Albion pointed out already in 1926 certain parts of a ship required logs of exceptional size and shape. His thesis was about the overuse of English oak, which led to a shortage of hull timber at the time for the Napoleonic Wars. Even if this has been disputed there is still one conclusion to be drawn from his investigation, and that is that a shortage of these special dimensions of timber, of unusual size and shape, might very well hamper the work at the shipyard. Such pieces were necessary to have but in the supply of those the timber shortage was first and most severely felt.¹³

Hypothetically the early 1830s might have been a period when the supply of these more particular shapes and sizes may have been difficult, while this problem could have been solved in the second half of the decade. How did the company try to solve the problem with the deficiency of shipbuilding material? What different pattern can be seen? A way to examine the company's strategy concerning this matter is to investigate protocols from board meetings, the account bookings, or the letters that the company's director Pehr Hellzén wrote.

¹² Sixten Humble (ed. Nils Ahnlund), *Sundsvalls historia, del III tiden 1803-1862*, Sundsvall 1921, p 160-165

¹³ Albion 2000 [1926], p 5-7

The remaining part of this section shall illustrate how the company acted to improve both access to raw material as well as its quality.¹⁴

Searching for new areas as well as education and instruction to the commoners

In the regions where the timber was felled, the company did search for different kinds of trees. During this decade the selling of forest products was rather small and the most important thing was still shipbuilding, though the production at the company's sawmills got a growing importance. For shipbuilding there was still a need for trees with a large diameter, that were to become beams and planks. Another part was crooked and curved pine. This difficultness to get the right amount of the needed shipbuilding material from the peasants in the counties of *Jämtland* and *Medelpad* was mentioned at some of the board meeting that were held in the 1830s. It can be illustrated by an example from 1835 when the following is stated: "... When there can not be enough help concerning the need for larger dimensions from *Ådalen* (i.e. *Indalsälven*), the master shipbuilder Hägglund was assigned in September last year to aquire information about it and to travel further north, which at Christmas time resulted in the cutting of wood in the parish of *Nordmaling*, in the county of *Ångermanland*, as for its greatness, now here is very rare...."¹⁵

The difficulties of getting the needed amount from *Indalsälven* resulted in letting the master shipbuilder travel further north to investigate if there were better possibilities. There were also other signs of an expansion into a larger region, in an attempt to find new areas that could support the need of shipbuilding material. Already in 1832 and 1833 the director Hellzén had sent some letters to people in the parish of *Lit*, in *Jämtland*, asking if there were possibilities of getting timber for the shipbuilding.¹⁶ In 1834 Olof Larsson, a timber-man at Wifstavarf, was sent to *Lit* where there had not been that kind of cutting before. During his guidance some 170 roots and thirty curved pines were cut. While the company counted on deliveries in two or three years before this wood would reach the yard it was difficult to know what the result would be. The directors also discussed in the year of 1835 how the cutting of woods, for

¹⁴ The company's accounts are kept at Merlo Archive, which is a private archive and belongs to SCA (Svenska Cellulosa Aktiebolaget) and is situated in Timrå, ten kilometres north of Sundsvall.

¹⁵ "... När således något förlitande till behovens svåra avhjälpande från *Ådalen* till större mängd icke kunde avses, blev byggmästare Hägglund uppdragen att förleden september taga kännedom och för färder norrut vilket ock därefter på före julen föranlett huggning i *Nordmaling* av virke som till grovhet nu mera här är sällsynt....", Board meeting protocol 6-8 Februari 1835, A I:1, WV:s Co, MO, MA

¹⁶ Letters from Perh Hellzén to Anders Månsson 29 May 1832 and 12 August 1832, Copy of letters 1832, B 1 1832-1833, WV:s Co, MO, MA

shipbuilding, should be performed in the light of the fact that the cutting of beams in the upper parts of the river had become much more important from the peasants side. This had had a negative influence over the cutting of wood to be used as shipbuilding material.¹⁷ One solution to the problem of lacking shipbuilding material was, as it seems to find new places where good shipbuilding material could be found. One direction was to go further north to *Nordmaling* and another was going further west to *Lit*. The finding of new places did however not solve the company's entire problem.

Another way of solving the lack of shipbuilding material was to instruct and educate the people in those new places. This is a rather interesting strategy from the company. The sending of a man to *Lit* shows us also a rather unknown part of the company's strategy. The timber-man Olof Larsson was just one of several timber-men that were sent away from their ordinary work at the yard. Besides him there were other timber-men that the company used strategically for the special kind of knowledge that was needed for the cutting of trees to be used in shipbuilding. That can be seen also in other places than in the county of Jämtland. For example the company did continue to send men to *Nordmaling*. In 1836 the quarter-man Pehr Ahlqvist was followed by two timber-men, Jonas Måhlström and Jacob Westerlund. The team stayed in Nordmaling during a period of 61 days, cutting trees for shipbuilding.¹⁸ In a letter to Ahlqvist he was told by the director Pehr Anders Hellzén to be the one that decided what kind of trees that were to be cut. Hellzén emphasized that the people in Nordmaling not were to take decisions in this matter.¹⁹ These strategically educational part did just take place during a relatively short period. It is hard to exactly know at which years this took place, but sometimes before 1830 these actions began and lasted probably until 1839.

One interesting example, of the company's strategy of using timber-men from the yard for other tasks is that of the mentioned Pehr Ahlqvist. According to a board-meeting protocol in 1829 the company needed someone who could measure timber, support the sawmills in *Indal* and also take care of the storage space of the boards. Pehr Ahlqvist was seen as 'both young and quick, which seems to be of use for the company'²⁰ and therefore should be used to this task, instead of working at the yard. Ahlqvist declared that he was content with his new salary

¹⁷ Board meeting protocol 8 February 1835 § 2, A I:1, WV:s Co, MO, MA

¹⁸ Accounting book 1836, p 339-340, 365-366, 825-826, G II a 14, WV:s Co, MO, MA

¹⁹ Letter from Pehr Hellzén to Pehr Ahlqvist 3 November 1836, B 3, WV:s Co, MO, MA

²⁰ "...såsom både ung och rask synes kunna bliva varvsbolaget nyttig..", Board meeting protocol 27 September 1829 § 6, A I:1, WV:s Co, MO, MA

of 100 Riksdaler more than before. His new work consisted of measuring, scrutinising and loosen timber, beams and other sorts of wood that came floating every spring from the upper part of *Indalsälven*. To become known to the people along the river he was also told to accompany Mr Orstadius, the inspector of the Sillre sawmill, who should travel to the upper part of the river buying timber, beams and shipping wood.²¹ One reason for getting Ahlqvist to begin working with those special tasks was that, according to a board meeting held in February 1830, this part of the companies business had not been dealt with in a proper way. One recurring problem was that the company also wanted Ahlqvist to do some work down at the yard. The dilemma was solved the year after, when the company hired a former captain Meijer from the county of *Jämtland*, for running Indal sawmill.²²

In June 1833, director Hellzén sent a letter to Ahlqvist, who in that year stayed in the parish of *Fors*, in the most eastern part of *Jämtland*. Hellzén was satisfied with the work of Ahlqvist, which amongst other things, consisted of searching for wood that was stacked at the river. Hellzén asked Ahlqvist to pay the amounts that were needed and also make all the efforts that was needed for getting all timber from the next parish to the west, *Ragunda* that were to be coming. Hellzén wrote that it would come approximately 17 000 timber. No kinds of wood were allowed to be left in the river or at the riverbanks. Hellzén worried about what could happen the next year. In 1833 there was very low water in the river, but the next year there could possibly be much higher water and if so, lots of wood would get lost. With the letter, 300 Riksdaler was also sent to Ahlqvist, to be used, as he would pay for the work with the wood.²³ In this year Ahlqvist had lots of different responsibilities to do in the county of *Jämtland* and also in the county of *Medelpad*. He travelled between different villages and arranged payments involving many persons. In April, for example, he paid different sums to roughly thirty persons in *Jämtland*. He also paid nine timber-men at Wifstavarf for working with different parts of the complicated task of getting the wood down by the river.²⁴

Ahlqvist continued during several years to travel to *Jämtland*, but there were also other people who were sent out from the company. In 1835 Hellzén wrote to Mr P F Heffner asking him to give the same instructions to the book-keeper Öhlén, as earlier had been given to Ahlqvist. Hellzén also wrote that Ahlqvist had travelled up to the parish of *Stugun* with 600 Riksdaler.

²¹ Board meeting protocol 27 September 1829 § 6 and 20 October 1829 § 4, A I:1, WV:s Co, MO, MA

²² Board meeting protocol 10 February 1830 § 9, A I:1, WV:s Co, MO, MA

²³ Letter from Pehr Hellzén to Pehr Ahlqvist 20 June 1833, B 1, WV:s Co, MO, MA

Öhlén himself had a sum of 1500 Riksdaler with him. Öhlén was accompanied by Pehr Hultgren, from the parish of *Alnön*, close to the city of Sundsvall.²⁵ The ‘career’ of Ahlqvist continued when he was promoted to quarter-man, with the function of leading the work at the yard, just below the master shipbuilder. As such he continued to travel to *Ragunda* to educate the peasants about how to cut shipping wood. Later it came to be discussed at board-meetings in the company whether he would stay at the yard or be out somewhere in the country and educate others. Especially the master shipbuilder Eric Abraham Hägglund wanted Ahlqvist to stay at the yard, but the board advised that this question had to wait for a while.²⁶ The ‘young and quick’ Pehr Ahlqvist, who was born in 1806, stayed at *Wifstavarf* until the year of 1839, when he and his family moved back to his hometown *Härnösand*, where he and his wife Brita Christina Wikström were born. The couple had married in 1829.²⁷ Probably a disappointment to lose their highly treasured quarter-man who could be used both at the yard and up in *Jämtland* as an instructor for the commoners.

As we have seen different persons were chosen by the company to go far away from the yard during the 1830s. Which persons were chosen to become these instructors? Ahlqvist, who could make an advance in the company and perform tasks that were important for the company, represents timber men who had special knowledge about the kind of material that was needed for shipbuilding. This timber-man is that by receiving more and more complicated tasks in the company, is that he can be an example of the company’s view for the necessity of instructions and education of the commoners. This indicates that the knowledge of how one should chose the best wood and how one cuts trees that should be used in shipbuilding not was a common understanding. Rather it was a task which demanded some form of special knowledge. One interesting thing with these timber-men that were sent away, is that, they of course can be seen as representatives for the company, but also that they were involved in a process that some decades later were to become very important in the rapid development of the sawmill industry. And therefore they also might be seen as part of an early growing organisational path for the company which it later could use, when the demand for timber rose on the world markets.

²⁴ Accounting book 1833, p 681-682, G II a 11, WV:s Co, MO, MA

²⁵ Letter from Pehr Hellzén to P F Heffner 28 March 1835, B 2, WV:s Co, MO, MA

²⁶ Board meeting protocol 22 August 1837 § 19, A I:1, WV:s Co, MO, MA

²⁷ The data concerning Ahlqvist and his wife is based on the demographic database, Umeå University. The ID-number of Pehr Ahlqvist is 806001425 and the ID- number of Brita Christina Wikström is 810000725

Wifstavarf and the peasants in the county of Jämtland

Selling beams instead of curved pine

In previous research it has been stated that the forest district of the county of *Jämtland* was divided into two separate areas. On one hand there was the court district of *Ragunda* in eastern *Jämtland*, where hundreds of peasants delivered timber to Wifstavarf. On the other hand there were parishes around *Lit*, further upstream the river *Indalsälven* with tributaries, where the timber businesses were administrated by local commissioners. The reason behind this difference is probably the changing chronology of the timber frontier in mid-Sweden during the eighteenth and nineteenth centuries. This frontier reached the *Ragunda* district in the early eighteenth century, at a stage when several merchants from the port of Sundsvall competed for the beams and boards produced by the peasants. Up to the beginning of the nineteenth century the market for forest products was very much supply orientated. The peasants decided to whom they wanted to sell and what kind of products. The most profitable product for the peasants was beams. The merchants, who owned sawmills and shipyards, needed timber and shipbuilding material. When Wifstavarf finally entered this market, during the last years of the eighteenth century, they gradually began to change the disruptive and costly organisation of raw material deliverances. Not until the beginning of the 1850s did the number of suppliers in *Ragunda* decrease from 300 to 100 persons. In this process we can trace a group of speculative peasants who began to earn a fortune supplying timber to the companies. This small group was also, finally, able to found their own steam-powered sawmills in Sundsvall from the 1860s. The economic historian Ernst Söderlund has explained the appearance of these agrarian entrepreneurs with the profitable purchasing of beams to the growing export market. The most successful of these peasants began as rural commissioners to the companies, and ended up as owners of sawmill companies at the coast.²⁸

A few records from the 1830s and 1840s cast light on these self-conscious suppliers in the court district of *Ragunda*. One vivid example is the following letter from Mr S U Orstadius, inspector at *Sillre*, *Wifstavarfs* most important fine-bladed water-powered sawmill, to the manager of the company, Mr Per Anders Hellzén. Orstadius has in the beginning of

²⁸ Sven Olofsson, "Speculative peasants on the pre-industrial timber market", in Marie Emanuelsson and Ella Johansson (eds), *Peripheral communities – Crisis, continuity and long-term survival*, In press 2006; Ernst Söderlund, *Svensk trävaruexport under hundra år*, Stockholm 1951, p 110

December 1833, returned from a journey to the parish of *Stugun* upstream the river of *Indalsälven*, where he had tried to reach agreements with the peasants about deliveries of forest products. He writes:

‘The agreement with the people in the village of Stugun is, as you can see from the enclosed contract, succeeded after two days of negotiations. They (especially Mr Jonas Matsson) made great demands upon having a half barrel of salt every year in rent for the floating area, which lead to a common demand from the whole group getting the same compensation. In that moment I said it was impossible to sign a document with such unreasonable demands. ... The unreasonable people in Stugun demanded 24 schillings payment for saw timber at 16 to 17 alnar²⁹ of length, with a diameter of 8 to 9 inches. ... None was interested in cutting any shipbuilding material, anyhow everybody promised to cut the thick curved trunks they incidentally might find...’³⁰

The letter shows a group of peasants who were stubborn and self-conscious in negotiating with the company. The reluctance of supplying shipbuilding material might have a background in difficult and time-consuming transports from remote places in the forest, and the low payment offered by the company. Instead of just increasing the remuneration, the company started to look after local leaders in *Ragunda* who hopefully would encourage other peasants in the area to fulfil the company intention. Another reason for recruiting local commissioners was the implicit ambition to reduce the total number of suppliers in the forest district of *Ragunda*.

In november 1836, the manager Per Anders Hellzén wrote to the peasant and juryman Esbjörn Jonsson, in the village *Hammaren* in the parish of *Ragunda*, telling him that the company had increased the compensation for shipbuilding material. Hellzén offered him also a personal secret ten percent bonus on delivered goods, pushing him to act as a pioneer: ‘... you, as thrifty and vigilant, can encourage your parish neighbours to make larger cuttings, than previous years ...’³¹

²⁹ One "aln" is the same as 45 english inches.

³⁰ "Ackordet med Stuguborna blev slutligen efter två dagars prat uppgjort som hosföljande kontrakt utvisa. De sträckte sitt påstående (i synnerhet Jonas Matsson) att för lägenheten såsom bärgningsställe betraktat få för sin del ½ tunna salt årligen, varigenom föliden blivit att de andra velat ha detsamma. Därför måste jag slutligen förklara att jag icke kunde underskriva kontraktet då de var så obilliga i sina påståenden. ... Stuguborna var så orimliga att de för 16 å 17 alnar 8 å 9 tums timmer begärde 24 schilling... ... Ingen vill åtaga sig något skeppsvirke, ehuru alla lovat att om de tillfälligtvis kommo över några grova krokar så skall de hugga dem..." , letter from S U Orstadius to direktör Hellzén 1 December 1833, EI: 1, WV:s Co, MO, MA

³¹ Letter from direktör Hellzén to Esbjörn Jonsson 9 November 1836, B 2, p 187, WV:s Co, MO, MA

In the hand of the commissioner

Further up the river of *Indalsälven*, *Wifstavarf* had their western forest district in *Jämtland* with their centre in the parish of *Lit*. In contrast to *Ragunda* forest district, *Lit* forest district were organised through one single commissioner. This organisation might have been established at the beginning of the 1820s, when the merchant P F Heffner dominated the timber business at the western part of the river of *Indalsälven*. When *Wifstavarf* bought Heffners sawmill Company 1828, they offered the peasant and churchwarden Anders Andersson in the village *Söre* in the parish of *Lit*, one share in the company.³² The accounts show (table 3) how a large number of peasants made deliveries of saw timber under Anders Andersson's supervision. A few years later he was succeeded by the new churchwarden in the parish of *Lit*, Anders Månsson in the village *Korsta*.

Through the peasants Anders Andersson and Anders Månsson, the company succeeded to find powerful men in a central position in the local community. As a churchwarden they had insight into the households in the parish. When Anders Månsson was attending the annual general meeting in *Wifstavarf* 1833, he articulated the feeling of having a certain position in the parish, when he suggested himself as the right person '...thru his impact as well known among the peasantry in the parish...' to stage a stream clearing project³³

While *Wifstavarf* expanded their business during the 1830s they continuously stressed the need for getting larger quantities of raw material, as well as better defined deliveries to the sawmills and the shipyard. The expansion implicated resolute investments in floating facilities and payment in advance for future cuttings, a strategy that induced the peasants to deliver goods to the company. Evidence indicates that the company became successful in their strategy. Table 3 shows an irregular increase in number of suppliers and delivered goods between 1830 and 1840. A significant change of the peasants' deliveries is the appearance of shipbuilding material, with a annual increase from 1833 to 1839, when the share of the total delivery dropped to a third.

³² Share number 33, DI:1, WV:s Co, MO, MA

³³ "...genom sitt inflytande såsom välkänd hos allmogen i socknen..." Board meeting protocol 1 February 1833, AI: 1, WV:s Co, MO, MA

Table 3. Deliveries to Wifstavarf from Lit forest district, every fifth year between 1830 and 1840. Riksdaler riksgälds (Rd rgs).

/Year	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
Number of Suppliers	37	23	78	101	57	48	51				138
Deliveries total value in Rd rgs.	2383	1042	4278	6491	2457	1804	1516	5178	5095	4971	9078
Shipbuilding materials share of total value in percent.	0	0	0	0,4	1	8	22	27	37	30	28
Mean value of each supplier delivery of total value in Rd rgs.	64,4	45,3	54,8	64,3	43	34,4	29				65,8

Source: Accountingbook Ådalen, G II b:1, 11 och 16, WV:s Co, MA

Comments: In single cases two or three suppliers were cooperating in one delivery. The year 1835, 48 peasants delivered saw timber for 1652 rd rgs and shipbuilding material for 152 rd rgs. The year 1840, 138 peasants delivered saw timber for 6553 rd rgs and shipbuilding material for 2525 rd rgs. The suppliers are missing in the accounts 1837-39.

The economic relations between the peasants and the company were based on a mutual agreement. On one hand the company offered payment in advance mainly during the winter and springtime. The peasants needed money for the tax payment and seeds for sowing barley and peas. The people who lived in the forest villages bought seeds almost every year during the 1830s. Every harvest in *Jämtland* during this decade, except the one 1834, was weak or failed completely. The correspondence between Anders Månsson and manager Hellzén show a great number of financial assignments that were aimed for payments in advance. The 29 march 1832 Anders Månsson received 300 rd bco³⁴ from Hellzén. Two months later Anders Månsson requested more money and Hellzén sent another 1000 rd bco, ‘... presuming the timber suppliers need help...’ and two days later he sent another 1000 rd bco, ‘... hoping that the people in *Lit* will receive the aid in honour of the willingness of the shipyard company ...’³⁵ Payments in advance occasionally led to debt among people in the forest district. The company was in normal circumstances satisfied with annual pay offs, in terms of delivering saw timber, but a few peasants got in trouble when their deliveries failed to appear. One striking example is Erik Persson in the village *Österlångan* in the parish of *Aspås*, who writes a letter to the manager of Wifstavarf, apologising that he had received barley from the company but failed to deliver any saw timber, because of his wife’s illness.³⁶ The same day Anders Månsson wrote a letter as well, to manager Hellzén discussing Erik Persson in *Österlångan*. Månssons wrote: ‘... I recommend a legal action to be taken against Erik

³⁴ Rd bco is an abbreviation for the Swedish currency Riksdaler Banco

³⁵ Letter from direktör Hellzén to Anders Månsson 29 och 31 May 1832, B:1 p 42, WV:s Co, MO, MA

³⁶ Letter from Erik Persson to magister Hellzén, 10 June 1835, EI:1, WV:s Co, MO, MA

Persson in *Österlångan*, who probably are the one who prevented the others to deliver because of his manner, not to cut and even encouraging the others not to cut this year...'³⁷

We still do not know how many peasants who managed or not, delivering as much goods as they were paid for. The reasons behind the inability are also unknown. The reasons are probably as many as the indebted suppliers. One striking pattern, drawn from the accounts, is showing that especially the people in the village of *Österlångan* were indebted. One answer is maybe the fact that the village was a new colonised part of the parish and in the beginning of the 1830s the settlers were still exempted from taxes.

While the company expanded their business, the pressure increased on a person like Anders Månsson. Besides his work as farmer he was engaged in various missions for the company, from staging river clearing projects, planning log driving, measuring the value of delivered timber, travelling around in the region buying next year cuttings and finally doing the accounts. From the company point of view, Månsson was invaluable, but a number of letters from other peasants in the area sent to the manager Hellzén indicates that Månsson might have had problems to fulfil his commission. In one case Hellzén blames Månsson because he had delegated the measuring of delivered goods to a person, unknown for Hellzén.³⁸ Another case, mentioned in the correspondence between Hellzén and Månsson, is a request from the peasants in the villages *Rise* and *Bredbyn* in the parish of *Offerdal*, who wanted a timber measurer and an accountant, who were present when the peasants delivered their timber from the forest. Månsson was not able to measure the timber before the snow was covering the timber and instead they suggested Olof Johansson in the village of *Österulfsås*. Hellzén agreed that one more timber measurer in this remote area of *Lits* forest district would have made Månssons work easier, provided that Olof Johansson was '...well known, unprejudiced and skilled enough for this mission...'³⁹ Månsson answered that Olof Johansson was '...well known to me, honest and reliable in his duties...'⁴⁰ but not interested in this mission until he had received the knowledge necessary for the task. In the same letter he mentioned that he had

³⁷ "... jag tillstyrker att Erik Persson i Österlångan varder lagsökt, vilken jag tror är upphovet till de andras försumlighet därigenom att han ej själv huggit och även tillstyrk att de andra behövde ej hugga i år..." Letter from Anders Månsson to magister Hellzén, 10 June 1835, EI:1., WV:s Co, MO, MA

³⁸ Letter from direktör Hellzén to Anders Månsson 24 October 1832., B:1 p 61. WV:s Co, MO, MA

³⁹ '...välkänd och till detta uppdrag kan anses så väl skicklig som opartisk...' Letter from direktör Hellzén to Anders Månsson 3 January 1839, B:4 p 2. WV:s Co, MO, MA

⁴⁰ "... af mig känd för bra och pålitlig i alla sina göromål..." Letter from Anders Månsson to direktör Hellzen 21 January 1839. EI:1, WV:s Co, MO, MA

already invited Olof Johansson to attend the timber measuring next spring.⁴¹ When Hellzén answered Månsson's letter a month later, he offered his gratitude to Månsson's effort of visiting Olof Johansson in his remote home. Hellzén was also thankful to Olof Johanssons attitude and that he, by Månssons training would avoid '...making mistakes and be misled by suppliers who deliver timber that are useless as raw material for boards and shipbuilding.'⁴² Meanwhile Olof Johansson seemed to do a fair job though the company paid him 25 rd rgs, for attending as an auscultator at the timber measuring along the river of *Långan*.⁴³

Concluding remarks

The ambition of this paper has been to discuss the situation in the 1830s when the early industrial forest company, Wifstavarf, tried to find more efficient ways of getting raw material for their shipyard and their sawmills. Evidence indicates a complicated process in the interface between the traditional structures of the rural society and the company. On one hand we have the company looking for more efficient ways of getting the right raw material. Qualified men were sent out from the company to instruct and educate the commoners in the counties of *Jämtland and Ångermanland*. This can be seen as a form of knowledge transformation from the timber-men at the yard to the peasants in forest region. It is also possible to distinguish a pattern where the timber-men were replaced by other categories, as for examples book-keepers, which ought to indicate that the problem with getting enough shipping wood changed character from being a kind of organisational and technical problem to became more of an economical problem.

On the other hand, we have the peasants in the forest region, more or less dependent upon the company with its demand for forest products. The paper has shown a distinction between the Ragunda district, in the eastern part of the county of Jämtland, and Lit, further west upstream the river of Indalsälven, and the possibilities Wifstavarf had to affect the production of different kinds of forest products. First, the self-conscious peasants in the parishes of Stugun, Ragunda and Fors, who mainly delivered the more profitable beams, refused to adapt to the demand from the company. The peasants were not interested in delivering goods under the

⁴¹ Letter from Anders Månsson to direktör Hellzen 21 January 1839. EI:1, WV:s Co, MO, MA

⁴² '...begå misstag och låta förvilla sig av leverantörers ofta obilliga påståenden att såsom gott och fullgiltigt få mätt och mottagit sådant virke som varken till bräder eller skeppsbyggeri duger eller kan användas.' Letter from direktör Hellzén to Anders Månsson, 21 February 1839, B:4, p 46, WV:s Co, MO, MA

circumstances that were established by the company. Second, the suppliers in Lit, who were supposed to be under control by the local commissioner, churchwarden Anders Månsson, and this organisation were developing in an interesting way during the expansion of the company in the 1830s. At the beginning of the decade Månsson had problems to manage administrating all parts of the mission. Our cases show that some peasants acted direct towards the company, who immediately passed the issue back to Månsson. In his position as churchwarden, Månsson was invaluable to the company, as a guarantee for a successful business. From 1835 Anders Månsson and the company had forced the peasants in Lit into the supplying structure that was demanded by the company.

Previous research has shown little interest in the development of the forest industry before 1850 and how different aspects of social and economical development in the rural society contributed to the industrial development of Scandinavia. Our paper points towards a surprisingly diverse situation with a company and a large number of peasants acting in several directions with different strategies depending in which part of middle Sweden, they were acting. Evidence indicates that both the company as well as the peasants played a varied role in the development of a market for raw material. The company continuously strived to increase their control over the production, through itinerant timber-men educating the peasants and local commissioners forcing their neighbours to fulfil the intentions of the company. The peasants, who were more or less able to influence the outcome of the contact with the company, depending on their ability to balance advances on salary with deliveries. Obviously, from the company point of view, the successes were uneven during the 1830s. From the peasants' point of view, the period was the beginning of the end when they still had freedom of deliver what they wanted to the company.

Viewing the company and the peasants from their respective point of view is important. There is not room in this paper for discussing the empirical and theoretical reasons behind this process. These works are very much a work in progress and this text will hopefully generate more questions than answers. How did the company develop their organisation and how susceptible were the peasants to the company's initiatives? Why was it possible to organise the production through a commissioner in the western part of the region but not in the east, closer to the shipyard? Did the timber-men succeed with their teaching program in terms of

⁴³ Accounting book G II b:11 p 1704, WV:s Co, MO, MA

more adequate deliveries from the peasants? And how did the households of the timbermen act when the breadwinners were away for long time? How important was the local traditions of dealing with forest products and the knowledge of both the market and the production? How important was social and economical structures in the peasants household and their exposure to famine and failed harvests? One tentative interpretation must necessarily focus on the possibilities of initiating centralised production in different parts of the region. It seems clear that the peasants in the eastern area played a more independent role towards the company than their fellows in the west. One reason might be related to the development of the market and the timber frontier, physically moving slowly further up the river Indalsälven, during the nineteenth century. We hope that our contribution to this session will open up for comparisons with other historical contexts as well as more theoretical issues related to our subject: how the first forest companies developed and how the rural community acted and reacted upon the changes on the market for forest products.