Forest work through the ages

Photo: Museum of Forestry in Lycksele's photo collection

◄ Logger with chainsaw in Lycksele territory at the end of the 1950s.

Since the 1800s, forest work has evolved from manual labour using an axe to mechanised labour using large forest machines. In the past, horse drivers would agree to log a parcel of land and, in turn, hired loggers on piecework contracts. A number of tools that simplified logging work appeared around the end of the 1900s. At the end of the 1940s, forestry mechanisation increased, in part due to labour shortages and in part due to declining profitability within the industry. Chainsaws replaced axes and saws, trucks replaced log driving and tractors replaced horses. Eventually, harvesters took over all the work performed by loggers.

Background

At the beginning of the 1860s, exports of Swedish timber increased dramatically. One of the reasons was that Britain started to import wood from Sweden instead of Canada in the first half of the 1800s. Steam-powered sawmills were established along the coast and the timber could be transported to the sawmills by log driving, which was a prerequisite to exploit the forests of northern Sweden. In the winter, the forests of northern Sweden were filled with several hundred thousand forest workers.

Photo: Museum of Forestry in Lycksele's photo collection

▲ Manual logging.

Forest work 1900-1950

When it was time to log the forest in a particular area, the companies would divide the area into smaller parcels of land. Harvesting a parcel involved both logging and transporting the timber. Each harvesting assignment was awarded to whichever contractor put in the lowest bid for the work. The contractors were usually horse owners who could transport the timber to the landings. The horse drivers subcontracted loggers. It was not uncommon for the horse drivers to be older

Photo: Museum of Forestry in Lycksele's photo collection

▲ **Forest workers in front of their quarters in Lapland. Two cooks were hired for such a large team.**

relatives of the loggers working in the same team. The team could also include migrant workers, that is, workers from other parts of the country. The size of the harvesting assignments varied, and teams could be comprised of just one or a few forest workers, but there were even harvesting assignments that required more than a thousand workers.

The harvesting assignments were conducted in the winter because it was easier to transport the timber and get to and from the logging sites with winter ground conditions. Logging began on the twelfth day of Christmas and continued until spring, when the winter roads could no longer be used. A base road was a road from the parcels of land to the landings by the waterways where the log driving began. The drivers ploughed and watered the base roads so that the timber sleds could more easily slide over them when the horse pulled the load.

Working conditions

The horse drivers paid the loggers for their piecework. Accordingly, it did not really matter whether the loggers were young, old, strong or weak since the driver only paid for the actual work completed. The pay earned by the loggers varied greatly, depending on their performance and skill and the era.

Eventually, in the 1930s, the forest companies started to take over the employer's responsibility from the horse drivers, which meant that the loggers worked under collective agreements with wages paid directly by the companies. Better forest cabins and cooking teams with cooks were more widely introduced, which improved conditions for forest workers.

Working day

The length of the working day was decided by daylight. This could mean anything from four to twelve hours. The loggers also worked with tool maintenance in the evenings. However, some eager loggers used matches or the moonlight to find the right tree when there was insufficient daylight. The horse drivers were always the first ones up in the morning, to feed and water their horses, often at five o'clock in the morning. The loggers generally woke an hour later. The forest workers took only short breaks as their sweaty clothes soon felt cold.

Children and youths

Forest workers' sons and daughters could be found working in the forest, some of them as young as nine years old. There is a story about Lisa Johansson, who started transporting timber when she was eleven years old. Women and children were also found working with delimbing and debarking up until the 1950s, when debarking was mechanised.

Photo: Museum of Forestry in Lycksele's photo collection

▲ **Filing a saw chain by hand.**

Tools and tool maintenance

Up until the end of the 1800s, trees were felled by axe. Back then, the axe was a universal tool, used for all work tasks such as debarking, delimbing and moving logs.

In the two decades after 1890, two-man saws were used, known as log saws. After this came the felling saw and the bow saw, which could be handled by a single logger yet were more efficient.

The invention of the debarking spade around the same time resulted in more efficient debarking. Timber tongs made it easier to lift the timber.

Axes and debarking spades were sharpened and saws were filed. However, tool maintenance skills were

Photo: Museum of Forestry in Lycksele's photo collection

▲ **Loggers on their way to work in February 1948.**

often lacking. Bertil Bergström trained as a filing instructor in 1937 and travelled to different forest cabins to inspect the forest workers' tools. *"Of the 102 workers I visited, there were only two whose saws I didn't need to service."* Filing workshops were introduced and remained in use until the 1950s, and loggers could take their tools there for filing.

During the snow-free season

Log driving began during the spring and continued through the summer. Charcoal wood chopping was conducted during the summer and was arduous work in 25°C heat with swarming mosquitoes. Silvicultural measures such as cleaning and replanting were also conducted during the snow-free season.

From 1950 onwards

At the end of the 1940s, the need for mechanisation increased. There was a shortfall in the workforce and declining profitability in the forest industry. The first chainsaws were so heavy that two forest workers were needed to work them. Lighter chainsaws that could be handled by a single forest worker came eventually, but had many flaws. If the chainsaw stopped working, a logger on a piecework contract would make considerable losses. For this reason, chainsaws did not experience a major breakthrough until the 1950s-1960s, once the technology had been refined.

The advent of chainsaws also saw an increase in the number of occupational injuries in the forest industry. Limited experience of handling powerful chainsaws resulted in accidents. So-called vibration white finger caused by the strain and vibrations of using a chainsaw was also common before chainsaws were improved. At the end of the 1960s, there were 8,000 accidents in one year, a figure that was later halved by measures such as technique training courses and projectile guards on chainsaws.

Photo: Västerbotten Museum's photo collection

▲ Verner Jonsson transporting timber in Torvsele Forest. Standing on the load is unloader Artur Lindahl. 1955.

Debarking was time-consuming work that represented about half of a logger's working hours when performed with a debarking spade. When debarking machines came in the 1950s, debarking was made much more efficient. A decade later, debarking was transferred to machines in sawmills. Tractors known as forwarders were developed to gather and transport timber in the forest, although towards the end of the 1950s horses were still used for most timber transport.

Log driving became less common as trucks were used increasingly for long-haul transport. The next step was when feller-bunchers and processors were introduced. The former felled the trees and the latter bucked, delimbed and gathered them. The 1970s saw the introduction of the harvester, which could perform all work tasks such as felling, gathering, bucking, delimbing and transporting trees. All work tasks previously performed by loggers could be conducted more productively by machine operators in forest machines.

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Project PINUS, a project for innovative experiences in managed forests, aims to gather the tourism industry, the forest industry and forestry academia in efforts to create opportunities for tourism in managed forests. Project PINUS began in August 2016 and runs until November 2019. The Museum of Forestry in Lycksele is the project owner.

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