

# By the loop

by Priss Niinikoski

Pierre and I discussed his experiences and impressions of knitting his piece with a domestic knitting machine. The machine in question is a Passap E6000 from the '80s. By a domestic machine, I mean a knitting machine that is, for example, operated at home and usually has a carriage that is passed by the human operating it. That process of work is almost like if you imagine using an inkjet printer manually, which line after line prints the image. In this case, the machine prints a knit textile.

Knitted textiles are based on interlooping fibres to a two-dimensional surface. When knitting manually, the loops are picked and kept on two or multiple needles. This is the most straightforward principle of the technique. The machine has a 'bed' or two, the upper and lower bed, with a row of hooks to catch the yarn and loop it through the loops hanging on them. However, industrially having a machine operating and imitating the movements, as hands guide the needle to pick a loop after loop, is very difficult to achieve. The flexibility of the fabric and the unevenness of fibres make for the machine a challenge to handle the dexterity and reactivity it requires. For that reason having beds with hooks, and using weights to stretch a tension, makes the textile more stable to work with. Knitting and its relative 'crocheting' are the most commonly known contemporary crafts rooted from the idea of knotting. Knotting techniques have been practiced to create durable and flexible textiles since BC. 'Nalbinding' (needle binding) is the predecessor of knitting. Knotting has been done by hand and, furthermore, has had tools developed to aid it. Looping has been done by sewing, hooking, and finally, knitting. Knitting, knotting, looping, and even weaving are ultimately part of the same family—different structures with different material qualities but similar crossing ideas.

Pierre found a machine that was domestic but also automated. With this kind, you could choose to operate manually or to have the machine automated to move the carriage - or both. Domestic appliances make it easier to control and interfere with the knitting process compared to an industrial machine.

When Pierre told me he had been knitting a 20-meter-long four-coloured jacquard, I was struck by his performance. To incorporate a pattern with four colours and as complex as his charting of the sheep's DNA was, you have to change the colour of the yarn constantly. By those means, you can only knit one colour in every two rows. For example, let's say your goal is to have 100 rows with all four colours; you will have to knit the same row as many times more. Ultimately your workload is four times bigger.

I remember working on domestic production of scarfs around 2 meters long - just with one yarn and a simple jersey stitch. I think it was 1090 rows that I had to pass the carriage on manually, and if I was lucky, I could finish it in one workday - but that rarely happened. There are so many obstacles that can go wrong; as an example of some:

1. The yarn breaks
2. The yarn gets stuck
3. The stitches drop - from the sides or the middle
4. Needle(s) breaks
5. Needle(s) get stuck, and you end up having tucks in your textiles

These are things that are very much common in the knitter's daily life. But if everything goes well, you can react to those situations fast enough to keep the knitting going and not start over.

Returning to Pierre's impressions, we discussed how much 'focus' knitting demands. Of course, it asks time and dedication to make a piece of such length. Focus, however, is something you must implement every second of your knitting. The mentioned risks can occur anytime, so you have to stay alert. I find that the focus is an act of giving. You are giving full attention to the task. After a while, in between the rows, knitting starts to absorb the attention, and your focus becomes somewhat more fluid than forced.

To learn to knit is a long journey that technically never ends. Knitting, like other high or low technologies, evolves. There are two angles of approach to it: creative exploration and production. Even the most skilled knitter can always learn more. But like other craftspeople, the knitter can choose to follow instructions, 'the chartings,' and execute. It can be seen as preserving: the practice of existing knowledge. Creative exploration, on the other hand, is an act of play: piercing through the limits of set conventions. It creates a new kind of knowledge from the past and translates it into a reflection of the present. The textile is a document of its time.

Pierre reflected on his state while knitting, and he compared it to meditation. A form of awareness is reached after constant repetition. To get there, it can vary from being painful to soothing. When standing by the machine monitoring its process, resilience is inevitable. There's no space for aggression. Anxious pull or any other interaction with the machine in this state is a drag. Seeing the progression of the piece row by row and maintaining your nerves while handling it teaches you much about yourself.

The loop hooked me at age 5 when I had my first lessons from my grandmother. It felt impossible back then, but it grasped me. After small steps of success, I was eager to go further. The whole process, with its tactility, is strikingly concrete and personal. Knitting has become my lifelong companion as a way of interacting and understanding physicality.

To me, it is a gentle craft with an unforceful nature, when it gently guides the material.