# the Wheel

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*From top left down:* Richard and Elizabeth with Astrid James and Richard sign off the

new e-Carder Kate and David finalising the

new dyes **Top right:** Chris training our new

apprentices

**Cover:** Amanda McLennan, see page 4



# Editor's Letter

In this issue of The Wheel, I feature Astrid Tauber. Richard and I had the pleasure of meeting Astrid at SAFF (Southeastern Animal Fiber Fair) in Fletcher, North Carolina, back in October 2019. She came on to our booth and introduced herself: a ten-year-old fibre artist with a business card, website, and Instagram account! Since then, we have been delighted to see her growth in textile experience and knowledge, and to know how crafts have helped keep her productive, happy, and connected during the lockdowns.

Although Astrid is extraordinary, I know that many young, and not so young, are turning or returning to craft. Why? Is it a response to the fast-paced digital lives we lead, or a move away from consumerism with people wanting to explore their creativity and use their hands to make useful and beautiful things? Is it about busting boredom (think lockdown) or is it a comforting, joyful experience during difficult times?









Whatever the reason, we have seen unprecedented demand for all our products. At no time in our 87year history have we been so busy! Although we have employed more staff (and sponsored five of our young staff to gain trade qualifications), ordered more machinery and worked overtime, we are still behind. We thank you for your patience as we work hard to get our spinning wheels, weaving looms and all our range out to you.

Richard, after many years of development and testing, is delighted the first batch of e-Carders is coming through the factory. With two powerful motors, fleece and sliver are carded and blended easily and quickly. The e-Carder is an impressive addition to our range.

Due to Covid and our closed borders, we haven't visited our customers or attended shows overseas. We have missed the contact very much. Kate has been keeping in touch and announcing the release of the new products including new dyes, yarns, and weaving kits. But we all hope restrictions will be eased soon and we can meet you face to face again.

Happy crafting. With my very best wishes,

Elizabeth

















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Creativity at its Core

BY AMANDA MCLENNAN, ABU DHABI, UNITED ARAB EMIRATES

#### Beautiful and unique designs are made when corespun art batts are spun and woven.

I first picked up a loom about five years ago, shortly after my daughter was born. We were living in Singapore and I was looking for some unusual textural décor for her nursery. I found a local artist who was offering beginner classes and instantly I was hooked. It was the perfect quiet hobby to occupy my time at home with my daughter.

Soon after, we moved to the United Arab Emirates and as I began to push my creative limits with weaving, I became frustrated with the lack of local availability of interesting fibres to weave with. My mum is a spinner and, on a trip to visit us in 2017, she gifted me a drop spindle and a brief spinning lesson which enabled me to start experimenting with making my own basic art yarn.

By 2020, I was spinning almost every day and had taken the plunge with buying my own wheel, the Kiwi 3 with Super Flyer.

The last year has been a whirlwind, with the boom in the creative fibre community, thanks to the enforced stay-at-home orders, with more people picking up a frame loom than ever before. I love helping people choose a yarn for a project, working on custom art yarns and having the opportunity to channel my own creativity into a piece of art that goes on to be made into another piece of art!

Without a doubt, chunky, textured, plied corespun yarn is in the top three most in-demand styles of art yarn, and with good reason; there are no limits on how creative you can get with a corespun art yarn. Typically combining a 'core thread' around which other fibres are wrapped, it is often spun with 'mix-ins' like scraps of rope, long locks, metallic threads, beads, velvet... the list can go on! And because it is corespun, it has a weighty substance and durability that many other yarns don't, which is necessary for when it's being pulled through warp threads repeatedly.

The Kiwi 3, combined with the Super Flyer, made an ideal choice for me as a spinner. The wide orifice on the Super Flyer means there is almost no limit on how chunky your yarn can be spun, yet the wheel is lightweight, foldable, and is so easy to use.

I'm going to take you through the creation of a corespun art yarn, from carding the art batt, tips on corespinning and some ideas on how to use your finished yarn in a woven wall hanging.



Amanda

Core spun yarn - chunky and textured

Weaving with the art yarn



Create an art batt on the drum carder



#### Carding an Art Batt

When choosing fibres for an art batt, the rule of thumb is 'anything goes'! I usually start with a neutral base, choose one or two accent colours and then some textured elements, such as rope scraps, locks, metallics and usually a thread that will auto-ply around the yarn as I am spinning.

#### You will need:

60-120gm (2-4ozs) of fibres, including a base wool, such as Merino (weight depending on the size the carder can hold)

#### Drum carder

'Mix-ins' such as fibre scraps, ribbon, metallics, threads, recycled sari-silk etc

#### Tips

- When starting an art batt, it is important to lay down a thin base layer before adding in any smaller loose pieces of fibre. This will ensure that nothing falls out of the batt as it's being removed from the carder.
- Work in layers. Don't add all the mix-ins in one go. Layering will ensure there is an even distribution of accents and textures throughout the finished yarn.
- Keep any pieces of fibre that can't be carded (such as ribbon or locks, which I like to keep un-carded and then spin in by hand) to one side and these can be added in when spinning.

#### Corespinning on the Kiwi 3 with Super Flyer

When setting up to corespin, I recommend setting the wheel to the largest whorl and a medium tension. It is important to minimise the twist that will be added in; the difference in corespinning to other types of spinning is that there is very little true twist needed. The fibres just need to wrap around the core, so having the wheel set like this will help prevent overtwisting. You will also want to work fairly closely to the orifice for the same reason.

The beauty with corespinning is that the core can be almost anything, as long as it is strong. It is an ideal opportunity to give a new lease of life to 'ugly' yarns that are stashed away.

I choose to use a fine mill-spun mohair. It gives a beautiful airy feel to my yarns and the locking in between the mohair fibres and the fibres I'm spinning gives it extra strength.

When attaching the core yarn to the leader, build up a light amount of twist. Draft out a fine layer of fibres from the batt and holding the drafted fibre at a 90 degree angle to the core yarn, allow the fibres to gently start wrapping themselves around. Spin like this for around a metre (yard). Once you are comfortable with the first stage, you can start to draft out varying amounts of fibre, playing with the amount that wraps around and how tightly or loosely it wraps to give different textured effects.

Moving your batt around and drafting fibres from different sections will also give various different feels to your finished yarn. Spinning slowly will allow you to ensure your mix-ins are coming out 'on top' and are visible on the outer layer of the yarn. If you wish to add in extras that are not in your batt, such as pieces of

Hold the drafted fibre at a 90° angle

Use a felting needle to secure the art yarn

ribbon or locks, you can anchor the ends in against the core and allow the fibre to wrap around a small section to secure them in. Once your batt is finished, continue to 'spin' a metre (yard) or so of the core yarn onto the bobbin.

Once my single corespun yarn is finished, I usually decide at that point if I am going to ply it or not. Some corespins can look beautiful left as a single. However, others find the coiled 'bubble' effect achieved with plying it more desirable.

To coil ply, you will need to switch bobbins and choose a strong thread, in a colour of your choosing (either match it to the yarn or go for one that is contrasting in colour). Crochet cotton usually works really well for this.

Attaching your metre (yard) of core yarn that you left at the end of the single to your leader, along with the ply thread, standard ply these together. Once the start of the corespun reaches the ply thread, move the angle of the corespun single out to 90°, keeping the ply thread straight out from the orifice. Allow the single to wrap around the ply thread. If you wish to achieve a more spiraled effect, reduce the angle between the ply and the single. Play around with this for different effects throughout your yarn.

#### Weaving with an Art Yarn

You have your finished yarn! What next?

Like the whole process before it, the uses for your yarn are limitless! Depending on how chunky it has been spun, you may want to use it as an accent in a knitted scarf, use it for needle felting sculptures or make a woven wall hanging with it.

Here are some tips for using a corespun yarn in a weaving.

- When you cut sections from the yarn to use in a weaving, tie a small knot in each end (or lightly felt to secure with a felting needle). This is particularly important if you're going to be leaving one end hanging loose in the fringe.
- A felting needle is a useful tool to have on hand when working with an art yarn. You can use it to secure the art yarn into sections of the weave and give it more structure, rather than just weaving it in/out between the warp threads.
- Art yarn looks particularly beautiful when it is allowed to drape over the front of woven sections and layering can add dimension and texture to an otherwise simple piece.
- Don't feel the need to use a whole yarn in one weave. Use small amounts to accent and highlight areas.

Have fun with corespinning and weaving with your art yarn and the results will be beautiful!

#### Editor's note

Amanda is a Scottish textile artist currently living in Abu Dhabi, in the UAE with her family. She took a modern weaving class in 2016 and started spinning in 2017 using a drop spindle. Spinning luxury unique art yarns is now her full time business! Follow Amanda on Instagram @wildjuniperfibreart





Improvised colour work



## Fine, Lightweight Textiles on the Rigid Heddle Loom

BY GABRIELLA KIS-WARREN, BRISBANE, AUSTRALIA

Push the boundaries and create super fine cloth with a surface design on your rigid heddle loom.

I am a Hungarian, born in Transylvania, which is an amazingly beautiful and culturally rich part of Romania. My family is mostly academic but with a great appreciation for art and the value of making something with your hands. I own several, more than a century-old, hand woven towels from my mother's side of the family. Forming part of the bride's trousseau, these towels were beautifully monogrammed with the bride's initials, and have been passed down through the generations. Just looking at them and touching them are enough to make someone fall in love with weaving and hand crafting things that are both beautiful and useful.

My weaving journey started with a love for thin threads of the finest Merino and cashmere. I associated these thin fibres with weaving on floor looms or complicated multi-shaft looms. A floor loom was out of the question, and in hindsight, I'm grateful I couldn't afford one. I bought my first rigid heddle loom in 2015 and I knew exactly what I wanted to achieve. I developed a slight obsession with creating the finest cloth that can be woven on this seemingly simple loom. It was going to be modern, colourful and light, with perfect edges and a super soft feel, something luxurious that would be treasured forever. Handmade is often associated with a rustic feel but it doesn't have to be. What I wanted to achieve had nothing rustic about it.

Needless to say, my most used reeds are the 50/10cm (12.5dpi) and the 60/10cm (15dpi) and my favourite project is probably either the random or not-so-random supplementary warp shawl described in my pattern, or a lightweight, wide, freestyle tartan.

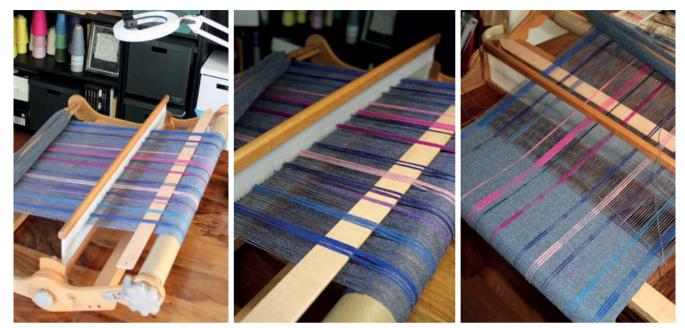
Weaving is the most creatively stimulating craft and it fills me with gratitude when people ask me to weave for them. To design and weave a custom shawl is the most rewarding process.

With this slightly perfectionist attitude, I am attempting to spread the word that rigid heddle looms are more than they seem. They are truly versatile and not just a beginners' loom. With a little patience and dedication, you can create on them a unique design, - something exquisite yet simple, practical yet luxurious, modern yet timeless.

Keep experimenting and pushing the boundaries of your rigid heddle loom. I know I have only scratched the surface. Warp with the base and supplementary warp

Slide the pickup stick to the back beam

Create floats by bringing the pickup stick forward



#### Shawl with supplementary warp easy tricks for maximum effect

Before you start: My approach to this shawl was similar to my general approach to weaving. It all starts with lots of yarn on the table, deciding what colours you'd like to use and sort of letting it flow, allowing your imagination to lead you. The pattern is just a framework. Use as many or as few supplementary warp threads as you like and let your instinct as an artist take charge.

Size: The size is really up to you. I made my scarf 46cm (18ins) wide and 200cm (80ins) long.

#### You will need:

- Loom: 50cm (20ins) or wider rigid heddle. I used my 70cm (28ins) Knitters Loom.
- Reed: This depends on your yarn choice. I used my 50/10cm (12.5dpi) for a more lightweight shawl.

Warp yarn:

Base warp: 100gm (3½ozs) of 2/28 cashmere doubled up in grey/blue.

Supplementary warp: a random pattern of colours of your choice. Here I used a selection of blues, purples and pinks, the same weight as in the basic warp, 2/28 cashmere, doubled.

- Weft yarn: approximately 100gm (3½ ozs) of an improvised mix of the base warp colour and the supplementary warp colours.
- Other: 1 pickup stick, size depending on the width of your shawl.

#### Here's how:

Total warp ends: approx. 250 Total warp length: 240cm (95ins) Finished width: 46cm (18ins) Weave structure: Plain weave + extra warp threads called supplementary warp, manipulated with 1 pickup stick

#### Warping

Warp your loom to the desired width with your yarn of choice. This will be your base warp. Your supplementary warp will be added on top of your base warp, only in the slots, not the eyes!

You can add the supplementary warp threads as you go or after you have finished

your base warp. Where these threads go and how wide they are, is up to you. Let your imagination run wild!

#### Weaving

Pick up your supplementary warp threads with your pickup stick and push it right back to the back beam. In this position, your supplementary warp will be included in the weaving. Weave like this up to the point where you want your first float to start. Slide your pickup stick down just behind the reed and keep weaving this way, excluding the supplementary warp from the woven cloth as long as you'd like these floats to be. Remember, that you might or might not want to cut these floats when you take your shawl off the loom. This will influence the length of the floats.

#### My pattern

21 rows with the pickup stick pushed back 7 rows with the pickup stick pushed forward (just behind the reed) 21 rows with the pickup stick pushed back 31 rows with the pickup stick pushed forward Repeat to the end of shawl. Gabi



#### Editor's note

See more of Gabriella's luxurious shawls and wraps at www.etsy.com/shop/ KISandCoLuxuryWeaver Instagram and Facebook @kisandco

I used a solid colour on the first half of its length and some improvised colour work on the second half. It is entirely up to you whether you add more colours to the weft or not. I alternated two shuttles for most of this colour work for a more subtle effect.

#### Finishing

Both ends are hemstitched 2 rows x 3 ends.

After taking your shawl off the loom, you can cut the floats to the desired length or alternatively, as I have done with some floats, leave them intact for a different effect.

How much your little frills will fluff up after washing depends on the yarn you used. For a fluffier result, use wool that felts a little. Superwash or non-natural materials might behave differently but don't forget that this is your design and your shawl. There are no right or wrong choices. Improvise and experiment to achieve the look you want.



Gemma (left), and Siony back on the family farm



#### One Lockdown, Three Creative Minds and Twenty-Two Welsh Mountain Fleeces

BY GEMMA, SIONY AND SARA RUDD, WELSHPOOL, WALES, UK

### Not letting the pandemic put life on hold, these three sisters from a farm in Mid Wales developed a wool project that brought them together in a time of uncertainty.

Many worldwide have taken the opportunity or have been forced, through the upheaval of Covid-19, to reflect on and adapt their lives throughout the last year. This was our reality. As a family of three girls, we had the pleasure of growing up on a 40-hectare (110 acre) farm in Mid Wales. Returning home as the pandemic took hold provided us with the perfect refuge. Situated in the beautiful Banwy Valley, we are surrounded by lush green mountains, wildlife and an abundance of sheep. Farming has always had a positive impact on our lives. However up until the pandemic we were on our own separate journeys, building our careers in the education, fashion and fitness industries. Not allowing life to stand still, we developed our wool project, Wool & Raddle, a journey that has had a profound impact on our love for sheep farming and wool fibre.

The one thing we have in common is our love and passion for our family farm. Looking to diversify, there were two recurring problems that we were facing during the pandemic. Our careers were in turmoil; we were either working from home or not working at all. Sara was forced to put down her gym equipment with the closure of leisure facilities. Siony had to develop her teaching style offering online education and Gemma had to come to terms with redundancy from her role in textiles at a fast fashion company in London.

As well as this, we were also being inundated with the news

that the price of wool had collapsed even further than the current trend due to Covid-19. After completing the year's shearing, it was disappointing to find out that the wool from Siony's small starter flock of 22 Welsh Mountain sheep would be worth as little as £5.70. This was the equivalent of 18p per kg. Once shearing costs were considered, we were at a loss.

With the price of wool at rock bottom and the uncertainty with our jobs, collectively we put our heads together and decided to document our creative process from raw fibre to final product. With a varied skill set, we set out to make products from yarn to rugs, to personalised keyrings, with the intention of making a profit. We explored a range of alternative methods to educate, promote and sell our wool through our Instagram page @woolandraddle.

As we discussed what we wanted to achieve through our wool project we agreed on the following aims.

- To raise the profile of wool and its many benefits.
- To develop our knowledge and understanding surrounding wool as a fibre.
- To create 100% Welsh woollen products.

As farmer's daughters, it was evident from our research that there is a lack of understanding surrounding wool within our rural community. A community that once thrived because of the wool industry now knows very little about the fibre. The farming Sorting the fleeces

Promoting wool through their business Wool and Raddle



industry in Wales has lost touch with the importance of wool and its many values. There is a lack of understanding surrounding the wool of different sheep breeds and their many diverse uses and benefits. It is clear, especially with the pandemic, that processing wool has become a monotonous task for farmers and is no longer the celebrated process that it once was. Some farmers were now discarding or burning the wool they had gathered. Shearing in a past time was a momentous event where neighbouring farms would come together as a community in order to maintain the welfare of their animals and collect the fleeces grown over winter. As farmer's daughters, starting this process highlighted to us how little we knew about the wool of the animals we handle on a daily basis. Countless evenings of reading and research led to new and exciting skills. We taught ourselves to sort, wash and card our wool with simple equipment. We picked up basic spinning techniques and continued to develop other skills. We applied ourselves fully to the process and gained a wealth of knowledge in order to produce our products.

We target a younger demographic through our Instagram @woolandraddle in order to educate them on what happens to wool from one shearing season to the next as well as its many benefits, values and uses. With Gemma working in the fast fashion industry, it was also clear that consumers have a lack of understanding surrounding their clothing choices, where the fibres in their garments come from and the effects this has on the environment. We also wanted to inform people of the effort made by farmers to produce healthy sheep and how important the wool industry once was in the UK and especially in Wales. We explore sheep husbandry, the history of wool, the washing and processing system as well as the different methods that can be used to develop different products. We are keen to develop our own skill set as well as the knowledge and enthusiasm of our audience about wool.

Our overall aim was to increase the worth of our wool over the last year, yet we have achieved so much more. A year has passed and our small wool project that emerged during a time of uncertainty has led to some amazing opportunities. We have come across a community of like-minded shepherds, creatives, and experts who also have a love and passion for wool. We have inspired young farmers and the wider community and have been given the opportunity to sell our work at our local Textiles Museum. As life has slowly returned to normal, we have taken this experience with us. Siony continues to teach, but has also taken on the responsibility of managing and diversifying the family farm. She is intent on improving the staple and fibre quality of our sheep through breeding in order to improve our product. Sara enjoyed the creativity of the project but re-focused her creativity into realistic portraits alongside her role within the fitness industry. Re-invigorated by the project, Gemma found her way back into the textiles industry working for a dye house in Yorkshire, England, for a heritage brand producing woollen garments and interiors. She continues to develop products alongside Siony and has a strong influence on the development of the family farm.

Photos Erika Tenney, Instagram @erikamayphotography and @erikamay.lifestyle, website address, www.erikamayphotography.com

#### Editor's note

Follow these enthusiastic, entrepreneurial young farmers on Instagram @woolandraddle



Daniela's spindle spun, dyed, and knitted shawl

Spinning Varn

BY DANIELA RÝZNAROVÁ, PRAGUE, CZECH REPUBLIC

Spindle spin lace for a beautiful shawl.

The beautiful thing about spinning yarn nowadays is the fact that we don't spin because we must; we do it because we want to. So, it doesn't really matter if you're a process or a product spinner. You can use both a spindle or a spinning wheel, going from one to another, based on the actual project you are working on, your current mood or simply on your time and space options.

I am all of the above! I love the process of spinning; I also love seeing the transformation of material into a finished object. I enjoy spinning on my beloved wheels just as much as I enjoy spinning on my beloved spindles. There are always going to be pros and cons for using either, so it's really up to you what fits your needs at the moment.

When it comes to spindle spinning, I very much appreciated, especially before the pandemic hit us all, the portability of this little device. I couldn't just stand or sit somewhere empty-handed! Wherever I went, there would be always a knitted sock or a spindle with some fibre in my bag. Are you standing in a line for something? You can stand there spinning! Are you waiting for lunch in a restaurant? Yes, you can spin or knit. Are you meeting a friend, catching up on life? Of course you can keep your hands busy crafting. But surprisingly, during the pandemic, I also spindle spun at home. Even though there was a spinning wheel standing in the room, looking at me. Because it's different. There is comfort doing it both ways, but it's not the same. Every single time I take my spindle, I'm in awe of our ancestors. Basically, it's a simple stick with some weight on it. But how did they come up with it? Who went and tried twisting fibres together to create yarn? Don't get me wrong - the spinning wheel is a fabulous machine that's super cool (and so much faster), but that's like ... only centuries old! With spindles we're talking thousands of years of humankind. And when you spin on your spindle, you're somehow connected to all these people who came before you. Most of them had to spin yarn as part of their survival. This will never cease to fascinate me.

When learning to spin, it's important to get to know your own rhythm and style. So after learning the very basics of spinning, go and try as many tools as possible. There are so many types of wheels and spindles, by physically trying them out, you'll find what fits you the best, what you enjoy the most and what feels natural to you. Spindle spinning is always great drafting practice as it doesn't allow any mistakes. But once you get into the rhythm, it's so meditative and calming. As it is inevitably slower than spinning on a wheel, it's great for those luxurious materials, bought at special places, that you'll be able to spend more time with, enjoying the whole journey from fibre to yarn.

With spindles, it's easy to start a collection and have them both for their beauty, but also for their different properties. When choosing a spindle for a project, it's good to know what kind of yarn you'd like to create: how thick it should be, how much twist should be in it, what's the staple length of your material, etc. My personal go-to is the Ashford top whorl drop spindle in size 60mm, 20gm (2% ins, 3/402). It's the perfect type, size, and weight for my mindless "go-to" yarn – 3ply sock yarn or a 2ply lace yarn. I generally prefer higher twist in my yarns so they're durable and the top whorl spindle is a joy to use because it just adds twist so quickly. Spindles take usually around double their weight of yarn on them, so when you're about to finish your singles, the fibres twisting together are able to hold the total weight of around 60gm (20zs) on this particular spindle. You really don't need to worry about your yarn easily breaking after being done.

By winding yarn on your spindle, you're creating a cop. There are many ways to wind it, so try several to find out which suits you. Precise winding is better for the stability of your cop and for the later unwinding, as it will be less likely to tangle. That being said, my advice would be not to over-stress it, as the winding is mostly what makes spindle spinning so slow compared to a wheel. If you're halfway through your spinning and the spindle starts to twist weirdly, don't be afraid to change the way you're winding the cop, so you can balance the centre of gravity of your spindle again.

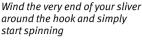
I also like to mention when teaching people to spin on a spindle, that I'm not a fan of the popular park and draft method. I really believe the meditative comfort in spinning is the continuous rhythm, so the faster you learn to feel the twist adding to the drafted fibres between your fingers and to feel the way your spindle turns, so you recognise any change in the weight distribution, the better.

When spinning hand dyed fibre and handling colours in longer repeats, it's good to get a wrist distaff or at least wrap your fibre supply around your hand lightly so it doesn't get caught into your currently spun yarn. When you spin a single colour material, like the Ashford Merino luxury blend (50% Merino, 30% alpaca, 20% silk) which I used for my lace shawl, you might prefer grabbing smaller pieces of material at a time. You will spend a lot of time with it anyway.

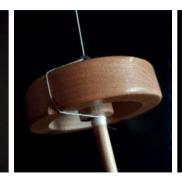
For my own comfort, I prefer plying on a wheel instead of a spindle, mostly because of the speed, but of course it can be done on a spindle. Just remember to choose the right size for the plying – for a 2ply yarn, you're getting 1.5 x thickness, so you need

You don't need a leader when starting a spindle spin





Secure the end on the shaft by winding the yarn several times





Continue spinning

around a third less twist to achieve a balanced yarn. A bigger, heavier spindle might be better and might also be able to hold the whole yarn from both your singles. An even heavier spindle should be good for a 3ply yarn. That's double the thickness, so around half the twist. Whether you decide to ply on a spindle or a wheel, I like to put my balls of rewound singles in separate bowls, so they don't tangle together as I'm plying.

While the rewinding of yarn from a spindle adds more time to the whole process, it also allows me to make a strong, yet much softer yarn than I usually achieve with a wheel spun yarn. That's because the plying happens in the same direction the spinning did – not the twist direction, (that needs to be opposite of course). You're spinning it from A to B and you're plying it from A to B, so you are smoothing the fibres even more as you're drafting, creating amazingly soft yarn to touch. I couldn't bring myself to rewind my wheel spun yarns on the bobbins, so you can always tell which skeins are from the wheel and which had the pleasure of spending a lot of time with me and my spindles!

The whole time I spun this beautiful material, I was thinking about the colours I would dye it after it was finished. My ideas changed many times, but I ended up loving the pastel ocean greeny turquoise, made with less than 0.1gm of the Ashford Dyes, a mixture of Emerald and Teal. I chose interesting, matte glass beads TOHO round 6/0 No. 167BDF for the Timeless shawl by Bev Johnson, of Boo Knits on Ravelry. My yarn measured 520m per 80gm, 650m/100gm (711yds/3½ozs) and the small version of the pattern used 422m/65gm and 595 beads.

Thanks to my parents starting a family business, selling Ashford products in the Czech Republic, I was able to start spinning and weaving very young. I first learnt to spin before I could knit, but I love all these crafts dearly. Teaching people to spin and weave became part of my job, and it fills me with joy to be able to share the love for wool and other natural materials.

#### Editor's note

Daniela, on her recent wedding day, wore another beautiful shawl. Doesn't she look lovely? The shawl was hand dyed silk knitted from the pattern Venus Rising, by Bev Johnson, of Boo Knits on Ravelry. Visit the website of Daniela's business Dalin Praha at www.dalin-praha.cz Follow Daniela on Instagram @pribehvlny



Ready for dyeing



Daniela on her wedding day



Sunshine Tea Towels

*Create two different tea towels using a colour and weave approach.* 

We all love to weave tea towels for ourselves or to offer them as gifts. I live in Ottawa (Canada) and January can be very dark, cold and grey, with lots of snow. I needed to bring a little bit of sunshine in my life and that is how this project came alive. Regardless of whether you are a beginner or an experienced weaver, this is the perfect project for you. It is simple but can provide you with a "wow" effect. Colour selection can easily be modified.

The towels are being woven on a rigid heddle loom using a colour and weave approach. The pattern is for 2 different tea towels and the finished size should be approx. 51 x 71cm (20 x 28ins), with some left over threads to continue to experiment.

#### You will need:

Loom: 60cm (24ins) or wider rigid heddle Reed: 60/10 (15dpi)

Warp and weft yarn: Ashford unmercerised cotton 5/2 (ne 5/2, 848m/927yds per 200gm)

For this project, I used approximately 1,225m (1,340yds) of #54 Freesia (2 cones), 203m (222yds) of #44 Scuba Blue (1 cone), and 139m (152yds) of #50 Celosia Orange (1 cone) to weave two large towels. Please note that I have added 10% for potential loom waste.

- Other: 3 shuttles 56cm (22ins), 91cm (36ins) of grosgrain ribbon, 2 straight pins, scrap yarns
- Additional useful tools: a second warping peg, 2 warp thread weights, a ruler or magnifying thread counter

#### Here's how:

Warp width in the reed: 59cm (23ins) Total warp length: 229cm (90ins) Total warp ends: 352 (176 slots and 176 eyes) EPI: 15 PPI: 14

BY MARIE-FRANCE GOSSELIN, OTTAWA, ON, CANADA

Finished size after washing: 53 x 71cm (20 x 28ins)

#### Warping

Warp your loom following the warp colour order as per the warping chart. When you are warping such a wide piece I recommend using two warping pegs approx. 15cm (6ins) apart instead of only one.

#### Using a grosgrain ribbon as a guide

#### Warp colour order

		x5 times		x5 times		x5 times		
292	232		4		4		4	54 Freesia
40		4				4		44 Scuba Blue
20				4				50 Celosia Orange

352 ends total

If you have some, place a warp thread weight on the last thread on each side. If you don't have any, you can also use an 'S' hook or empty cones. The weight will help to get a nicer selvedge.

#### Weaving

#### Towel #1:

Using the grosgrain ribbon 91cm (36ins) long, make a mark for the hems at 5cm (2ins) on both ends of the ribbon.

After weaving a few picks of scrap yarn, start weaving the towel #1 hem in yellow. After a few picks, pin the ribbon on the cloth making sure that the beginning of the hem lines up with the ribbon. Move the ribbon as you are weaving, using two straight pins. This will be your guide as you weave the towels. The hem should be 5cm (2ins) long.

Using two shuttles at a time, weave two picks of blue and two picks of yellow, (see Weft Colour Order #1) alternating the two colours 5 times for a total of 20 picks. Continue alternating with orange and yellow (20 picks) and blue and yellow (20 ins). This section should measure about 10cm (4ins) if you are weaving at 14 PPI.

Continue to weave the body of the towels in yellow for approx. 61cm (24ins), then weave the same pattern with the three colours as before: 2 picks of blue and two picks of yellow alternating the two colours 5 times for a total of 20 picks. Continue alternating with orange and yellow (20 picks) and blue and yellow (20 picks).

Weave 5cm (2ins) of hem in yellow.

Weave a few picks of scrap yarn before moving to the second towel.

#### Towel # 2:

Using the grosgrain ribbon, divide the space between the two hem marks into 4 equal parts. Each of these sections should be 20cm (8ins) long.

As per the Weft Colour Order #2, weave a 5cm (2ins) hem in yellow. Pin the ribbon on the cloth.

This towel has four sections, each measuring approximately 20cm (8ins).

Move the ribbon along using the two pins as you are weaving.

Weave 5cm (2ins) of hem in yellow and weave a few picks of scrap yarns.

#### Finishing

Remove the towels from the loom and use a zigzag stitch along each end of the towels with a sewing machine. Fold edges and press with a steam iron, fold over again, press and stitch in place with your preferred method of sewing, by hand or with the sewing machine. Wash and press.

#### Tips

- This project is warped at 15 ends per inch (15 dent reed) and you want to weave at 14 picks per inch. By using a ruler or a thread counter as you weave, this will help you ensure that you are maintaining the right sett. Cotton will shrink and if your cloth is woven too loose, the towel will shrink even more. The towels will shrink approximately 4-5%.
- I used the grosgrain ribbon as a guide when weaving a large project. You pin it on your weaving and move it as you go. The hems for this project are 5cm (2ins) on both ends.
- When weaving with two shuttles, start the two colours going in the same



direction. For example, if I have the shuttle with yellow threads going from right to left, the shuttle with the blue thread should also be going from right to left. In order to have a nice selvedge, I weave the first pick of one colour (shuttle A). Then, I should have my two shuttles (Shuttle A & B) on the same side. Before weaving the second pick, I take shuttle A and I go around the last weft thread before I weave the second pick. This will allow the different colour threads to become part of the weaving, and it creates a nice selvedge on both sides.

 Usually, I only put a warp for two towels at a time to ensure good tension on my loom.

#### A few words on colours:

- Choosing colours is often challenging, even for experienced weavers. There is a huge amount of literature on colour theories and tools out there and I certainly encourage you to explore it further as it can be a safe way to decide on colours.
- In order to arrive at the chosen colours for this project, I picked a few cones of colours. Using cardboard strips of approximately 6 x 4cm (1½ins), I wrapped threads using different combinations of colours. It is a very effective way to create a visual. Before I arrived at the three final colours, I actually tested seven colours. This exercise also helps to visualise the intensity of the colours and their interactions by seeing them side by side. This exercise is simple, quick and can help to gain "colour confidence".
- I ended up choosing only three colours. Seeing how the three colours

#### Creating a visual





interacted, I was able to determine that by using yellow as the main colour, it also became a way to unify the other colours, while still providing contrasts.

- When weaving, it is often difficult to see how the colours will look without really understanding the weave structures being used. One of the advantages of using plain weave as a weave structure is that we can really see the colours as they really are.
- Finally, I firmly believe that in order to gain colour confidence, you need to experiment. Colour choices are very personal and ultimately through on-going experimentation, you will eventually find your "colour voice"! Keep those cardboard exercises in your weaving room and as you make them, you will be able to see which colour combination makes you happy.

#### Weft Colour Order Towel # 1

- 1. 28 picks of yellow, approx. 5cm (2ins), for the hem
- 2. 2 picks blue
- 3. 2 picks yellow
- 4. Repeat steps 2 and 3, 4 times for a total of 20 picks
- 5. 2 picks orange
- 6. 2 picks yellow
- 7. Repeat steps 5 and 6, 4 times for a total of 20 picks
- 8. Repeat step 4
- 9. 336 picks yellow, approx. 61cm (24ins)
- 10. Repeat step 4
- 11. Repeat step 7
- 12. Repeat step 4
- 13. Repeat step 1

#### Weft Colour Order Towel # 2

- 1. 28 picks of yellow, approx. 5cm (2ins), for the hem
- 2. 2 picks blue
- 3. 2 picks yellow
- 4. Repeat steps 2 and 3 for 20cm (8ins)
- 5. 2 picks orange
- 6. 2 picks yellow
- 7. Repeat steps 5 and 6 for 20cm (8ins)
- 8. Repeat step 4
- 9. Repeat step 7
- 10. Repeat step 1



#### Editor's note

Marie-France Gosselin is a fibre artist (weaver, quilter, sewer, dyer) living in Ottawa, Canada. She has been an Ashford dealer and a rigid heddle teacher at L'Atelier Weaving Studio Tissage.

# Ashford Award Winner - Watch Us Farm

BY JANICE AGARWAL, ZIONSVILLE, IN, USA



Emily



Hand woven baby blankets

# The winner of the 2021 Ashford Award is a not-for-profit that is helping build a future for adults with special needs.

Early in her career as a paediatric physical therapist, Janice Agarwal saw many families with children with disabilities struggling with limited opportunities for their loved ones. When these children left school, it was difficult for them to obtain jobs, to have friends, and to find housing. Now, as founder of Watch Us Farm, a nonprofit vocational training programme for adults with special needs, Janice and her team are providing real jobs in an atmosphere of acceptance and friendship, teaching skills these high-functioning adults can use throughout their lives. Watch Us Farm is creating success stories in Indiana, while at the same time building awareness of special-needs issues across the United States.

No parent wants their child to be unemployed, homeless, without friends or excluded from a supportive community, but this often happens in families with children with disabilities. Instead, imagine an environment in which a job is the foundation for a reliable income, a group of trusted friends, and a safe atmosphere. By understanding and embracing differences and abilities, Watch Us Farm employs Team Members, adults with special needs including autism, brain injuries, and other intellectual and developmental impairments who otherwise would find it difficult to maintain jobs in our current "one-box-fits-all" society. As much as possible, jobs are designed around Team Members, achievable goals are clearly defined, and a job well done brings a sense of accomplishment.

"Finding meaningful employment for any young adult is a challenge, but securing significant work is an even greater obstacle for those with special needs. When we found Watch Us Farm, I knew that my 20-year-old son had found a place to learn a marketable skill, gain confidence, and grow in a place where he felt he would belong." Lisa Roberts, Andrew's Mom.

Weaving has become the highlight of Watch Us Farm's job options, creating beautiful objects that Team Members show off with pride. Along the way, working on looms teaches concentration, hand-foot-eye coordination, pattern recognition, and confidence - real-world skills used in all real-world jobs. Once successful in the loom room, Team Members often step out and realise success in other jobs while maintaining a lifelong passion for weaving. Since 2018, Watch Us Farm has expanded its textile room from one floor loom to 7 floor looms and an Ashford 80cm (32ins) 8 shaft table loom. The Ashford loom is 29-year-old Emily's favourite. On it she uses beautiful colours and textures to create stunning scarves and table runners.

Laura Campbell says of her daughter, Emily: "She is learning things that she can carry with her throughout her life. The Emily we always knew was there has blossomed."

Watch Us Farm Team Leaders teach Team Members to tap into their strengths and abilities to produce beautiful scarves,

The Ashford Award helping to make a difference at Watch Us Farm



Watch Us Farm invites you to see their Team Members in action. "Come visit, take a tour, and see how anyone can provide courage, hope, and love to a community of adults with special needs." You can support Watch Us Farm with a tax-deductible donation or by purchasing hand made textiles and other products at www.watchusfarm.com. You may not be able to change a person's disability, but you can change how the world perceives and values that person. Watch Us Farm is "Building a Future for Adults with Special Needs."

table runners, baby blankets, dish towels, and rugs. Some Team Members are so detail-oriented they can use thin high-quality threads in a plain weave or simple 2/2 twills that highlight the luxurious fibres. If a Team Member has difficulty with simple patterns, Watch Us Farm will use mixes of colours and textures and alternate just far left and far right foot pedals to create simple and achievable, but elegant, designs. If a Team Member struggles with straight edges, they will use fun, thicker textures that look better with a bit of variation. Watch Us Farm is passionate about finding jobs that lift up each Team Member, and showcase everyone's abilities and creativity.

With a contagious sparkle in her eye, Janice Agarwal says, "I am always amazed at how the true abilities of many adults with special needs are overlooked because of a diagnosis. Our teams are amazing. Watching someone come into our organisation, shy, a bit under-confident, and often non-verbal, then seeing the miraculous changes that occur in their demeanor and in their families as they become successful in their job is truly extraordinary." Recently, Watch Us Farm has expanded beyond organic gardening and weaving to offer other jobs that can be done repetitively with high quality, including designing and creating hand crafted special occasion greeting cards, personal touch car detailing, and soon, in a hoop house that will protect produce from the elements and expand their growing season, hydroponics for high-quality restaurant produce.

Lisa Roberts adds: "The programme's leaders understand that [our son] thrives in an atmosphere which allows him to express his creativity and values his vocational strengths while managing his special needs. Our son's experience at Watch Us Farm positively impacts our whole family. We know that he feels secure working in a place which brings him happiness, purpose, and community and that is priceless!"

Watch Us Farm reminds us daily how fortunate we are to have created a community-supported place where it is safe for people of all abilities to thrive. Parents and families of our Team Members are seeing marked improvements in the happiness and overall quality of the lives of their sons and daughters.

Parent Laura Campbell summarizes: "As I get older, I worry what happens to Emily when I'm gone but I feel like this is giving us so much hope for her future. I think she's found her sense of community right here [at Watch Us Farm]."

Weaving has been one of the key components of Watch Us Farm's expanding program. Team Members are happy to come to work and make a difference. They are proud that their unique hand made products are sold in local shops and on an easy-to-use website. Watch Us Farm is changing the way society views people with disabilities.

#### Editor's note

Richard and I are delighted to present the 2021 Ashford Award to Watch Us Farm, a safe place for adults with special needs to learn, work, and thrive. We are thrilled that our equipment can assist this wonderful programme. Watch Us Farm has used the grant to purchase spinning and weaving equipment, fibre, yarns, and dyes. We wish all the Watch Us Farm team continued success.

#### The 2021 Finalists

The Willard Project is a collaboration between the Missoula Weavers Guild (Missoula, MT, USA), and Willard School, an alternative high school where at-risk students find the fibre arts programme inspirational and rewarding.

The Karev Programme for Educational Involvement (Lod, Israel) brings ancient crafts back to life. Working with local elementary schools, Israeli children are taught how to prepare fibre, spin, and weave.

Congratulations to all the applicants. It was a very hard decision to pick just one for the awards, as all would have been worthy winners. To find out more about applying for the 2022 Ashford Award, please go to www.ashford.co.nz/award

Fulling the fabric

On the loom



# Escapeing Quarantine Doldrums with Fibre BY ASTRID TAUBER. PELLIGERVILLE

BY ASTRID TAUBER, PFLUGERVILLE, TX, USA

A talented young weaver describes her first big project using all the skills she learned during lockdown.

When I was seven years old, my Mom signed me up for a series of craft classes at a local store. Little did I know that five years later I would be a girl who can shear a sheep, spin her own yarn and – most astonishing of all - be writing an article for The Wheel!

Fibre was the catalyst that took me from a painfully shy girl who looked like "a deer in headlights" anytime someone approached me to a young lady who has found her voice and the confidence to be heard. If I stood face-to-face with seven-year old Astrid, I wouldn't even recognise her. It is almost as if I climbed a new rung on a ladder each time I added a new genre of fibre crafting to my toolbox or graduated to the next level of difficulty in weaving drafts. Fibre has taken me to new heights, and I have no intention of slowing down! Ultimately, I have found that when you're talking about something you love deep down in your soul, it isn't scary at all.

During our lengthy 2020 quarantine, fibre helped keep me productive, happy, and connected to the outside world both close to home and in far off places. I belong to the local weavers and spinners guild here in Austin, Texas. Our regular zoom meetings have been the highlight of my social calendar. It is a wonderful

group that is always happy to educate and support. One of the silver linings of COVID has also been attending virtual fibre fairs from coast to coast that I may never have been able to attend in person. I have been able to take workshops on every fibre discipline imaginable!

At the end of 2019, I started dabbling with weaving. It seemed like an ideal medium for the hand spun yarn stash that was mounting in my bedroom. When COVID quarantine started in 2020, I was only on my second ever weaving project. Being home all the time meant endless hours to immerse myself in it. Every day I researched bigger looms with more shafts and watched gurus like Kate Sherratt and Kelly Casanova explain more advanced techniques... all the while weaving up a storm on my small rigid heddle loom. Most people who share my love of fibre know how deep the rabbit hole can be, so I am sure it won't surprise you that by April there was an Ashford 8-shaft 80cm (32ins) table loom on my doorstep.

Over the next few months, I tried many new techniques to find what worked best for me. I practised throwing various boat shuttles to see which one felt most comfortable. Over time I shifted from

DK weight yarns to very fine yarns like 5/2 bamboo or 8/2 cotton. I also tried different warping techniques to keep consistent tension. Perhaps most surprisingly, at twelve years old I had never given much thought to dish towels, but I joined weavers all over the world when I fell in love with making them! Iowa Weaver's Turned Taqueté Polka Dish Towel draft had been on my vision board for months and when I finally cut them off my loom I felt like I could take on (just about!) anything in the weaving world!

While reading the 2019 November/December issue of *Handwoven Magazine*, my eye was instantly drawn to a dish towel draft called *A Recipe for Thirsty Towels* by Kate Lange-McKibben. I remember thinking, "I would wear that!" The colours were bright and they had a bohemian vibe that lit up my little hippie soul. Learning to weave honeycomb also happened to be on my vision board. This is where my big 2021 project was born. I would weave fabric and then sew it into a cape inspired by that lovely dish towel.

#### Embroidered sheep design on the back



The first big task was to figure out how to make the material out of my desired fibre, wool, instead of cotton. Since cotton and wool aren't measured in the same terms for sizing, I set off comparing the grist (yards per pound) of various options. Ultimately, I decided to head to my local weaving store (thank you, Yarnorama in Paige, Texas!) to look at the options in person. I found that when it came to yards per pound there were some drastic differences. I also needed to consider the way the wool was treated. For example, I was fairly set on using Jaggerspun's 2/18 Merino for the three main colours in my cape. The weight was perfect, and it comes in a huge variety of colours on 1lb cones. I considered using their super lamb for the thicker weight yarn that would make up the honeycomb borders and secure the edges of the weft floats. However, I was suspicious that treated wools like the superwash would full differently compared to the Merino and might distort my project, so I opted for an untreated fibre.

The weaving went surprisingly quickly and in a blink my fabric was ready for fulling. This was an important step to secure the floats before I cut into the fabric. That's when the honeycomb really started to take shape and it was an exciting moment in the project! I also made some solid co-ordinates in Elderberry and Basil Merino 2x2 twill.

When the day finally came to cut into my yardage, I took a deep breath and went for it. The pattern I used was the Olga Cape by Vintage Little Lady. I added some Astrid flare by making buttons using hand woven cloth and embroidering a sweet little sheep on the back.

I don't have any major advice for someone who would like to make it. The instructions were very clear and the pattern itself was very simple to follow. In a lot of the weaving Facebook groups I am in, I see that people are nervous to sew with hand woven. I was too, but Kelly Casanova has a great video about ways to cut hand woven and keep it from fraying. This pattern would be an easy place to start if someone is looking to try sewing with their hand woven for the first time.

I learned so many lessons working on this project. One interesting thing was that the Merino stretched differently to the Shetland. It was something to be very mindful of when I was tying on. Also, I learned that honeycomb shrinks a lot more than I anticipated. I built in room for shrinkage, but it was still a close call. It was so much fun and now my creative juices are flowing for my next big project!

#### Editor's note

Richard and I had the pleasure of meeting Astrid at SAFF (Southeastern Animal Fiber Fair) in Fletcher, North Carolina, in October 2019. We are delighted to see her growth in textile experience and knowledge and to know how crafts have helped her keep productive, happy, and connected during lockdown. I am delighted to announce that Astrid's cape was awarded the Judge's Choice Award at the 2021 Contemporary Handweavers of Texas conference in San Antonio, in June. Follow Astrid on Instagram @eweniqueastrid

#### Caped in Honeycomb

#### You will need:

Loom: 8 shaft 80cm (32ins) loom Reed: 48/10cm (12dpi) Warp yarn: JaggerSpun 2/18 Merino (100% Merino wool) Elderberry 1540m (1680yds), 142gm (5ozs); Pumpkin 1742m (1905yds), 170gm(6ozs); Basil 1020m/1120yds, 113gm (4ozs); Harrisville Designs Shetland (100% Shetland wool) Plum 822m (900yds), 226gm (8ozs)

Weft yarn: JaggerSpun 2/18 Merino (100% Merino wool) Pumpkin 2816m (3080yds), 284gm (10ozs)

Other: six 1.5cm (<sup>\$</sup>/<sub>8</sub>in) buttons either store bought or made with hand woven and Dritz button kit, commercial woven lining fabric of your choice (I used polyester/cotton), Olga Tween Cape pattern (I made a size 14 for reference) by Vintage Little Lady, one boat shuttle

#### Here's how:

Number of ends: 628 + 2 picks of plain weave on each selvedge Sett: 24epi for 2/18 Merino (2 per dent in a 12-dent reed) 12epi for HD Shetland (1 per dent in a 12-dent reed) Weft: 18ppi Width in reed: 79cm (31ins) Finished size: 56 wide x 330cm long (22 x 130ins) Warp length: 5.5m (6yds) Weave structure: Turned honeycomb

#### Weaving

For increased selvedge strength, an optional recommendation is to add two picks of 8/2 cotton plain weave on shafts 7 and 8.

#### Finishing

Full by hand in water with dishwashing liquid, rinse and lay flat to dry.

For details of weaving the solid colour for Astrid's Cape, and the WIF pattern for the honeycomb panels on Astrid's cape go to www.ashford.co.nz/wheel33





An Ashford Colour Gamp

BY TERRI DROUIN-GUERETTE, BROAD BROOK, CT, USA

A labour of love creates not only a useful colour guide, but also a magnificent shawl.

I love colour! Ever since I was a little girl and my grandmother used to send me the Arizona Magazine with pictures of rainbows over the Grand Canyon, I have loved rainbows in particular! So when I learned to spin and began to explore weaving, I developed a fascination with colour gamps.

I started with 400gm (14ozs) of Ashford Bombyx (Mulberry) silk. The first step was to weigh and divide the silk and then soak it overnight. I decided to dye 30gm (1oz) of silk in each of the 12 colours in the Ashford Wool Dye Collection, leaving me with two ounces of white silk. First, I weighed out the dyes and mixed the solutions. Once that was done, I dyed the silk, following the directions. Then we (I had a very helpful assistant, my husband, during parts of this process) laid out all of the silk to dry. The entire dyeing process took approximately six and a half hours.

Now, I should probably tell you that I am a horrible dyer! Quite often when I'm doing 18th century living history demonstrations, I tell people that had I lived back then I would have had to barter with a neighbour to do my dyeing for me! That said, I was pleased with my results. Everything came out great! So, if I can do it ... anyone can!

Once the dyeing process was complete, it was time to start spinning. I just love spinning silk. When you are working with dyed silk, you may find that the fibre gets a bit stiff. If you snap the sliver a bit or slightly pre-draft the sliver before you start spinning, the fibre will draft much more easily. I find it best if I don't pre-draft the silk too much so that it doesn't become too loose. This will help to keep the silk in a more manageable state. Otherwise, spinning Bombyx silk can be challenging if the fibres are too fly-away. The silk was spun on my very first spinning wheel, my Ashford Elizabeth. I spun the silk straight from the sliver using a short forward draw. After spinning the silk singles, I made a two-ply yarn by plying from a centre pull ball. When plying silk from a centre pull ball, it is imperative that you don't let the core collapse. If the core does collapse, it is highly probable that the silk will become hopelessly tangled. (Ask me how I know!) I finished spinning and plying all of the silk and wound it into skeins. I had approximately 3600m (3,950yds) 2-ply silk yarn at 9070m/kg (4,500yds/lb). The spinning, plying and skeining of the yarn took a total of 176 hours.

I used my husband's Ashford 70cm (28ins) Knitters Loom with the 50/10cm (12.5dpi) dent reed for this project. This was going to be my first large weaving project. So, the next part - calculating my warp - made me the most nervous. It took me a little while to figure out how long I could make my wrap without running out of yarn. I found a very helpful yarn estimator tool (www.poffstudio.com/yarnDyeing the silk fibre

Pleased with my results

#### Spinning a fine single on my Elizabeth wheel







estimator) to use in determining the size that would be possible with the vardage that I had. In planning the colour gamp, there was enough yarn of each colour to create colour blocks of 5cm (2ins) wide by 15cm (6ins) long. Since I dyed 30gm (1oz) in each colour, I had enough undyed silk to have a white stripe on each side of the warp. Now it was time to dress the loom. I measured out 280cm (110ins) between the warping peg and the back beam and we began to wind the warp. The size of the yarn required that I sley two ends per dent. This actually made warping the loom easier as I did not have to divide the two strands after warping in order to thread through the slot and eye in the reed. I did, however, have to sley each eye and slot separately. Each colour stripe (14 stripes) contained 48 ends for a total of 672 ends in the warp.

Once the threads were all sleved, I started in the centre and tied each colour to the front beam. Once all of the threads were tied on, it was time to go back and re-tension the warp. I used narrow strips of cardboard to spread the warp. I pinned a disposable measuring tape to the wrap as I wove to ensure that each weft stripe measured 15cm (6ins). Weaving on the Knitters Loom was very easy! The entire weaving process from winding the warp to taking the wrap off of the loom took 44 hours.

Then came the moment of truth - taking the wrap off the loom. It was really exciting seeing the interactions of the colourways! Once the wrap was off the loom, I trimmed the fringe to about 19cm (7<sup>1</sup>/2ins) long. After dividing the fringe into sections of 6 strands, I used the Ashford Fringe Twister to twist the fringe into four tassels per stripe, each tied with an overhand knot. After twisting, the fringe was about 15cm (6ins) long. It took a little less than five hours to twist all of the fringe on both ends of the wrap.

The last step was to full the wrap. To do this, I washed the wrap in the washing machine in cold water on the delicate cycle with a mild detergent (Kookaburra Wool Wash). I then laid it out flat to air dry. It's amazing what a difference there is in a project after fulling. It became so much softer!

The final dimensions of the wrap after washing are: Width: 53cm (21ins) Length (without fringe): 213cm (84ins) Length (with fringe) : 244cm (96ins)

Weight: 312gm (11ozs)

Since I am still working full-time, it took almost exactly one year to complete this project (a total of approximately 230 hours of work) and what a wonderful experience it has been!



Spun and plied

The 70cm (28ins) Knitters Loom warped and ready

Twisting the fringe

Terri and her beautiful colour gamp shawl





#### What is Colour Gamp?

A colour gamp is a cloth that contains a set of colour stripes in the warp that is crossed by the same set of colour stripes in the weft. It has been described as a rite of passage for a weaver and an invaluable tool for your weaving career. Weaving a colour gamp lets you visualise which warp/weft combinations work. As we have all learned just because two yarn colours look great on a cone they may not look good together when woven into cloth! Colour gamps are great for showing you how colours mix especially in the weave structure used. Remember unless you use the same structure (and colours of course), your colour gamp will not tell you how your colours will combine in a hand woven project.

If you don't have time or resources to do a complete gamp it can be used strategically.

Tien Chiu, of Warpandweave.com, gives some tips.

- 1. Use the colours you like and will use often.
- 2. Use a draft you like and will use often. The idea is to use a draft that blends colours in about the same patterning and proportions as the drafts you most commonly use. This way, your colour gamp will give you a rough idea of what your finished cloth will look like.
- 3. Make the patches of each colour big enough to really see the colour blends. It is tempting to make each warp and weft stripe small to squeeze in as many colours as you can. But because your perception of colour is shifted by the colours that surround it, making patches of the colour too small prevents you from seeing colours accurately. Make sure the squares of colour are at least 5cm (2ins). This will limit the number of colours you sample but your colour samples will be more accurate.
- 4. When looking at your colour gamp, isolate each colour sample by taking two L-shaped pieces of grey paper/ cardboard (or something else in a neutral colour) and frame the colour sample. This will keep adjacent samples from "contaminating" the colour you're studying.

#### Editor's note

Terri began spinning in 2004 and quickly developed a passion for her newest hobby. Terri teaches and demonstrates spinning and other fibre arts in many different settings (living history events, schools, farm days, fairs, etc.) and is always happy to share her knowledge! She was a SOAR Scholar in 2011.

hallenge

BY KATE SHERRATT, ASHBURTON, NZ

The past year has been a challenge for everyone. Moving forward into 2022 I would like to challenge myself in another way – to reduce my consumption, to endeavour to forego the up-to-the-minute styles and reduce my contribution to the problem of fast fashion. Naturally that will mean there will be more weaving and sewing in my near future. As I make a start on my first project, a 30m (100ft) warp that will become fabric for several garments, a challenge in itself, I methodically work my way through the process and remember all the tips and tricks I have learnt over the years to make this project a successful, stress free and enjoyable process.

Here are my top tips for multi-shaft weaving:

- Double check all your calculations, especially sett and heddle count. It is easier to add heddles to the shafts before you begin.
- Allow extra warp length so you can sample additional setts, wefts and patterns at the beginning of your weaving.
- 3. Wind your warp with both raddle and threading crosses. Several narrow warp chains are easier to work with than one or two wide ones.
- 4. Use weights of equal heaviness to tension your warp as you wind it on.
- 5. There is no cure for a bad warp take the time to wind your warp carefully, keeping yarns under consistent tension while winding the warp and winding onto the loom. If you find you have a lot of loose or uneven threads, it is better to unwind and rewind than to try to manage them once you start weaving.
- 6. When threading check your work after every inch. You do not want to find an error once you have completed the full width. Have your warp threads tied to the front beam with a lark's head knot to keep them under tension – a thread under tension is a thread under control. Also check your work after every inch when sleying the reed.
- If you are having trouble winding on, or find threading mistakes that need fixing, take a break and come back to it when you are rested and refreshed – it won't seem nearly as daunting.
- 8. Plan multiple projects or pieces from one warp. It is the winding, threading and sleying that takes the time not the weaving.
- Tension it is so important to have the correct tension remember to be kind to your yarn, kind to your loom, and kind to yourself. Too much tension will put pressure on your threads, strain on your loom, and your body.
- 10. There are not really any short cuts slow and steady wins the race! And don't be afraid to try something new.

#### Editor's note

Kate will be posting her "One warp one wardrobe" progress on the Ashford Blog www.ashford.co.nz/blog and also on her Instagram @kate\_sherratt\_ashfords



30m warp



Kate working on her 30m (100ft) "one warp one wardrobe" project



Kate's 'slow fashion' hand woven jacket



#### Editor's note

Maria is the Ashford distributor for Russia. She is also an expert felter. See her seamless felted dress in Issue 29 of *The Wheel*. Follow Maria on Instagram @ukrasa.ru





henomenal Felt

BY MARIA SHTRIK, MOSCOW, RUSSIA

For millennia, felt was the clothing of the poorest people. It warmed the hunters, the ploughmen, and the cattle drivers in the fields. These were simple designs, sometimes just a toga thrown over the shoulders and cinched with a leather belt. Felt provided housing (yurts, tents, etc.), insulation, floor coverings, and inside walling, as well as many household necessities from bedding and coverings to clothing.

But evolution does not stand still! Felt has been transformed. It has become much thinner, of better quality, and, of course, the models and colours of clothes have changed. Felt makers can use felt as an illustrative and decorative medium exploiting the characteristics of the fleece with other techniques such as stitching and incorporation of other fibres.

I import, from Ashfords, New Zealand Merino and Corriedale wool that is a pleasure to work with. The felting process itself is fast enough and not very energy consuming. And the quality of the fabrics obtained is beyond praise!

Do not forget that the combination of fabrics (felt, knitwear, woven fabric) is also available to you. Create yarn for knitwear or woven fabric from the same wool from which you made felt - perfect for sleeves, hood, cuffs.

We live in a time when every person has truly unlimited possibilities. We have in our hands the ability of making the warmest, most flexible, and environmentally friendly felt of all time!



# Designing with Hemstitching – a Tutorial

BY BIANCA WENZEL, BRACHTTAL, GERMANY

Secure and enhance your woven fabric with these different hemstitches.

Let's talk about hemstitching. I primarily use it to secure my woven fabric at its beginning and end, but there are so many other options as well. It's a great way to enhance your fabric. The rigid heddle loom has incredible possibilities - but today we are opting for the wool needle instead of the shuttle to do some embroidering.

All that is required is a loom, yarn, shuttle, an idea for a project and a wool needle. Start your project and leave a thread (four or five times as long as your fabric is wide). Make sure the needle is as blunt as possible, so that your yarn will not be damaged. You can opt for a straight or curved needle, whichever suits you better. I prefer the straight ones.

Important: Right-handed weavers start stitching from the right-hand side, lefthanded weavers from the left-hand side.

You always proceed with the reed in the neutral position, so that all threads are

equally easy to reach.

Securing your fabric or a design element? So far, I have only used hemstitching to secure the fabric. This is especially important with table runners as you want them to lie flat on the table without the bumps of knots. But you need to secure your beautiful woven piece to prevent it from unravelling. So, you use the hemstitch after the first rows as well as at the end of the fabric and then you can forget about sewing or tying fringes.

Those who like sewing may feel free to do so!

Some of the hemstitches also work as a design element. My favourite is the zigzag stitch, for which you can vary the number of threads and width in so many ways that it looks different each time. The Italian stitch and the ladder stitch also have variations and infinite possibilities. Get cracking, be creative!

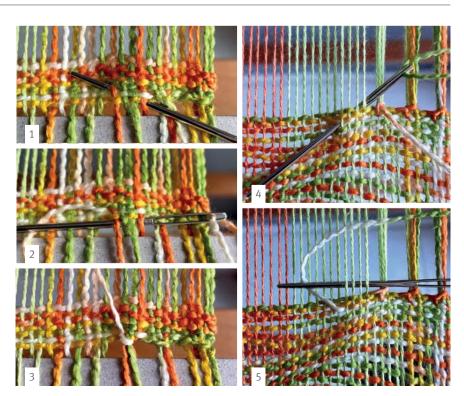


#### The Classic Hemstitch

The hemstitch used to secure the fabric is very easy. When you start weaving, leave a thread which is about four to five times the width of the fabric. After you have woven a few rows, take a wool needle, thread the yarn tail through this needle and decide over how many threads the stitch is to be made. In this example, I put the needle under four warp threads in width and under one in length (i.e. in the weft, the rows which have already been woven). Pull the needle through and, in a second step, put the thread into a semicircle to the left. Once more pull the needle under the four warp threads and tighten it lightly, very lightly. There you are!

Steps 1 - 3 hemstitching when you start weaving.

Steps 4 - 5 hemstitching at the end of your weaving.



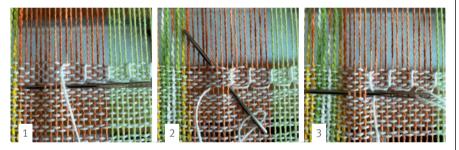


#### The Cheater Hemstitch

You may want to simplify the job (it's not really cheating). With the "cheater hemstitch", you perform all of the aforementioned steps in a single one (see left). Take four warp threads in width and one in height. Now pull the needle under the four warp threads in a row and place the thread in a semicircle over these four warp threads. Finished! The photo on the right shows a direct comparison: above you see the cheater stitch, below the classic one. I like the last one better.

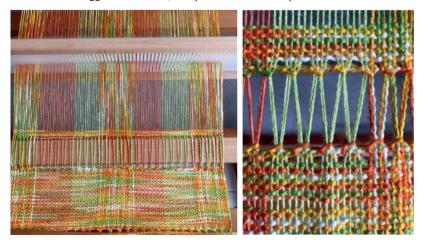
#### The Italian Hemstitch

Once again – as you might have guessed - there are endless possibilities with this Italian hemstitch. Do you opt for a square form or more of a rectangle? Once you have decided, put the thread under (e.g. four) warp threads and pull it through. In the next step, pierce the needle diagonally from the starting position under as many threads as you like (in this example, under four warp threads) and pull the needle through. In the last step, pierce the needle once more horizontally from right to left - in the weft row - under the warp threads you want to secure with this stitch. This is what the Italian hemstitch looks like in the woren piece. Nifty, isn't it?!



#### Zigzag Hemstitch

This is another great decorative element with endless possibilities. In this example, I did the hemstitch in the bottom row over four warp threads in width and three weft threads in height - or rather depth. Then I inserted something, in this case a pickup stick, but you could use a piece of cardboard or something similar. After the inserted item, I wove a few rows and then started the hemstitch with two threads in width, and later on continued with four threads each. This creates a staggered pattern which looks great. You can vary the width and the number of warp threads. Just remember to stagger the stitches, and you have unlimited possibilities.



#### The Ladder Hemstitch

The ladder hemstitch is similar to the zigzag stitch. Decide on the number of warp threads you want to take and bundle them by hemstitching. If you wish, you can put in a spacer again in order to separate the rows. Weave a few rows and then bundle the same number of warp threads with the hemstitch. Easy-peasy.



I hope you like these cute little tips and tricks to brighten up your woven piece.



#### Editor's note

Bianca has been weaving for five years and works to pay for her looms and yarn! Visit her blog dieschiffchenschieberin.de (which means shuttlethrowergirl) and on Instagram @schiffchenschieberin

Freaking the Rules

BY ELIZABETH ASHFORD, ASHBURTON, NEW ZEALAND



#### Learn the tricks to warping with hand spun singles while making a gilet.

I'm not usually a rebel. I am a well brought up girl who follows the rules. But just sometimes, some rules need to be questioned and, maybe, ignored! Since I started spinning and weaving forty years ago, I was told:

- Hand spun yarn is not suitable for a warp (use as a weft only).

- If you <u>do</u> try to weave with a hand spun warp, it must be plied.

I am sure you were told the same. But are these rules correct all the time? I had spun singles from braids of our silk Merino blend that had been

beautifully dyed by Ashford dealer and dyer, Lyn Walsh of Fibre2go. I wanted to keep the colours in the variegated braid clear and unmuddied and I wanted my gilet to be light and drape well. And I wanted this fast for this magazine – deadlines were approaching. What was I to do?

Many years ago, Richard and I were fortunate to visit The Viking Ship Museum in Oslo. I remember standing in awe before these thousand-year-old wooden long boats. In 1989, pieces of Viking sails were discovered in the rafters of a medieval stone church at Trondenes on the northern Norway coast. Woven with wool yarn singles, these sails had powered boats across the oceans. Of course, a visit to any textile museum will show all textiles predating the Industrial Revolution were all hand spun, warp and weft, and many in singles to boot!

So, what was I to do? Be encouraged by craftswomen in the past; break the rules and warp my rigid heddle loom with unplied hand spun singles! And it worked! I learned a few tricks along the way.

When using an unplied hand spun in your warp:

- Put enough twist in your fibre. The yarn must be strong enough to withstand the stretching caused by the raising and lowering of the rigid heddle loom reed, and to give a workable shed.
- Spin a smooth, consistent yarn. Any slubs can catch on adjacent warp threads or be abraded by the reed.
- 3. Felt the yarn a little. When the bobbin is full, wind the singles on to a niddy noddy and tie the skein carefully in several places. Fill a bucket of warm water with a drop of dishwashing liquid. Soak the skein for at least 30 minutes. Take the skein out, squeeze out excess water, fold in half, and then thwack the skein three times against a hard surface. Turn the skein around and repeat. This process will slightly felt the yarn.

- 4. Dress the loom gently and do not have too long a warp.
- 5. Ensure your shed is clear before passing the shuttle.
- 6. Have some extra warp thread and a set of warp weights to make repairs if you have a break.

Size: One size fits most Weave structure: Plain weave

#### You will need:

Loom: 60cm (24ins) or wider rigid heddle Reed: 30/10cm (7.5dpi)

Warp yarn: 100gm braids in Navy, Copper, Chocolate, and Dark Autumn (x2) hand spun singles Ashford silk/Merino, 15wpi

Weft: Naturally Omana 4ply (35% NZ Merino, 40% alpaca, 25% acrylic; 450m/492yds; 100gm) #28 x 2 balls

#### Here's how:

Total warp length: 122cm (48ins) x3 Total warp width: 137cm (54ins) being 50cm (20ins) x2, 37cm (14ins) x1 Finished length: 117cm (46ins)

#### Warping

Warp the loom for the two wider panels, according to the diagram, in the hand spun singles.

#### Weaving

- After leaving 4cm (1½ins) for the fringe, weave for 122cm (48ins).
- 2. Create an 8cm (3ins) gap by inserting two cardboard sticks.
- 3. Weave the second 122cm (48ins) length.
- 4. Leave 4cm (1<sup>1</sup>/<sub>2</sub>ins) fringe.
- 5. Remove from the loom.
- 6. Warp the narrower panel.
- 7. Leave a 4cm  $(1\frac{1}{2})$  fringe on each end.
- 8. Hem stitch the ends of each of the panels.



Beautiful, dyed braids of our silk Merino blend



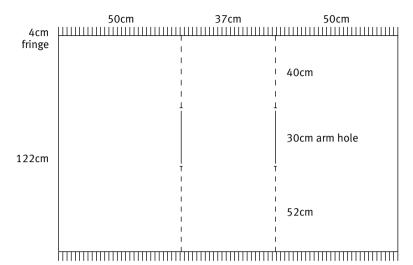
Separate the variegated braid into the colour groups



The colours are vibrant in the unplied yarns

#### Finishing

- 1. Cut the two panels.
- 2. Gently wash, dry, and press the three panels.
- 3. Join the three panels together as shown in the diagram by passing the needle through the weft loops of both fabric pieces.
- 4. Leave a gap for the arm holes.



#### Gilet pattern



Secure the gilet with a belt or pin, or let it drape naturally

#### Luxurious hand woven towels



# Thoughtful Towels

BY STEFAN MOBERG, BRO, SWEDEN

#### Wrap yourself in luxurious, three-dimensional, hand woven waffle weave towels.

One of the words that comes to mind when I think of hand weaving is "care". As a weaver I take great care to produce the best textiles I can, and I put a lot of time, love, and effort into my projects. I hope that the recipient of my woven goods also experiences this care, whether they're a customer, a friend, or a loved one.

There are textile items that you use on a day-to-day basis that you can take the care and time to make using your own hands and loom, and which you can adapt to perfectly fit your needs and aesthetics. Towels of different kinds are fairly easy to make, and you can make them as simple or complex as you like, with whatever colours you like. You can also decide to make them any size you want, only limited by the width of your loom (unless you decide to weave them double width).

As a weaver you get to enjoy some things that the non-weavers of the world normally don't get to experience (unless they happen to be good friends with a generous hand weaver, that is). Having a bath and then wrapping yourself up in a large, soft, luxurious hand woven bath towel is one of them.

For these bath towels I chose to work with waffle weave, sometimes also known as "honeycomb".

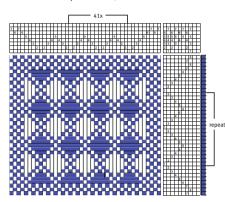
Waffle weave is made up from the difference between the tight nature of plain weave and progressively longer (and shorter) floats. These are arranged in a diamond-like manner and when the fabric comes off the loom the long warp and weft floats will pull the fabric together at the same time as the plain weave areas will try and hold their ground. This effect causes ridges and depressions to form and when studying the fabric closer you will see squares with a three-dimensional indentation in the middle, which are called "cells".

Waffle weave is a very classic technique for hand woven towels, producing a thick and absorbent fabric. This technique is one of those that sport a rather dramatic change in the finishing process. When the textile is kept under tension on the loom it all stays pretty flat, but once you take it off the loom and wash it, something magical happens – the fabric goes full-on three-dimensional! It's an alluring process and washing a waffle weave towel is a very exciting thing!

A note on yarn: There are amongst hand weavers rather a lot of opinions on using mercerised or unmercerised cotton yarns for towels. Some will say that mercerised yarns won't absorb water as well as unmercerised yarns, and others will say the exact opposite. There are studies on this, for the weaver who would like to dive into the scientific side of things. In my experience in weaving towels for the home, I haven't noticed a dramatic enough difference between the two to be able to say with certainty that it's one way or the other. Having said that, I have mostly used unmercerised yarns for towels, since I much prefer the matte surface of them to the shiny look of a mercerised yarn when it comes to everyday household textiles. This is, of course, up to you as the weaver – you can make the choice yourself!

Waffle weave "cells"

For a full size printable draft, including both a tie-up for a traditional "back-and-forth" treadling and a tie-up for walking the treadles, which some weavers find more ergonomic, visit www.ashford.co.nz/wheel33





#### Bath towels

#### You will need:

- Loom: 97cm (38ins) 8 shaft loom or wider Reed: 12dpi reed (sleyed 1,2) or 8dpi reed (sleyed 2-2-2-3)
- Warp and weft: Ashford unmercerised cotton 5/2 (ne 5/2, 848m/927yds) 4 cones 08 Pine Bark and 4 cones 10 Twilight Grey (for 2 bath towels)
- Other: 100% cotton sewing thread for weaving the hem

#### Here's how:

- Width in reed: 97cm(38ins) Sett: 18epi Weft sett: 7 picks per cm (18ppi) Number of ends: 680 (340 in colour 08 and 340 in colour 10)
- Warp length: 5.1m (5½yds)
- Finished measurements: 75 x 175cm (30 x 70ins)

#### Weave structure

Waffle weave, 5 shafts and 6 pedals PLUS plain weave (for hem and selvedge edge), 2 shafts and 2 pedals = 7 shafts and 8 pedals

#### Warping

Wind warp and thread as per the draft.

Note on threading: After the first four threads have been threaded 1-2-1-2 on the back two shafts, then thread the rest of the warp 3-4-5-6-7-6-5-4\* (\*repeat) until you have four threads left at the end, then thread them 1-2-1-2 as in the beginning!

#### Weaving

Weave the hem using 100% cotton sewing thread for weft. This will produce a lighter hem which won't wrinkle so much when washing the towels (this happens due to the waffle weave's great will to shrink and the plain weave hem's tendency to not shrink so much).

- 1. Weave a 3cm (1<sup>1</sup>/4ins) hem using sewing thread as weft.
- 2. Using the 5/2 cotton, colour 08, weave 10cm (4ins) of waffle weave.
- 3. Switch to colour 10 and weave 10cm (4ins).
- Repeat the 10cm (4ins) stripes a total of 20 times, a total of 200cm (80ins) per towel.
- 5. End the towel with a 3cm (1¼ins) hem, using sewing thread as weft.
- 6. On the loom, separate the two towels with a few picks of a scrap yarn in a contrasting colour in between the two

hems. This will help you when cutting them apart when you're done weaving.

7. Repeat for the second towel.

#### Finishing

After you've cut the weaving off the loom, cut the towels apart and hem at each end. Fold the hem twice on itself and sew using a machine or by hand. Wash the towels like you would any towel. I like to run them on a 60°C (140°F) programme in the washing machine.

When working with waffle weave it's good to be aware of the fact that the structure shrinks **a lot** when you wash it for the first time. Please take this into consideration when designing on your own. Weaving a sample is always a good idea!

#### Editor's note

Follow Stefan on Instagram @stefanmobergtextiles. Stefan, as well as being an award-winning spinner and weaver, also teaches many classes throughout Sweden.

Stefan gave spinning tutorials in Issues 29 and 31 of *The Wheel*.



#### Make some snazzy socks with hand spun stripes that don't jog!

When knitting stripes in the round, jogs can be annoying. What is a *jog*? It occurs where the old colour ends and the new colour begins. Knitting in the round creates a spiral of stitches where the rows do not stack row upon row. So, when changing colours for stripes you create a jog or a vertical column of staggered lines where the last stitch of the round doesn't meet up with the first stitch in the round.



Learning how to knit jogless stripes in the round with an invisible beginning-of-round is easier than you'd think! There are neat joins and no ends to weave in.

These helix socks show *jogless* stripes by having two helices "chasing" each other up the sock.

#### The Jogless Technique Here's how:

Round 1: Knit until 3sts before the end of the round. Drop Colour A. Slip the next 3sts purl wise. Join in Colour B and continue knitting until 3sts before the end of the previous colour. Drop Colour B. Slip the next 3sts purl wise. Continue with Colour A as established.



A knitting jog

This jogless technique is a great way to use up those small amounts of leftover sock yarn. Don't feel limited by two colours as the technique can be used for multiple colours and multiple rounds of colour. Watch Multi-Round Helical Stripes by JenACKnitwear.

www.youtube.com/watch?v=KDfWuEzgI38

#### Hand Dyeing Sock Yarn

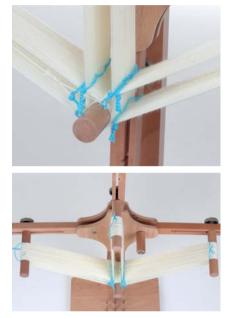
Hand dyed yarns are beautiful and in deliberate, completely circular stripes (using the jogless technique) make your hand knitted socks extra special.

#### Here's how:

Calculate the length of yarn required to knit one row.

Set the pegs on the skeiner arms, with the distance from the start peg to one of the outer pegs (A, B, or C) and back, the length of one row of knitting. Loops to pegs A, B and C will be dyed different colours. Wind any colour sequence, for example three loops around peg 1, followed by two loops around peg 2, followed by one loop around peg 3 etc. For the socks in this pattern 50gm (1<sup>3</sup>/<sub>4</sub>ozs) of yarn was wound and dyed. If you wish to do matching socks, then wind two 25gm (1oz) skeins in exactly the same colour sequence.

Once you have wound the yarn you will need to secure each of the sections. Take time to secure the sections carefully so it is easy to rewind after dyeing.



Secure each section carefully

Once secured, loosen the arms, and carefully remove. Place carefully in water with a drop of dishwashing liquid and soak for 30 minutes. Remove and gently squeeze out the excess water. Lay out three pieces of plastic wrap, one for each colour. Prepare dye as per instructions and apply. Carefully press dye into the yarn, wrap each colour separately and microwave as per instructions. Cool the yarn, rinse and hang carefully to dry. Once dry return to the skeiner and unwind.



Dye each section



Wrap each dyed section separately

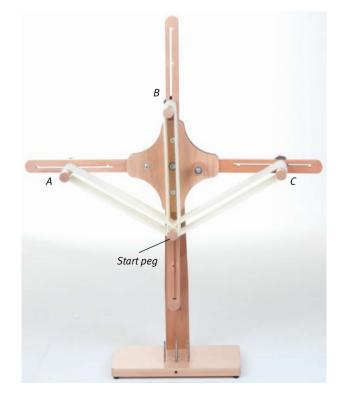


Your striped sock yarn is now ready to use in your next pair of socks

For the pattern of these Helix Socks using your hand dyed sock yarn go to www.ashford.co.nz/wheel33

#### Editor's note

Follow Pauline on Instagram @nana.pmm Pauline loves helping visitors at the Ashford Store. www.ashfordstore.co.nz



# Wild Woolly Heads

BY DI CONROY, COORPAROO, QLD, AUSTRALIA





#### Frida, our office dog

#### *Di shows us how to recreate an adorable miniature Schnauzer head, just like Frida, our office dog.*

My inspiration comes from my love of dogs, especially my beloved dogs Sunday and Birdie, and fine needle work. Needle felting a miniature replica of your own dog is so enjoyable, and gratifying. These instructions can be used to make just about any dog and adapted to give it a unique character. Start with one favourite photo of your pet. Make this heartwarming gift for someone who has lost a beloved dog or is just dog crazy. They can be used as a decoration to hang on a tree, keyring, or pinned on a hat or handbag. This project is suitable for a felter with some experience (later beginner-early intermediate level).

#### You will need:

Photo of your chosen dog

- Fibre: Ashford Merino Sliver in White, Fog, Grey, Slate, a hint of Toffee or Nutmeg 20gm (3/402) in total
  - Ashford Corriedale Sliver: White, 20gm (<sup>3</sup>/<sub>4</sub>oz)
- Felting needles: Ashford 36 or 38 gauge and 40 gauge
- Other: 2 x glass eyes, 1 x handmade polyclay nose. (Eyes/nose can also be felted in black), suitable glue, scissors, foam/ rice mat to felt on

Note: Use 36 or 38 gauge needle unless other size is noted.

#### Here's how:

#### **Prepare Materials**

 Ashford Merino Slivers are wonderful when blended together. An animal's coat is a blend of colours which gives life and depth. Blending can be done with hand carders or by hand. By hand, lay lengths of each colour on top of each other, all in the same direction. Then hold the layers of wool lengths by each end and pull your hands apart, pulling the fibres away from each other. Keep doing this until all the wool is blended as much as you want it to be.



Slate, Grey, Fog, White, Nutmeg and Toffee

 Blend with hand carders or your hands the following colours by mixing a full 7cm (2 <sup>3</sup>/<sub>4</sub>ins) strip of main colour, half a 7cm (2 <sup>3</sup>/<sub>4</sub>ins) strip of 2nd colour, and half a 7cm (2 <sup>3</sup>/<sub>4</sub>ins) strip of a 3rd colour.
Very Dark Grey VDG: Slate, mix with half Grey.

Dark Grey DG: Grey, mix with half Fog, half Slate.

**Grey G:** Fog, mix with half White, one/ third Slate.

Light Grey LG: Grey, mix with half White. Very Light Grey VLG: White, mix with one/third Grey.



3. Use polymer clay to shape the dog's nose and follow packet instructions on how to dry it.



Photo 1: Use Corriedale Sliver White to form the head shape by taking about a 15cm (6ins) strip and felting it into a ball. Then flatten the bottom so that the ball will sit without rolling. Roll about a 7cm (2 <sup>3</sup>/4ins) strip and felt it onto the front of the ball to make the muzzle of the dog. Felt a flat piece the shape of a bottom jaw and attach under the muzzle. Spend some time now to shape the head to look like the breed you are making. Ideas: add longer or shorter muzzle, flatten head, adjust cheek bones, and bridge of nose.



Photo 2: Use glue to attach eyes and nose, making sure to look from all angles. Check eyes are positioned straight ahead and are the right distance apart. Refer to pet's photo. Black wool can also be used for the nose and eyes.



Photo 3: Use a 5cm (2ins) wide strip of VDG, (a) felt across the middle, (b) fold over like a book (c) felt the folded edge down hard. This forms lips for the dog's muzzle.



Photo 4: Cut this folded felt lip in half to use for the left and right side of muzzle.

Start felting under the nose and continue across to the eyes. Keep felting till the bridge and top of nose are felted in place.



Photo 5: Felt a V shape in VDG the size of the bottom jaw. Turn head upside down and attach V shape by felting down along the mouth opening. Felt in place right down neck and at the end of the mouth.



Photo 6: Make another folded book as in Photo 3 with G about 6cm (2<sup>1</sup>/<sub>2</sub>ins) wide for eyelids. Cut the G felted book in half so you have a left and right eyelid.



Photo 7: Now felt the eyelids in place. Start at the nose and work out towards the side of face, felting down just at the back of the eyes. Felt down the rest of the book over

the top of the head where the ears will be placed. Make 2 triangle shaped ears using G wool with a hint of VLG wool. Study the ear shape of the breed you are making. Lay ears on top of each other and cut excess away to make them even.



Photo 8: Attach the ears from the back of ear, starting on top of the head and working to the outer edge of the face. Ears can be folded over and lightly felted to keep in place.

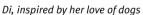


Photo 9: Use VDG for the beard with a hint of Toffee or Nutmeg blended in. Use 2cm (3/4in) strips of long fibres, felt onto chin in the middle of the fibre, then fold so it becomes 1cm (1/2in) long on either side. Secure with a few more pokes on the fold. Keep layering.

Place VDG from the front of chin to the back of the throat about 5 layers to make full under chin beard. Then put a 4cm (1 <sup>1</sup>/<sub>2</sub>ins) layer along the lip line in the same way, folding it over to start the beard on the muzzle.



Photo 10: The beard is layers and layers of the blended wools. Put G on top of the 1st layer of VDG. Then continue with G, then LG, then VLG. Looking at the photo all the time to check the shading. With 40 gauge needle, add fibres to eyelids and under eyes. Shade directly under eye with VDG. Finish back of head with G till all Corriedale wool is covered.





### Editor's note

Dianne studied the art of needle felting in Tokyo where she lived for 16 years. Now living in Brisbane, Dianne takes commissions to make replicas of people's dogs and other fun creations. Her inspiration comes from her love of fine arts and animals, and her tropical Queensland garden. Customers can order custom dogs via her website, also Ashford needle felting supplies and kits. Visit www.wildwoollyheads.com Follow on Instagram @wildwoollyheads Facebook wildwoollyheads



The kit includes: Rice bag, glass eyes, handmade clay nose, white Corriedale core wool 50gm (1¾oz), Merino wool 30gm (1ozs), needle holder, 4 x felting needles - 36 spiral, 38 star, 40 triangle, reverse barb, and colour photo instructions. To order go to www.wildwoollyheads.com



Johanna's woven wardrobe

Warping Frame

# 1000 and 1 Threads

#### BY JOHANNA CARTER, KLOSTERNEUBURG, AUSTRIA

Follow Johanna as she discovers weaving fabric for clothing and homeware.

Recently I read a book about the early history of cloth. In it, the author mentioned Egyptians weaving with up to 200 threads per inch. As a thin modern sheet is about 100 threads per inch, this seemed extraordinary to me. Years ago, I saw some fabric called *woven air* in the Victoria & Albert Museum in London, and I was fascinated.

When I got a new 8-shaft table loom in October 2019, I was very busy, but then in March the pandemic hit and we were locked down. Suddenly I had time to spend with the loom and to explore my weaving.

It was not possible to take a course, so I just tried to learn to weave from books. I started with only four shafts to explore a bit before going on to eight, and I thought it might be a good idea to do shorter warps at first. The result, my family and friends got scarves, towels, napkins, and tea towels, while I was enjoying playing with colours and patterns.

But what I really wanted to do was to weave thin fabric I could use for dressmaking.

After a few warps, I tried one with linen - before I knew how tricky it is - but despite all the problems, I was able to weave a nice fabric, the first I could use to make a garment for myself.

Later I mixed different plant fibre yarns in one warp – cotton, linen, Tencel, and pineapple – coloured using plant dyes. It was a lot of work to wind all the fibres in hanks before dyeing them and then into balls to wind the warp and the bobbins, but the fabric is so lovely, the work was worth it.





Napkin 1



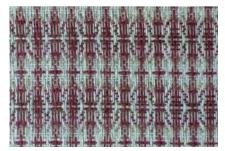
Napkin 2



Napkin 3



Napkin 4



Napkin 5

One day I used 16/1 linen, which according to the label is not suitable for warping, but I can be stubborn - the resulting warp had 980 threads, 44epi, the width 56cm (22ins).

I learned how to weave without the shuttle being a submarine - using a long but light boat shuttle helped; some threads were longer than others, so the warp weights were very useful, and I'm now expert in mending broken threads. A lot of patience was needed, but the result is beautiful, and something I would not be able to buy.

To dress the loom with 1000 threads is a meditative experience. I like all the stages of preparation before I can weave but it helps not to do it all in one go. Before I get to the end of one project, I start preparing the next one on my warping frame. It even has a little peg in one corner for the scissors as I need them quite often for multi-coloured warps.

So far, I have made three skirts with a cotton/linen blend and one with cotton, several cotton blouses, and some with linen. All the fabrics I was able to weave are unique, and the linen ones especially are very comfortable in hot weather. I have not been able to buy anything like my hand woven fabrics and I want to go on weaving more.



Tea towel 1



Tea towel 2

For me weaving is such a magical experience. I am very glad to be able to do the whole process to make my garments. Knowing how much work goes into it makes me appreciate it even more and I wonder how it is possible to mass produce so many clothes and sell them for next to nothing.

I have been knitting and sewing ever since I can remember and I always wanted to wear something that was different from what you can buy, therefore I designed my own clothes from an early age. Now, with my loom, I can even make my own fabric!

Now there is a warp with 1000 threads on my loom, and some flax to spin on my wheel....

#### Napkins and Tea Towels

Napkins and tea towels are a good way to explore how colours behave in a pattern. These are made of cotton/linen 33/2 (10,000m/kg)

I used seven different treadling sequences for the napkins and tea towels, weaving the first four with the same three colours as the warp, adding one more colour for five and six and another one for number seven. They are reversible, giving you seven more patterns.

I made ten napkins and two tea towels out of a 7m (71/2yds) warp.

#### You will need:

Loom: 60cm (24ins) or wider four shaft Reed: 64/10 (16dpi) Warp and weft: cotton/linen 33/2 (10,000m/kg) 500gm (18ozs)

#### Here's how:

Total warp ends: 588 (572 pattern threads + selvedge) Sett: 32 epi, 3 colours Weave structure: M and W Twill Warp width in reed: 45cm (173/4ins) Warp length: 50cm (20ins) for each napkin

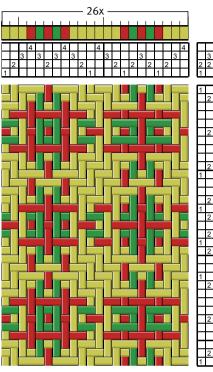
and 75cm (30ins) for each tea towel

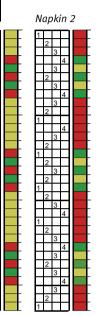
#### Warping

2 warp ends per dent.The pattern is 22 threads repeated26 times, there are 16 threads for the selvedges, 4 double ones on each side.

#### Weaving

As per the drafts.



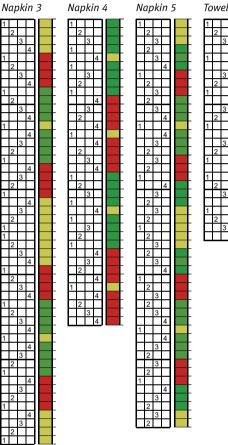


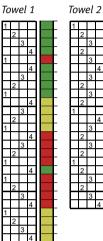
Threading draft and colour sequence

Napkin 1

#### Tips for weaving with linen

- High humidity helps; low humidity makes life difficult.
- While putting your warp on the raddle, spray it with water, so it behaves better.
- I put a cloth over the raddle to protect the warp and I put rubber bands after a few groups to keep the threads in place, as linen likes to jump from one space to another!
- When beaming the warp, try to keep it moist by spraying it with water again. You will find that it is much easier to handle.
- Use more cardboard sticks than usual or parcel paper to protect your warp.
- When winding the warp on the beam, be extra careful that threads don't get snagged, as linen breaks very easily.
- Once you start weaving, don't weave too close to the reed, otherwise you might break some threads.
- Each time you wind your warp forward, spray it with water.
- Be sure you know how to tie broken threads.
- Use a long but light boat shuttle.
- Fill the bobbins for weaving only 2/3 and keep them moist.







Raddle cover protecting the linen warp

### Editor's note

Professionally Johanna Carter performs and teaches Early Music. But she has always loved working with fibre and has done so from an early age, when her grandmother taught her how to knit and to sew. She loves to work with yarn, and spins, dyes, knits, weaves, and sews her own designs.

Johanna featured in Issue 31 of *The Wheel* with a beautiful hand dyed, spun and knitted medieval cowl.

Autumn bounty

#### Spinning the singles for the weft



A Dress to Dye For

BY SARAH HOWARD, CLACTON-ON-SEA, UK



Sarah recreates a favourite dress in hand dyed, spun, and woven fabric, in colours inspired by autumn's abundance.

I'm slowly replacing my favourite items of clothing with hand woven versions, and this simple, overhead dress is the latest one. It's fully lined with darts and patch pockets that sit in the seam joining the body of the dress, which has the warp running vertically, to the lower bands, which have the warp running horizontally.

Inspiration for this came from the colours of the abundant harvest I had in the garden this summer, with courgettes and peppers doing particularly well. One sunny day I had our 10-year-old granddaughter, Lily, with us and she enthusiastically helped with the dyeing. As usual I had made a calico "mock-up" for my new pattern, GW DR014, to check the fit and my sewing instructions. From this I could calculate warp and weft requirements.

Lily dyes the 4ply

A warping board helps hold the six metre warp



Size: UK size 16-18 Weave structure: Plain weave

#### You will need:

Loom: 50cm (20ins) or wider rigid heddle Reed: 50/10cm (12.5dpi)

- Warp yarn: J. C. Rennie & Co Supersoft Lambswool 4ply (246m/270yds, 50gm) 6 balls # Winter White, 25wpi
- Weft yarn: 300gm (10½ozs) Corriedale Combed Wool Top Natural White, spun 25wpi
- Dyes: Ashford Wool Dyes in Teal, Emerald, Green and Yellow
- Other: Iron-on woven interfacing, lining fabric, beads, matching thread

#### Here's how:

Total warp length: 6.35m (7yds) Width in the loom: 38cm (15ins)

#### Dyeing

I wound 6 x 50gm (1<sup>3</sup>/<sub>4</sub>ozs) hanks of the 4ply wool, tied in several places with scrap pieces of yarn. These were soaked overnight in warm water with a dash of washing up liquid and 2 tablespoons of white vinegar. The excess water was squeezed out before dyeing. I mixed up Ashford Wool Dyes in Teal, Emerald, Green and Yellow, following the instructions that came with the kit, enough to dye 300gm (10½ozs) of warp and

300gm of weft.

Each warp hank was laid out on cling film and dyes poured on gently. The colours were worked into the hank with a wallpaper seam roller, using enough dye to penetrate through completely but not enough to leave excess liquid, overlapping a little to give a wonderful range of colours. After showing Lily this method, I left her to dye the other 5 hanks. Each one was wrapped in its cling film to make a parcel and steamed in a lidded bowl in a 900w microwave oven, for 2 minutes, rested 2 minutes, heated 2 minutes, then removed and left to go completely cold in its cling film wrapping. The unwrapped hanks were rinsed in cool water, given a short spin in the washing machine and dried on the line.

The remaining dyes were put in a large pot with two tablespoons of white vinegar and enough water to cover the weft fibre. The 300gm (101/20zs) of Corriedale sliver, which had been wetted overnight, was added and pressed into the liquid but not stirred as I wanted a range of shades for the weft. The temperature was brought up to a simmer for about 40 minutes, then the heat was turned off and the fibre left to cool down completely before being rinsed in cool water, given a short spin in a mesh bag and dried on the line.

#### Spinning

I split the sliver into manageable lengths of about 2m (2yds) then split these lengthwise into pencil roving which required very little drafting. My Ashford Joy 2 double treadle wheel was set with the medium pulley and light take-up to begin, increasing as the bobbin got heavier. Each bobbin of singles yarn was wound into a skein, given a gentle wash, rinsed and given a short spin, then dried under light tension between pegs on my warping frame to set the twist.

#### Warping

I used the hybrid warping method on my 50cm (20ins) Ashford Knitters Loom, making use of my warping frame to accommodate and support the warp length. The dyed warp was wound into balls on a ball winder and the thread pulled from the centre of the ball to keep an even tension.

#### Weaving

I love weaving on this loom as it's so portable; I wove mainly in the garden with the loom propped up against a table. I used a small boat shuttle for this project which I really loved as I could wind several bobbins at once and weave without stopping to re-wind a shuttle.

#### Finishing

Once the weaving was finished, I cut the fabric off the loom, stitched both ends to prevent unravelling, and weighed and measured the fabric. After a mild soapy wash in hand-hot water, several rinses and a short spin, the fabric was line dried, then given a gentle steam press on both sides and re-measured.

All my sewing patterns are designed for

narrow fabrics to utilise as much fabric as possible. I laid the pattern pieces on the fabric before cutting out (after checking twice!). All cut edges were stabilised with iron-on woven interfacing on the wrong side, then overlocked.

Following my sewing instructions, I stitched and lined the dress, embellishing the neckline and pockets with a row of beads. I'm looking forward to wearing this as summer turns to autumn.

Happy weaving!





### Editor's note

Sarah was given her first loom when she was ten and in the 1970s, she attended a Teachers' Training College to learn spinning and weaving. Teaching in secondary schools and Adult Education centres led to co-authoring three books - *Simply Woven* in 1986, *Creative Weaving* in 2007 and *Get Weaving* in 2014.

These books and sewing patterns are available from www.etsy.com/uk/shop/GetWeaving Facebook GetWeaving



Wild Silk -Part of an Ancient Living Culture

BY KAREN SELK, SALT SPRING ISLAND, BC, CANADA

Wild silk is much more than the miraculous journey of metamorphosis from caterpillar to silken luxury. It is tightly woven to an ancient living culture. Canadian weaver and author Karen Selk has conducted over thirty years of field research studying the raising of wild silkworms in the remote forests of central and eastern India.

Fibres spun by tasar, muga and eri wild silkworms create tawny, golden and creamy coloured yarns rich in texture - a reflection of Mother Nature. I went to India in search of wild silk in 1988, before the invention of the internet. The quest led a small-town girl to an exotic land full of people in brightly-coloured flowing garments, rich aromas of spices, and a chaos which I came to understand over time provided an unconventional form of organisation. I was guided to the Central Silk Board (CSB), a government agency of scientists and engineers involved in all aspects of improving silk production. After an hour long, hot, dusty, bumpy, open-jeep ride to the forest, we met indigenous tribal men, wearing only short cloths wrapped around their waist, devoted to caring for the large lime-green caterpillars in the jungle. I went in search of wild silkworms and encountered an ancient living culture. The economic, social, and spiritual well-being of India's Adivasi (tribal) people is tightly woven to raising wild silk. It is nothing like raising the little white domestic silkworm that feeds on mulberry leaves, served on trays in controlled conditions.

There are many perils the silkworms endure in the open forests: predators, unsettled weather, disease, and the health of the soil that grows the trees the silkworms feed on. Efforts have been made to bring wild silkworms indoors to dine on their favourite leaves in a tidy manner away from birds and hailstorms. Such pampering does not suit their wild nature which compels them to constantly be on the move in search of fresh leaves.

For thousands of years the Adivasi people have built huts using date palm leaves to live in the forest with the silkworms during their thirty-to-forty-day lifecycle. Each stage of raising the caterpillars is done with tender care. Little handwoven baskets of bamboo or large leaves folded and held together with toothpick sized twigs become cradles to hold the eggs and newly hatched babies which are hung in the food trees in the forest. The rearers rise before the birds and stay vigilant until nightfall with sling shots and bow and arrows at the ready to protect the larvae from crows, snakes, lizards, and other predators. They roam the forest in search of dead or diseased silkworms to keep the crop healthy until it is time for them to spin their cocoons. In spite of all this dedicated attention, the mortality rate in this exposed environment is still 50 - 70%.



Karen, with Malathi Hembram in Odisha state as she moves branches of hungry tasar caterpillars from one tree to another full of leaves.

India gained its independence from Britain in 1947. Mahatma Gandhi's principles of restoring India's prominence as the largest producer of textiles in the world and lifting the status of women and Adivasi people were influential in writing the constitution. A Ministry of Textiles was established to oversee other departments like the CSB encouraging the use of science, technology, and compassion to achieve those goals.

Cultivating wild silkworms has changed dramatically in the more than thirty years I have been visiting the rearers. At one time they believed evil moths brought disease and other calamities. With the slow and gentle introduction of scientific processes from the CSB,

Tasar cocoon with stems (peduncles), muga and eri red and white cocoons.



Skeins of wild silk from left to right: tasar, muga, tasar, eri, muga, tasar. Different characteristics of yarn determine the drape, feel and personality of the cloth.





Natural, undyed fabric, hand spun and hand woven from the cocoons of wild tasar, muga and eri silkworms. From top to bottom: red and white eri, white eri, muga, tasar.



For thousands of years, caring for wild silkworms, reeling and spinning yarn from the cocoons, and weaving cloth of soft tawny hues have sustained indigenous people in central and northeastern India. Clockwise from bottom left, eri, muga, muga and tasar hand spun, hand woven fabrics.

rearers are combining their traditional knowledge and methods with a scientific approach to revitalise this forest-based occupation into a robust industry brimming with economic potential.

The CSB has collaborated with Adivasi rearers at all stages of the silkworm's life. The highest mortality rate for the larvae happens at the egg stage. If the mother moth carries disease in her body, it gets transferred to the eggs. The eggs hatch and the rearers spend a month caring for them. Just before the silkworms are ready to spin their cocoon the dormant disease awakens and wipes out the whole crop in one day. The CSB has trained rearers to examine each mother moth for disease using a microscope. Her eggs are destroyed if she carries disease to prevent the spread and increase the rearers' income.

Silkworms voraciously eat nearly every waking hour of their lives, stripping their 7-9 metre (23-30ft) food trees of leaves. The CSB introduced planting food trees in plantations where they can be pruned, fertilised, and the forest floor kept clean of debris. It is much easier for rearers to collect caterpillars from shorter leafless trees and move them to a tree full of leaves. Plantations allow rearers to keep better watch over the crop and more easily gather the cocoons from the trees increasing harvests by thirty percent. Intercropping with lentils, ginger, turmeric, and other vegetables is encouraged as an additional source of income.

The CSB in collaboration with NGOs has introduced many technical, scientific, and social improvements. The concept of self-help groups has empowered women to work cooperatively in small groups of twenty to earn income in all sectors of sericulture from rearing to spinning yarn on simple devices, to gaining the confidence in marketing their finished products.

Raising wild silk is centered around family and community with a deep connection to the land. It benefits the environment by planting trees - reducing carbon dioxide while increasing biodiversity through intercropping. Increased income means the younger generation are remaining in their communities rather than migrating to overburdened urban areas and preserving their culture. Raising wild silkworms is labour-intensive, boosting employment for millions of rural Adivasi people.

Over the last thirty years I have seen changes from rearers believing in ghosts to using mobile phone apps to view the current

Naren (right) with his wife and son of the Rabha tribe live in Assam. After devouring all the available leaves, muga caterpillars crawl down the tree and stop at a banana leaf barrier. The family collects the larvae on a hand woven bamboo triangle called a chalani to move them to a tree full of leaves.



price of cocoons. Wages have increased by forty percent bringing vitality, enthusiasm, confidence, education, health care and pride to the villages. Raising wild silk meets environmental and social challenges the planet faces by providing a sustainable livelihood that maintains social bonds and an understanding and respect for nature. I am grateful my passion for silk led me to a foreign land, providing me with a different lens to appreciate a whole culture tied to the clever wild silkworms.

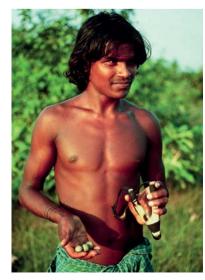
# Editor's note

Karen has written a book about her research into wild silk. Entitled In Search of Wild Silk - Indigenous People Growing Their Heritage, it will be published by Schiffer Publishing and available in 2022. With over 300 photos and anecdotes from weavers, spinners, and silkworm rearers, readers will appreciate the love and dedication involved in each part of the process from soil to sari. To find out more contact Karen on karenselk@yahoo.com Tasar caterpillars are voracious eaters consuming 220gm (80zs) of leaves and increasing their body weight more than 6,000 times during their life of 35 days. This mature tasar larva (caterpillar) is 12.5cm (5ins) long and ready to spin its cocoon.



Left: A male tasar moth (brown) is attracted to a female by her sex pheromones. In the wild, he can track a female up to 4km (21/2 miles)away. The female is born with all her eggs in her body. The male fertilises the eggs inside her body before she lays them.

Right: Tasar rearers fold large leaves secured with slivers of wood to form cups for silkworm eggs. When the babies hatch, rearers will hang the leaf cups in food trees.



Silkworm rearer with slingshot and mud balls used to protect munching silkworms from predatory birds.



By bringing together a leader and up to twenty villagers, the self-help group concept helps women acquire the skills and confidence to create self-sustaining ventures.

# Three Dimensional Scarf

#### BY DEBORAH JARCHOW, SIMI VALLEY, CA, USA



#### Using the differential shrinkage technique, this warm cowl has a unique three-dimensional appearance and drapes beautifully when drawn through the created slit.

I love the transformation of the cloth and the slightly unpredictable nature of the whole experience when using the differential shrinkage technique. After striving to create flat, consistent fabrics for most of my career, this kind of weaving emphasises the flexibility and movement of yarns and gives me freedom! The normal rigid intersection of warp and weft is distorted by the finishing, and moves into pleats, puckers, ruffles, waves, scallops, and other fluid movements. Magic!

#### You will need:

Loom: 30cm (12ins) or wider rigid heddle Sett/ reed size: 30/10cm (7.5dpi)

#### Yarn A - Warp and Weft

Yarn: Euro Yarns Queensland Collection Llama Lace Melange Colour: 09 Indian Summer Fibre content: 100% llama WPI: 20 Weight: 100gm (3½20zs) 384m (420yds) Yardage required: 212m warp x 73m weft = 285m (232yds warp + 80yds weft = 312yds) PPI: 13

#### Yarn B - Warp and Weft

Yarn: Trendsetter Yarns Phoenix Print Colour: 472 Desert Sun Fibre content: 66% viscose, 34% cotton WPI: 14 Weight: 50gm (1¾ozs) 91m (100yds) Yardage required: 151m warp + 224m weft = 375m (165yds warp + 245yds weft = 410yds) PPI: 9 If substituting yarns, make sure that A will felt and B will not felt.

#### Here's how:

Width in reed: 29cm (11½ins) Total warp threads: 86 (counting the doubled wool in the scarf as 1 thread) 50 non-felting warp threads, 36 doubled wool threads Woven length on loom: 218cm (86ins) Length after wet finishing/felting: 124cm (49ins) Width after wet finishing/felting:19cm (7½ins) Weave structure: Plain weave

#### Warping

Holes	AA	AA	AA	В	В	В	В	В	AA	AA	AA	
Slots	AA	AA	AA	В	В	В	В	В	AA	AA	AA	
					5X							

Because yarn A is much thinner than yarn B, the A warp threads are doubled in slots and holes.

Using two fibres that shrink differently makes very interesting textures in the cloth. This scarf takes full advantage of this *differential shrinkage* to make a visually exciting piece. The wool for yarn A must be non-superwash so it shrinks and felts when washed vigorously in hot water and soap. Using a very fine lace-weight wool in the scarf allows the felted fabric to have a very loose drape and feel very soft against your skin. One 18cm (7ins) area of this scarf is woven using only the feltable wool as weft so it can be cut into without fear of fraying or unravelling. The placement of the wool and the non-shrinking rayon or superwash wool creates pillows of soft fabric in the body of the scarf.

Warp the loom according to the chart and use waste yarn to spread the warp threads. Load two shuttles, one with a single strand of weft A (wool) and the other with a single strand of weft B (non-felting yarn). While weaving aim for 13ppi with the wool and 9ppi with the non-felting yarn. When changing shuttles, cut the yarn and tuck the tail back into the shed. The tail will be felted in with the wool and become invisible after trimming all the tails after wet finishing/felting.

#### Weaving

- 1. 2.5cm (1in) wool weft A
- 2. 10cm (4ins) non-felting weft B
- 3. 18cm (7ins) wool weft A
- 4. 15cm (6ins) non-felting weft B
- 5. 1cm (1/2in) wool weft A
- 6. Repeat 4 and 5 until scarf measures 211cm (83ins)
- 7. If desired, the final section with the wool weft can be extended so the tail can be cut in a taper after felting. Weave an additional 2.5-18cm (1-7ins) in wool weft.

#### Finishing

When you have finished weaving, cut the warp ends and remove from the loom. Be sure to cut out the waste yarn before wet finishing so it doesn't get felted into the scarf. Wash in hot water and soap until the wool felts. It's best to use a no-rinse soap like Soak or Eucolan. I like to use the washing machine and put the item through the wash cycle together with a couple of towels to help with the felting action. Don't let it go through the rinse or spin cycle. This could create undesirable permanent creases in the felted fabric. If necessary, run it through a second wash cycle. Air dry. There will be lots of tails to trim. Trim the ends so the edges are smooth. If you chose to weave longer on one end, taper that end as desired.

Make 2 cuts in the area where there was 18cm (7ins) of wool weft. Cut an 8cm (3ins) slit through the scarf about 2.5cm (1in) in from each side along the line where there is the wool warp.



Before finishing



After finishing

When wearing the scarf, wrap it around your neck and tuck the tapered tail through the 2 slits.

#### **Differential Shrinkage Tips**

 To ensure the finished piece is not too short, test the amount of shrinkage for the yarns you are using. Tie the yarns



Make slits in the felted section

together in a secure knot and measure off about 2m (2yds). Wash as you will for the woven piece. When dry the yarns will show a difference of length from 5-10cm (2-4ins) or more. Calculate the length of your warp accordingly.

- 2. Make a warp plan. For example, equal width stripes of shrinking and nonshrinking yarns will give you puckers (windowpane) or one narrow band of your shrinking yarn down the centre will give you a ruffle. You will get a different effect depending on your choice of yarn at the edges of your scarf as well. A wool stripe on the outside edges of the scarf will keep everything gathered in. A non-shrinking stripe will create a ruffled edge.
- 3. You have the same choice in the weaving. In these scarves a wool stripe to start and finish has a practical benefit of fulling the fabric allowing it to be cut without risk of fraying.
- 4. Give your wool yarn a fairly open sett and keep your beat light as well. You want to leave some space in your weave so that it can really shrink when you wet finish your scarf.
- If you are concerned about washing your delicate weaving in hot water in the washing machine, start with a gentler, shorter wash. You can always repeat the cycle if you need more shrinkage.

# Editor's note

This scarf is one of the many stylish and inspirational patterns from *Rigid Heddle Weaving, Basics and Beyond* by Deborah, published by Ashford Handicrafts Ltd, which will be available soon.



Twist dyed skeins

Speckle,

BY DOE ARNOT, HERBERT, OAMARU, NEW ZEALAND

*Doe's successful techniques for using plant dyes make unique yarns for weaving and knitting.* 

Plant dyes by their very nature are slow colour in the same way that making bread from scratch is a commitment to time and preparation.

It is much easier and quicker to dye speckles and add colour variegation to a skein of yarn with synthetic acid dyes and in comparison, the method is pretty instant timewise too.

Plant dyes, whether using dried dyestuff from your garden or purchased natural dye extracts from a supplier, will require heat, water, and time to obtain good colour saturation and uptake of the dye. Natural dyeing is generally a two-process procedure. For most dyes to endure on your yarn you will need to mordant the yarn to create the bridge that allows the colour to develop and remain on the fibres.

There are exceptions with plant materials high in tannins such as eucalyptus leaves, harakeke, acorns, and other roots, barks, and leaves.

I have dyed several sample skeins for this article using dye extracts and/or plant materials from my garden. Harvesting and foraging for your own dye plants extends the pleasure and time you will spend in the dye process.

Since wool protein has a very good affinity with plant dyes, this is what I have used in all the samples in this article. The yarns dyed are sock, superwash, and untreated wool. The superwash wool picked up the dye colours in a brighter way than the untreated and if both types of yarn were present in the same dye pot, it also absorbed more colour than untreated wool.

So, the skeins were fraternal colourways.



Add plant pieces and extracts to the mordanted skeins

# Instructions for Mordanting Your Yarn

For best colour uptake, mordant the yarn a few days before dye day and keep the damp skeins in a plastic bag in a cool place.

- Wind 100gm (3½20zs) of yarn into a skein and add loose ties around your yarn in four places.
- Dissolve 10gm (<sup>1</sup>/<sub>3</sub> oz) of alum and 7gm (<sup>1</sup>/<sub>4</sub>oz) of cream of tartar in a jug of hot water and pour into a stainless-steel pot. Top up with enough cool water to cover your skein.
- Add the pre-washed yarn to the pot and bring the heat up slowly and simmer for an hour.
- Leave the pan to cool before removing the yarn. Squeeze the excess water out gently and keep the yarn in a bag or covered bowl until ready to use.
- Prior to dyeing, rinse the mordanted skein in clean water to remove any residual mordant.

You can reuse the mordant bath for a second time adding 50% of the alum and cream of tartar.

To save time and heat energy, mordant several skeins at a time in the same pot.

# Dyeing Techniques SPECKLES

An online class making eco-print fabric bundles with the artist India Flint\* encouraged me to experiment with yarn bundles.

- Pre-soak mordanted skein in warm water for at least an hour. Note you can use a pre-dyed skein for this technique too.
- Squeeze out excess water and lay the skein flat on a piece of fabric slightly longer than the length of the skein and at least double the width.
- Sprinkle your extracts and/or chopped plant materials on top of your damp skein tucking some inside and underneath the skein.
- Fold your fabric top and bottom over the skein, fold the sides over and roll the fabric bundle firmly. Wrap string around the bundle and tuck in the string ends. The string doesn't need to be wrapped

too tightly around the cloth roll as it's only to hold the dyestuff in place.

- Add your bundle to a steaming pot of water, cover with a lid and simmer for at least an hour or longer if you are using bark pieces and eucalyptus leaves.
- Leave to cool and unwrap your bundle. Rinse in clear water and dry.

If you hold off from washing your skein for a few days you will allow the dyes to bond further and have very little excess colour bleed in the washing water. Wash gently with a few drops of a mild PH detergent. To use your heat source more efficiently, create several yarn bundles to dye in the same pot simultaneously.

# Dyeing a Variegated Skein

It benefits plant dyes to be heated slowly for long periods so I have chosen to create more than one dye colour by twisting skeins and using several different dye baths. Remember subsequent colours will affect the dye colour used previously in parts of the skein and if you use any colour modifiers such as soda ash or vinegar, this too will change the previous dye colour layer.

- Prepare your first dye bath. If you are using fresh or dried whole plant material, chop into small pieces and extract the colour by simmering the material in water for at least an hour.
- Most dye plants benefit from cooling and resting overnight before straining the dye liquor into a clean pan. The extracts are now ready to dye with, so mix the desired amount in a jug with hot water (a guide is half a teaspoon per 100gm/3½ ozs of yarn) and add to a dye pot topping up with water to the desired level covering the skein. I've used pomegranate or rhubarb root in some of my samples for their first colour layer and made up a weak dye bath.
- Add your pre-mordanted damp skein to the dye pot. Simmer for approximately half an hour or remove earlier if you feel the colour is looking too dark. Remember it will look several shades lighter once it's dry.
- Lift out the skein, cool and squeeze very gently to remove excess liquid. Twist the skein by looping an end to a door



A bundle ready to open



Unwrapped bundle dyed skein

knob, holding the other end and adding twist. Fold the skein on itself tucking the end loop into the other end loop. The twisted skein should not be too tight.

- Add your skein to an already simmering dye pot and cook for an hour. Remove the hot skein with tongs and leave to cool.
- Open up the skein and repeat the process of re-twisting and adding to another hot dye bath. You can twist and over-dye with a third and fourth colour for as long as the skein can absorb colour or to obtain dark variegated shades. Most of the samples in this article are dyed with three separate colours. Rinse the opened skein after the last dye bath in cool water, dry and leave your skein to cure for a few days before washing gently in cool water and a PH neutral detergent.
- Since there is quite a bit of work required creating these colours, it's a good idea to prepare several skeins to dye at the same time. I usually dye 5 or 6 together in one pot.



Bundle dyed skeins for the Tideline scarf



Tideline woven scarves

# Tideline Scarf Project on the Rigid Heddle Loom

#### You will need:

Loom: 30cm (12ins) or wider rigid heddle Reed: 50/10cm (12.5dpi)

Warp and weft yarn: Ashford super-wash 4ply merino. I used four different bundledyed 50gm (1<sup>3</sup>/40zs) skeins. The yarns were dyed with chopped harakeke seedpods, tansy flowers, cutch, osage wood shavings, rhubarb root, walnut, and eucalyptus leaves.

#### Here's how:

Total warp ends: 150 ends Total warp length: 2m (2yds) Width in reed: 30cm (12ins) Weave structure: Tabby (plain weave)

Doe has been a hand spinner, dyer, and weaver for over 35 years. Her interest in plant dyes began when after cutting up brambles, she decided to boil up the leaves and sheep's fleece in a pot. Her family have put up with weird potions and smells ever since. Doe is also an Ashford dealer.

Visit doespins.com/ and follow on Instagram @doearnot

\*See also Eco-Printing Immersion Dyeing by Roxanne Eklund in Issue 32 of *The Wheel*.

#### Warping

Warp variable stripes of each colour yarn across the width.

#### Weaving

Wind each colour onto a shuttle and weave blocks of colour in a variety of sizes, varying the sequence to the end.

#### Finishing

Remove the fabric from the loom and twist or knot the fringes at each end. Hand wash gently in warm water with a few drops of PH neutral detergent (I use dishwashing liquid).

Lightly steam press once dry and trim the ends.

The other narrower scarf shown was woven using one 100gm (3½20zs) skein of the variegated untreated Ashford 4ply Merino using the twisted skein dyeing method. The dyes used were cochineal, saxon indigo, and fustic.

# Bundle Dyed Knitted Hat

The knitted hat pattern is the Moondust Beanie by Melanie Berg from Pompom Magazine Issue 26. Available as a PDF pattern. The yarn is Ashford Sock 4ply bundle dyed with lac, rhubarb, and dock powder.

Thank you, Heather Petry, for knitting the hat for this article.



Bundled dyed yarn knitted hat

Editor's note

Ishford Merino Dy

Our fine Merino DK yarn is beautifully soft to the touch. The unique high twist construction gives the finished yarn a sleek look with fabulous stitch definition which is less prone to pilling and abrasion. Light, airy, warm yet very durable, it is super versatile and suitable for all kinds of knitting. Available in 15 beautiful co-ordinating and versatile colours.

100% Merino, DK weight, machine washable, 50gm balls, 105m (115yds)



For the full range of Ashford yarns and knitting patterns go to www.ashford.co.nz/yarn To download this beautiful Fair Isle Sweater pattern using Ashford Merino DK yarn, go to www.ashford.co.nz/wheel33



# Colour your World with Ashford

#### Add some colour to your craft.

#### New Dye Range

An exciting new dye colour range is coming in 2022. Ashford Protein Dyes are brilliant, clear and permanent dyes that are simple to use requiring only heat and white vinegar or citric acid (as the mordant). Choose the traditional stove top, microwave or steaming methods to set the dyes. Available in 14 vibrant individual colours or sets. From these 14 colours you can create any colour you choose. The dyes are full strength and do not contain any fillers or additives and they are safe and economical to use.

#### New Yarns for Dyeing

Create your own beautiful, unique colourways using Ashford Protein Dyes and our range of yarns for dyeing. Choose 1kg cones in 4ply wool, 4ply Merino superwash, 4ply Merino non-superwash, 8ply (DK) wool, 8ply Merino superwash, 8ply Merino non-superwash, Triple Knit wool or 100gm skeins of 4ply sock yarn, 20/2 silk yarn, Merino Bouclé brushed or looped.

#### New Introduction to Dyeing Kit

If you are curious about dyeing then try out our Introduction to Dyeing Kit. It includes hot pink, yellow, black, and blue dyes, two skeins of yarn, instructions - including colour theory, colour recipes and a colour wheel.

To see the full range of dyes and yarns visit www.ashford.co.nz/dyes and www.ashford.co.nz/yarns-for-dyeing



Kate's sweater dyed with colours from the new range

New Introduction to Dyeing Kit



# e-Carder Extras

#### e-Carders available now!

Create beautiful consistent

sliver off your e-Carder

The Ashford e-Carder makes fibre preparation a breeze. The dual motors and variable speeds can be adjusted to suit all your fibres whether you are carding washed fleece, blending fibres, or blending colours. If you are preparing your fibre for spinning, there is one more special feature that you will really enjoy - making your own slivers straight from the carder. Beautiful consistent sliver, ready for spinning.

The e-Carder includes a multi-purpose diz stick - used to feed fibres into the carder and to use as a diz when you remove the fibre from the drum.

Traditional dizzes were small, curved devices, made from bone, shell, or horn used for pulling combed fibre off wool combs into sliver ready for spinning. The Ashford diz stick can quickly turn your fibre into ready-to-spin sliver straight from your carder.

Card your fibre as normal, once the drum is full, stop the carder, remove the guard, turn the control to "unwind" and turn the speed down slightly. Using the doffer, separate a small section of fibre on one side. Twist the end of the fibre and thread through one of the holes on the diz stick - the larger the hole the thicker the sliver. Holding the stick close to the drum pull the fibre through the hole as you put your foot on the foot controller to reverse the drum. Pull a small length through, then release the fibre and grip it near

the stick and pull another length through the hole. Keep repeating this motion until all the fibre is removed. Once removed wind the sliver around the stick into a bump.



#### Tips

- Hold the diz stick on the lower part of the drum at the back
- Hold the diz stick so the hole is just above the fibre
- Take care when going over the metal strip gap
- Work in short pulls to reduce the chance of breaking the sliver

For a full video of this process go to www.ashford.co.nz/wheel33







