spinning felting

weaving

knitting

dyeing





GREAT NEW PRODUCTS AND PATTERNS INSIDE

Editor's Letter

Welcome

We were blessed this year with another wedding in the family: our eldest daughter Cathy married David, her lovely partner, in August. This wonderful occasion was made even more special for Richard and me when the couple chose to wear hand crafted garments made from our fibre. What a joy it was to spin our silk/Merino for my future son-in-law. Hope you will enjoy reading more about our happy day on pages 26 and 27.



Wedding day







With James and David managing the day-to-day operation of our company, Richard and Kate have had more time to spend researching, designing and testing new products. They have been busy! See pages 50 and 51. We thank all our customers who have made product suggestions and helped us test the prototypes. A special mention for the help from Esther and Rasa for thoroughly testing the e-Spinner Super Jumbo and the Wavy shuttles.

In March, Cindy, our distributor for the USA, retired after giving wonderful service and support to dealers for almost fifteen years. Since then with daily freight flights from NZ to the USA, we have been able to provide a 3-4 day delivery and offer our full product range to our USA dealers directly from the factory. During the year we have taken the opportunity to meet as many dealers as possible and especially at the major fibre festivals such as Maryland, Convergence, Rhinebeck, Southeastern Animal Fiber Fair and TNNA. It has been wonderful to get to know you better: thank you for your continued support.

We also welcome dealers and customers when they visit us in NZ. You are always welcome. In November we are holding our annual Dealer Training Course with intensive practical experience, a factory tour and an opportunity to meet all the staff. We are looking forward to having twenty dealers from around the world with us for a week.

This year we established our Textile Award which we hope will encourage and support textile artists, contribute to the development of the fibre arts

or enhance the education of future spinners, weavers, felters, knitters and dyers. Richard and I were humbled, and hugely impressed, by the quality of the applications and choosing the winner was extremely difficult. See page 20 for details of this year's winner and finalists, and a link for the 2019 award. Please go to the link and apply!

Kind regards, Elizabeth

From top left: Richard and Kate have more time for R&D Richard and David with Susan McFarland at the Maryland Sheep Show Richard and Kate with the team from Yarn Barn at Convergence



Happy crafting

Contents

Editor • Elizabeth Ashford

Design • Tina Gill

Printed • Spectrum



The Wheel is published annually by Ashford Handicrafts Ltd. The premium version is available to members of the Ashford Club (see below). The standard version is available from your Ashford dealer. Copies of back issues 24, 25, 26, 27, 28 and 29 are available. All material is copyright to Ashford Handicrafts Ltd and is subject to editing. Contributions welcome.

The Ashford Club

I would love you to join the Ashford Club and be part of our world-wide community of textile artists. Based at the home of our company, in Ashburton, New Zealand, membership costs only NZ \$10.00. Receive a premium, members-only edition of *The Wheel* sent from New Zealand. Membership also allows you access to the Ashford Club pages on the Ashford website with special offers and competitions only available to Club members. You will also receive the Ashford newsletter emailed to you quarterly.

Pay by cheque or go to the website to pay: www.ashford.co.nz/ashford-club

The Ashford Club, PO Box 474, Ashburton, New Zealand Email: elizabeth@ashford.co.nz

Cover: Cathy Ashford is wed in a seamless, felted cape with furry collar. See page 26

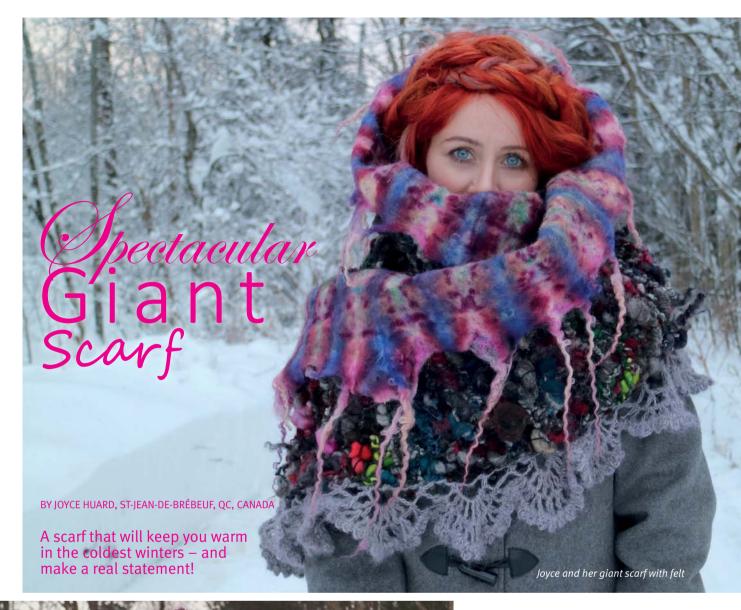








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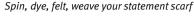


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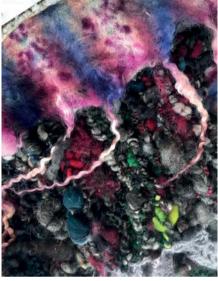
You will need:

Super Flyer Ashford Wild Drum Carder A set of acid dyes Vinegar to set the dye Yarn for core spinning (2 colours of your Fibre to spin approx. 450gm (16ozs) Fibre to felt the border (or lace yarn to weave this part) approx. 200gm (7ozs) Lace yarn to crochet the lace border (optional) approx. 50gm (2ozs) Other: Crochet hook 5mm (US 8, H-8) A rubbing base to wet felt, like bubble wrap Soap for the felting (or a rigid heddle loom to weave the rectangle) 2 wooden rings for attaching the scarf ties Thread for sewing A tapestry needle Knitting needle 12mm (US17)

Ashford Kiwi Spinning Wheel with the









Here's how:

Step 1 Art Yarn

You need approx. 45m (50yds) of art yarn weighing 225gms (8ozs). Dye the fibre according to the instructions. Start by core spinning approx. 100gms (3½0zs) of bulky 7-8wpi yarn. Spin thick and thin or even size. Using the Wild Carder make a batt with dyed fibre, wool locks, yarn waste etc. Then, spiral ply with this batt to make the bumps and to give texture. Use colours contrasting to the core spun yarn. Add approximately 125gms (4½0zs) of locks and yarns, for a total skein of 225gms (8ozs). Make two skeins (they usually almost fill my huge Kiwi bobbin). The thickest part of the yarn is 2.5cm (1in) in diameter.

Sometimes I spin a bulky single in a contrasting colour on the e-Spinner, to alternate with the art yarn in the knitting.

Step 2 Knitting

Knit a rectangle with the art yarn of 23 x 180cm (9 x 70ins), with 12mm knitting needles. The knitted rectangle will weigh approximately 500gms (17½0zs).

Step 3 Felting (or Weaving)

I usually shrink my felts by 30%. Arrange the 200gms (70zs) of fibres to make a rectangle of 20 x 230cm ($7^3/4$ x 91ins) on your felting table. Spray with a solution of warm water and a little soap. Start by flattening the fibres and then begin to

roll. Once the fibres felt, plunge in hot water for one minute, then in cold water for another minute to shrink. Repeat rolling and the water shock treatment three times or until the felt measures 15.25 x 180cm (6 x 70ins). If you prefer, replace the felt with a rectangle of hand woven wool, made on a rigid heddle loom.

Step 4 Dye the Felt

If your fibres are not dyed, then it's time to play with colours. I use tie-dye techniques to make patterns. Be careful to double check your size before hanging to dry.

Step 5 Crocheting the Border

Crochet a border to the scarf, using a simple scalloped lace chart. My tip is to crochet the lace separately from the scarf and block it to the same length as the scarf. Then hand sew it onto the scarf. You can use pre-made lace, or omit it, especially if you made a fringe of locks on the felted part.

Step 6 Finishing

Hand sew the felt to the knitted scarf and the wooden rings on each end. Attach yarn braids through the rings to make a tie.

The measurements given make a very huge scarf, but you can make it shorter, just to cover your shoulders for example.

Editor's NOTE

Joyce grew up surrounded by textiles and inspired by her grandmothers who were both skilled sewers. While attending fashion school in France, Joyce explains, "I became addicted to jacket and coat making but I couldn't find the perfect fabrics or the perfect yarns."

Back in Canada she discovered spinning and now, "I'm very deep down the rabbit hole of fibre arts, and with my new studio now I can play with my sewing machines, the wheels, the loom, the dyes. I have total control of what I'm creating, and a lot of fun. There are no words to describe the satisfaction when you start from raw fleeces and end up with a colourful, wearable piece of clothing."

To see more of Joyce's work, go to www.mynoush.com

Patreon

Joyce launched a successful crowdfunding campaign through Patreon that allowed her to buy new tools. This platform allows artists to receive financial support from patrons who, in return, receive material from the creator such as exclusive patterns and tutorials.



Thick-and-Thin Yarn Makes You a Better Spinner

BY JACEY BOGGS FAULKNER, KANSAS CITY, MO, USA

If you can spin a yarn, you can spin a thick-and-thin yarn. If you don't believe me just think about your first yarns. I'm not proposing that your first accidental thick-and-thin yarns are fantastic yarns you should try to recreate now; I'm just reminding you that what you did then (as an absolute beginner), you can do now. However, it's true that a sound thick-and-thin yarn can be difficult, deceptively difficult, and sometimes the better spinner you are, the harder it is to get. It's also true that spinning thick-and-thin is going to seem a bit strange, especially if you've spent hours upon hours in pursuit of the perfect, fine, even thread, but you can do it, I promise. And here's why you should: it will make you a better spinner. It's true! Spinning a range of yarns, mixing things up, trying things you are uncomfortable with and just plain don't like, will push you to develop skills that will make the yarns you love to spin, better.

This technique takes skill to do well but it also relies on the very basic rules of spinning concerning twist and staple length. Here's how I spin a durable, sound, rhythmically-even thick-and-thin where the thick bits are the same thickness and the same distance apart. Sound like a magical dream? It's not, I promise; it's just a matter of staple length and drafting distance.

Fibre

Start with a combed top of short or medium staple. The finer and shorter the fibre, the more it will abrade, but the longer the staple, the less dramatic and the more difficult your yarn will be to spin. I'm using Cormo, which is short and has a tendency to puff up when it's finished, which will really emphasise the thick-and-thin. It's also a perfect compromise of softness to length. Make sure your fibre is nice and loose, but don't pre-draft or tenuate the fibres. Separate the fibre into strips about the width of your thumb. The more similar in thickness these strips, the more similar the diameter of your yarn's thick bits will be. These strips also need to stay aligned so you get consistent thickness and shape. These thumb-width strips are about twice as thick as the thick sections in your yarn are going to be - keep this in mind for future adjustments regarding your orifice.

Wheel Setup

I recommend going slowly for your first

time, but when you get the hang of it, you can produce this yarn as quickly as you are comfortable spinning. Using the biggest pulley, set your tension for a light to medium uptake to give twist time to enter the thickand-thin sections before it's pulled in. If you notice, however, that your thin sections kink up before they disappear into the orifice, increase your tension a bit.

Spinning

Attach and spin a few metres/yards evenly. This thick-and-thin yarn uses a turn, a short forward backward draft, and a forward draft. When you're ready to spin a thick section, move your forward hand into your fibre supply just a bit (photo 1 and 2) and then gently pinch the whole width of your strip of fibre with the outside flat of your thumb on your front/drafting hand. Using your fibre supply hand, pull backwards until you see the fibre start to separate and get very thin (photo 3). That thick bit you just created is your entire thick section. Where it thins out will be the start of your thin section. Glide your drafting hand gently over the thick

section – being careful not to take any of the fibres with you – and pinch right before it gets thin again (photos 4 and 5). Continue to spin a length of thin by drawing your fibre supply hand in a short backward draft while your front hand controls the twist. Then do the whole thing over again.

These thick sections don't need much twist to stay together. If you use the above method, your thick sections will be just a bit shorter than your staple length. This allows the ends of most of the fibres to be trapped in the high-twist thin sections at either end and keeps your thick sections from drifting apart despite having very little twist. If your thick sections are longer than your staple length, there's nothing to keep them from drifting apart since no end fibres are trapped in high-twist sections. So, keep your thick sections shorter than the staple length and be aware that there will be a notable difference between the twist in your thick-and-thin sections. These things are key to ensuring the sturdiness of your thickand-thin yarn.









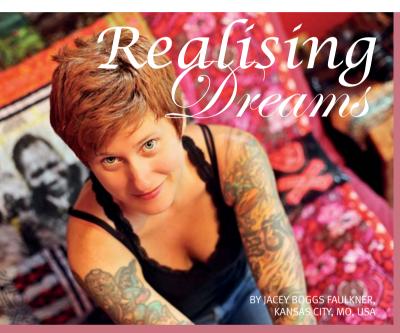


This yarn is more likely to pill than some others because of its lack of twist, but its uniqueness and softness make up for this. Don't think it's delicate, however, just because it's not super hard-wearing: give it a tug. If you spun your thick portions the right length, it'll stay together winningly, giving you a soft, squishy, thick-and-thin yarn with a good amount of integrity. After you wind it off and tie it, hang it in a loop and you'll be amazed that, because of its thick, untwisted sections, this yarn almost breaks the rule that a single can't truly be balanced.



Finishing

This yarn benefits from a rough finish. Treat it like a woollen yarn, and you'll be just fine. Give it a hot water bath and then a cold dunk, snap and thwack it, and then hang it unweighted to dry. You don't want to remove its soft squishiness by felting it but giving it a little love to help it ward off abrasion is just what it needs.



I met a man on a plane a few years ago who was in the business of helping people find their spiritual bliss via employment. He based his work on an hour-long interview, during which he was attentive to their aura more than their words.

I was doubtful. I was also polite because that's just the way I am. It was a long flight, but I feared it would be longer given my company. I was wrong. Talking to my soft-spoken, aura-reading seat mate made the six-hour flight seem like three. He appeared genuinely interested in my life, so I told him about how I started with a wheel I bought off eBay and how I spun six hours a day for two years. Then I told him how I supported a family of three by spinning yarn and selling it on LiveJournal and then a family of four by selling hand spun yarn on a personal website, long before Etsy or Facebook made an entrance. I told him how spinning gave me something I'd been looking for, the ability to create something useful and beautiful from something most people don't give a second thought to

I told him how creating yarn was just the beginning though. What fibre really brought me was something I didn't know I was looking for and was more valuable to me than yarn: the connection the craft gave me to others, to the past, to the future. I told him that I learned my favourite thing was teaching and sharing what I had learned with people who cared about the craft in a way people who don't spin don't understand. I told him about writing articles for Interweave and about my first book. I told him about the workshop I was on my

way to, where I'd get to sit in a room with twenty other people who loved this craft as much as I do and in the two days we'd spend together, I'd try to spill everything I knew about it while simultaneously absorbing what they knew. I told him of that gorgeous back and forth, that sharing that so fuels the fibre community.

When I got to the part of the story where I started *PLY Magazine*, he smiled knowingly and nodded. He was such a captive audience that I'm sure I waxed a bit poetic about how much incredible knowledge so many women and men have hiding away in their crafty brains and nimble hands, how I learn so much from each and every issue. I told him how it's the thing I'm most proud of.

I went on to tell him how we were planning on starting a regular yearly spinning event and how we wanted to start publishing spinning books. We've since done those things. PLY Away is busy planning year four when 500 spinners will once again converge in the middle of the United States (Kansas City, MO) and look at each other with understanding, acceptance, and adoration as we walk around with bits of fluff stuck to our bums. And we've put out our first book and have two books a year planned for the future.

I didn't tell him what a success and joy those last two endeavours are because they'd yet to happen, but they are. All three things together – *PLY Magazine*, PLY Away, and PLY Books – have so much love and joy and happiness (and blood and sweat and tears) wrapped up in them that it's hard to explain. But I did try. I went on and on as I tend to do when somebody is willing to listen. I told him all about fibre, of course. Once we covered spinning we moved on to why a person might want to spin (as opposed to purchasing yarn or even already finished garments). Then I started telling him about the people, the community – the spinners.

At the end of the flight, this slight man, this aura-reading life and career coach looked at me and said, "I knew it right away, my girl. Your job in this world is to help other people realise their dreams. Your aura told me the minute you entered the plane, and the last few hours only confirmed it. Congratulations, what an honour you have in this life."

No, seriously, this happened and those were his actual words. And you know what? He's right. I relish every inch we help somebody along their spinning path as they move closer and closer to making the yarn they want, becoming the spinner

they want to be. But as amazing as that is, what is equally or more gratifying is helping a woman (or man) find her voice as she shares what she knows with a talented and grateful community. To be able to provide a platform for hard won (or hard spun) knowledge from somebody who just loves the craft is an honour and a joy and one I didn't know would mean so much, but it does. Boy does it!

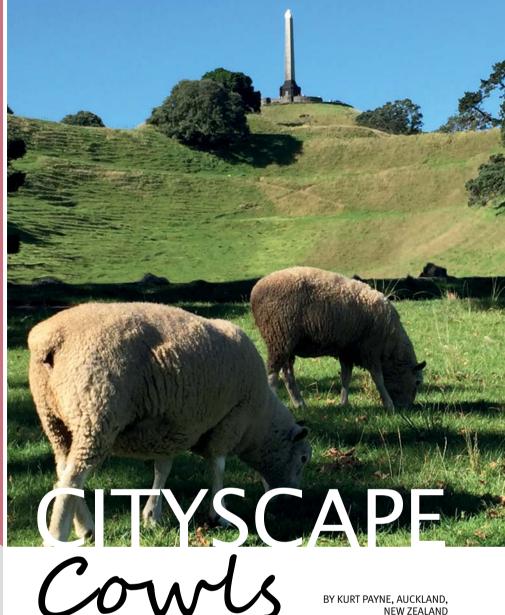
Of course, PLY has grown. What started as a three-person operation - me, Bernadette as the photographer, and bigger with an added dedicated managing and copy editor (Karen), a customer service and a developmental editor (Jillian). The seven of us love what we do. It's not just a job; it's bigger than that. And my plane companion was right: for me, it's not about sharing what I know with others; it's about helping this wonderfully large and diverse community share what they know with each other. And with that sharing comes knowledge, innovation, growth, and thankfully lots and lots of yarn.

Editor's NOTE

Jacey, keep helping others realise their dreams!

The next PlyAway spinning retreat will be held April 9-13, 2019, at the Westin, Crown Center, Kansas City, Missouri, USA.
To subscribe to *PLY Magazine* go to: plymagazine.com





Using gradient and tetradic colour schemes Kurt creates beautiful yarns for his cityscape cowls.

Living in New Zealand we are so lucky to have sheep everywhere! Even forty minutes' walk from my house in our largest city, Auckland, is a woolshed and flocks of Gotland and Perendales. For this project I wanted to put the Ashford Drum Carder through its paces, so I teamed up with Seattle-based designer Kyle Kunnecke and created a knitted cowl using hand spun tweed and gradients. Kyle's cowl was made from a fine Corriedale hogget fleece and mine from a Gotland, which is naturally grey.

You can also use the same techniques, looking at the colour wheel to select colours, to create a sweater-lot of tweed or spin up the gradient for a fine lace shawl.

You will need:

For each 100gm ($3\frac{1}{2}$ ozs) of yarn you will need about 150gm ($5\frac{1}{4}$ ozs) of raw fleece Ashford wool dyes and related dyeing and drying equipment

Ashford Standard, Wide or Wild Drum Carder

A colour wheel – available from art or quilting supply stores

Diz – a button, needle gauge or anything with a hole to pull fibre through Spinning wheel with optional jumbo bobbins for plying

If washing and dyeing raw fleece isn't your thing, grab a few Ashford Corriedale fibre packs which have the colours ready to play.



The three other points on the square were purple, yellow and orange-red. I dyed 10% or 10g of fibre in each of these colours.



The blue/green shades with the tetradic complementary colours purple, yellow and orange-red



Blending the colours on the drum carder

A lovely lively tweedy blend

The piles of fibre were put through the carder initially at the 6:1 ratio to open up the locks into a nice smooth batt then all the colours were blended together using the 4:1 ratio until they were thoroughly mixed. I split each batt in half to ensure a thorough mixing of the colours, about 3 times through is usually enough. You can spin straight from the batt or I like to pull though a diz to create a quick-tospin roving.

Gradients

To create a contrasting gradient for Kyle's cowl I looked across the colour wheel from blue-green and selected the five colours from yellow-orange to red-violet and dyed up equal quantities of each.

You can select any 3-5 colours next to each other on the colour wheel to create a bold or subtle gradient.

Each colour was carded separately using the 6:1 ratio then the batts divided into two piles, ready to make two 50gm (13/40zs) gradient batts.

One colour, orange-red, I used as my 'key' fibre to lock the batt together.

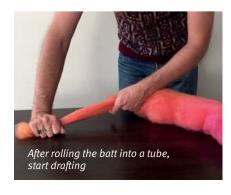
Changing to the 4:1 ratio I fed about 2-5gm of orange-red evenly onto the carder to form the base of my batt.

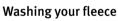


Applying these analogous colours directly onto the big drum

The other colours I applied directly to the drum, one section for each colour and pushing down gently with a backwards motion using the cleaning brush to help get the fibre into place. A few turns of the drum with the packer brush in place after each addition helps to get the full 50gm (20zs) onto the carder.

Once the colours are applied, feed another 2-5gm of the key fibre evenly onto the carder to hold it all together.





It is essential to only put clean fibre through your carder. Lay out your fleece in a clear space and pick out the vegetation, dirty bits etc. Pop the fleece into mesh bags or baskets and scour in very hot 70°C water (160°F) with two tablespoons of mild detergent (I use dishwashing liquid) for only three minutes. Repeat this wash twice more with slightly cooler water followed by three rinses in warm water. Avoiding agitation is avoiding felting! Your fibre is now washed, soaked and ready to go straight into the dye bath.

Tweed blends

Using the colour wheel and a 'square tetrad' to select the colours produces a lively tweed blend with bold ingredients that, used in the right proportions, don't turn to mud.

Kyle's favourite colour is green, so I selected blue-green on the wheel. This forms the base of my blend, so I dyed 70%, or 70gm (2½0zs), of my fibre various shades of green.

Carefully take your batt off the carder and roll lengthwise into a tube and start drafting it into a long snake. Once your snake is about 2m (2yds) long, pull one end through a diz to create a length of roving ready to spin.

Repeat to create a second batt the same. I spun each gradient batt onto a 50gm (2ozs) bobbin then plied to create a continuous 100gm (4ozs) gradient yarn. You could also lay two or more batts on top of each other, roll up and form a snake then pull into roving, spin one continuous single and then chain ply into a larger skein.



Spin then ply the gradient batt





Cityscape cowl



Square Tetrad

In colour theory a square tetrad colour chord uses any four colours which are equidistant on the colour wheel. It is also called the Double Complementary Colour Scheme as it pairs complements. All four colours are spaced evenly around the colour circle. The square colour schemes work best if you let one colour be dominant.







Kurt is an active member of Creative Fibre and The Handweavers and Spinners Guild. He is completing the Master Hand Knitting Program and Certification for Technical Editors with The Knitters' Guild Association. Kurt featured in Issue 29 of The Wheel creating the denimlook in hand spun.



BY KYLE KUNNECKE, SEATTLE, WA, USA

Gauge

22sts and 28 rounds = 10cm (4ins) in pattern

Skills needed

Knit, stranded knitting, locked floats, reading charts, finishing

Size: Small (Large)

You will need:

Yarn: 2 x 100gm (3½ozs) skeins of hand spun yarn with a diameter of 14 - 15 wraps per inch (or experiment with the same weight of DK, Light Worsted commercial yarn)

MC: Solid colour CC: Gradient

Needles: 4.5mm (US 7) 40-60cm (16-24ins) circular needle, 4mm (US 6) pair of double pointed or small circular needles or size necessary to obtain gauge, 5mm crochet hook or latch hook (for provisional cast on)

Other: Stitch markers, ruler, scissors, tapestry needle

Finished size: 65(170)cm (26[52]ins) circumference and 21.5cm (8½ins) deep

Abbreviations

See page 47

Inspired by the towers, skyscrapers, and port cranes that dominate the waterfront

cityscapes of Auckland and Seattle, this cowl can be made in two sizes, small to keep out the chill or large to show off all your beautiful hand spun yarn. The chart may seem overwhelming at first, but using a chart keeper or ruler to mark your place, you will soon be knitting around excitedly as the image develops on the needles. I encourage locking floats every second stitch of the same colour to form a beautiful back to your project. Videos of this along with other knitting techniques can be found online at www.kylewilliam.com

Here's how:

Cast on

With larger needle, crochet hook, waste yarn, and MC, CO 141(282) sts using a provisional cast on. Do not join.

Knit 1 row, place marker and join in the round being careful not to twist sts.

Chart

Begin Chart - Reading chart from right to left, work rounds 1-60 of the chart. (Repeat chart twice each round for the larger size.) When two or more stitches of a colour are worked, the float should be secured (locked).

Once chart is completed, break CC. Complete work with MC. Knit one round in MC. Work I-cord BO.

I-cord bind off

With smaller needles and MC, CO 3 sts.

Slide sts to other end of needle. Bring yarn around back.

K2 sts. SL1. insert needle into first stitch of work and K1. PSSO.

Slide sts to right of needle and repeat, knitting up the next stitch on edge of work until all stitches are used up.

Cut yarn leaving a 15cm (6ins) tail and using the tapestry needle, graft the beginning and end of I-cord neatly together.

Repeat on bottom of cowl, picking up stitches from the provisional cast on.

Finishing

Weave in any remaining ends, waiting to trim yarn tails. Soak in a bath of cool water with a little wool wash, rinse in same temperature water, roll in a towel to remove excess water, then pin or block flat and allow to dry. Once work is blocked, tails can be trimmed.

About the designer

Seattle-based Kyle Kunnecke has a not-so-secret passion for colourwork. Through his fibre workshops he provides inspiration to his students; exploring the skills necessary to continue their personal knitting journeys. Knowing the arts have the power to heal, he is always looking for new ways to encourage creativity in others. Learn more about Kyle and his work: www.kylewilliam.com

Wave and bicycle motif courtesy of AlterKnit Stitch Dictionary: 200 Modern Knitting Motifs by Andrea Rangel





A Beautiful Sound BY D LANGLEY,

BY DIANA TWISS, LANGLEY, BC, CANADA

As you walk up the steps of the house on Sherbrooke Street, in New Westminster, British Columbia, you can hear laughter inside.

The house is old and will eventually be torn down to make way for new developments, but for now it is home to *Woolwerx*.

Woolwerx is an artisanal wool studio with a difference. It's a social enterprise created by the Elizabeth Fry Society (EFry) of Greater Vancouver to provide training and employment to marginalised women. Woolwerx is based on a unique concept: turning donated wool from local shepherds into hand-processed wool, yarn, and fabric.

In 2017, EFry contacted me to help them build a fibre studio that melds with its commitment of supporting marginalised women in building sustainable lives. I am a fibre artist – both a teacher and a maker. I've been knitting my whole life, spinning since the turn of the century, and have recently started weaving. I am also an adult educator. For my entire teaching career, I have worked with marginalised adults who struggle with reading and writing and want another chance at meeting their life's goals. When I was contacted by EFry to help them with this project, my first and only thought was yes. Sign me up. This was the phone call I had been waiting my whole teaching career for – a chance to merge my two passions; fibre arts and working with people to find their way back to learning and to the world of work.

The ultimate goals of the project are to provide women with some income and some much-needed work experience. In Woolwerx we have a team who has learnt all aspects of the yarn production process: from cleaning and carding a local fleece, to spinning, dyeing and weaving the yarn into fabric. The team-based nature of fibre processing helps women learn and practise skills of group work, effective communication, conflict resolution, goal setting, and task management. Women who work at Woolwerx are offered part-time wholesome work in a healthy environment and while working in this project, they are able to develop a resume of current work experience, gain good references, and also simply, go to work and be with women who are in similar situations and varying stages of rebuilding their lives.

Not a single woman has arrived at Woolwerx with any kind of background in fibre arts. But over the course they are becoming experts. Where it once took more than one day and many grimaces at the smell and the task of picking through on the state of the fleece when we receive it. Where once many women would stand they now, without breaking conversation with each other, start picking up sections They know exactly what to do. They know what is good. They know what is a waste of time. They know what needs to happen before we even start washing, because what needs to happen when they are carding, because they've spun. And some at this point, know what needs to happen while they're spinning, because they've

Early on, when I was teaching women about the stages of fibre production, I brought a suitcase full of my weaving to show what is possible. They were immediately drawn to the wide blanket/wraps and the way you can wrap yourself

in them. The pattern here is our absolute favourite, and the one that the women are working towards making for themselves.

We are in early times with this project and we have great hope for it. In the first year, we were building the plane while flying it, so we weren't as efficient as we are now. But we now have things figured out. We have a workflow; a steady and trained work team who can train new comers; a fibre arts community that donates time, stash, and equipment; sheep producers who know about and support the project; and a house full of excellent quality fibre arts equipment – wheels, hand and drum carders, blending boards, hackles, combs, and lots and lots of wool and yarn.

At Woolwerx, there is always laughter. Despite the challenges women have faced and continue to struggle with, Woolwerx is a safe space. It brings out the best in us, the ability to laugh at ourselves, to playfully tease each other, and to tell true stories, while washing donated wool, while carding, while spinning. As you walk up the steps, you can hear it, as you get close, it's a beautiful sound: women laughing while they work together to make beautiful, beautiful things.





The Absolute Favourite

BY DIANA TWISS, LANGLEY, BC, CANADA

This hand woven wrap is the absolute favourite at *Woolwerx* because it has the coziness of a blanket with the ease of wearing that comes with a wrap. It's a simple plain weave, but the beauty of it comes from the unique hand spun yarn and colours used.

Size: One size fits most

You will need:

Loom: 80cm (32ins) rigid heddle Reed: 30/10cm (7.5dpi) Warp yarn: Hand spun 2ply, 10wpi, 658m (720yds) Weft yarn: Hand spun 2ply, 10wpi, 320m (350yds) Other: Tapestry needle for hemstitching

A note about the yarn

All the yarn made for this wrap was spun on my Ashford Joy spinning wheel. Most of it is from four 115gm (4ozs) braids of handpainted non-superwash fibre from local dyers Sweet Georgia Yarns and Kinfolk Yarn and Fibre. The colours in the hand-painted braids were analogous – mostly blues and greens, but each had minor differences.

- 1. Mostly greens, a bit of blues and white
- 2. More greens than blues
- 3. More blues than greens
- 4. Greens, teals, blues and a shot of magenta

I split them into narrow strips so the colour transitions would happen often and spun each separate colourway onto separate bobbins. I then plied #1 and #2 together, and #3 and #4 together. I washed the plied yarn and hung it to dry. Yarn 3-4 was the yarn mostly used for the warp. I set aside three weaving bobbins of yarn 3-4 so I could use it in the weft in a random way. To fill out the rest of the warp yarn I used yarn from my hand spun stash.

Here's how:

Total warp ends: 240
Total warp length: 2.75m (3yds)
Finished width: 66cm (26ins)
After washing/fulling: 61cm (24ins)
Finished length: 196cm (77ins)
After washing/fulling: 162cm (64ins)

Warping

Warp the complete width of the 80cm (32ins) reed with the hand spun yarn. The fractal spun hand-painted braids cause striping – something that I don't usually like in knitting, but I love in weaving,

especially when used in both warp and weft. The subtle and random stripes can give the look of a funky plaid.

Weaving

I suggest hemstitching the starting end to avoid knotting the ends. No one wants to sit on knots when wearing the item. Weave the entire warp length with the hand spun yarn, using yarn 1-2 and occasionally using yarn 3-4 from the three bobbins set aside earlier. Finish the end with hemstitching.

Finishing

Remove weaving from the loom.

Trim warp ends to 18cm (7ins). Make a twisted fringe using 4 strands of yarn. Tie a knot at 10cm (4ins). Hand wash in warm soapy water, and rough it up a bit to get the fibres opened up and starting to full. Rinse in clear warm water. Towel dry.

I tossed this into the dryer with a dry towel. I checked it every five minutes (carefully timed) until it gave the look and feel I wanted in a wrap/shawl. I wanted the fibres to lock together a bit for some strength, but I didn't want a dense fabric. I wanted some drape.

To make the poncho style, fold it in half lengthwise. Make a mark 28cm (11ins) from the folded end. Line the edges up and whip stitch the selvedge edges together, leaving the 28cm (11ins) from the fold open.

Editor's NOTE Diana's cozy wrap

Diana gives full-day workshops on colour, carding and spinning. Diana is also passionate about creating clothing from fibres sourced within a one-hundred-mile radius of her home. Read more about Diana, her classes, and "100-mile Wear" on 100milewear.com



Love at First Sight BY AGNES HAUPTLI, KAITAIA, NEW ZEALAND

Agnes loves her 16 shaft Ashford table loom and with these four colour double weave placemats, she really shows its capabilities!



The 16 shaft table loom. Ask yourself: Do I need one? Probably not really. Do I want one? Yes!!!!

You need a 16 shaft loom especially if you like more complex designs. If you like patterns with curves and circles you can get a much smoother design line on more shafts. Advancing twill lines have a much bigger design area on sixteen shafts than it would on eight. If you love turned twill blocks and want four blocks, you'll need sixteen shafts. If you love Echo weave designs, turned Taquete, or interleaved designs, then a 16 shaft loom is what you

Start designing your own patterns, get really comfortable with a specific structure in weaving. That could be summer and winter, lace weaves, crackle, twill, network twills and many others. Use today's modern tools in the form of weaving software such as PCW Fiberworks, WeavePoint, ProWeave or Weavelt. Play with that structure, expand the threading, change treadlings, play around with the tieup. You will soon see that designing takes up more time than the actual weaving and it's a lot of fun too!

I also like to have the 16 shaft table loom for sampling. If I just quickly want to see if a specific structure or design will work, it is much more economical to set up the table loom than a floor loom.

Another huge plus for the table loom is the ability to lift each shaft individually in any way and in any combinations you want. My nickname for it: it's the manual dobby loom, Sometimes, on a 16 shaft floor loom with treadles one can be limited with lifts because of the tie-up. Yes, there is skeleton tie-up options but it's just not so practical if one has to press down three treadles.

Go on push the limits... with a 16 shaft table loom!



Four Colour Double Weave

Loving the capability of the 16 shaft loom, Agnes weaves these fancy and fabulous placemats.

For this project I decided to do placemats using an 8/2 Ne mercerised cotton in a four colour double weave.

You will need:

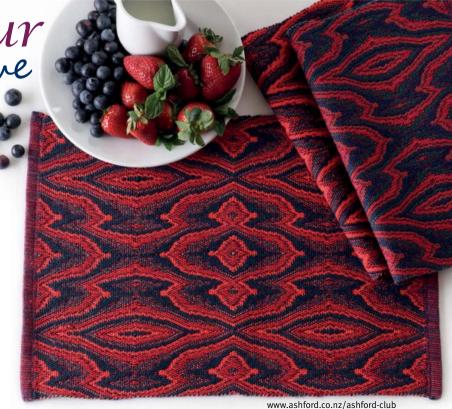
Loom: 16 shaft table loom 60cm (24ins) wide

Reed: 48/10cm (12dpi) Sett: 19epcm (48epi)

Warp yarn: 8/2 Ne mercerised cotton, 6700m/ kg in two contrasting colours of similar value.

I used red and navy, 1 cone each

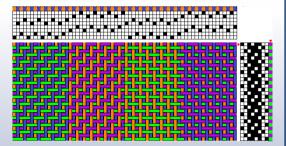
Weft yarn: 8/2 Ne mercerised cotton, 6700m/kg bright green and medium blue, 1 cone each



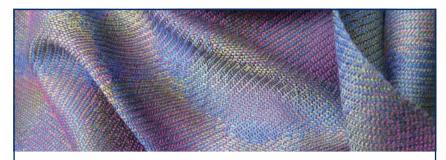
14 Ashford Wheels & Looms

Four Colour Double Weave

In classic double weave we usually have two colours in the warp and the same two colours in the weft and therefore create areas of pure colour. In four colour double weave two different colours are used in the weft which creates areas of four combinations of mixed colours and no areas of pure colour as in the following drawdown:



Depending on the thickness of yarns used, this structure can be used for a variety of items. If using thicker yarns like 8/2 Ne cotton this makes sturdy placemats, table runners, bags or jacket material. If you use finer yarns like 30/2 or 60/2 Nm silks, gorgeous scarves and shawls can be produced. With the right placement of colours, a certain amount of iridescence can be achieved.

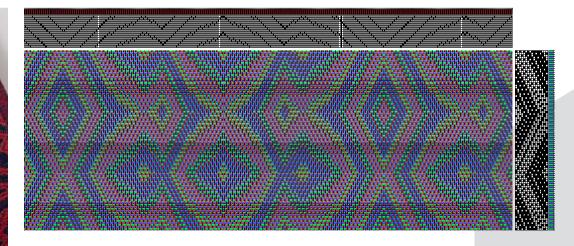


Textiles have always played a part in my life. When I was very young my grandmother taught me how to knit. Later I was fascinated with very fine crochet work, and embroidery took my fancy for a while. As kids, living in a time with no TV or other electronic time-wasting gadgets, we were steered into making presents instead of going into a shop and buying something. The seed was sown.

In 1995 whilst on a visit in Switzerland I was given a rigid heddle loom. Back home I gave it a go, was fascinated and couldn't stop playing with my new toy! Over the next several years there was a steady progression from loom to loom: I had to build a separate building to house all these looms! Today my workshop houses 5 big looms, a couple of smaller floor looms and in a separate room there are several table looms, amongst them two 8 shaft and a 16 shaft loom which are used for sampling and for teaching. The beauty of these is that you can attach a second warp beam for weaves where you are using two warps with differential take-up.

With the change of looms the threads changed as well. While I was using rough carpet wool on my very first trials on the rigid heddle loom, with each new loom acquisition I also seem to have changed the threads and very quickly ended up with very fine silks as my absolute favourite. To thread my 32 shaft loom with 90-120epi does not put me off at all - on the contrary!

I am fascinated by the absolutely endless possibilities in view of design and I also marvel at the different materials we have today. From drinking straws to copper wire to flower stalks to aluminium strips, anything goes. But besides the different materials one can use, it is the design aspect and the choice of colours that attracts me the most. Thanks to weaving software that is readily available today we can explore weave designs like never before.



Here's how:

Number of ends: 573 ends, alternating red and navy

Width in reed: 30.5cm (12ins)

Finished size: 27cm (10½ins)
Warp length for four placemats: 1.8m (6ft)

Warp length for four placemats: 1.8m (6ft) plus loom waste and sampling

Weave structure: Four colour double weave

Weaving

Weave 3cm (1½ ins) in plain weave using a finer cotton for hem. Weave according to the draft for the required length alternating your weft colours.

Finishing

Fold hem and machine stitch. Wash in washing machine on full cycle, iron.



Agnes is an award-winning member of the Professional Weavers Network of New Zealand.

In Issue 27 of The Wheel Agnes shared her love of teaching children to weave.

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This decorative woven pattern creates a unique bodice to be used for a dress or top. My daughter wove this quick and simple garment and it always gets lots of compliments. The bodice pattern has been woven many times since with colour, yarn and weave variations, all on the 60cm (24ins) rigid heddle loom no matter what the bodice pattern size.

Size: measure your torso to calculate size of woven shape

Weave structure: plain weave, leno and Danish medallion

You will need:

Loom: 60cm (24ins) or wider rigid heddle Reed: 40/10cm (10dpi) Warp yarn: rayon variegated slub yarn Weft yarn: same as warp plus ribbonstyle yarn for Danish medallion Other: darning needle for hemstitch, "handy tool" mini crochet hook for creating the Danish medallion

Here's how:

Measure body torso for length - shoulder point to waist

Example size S = 42cm (161/sins) for the front and 43cm (17ins) for back, plus 4cm (11/sins) at shoulder. I added 4cm (11/sins) spacer in between the front and back panels for the neck opening. Upper body width - measure across widest area, bust line. For example, size S = 53.5cm (21ins) for the front side and

same for the back.

I calculated 56cm (22ins) wide to allow for the selvedge pulling in.

I added 13cm (5ins) fringe in the front and my waste became the fringe for the back side. The 25cm (10ins) is the waste for the loom I used but others may vary for calculated waste. Remember that part of this waste becomes the fringe of the back panel.

Total warp ends: 220

Total warp length: 127cm = 13 + 42 + 4+ 43 + 25 (50ins = $5 + 16\frac{1}{2} + 1\frac{1}{2} + 17 + 10$)

Weaving pattern: PW-plain weave, DM-Danish medallion, LENO

Remember to leave enough warp 13cm (5ins) at the beginning for a fringe before hemstitching.

5cm (2ins) PW 2.5cm (1in) LENO 4cm (1½ins) PW 8cm (3ins) DM 4cm (1½ins) PW 5cm (2ins) DM



DANISH MEDALLION

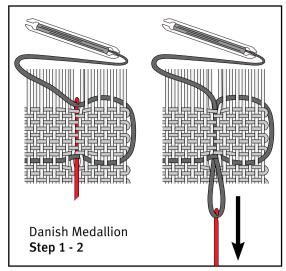
There are many variations of Danish Medallion and on the dress, I chose to elongate the loops. First create a shed and pass through a weft yarn that you choose for the "medallion" pattern: a thicker or a novelty yarn will accentuate the medallions. With another shuttle/yarn weave some plain weave (this will

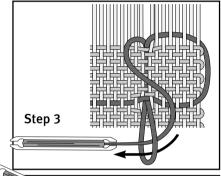
become the middle of the medallion). On the next plain weave pick, leaving the shed open, insert the medallion yarn shuttle as far as the preferred width of your medallion. Bring the medallion yarn out of the shed to the surface.

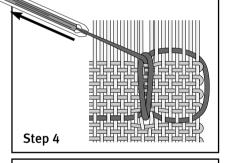
Insert the crochet hook, at the bottom of the medallion and hook the top medallion yarn drawing out a loop. See step 1

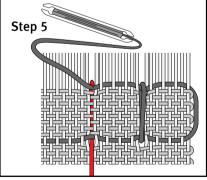
Insert the medallion shuttle into the loop and pull as taut as desired. See step 2, 3 and 4

Enter the open shed with the shuttle with the medallion weft and continue across the width of the warp. See step 5











2.5cm (1in) LENO 2.5cm (1in) DM 4cm (1½ins) PW 4cm (1½ins) LENO 4cm (1½ins) PW Insert 4cm (1½ins) spacer (that will become the neck opening).

Hemstitch on either side of the spacer

and continue to weave the back panel.

10cm (4ins) PW

2.5cm (1in) LENO

6cm (2½ins) PW

2.5cm (1in) LENO

13cm (5ins) DM

2.5cm (1in) PW

2.5cm (1in) LENO

4cm (1½ins) PW

Hemstitch at the end.

The remainder of the warp becomes the fringe for the back, trim as long as desired.

Cut warps at spacing area about 25cm (10ins) leaving about 8cm (3ins) on each side - this is the neck opening.

The bodice can be sewn to a skirt, leave sides open on bodice and 7.5cm (3ins) of skirt for ease to put on. I used snaps on each side to then close.

HEMSTITCHING

beginning.

I use hemstitching at the beginning of my weaving to give a tight secure anchor for the weaving edge and it adds a nice, decorative raised edge as well. The warp yarn I am using is 8/2 and on a 10 dent reed I chose to use a 3 x 3 hemstitch. That means with my threaded needle, I wrap 3 warp yarns and my needle goes up 3 picks. In starting the hemstitch, I measure 4-5 widths of the weaving and leave this long tail of weft out before starting to weave. I also do not place "junk" yarns to weave a heading as it makes it harder to hemstitch with that in the way. I weave about 2.5cm (1in) of weft and pack the weave tight - then hemstitch the beginning of this weave with that long tail. This allows me to see the amount of fringe I want at the

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LENO LACE

Leno lace uses a pickup stick to create a new shed from the twisting of groups of warp over each other. There are so many different patterns of leno lace. The dress bodice is a simple leno lace using 4 warps and simply twisting 2 over 2 and inserting the pickup stick. Continue this across the entire weaving. Flip the stick upright and insert shuttle across the entire shed. I weave a few plain weave rows between each leno lace.

BEADED BAND

For the front waist detail of the bodice I chose to attach a beaded band that I created separately, and then hand stitched the band onto the woven front panel. There are many beaded trims on the market, so this detail can be hand beaded, or purchase a ready-made trim.



Editor's NOTE

Roxanne Eklund has been in the creative arena for her entire career. For almost thirty years she was a shoe designer, and creator and owner of several branded footwear companies. Then Roxanne was a designer and partner of a jewellery business before becoming an Adjunct Associate Professor at Pratt Institute, Brooklyn, NY, in Fashion Design for nine years. Recently Roxanne has started the Nazareth Artisan Studio, a place to learn, create and shop!



Colours that look great together aren't always obvious and it can take hours playing with dyes to come up with one successful colourway. People have asked where I get my inspiration for colours from. The answer, non-specifically, is "everywhere" but more precisely, nature. The internet has numerous photography websites, and Pinterest and Google and library books are a great source of ideas. Nature's colours are all around us but when we learn to really *see* colours it becomes obvious that nature has given us a generous palette from which to work.

It is how we combine the hues and control the intensity that affects the outcome, firstly of the dyed fibre then the spun yarn or felted product or knitted garment. The secret I have found is to not put too many hues into one colourway, there is always the risk that too many hues together will make a muddy colour when the fibres are spun or felted together due to the phenomenon known as visual blending. Skilled spinners and felters will have ways of minimising this effect but a well-designed dyed fibre product is the best possible start.

Exploring and designing colour stories

When you start designing or choosing colours be mindful of basic colour theory. To begin with, use the colour wheel to select analogous or, with caution, complementary colours then spice it up with a dash of the unexpected once you gain confidence. This is the secret. This introduces the wow factor and makes your garment or art-piece eyecatching and memorable.

Here is a little basic colour theory that the dyer needs to know. Using the six colour (secondary) or twelve colour (tertiary) wheel, analogous colours are two, three or even four adjacent colours, e.g. violet, blueviolet and blue. Complementary colours are



directly opposite one another on the wheel, e.g. blue and orange or yellow and violet. Analogous colours are very easy to work with, and will rarely disappoint. However using complementary colours can be more challenging. When the dyes mix or accidentally overlap in the dye process you can get some very muddy browns or even black, depending on the proportions and strength of your dye solutions. With care you can have two or three analogous colours and a 'pop' of the complementary but in practice when introducing the "pop" you will need to ensure that your dye solutions are applied slowly and worked well into the fibre before you add the next colour beside it and if the fibre is too wet the colours will run together. Dye recipes which mix two or more hues will introduce more complex and perhaps sophisticated colour stories and you will gain the confidence to explore these once you have experimented with the more simple hues.



There are many books and online tutorials to read if you want to explore the theory in depth but to begin with this is all you need to know. The rest comes with experimentation and practice.

There are two important aspects to creating good dyed fibre which is a joy to spin or felt with. One is the colour story and the other is the physical quality of the fibre once it is dyed. The colour story is up to you and your imagination. The physical quality begins with using a beautiful fibre or fibre blend such as Ashford Merino sliver or fine

Merino top, or one of their luxury silk/Merino or silk/alpaca/Merino blends. These preparations are well carded with no vegetable matter, neps or clumps and, with care in the dyeing, will give you dyed fibre with beautiful handle. Without care in the dyeing process you will end up partially felting the fibres and making them impossible to draft for spinning or felting.

As a guide here are a few dos and don'ts which will minimise the disasters when you start using acid dyes to dye fibre. Don'ts are the most important things to remember as they will help you avoid disasters. Dos are merely suggestions to help you achieve the results you are seeking.

Don't

- allow the fibre to soak for more than a day or so. It can get very smelly and the smell is often still noticeable in the finished dried product.
- wring the fibre sliver to remove soak-water or dye solution as this can break or stretch the fibres which might cause pilling in the final garment.
- subject the wet fibre to temperature shocks, either by pouring hot dye onto the fibre or in the cooling/washing/rinsing process.
- agitate the fibre while wet or damp.
- cut the sliver when dividing into weighed portions. Pull it apart. Cutting creates short ends which might cause pilling or make spinning difficult.
- store the dyed fibre in plastic bags or sealed containers until it is completely dry.

The Dos are flexible and every dyer will develop a method that suits them and their dyeing environment/studio.

Do

- soak pre-weighed fibre in tepid water with a small squirt of dishwashing liquid. The soak time depends on the fibre you are dyeing. Silk or silk blends should be soaked for at least an hour, other blends can be soaked for just 30 minutes or so but overnight is fine.
- gently squeeze water out of fibre. If you intend to dye intense colours the fibre should not be dripping wet as this will cause the colours to run into each other and potentially prevent even colour distribution.
- apply dye solutions (with acid added) to fibre and distribute as required.
- wrap in heat-proof plastic and heat to at least 80°C (176°F). The time will

- depend on your method steaming, microwave etc. and will require some experimentation. Do not allow to dry out or scorch. Also overheating may melt the plastic and cause it to stick to the fibre.
- allow the wrapped fibre to cool slowly to room temperature before rinsing out the fibre to remove the remaining acid and unexhausted dye. Use room temperature water and rinse two or three times with minimum agitation. If the heating has been successful you will not have any dye left in the fibre but the acid must still be rinsed out.
- air dry the fibre out of the sun.
- keep notes of your processes and recipes and take photographs so you can repeat the successes and avoid the disasters.
- enjoy spinning or felting your colourful fibre creations.

Inspiration from nature



offers hand dyed fibre and yarns online and at trade shows. Lyn prefers the best NZ-sourced products and NZ Merino is the base for all her fibre blends and yarns. See www.fibre2go.co.nz.



Richard and I were humbled, and hugely impressed, by the quality of the applications for our award. There were initiatives to further textile crafts, others to help educate and rehabilitate, or to foster connections and social enterprises providing income and purpose, each using textile craft equipment – all were worthy winners.

The Winner

Weaving Connections: A Fibre Initiative Amongst Coast Salish

Children, Victoria, BC, Canada

A textile programme for 9-14 year-old First Nations children from a reserve in a Coast Salish Community in Victoria, BC, Canada, was chosen as the inaugural winner of our award. We were so impressed by the programme's multi-faceted aims: to foster health and mental wellness; to facilitate

a means by which the children might re-discover the beautiful weaving and knitting traditions of the Northwest Coast Salish peoples; and thirdly, to promote an increased sense of confidence, self-esteem, and a vision of a brighter future. Katy Scoones, a trained art therapist who works with the children, focusses on combining cultural practice with



a therapeutic process to achieve the educational, cultural and therapeutic benefits for them. Our award will allow Katy to develop her after-school textile programme so the children can card, spin, weave and knit and produce blankets featuring the Coast Salish designs and iconography. "This is an exciting project, connecting the children to their local land and animals, while also encouraging them to embrace their rich heritage of the Coast Salish fibre arts and a sustainable future," says Katy.

We look forward to following progress of this wonderful initiative.





The Finalists

Backyard Mosaic Women's Project, Madison, WI, USA – a project and safe place where women who are recreating their lives after incarceration can gather, to heal, to grow, to develop their creative skills, and participate in the creation of community-based public art. Fiber U, Lebanon, MO, USA - promoting affordable and accessible education of all fibre arts. Heritage Park Historical Village, Calgary, AB, Canada – offering public education classes. Wingham Spinners and Craft Group, Taree, NSW, Australia – a project to support the local community and encourage the development in creative and traditional textile crafts.

Applications are invited for the 2019 Award!

Applications close March 1st, 2019

The Elizabeth and Richard Ashford TEXTILE AWARD

Richard and I are pleased to offer an annual award to encourage and support textile artists and help them enjoy artistic freedom. We hope our award will contribute to the development of the fibre arts or the education of future spinners, weavers, felters, knitters and dyers. Valued at NZ\$5000, the award can be used to purchase any Ashford equipment, fibre or yarns. We are looking for creative projects that

have vision and are viable. This could be a garment, process, or an educational or philanthropic project. The award is open to everyone: individuals, guilds/groups, aid agencies, non-government agencies... Your application must be received by March 1st, each year. For an application form go to www.ashford.co.nz/Award









Best of All

BY RACHEL FAIRCHILD, CANBY, MN, USA

Starting young with practical hands-on learning and life skills, Rachel has discovered the joy of crafts.

Hello! My name is Rachel Fairchild. I am eleven years old and I live on a farm on the Minnesota/South Dakota border, in the USA. I have a dad and mom, I also have eight siblings, three in college, one in high school and the rest of us are in Elementary School. There are six girls and three boys.

During the school year, I play basketball and volleyball. During the summer I play softball. I also play the French horn in the school band.

I'm in a program called 4-H which is a group where you can literally do anything! My favourite things to do in 4-H are to show our family's cows, calves, pigs, goats, and do a lot of "static" exhibits. These are non-animal projects, like making posters for Citizenship, doing ecology projects, sewing - literally anything you can dream up you can fit into a project category that you can take to the county fair. Then if you win there, you can take it to the State Fair when you're old enough. I will be next year!

But my most very favourite thing OF ALL to do at the fair is show my own sheep. I show at least two to three lambs each year. Here I compete against my siblings. My sister Grace runs her own flock and so does my sister Ashlyn. My other siblings just pick out of my parent's flock. It's so satisfying when I beat them! Ha ha!!! I have my own animal herd which consists of eight sheep, Hampshire Suffolk cross, and six goats.

I also have my own spinning wheel! It's an Ashford Kiwi. After my sister and I started buying sheep, we started getting our wool processed into roving to either sell or make yarn for ourselves. Our goal is to get good enough to have a little business selling the yarn we make. I think it would be great to have a business with my sister.

The way I saved up for my Kiwi is from 4-H: proceeds from selling all my young lambs and goat kids and exhibiting my animals.

My sister Grace and I taught ourselves to knit with YouTube videos. I am making a dish cloth right now. I do like to knit with my yarn too. The yarn I made was from Southdown, Isle de France, Hamp, and Suffolk. My favourite yarn to knit is from the Southdown because it is soft. My mom, sister, and I also needle felt. My favourite thing to needle felt with is Hamp/Suffolk roving.

I have also tried weaving on a homemade weaving board but it didn't work out.

One thing that I love to do is make tie rugs. They turn out so fluffy and comfortable. My mom makes the prettiest tie rugs in the world! We do these on our "Crafty Sundays" that's where after chores we make crafts for fun. Once I made a gigantic reading pillow! It is very comfortable, too.

I want to try to knit socks but don't have the correct knitting needles. That will have to be someday.

Thank you for reading my article in this edition of The Wheel!



4-H is a global network of youth organisations whose mission is "engaging youth to reach their fullest potential while advancing the field of youth development". The 4-H name represents the four personal development areas of focus for the organisation: head, heart, hands, and health. Throughout the world, 4-H organisations exist in over 50 countries.



A creative fibre artist test drives the new e-Spinner Super Jumbo.

Editor's NOTE

jazzturtle.com

Esther is a creative fibre artist and educator, who has featured in many textile magazines and online videos. Esther has kindly agreed to come to New Zealand in January 2019 to hold classes and record videos. See www.ashford.co.nz/Esther Rodgers for the class schedule. To see more of Esther's work, go to

The art of fibre is a progression – a journey from one form to another. Each step is a new chance for expression. I create with a wild freedom that only raw fibre allows. By washing and dyeing all my animal-friendly, farm-sourced wools myself, I gain full control of my textures and colour. With my drum carder colours are blended to create a palette. With my spinning wheel, I use innovative techniques and materials to create yarns that function as art, yarn and couture. Each skein is a wearable piece of art or can be hung on the wall and admired. I look for the extraordinary in fibre and what it can become.

As I focus on spinning textured, non-traditional yarns, as well as yarn with stories, I was intrigued when Kate, from Ashfords, asked me to test their new e-Spinner Super Jumbo. The world of e-Spinners is growing in leaps and bounds but these electronic spinners are best suited for traditional spinning, aren't they?

I didn't think it would suit a creative spinner like me. Boy, was I wrong! I love, love the e-Spinner Super Jumbo! Like obsessed!

One of the reasons that many previous e-Spinners never worked for the spinning of creative yarn is because they could never go slow enough to create twist while having enough tension for actually getting the yarn onto the bobbin. The "start" point was always too fast for the basic creative spinning technique. This Ashford e-Spinner Super Jumbo solves that problem completely! You set the speed super slow, and there is plenty of tension to pull the yarn onto the bobbin, while still going slow enough to manage twist, or add inclusions.

There is also a subtly different rhythm in my drafting movement, since I'm not matching the timing of my hands to the movement of my feet. I found one of the benefits of not having an actual "wheel", is that there is no weight to deal with when stopping. When spinning a delicate yarn on a heavy bobbin-lead wheel, you must be careful not to just pull back and expect the wheel to stop. The inertia of the moving wheel could cause your delicate yarn to break. With the ease of the foot pedal to stop and start, there is no wheel inertia to deal with. So, I put the new e-Spinner Super Jumbo to work.

Core spinning Tail spinning





Core Spinning

I set my tension to medium high. You only want to spin as fast as the fibre can wrap around the core, otherwise all you are doing is building unneeded twist. Similar to spinning on a traditional wheel, you want your "work" or where you are spinning to be close to the orifice. If you bring your work away from the orifice, the amount of time it takes for the yarn to move up onto the bobbin will just add unneeded twist. Be careful though, because you don't want to set the speed TOO slow. You want to remember that some twist is "lost" as it redistributes when the yarn goes onto the bobbin - so you want "enough" twist so that the fibre stays wrapped around the core - but not so much that your yarn is overspun.

Tail Spinning and Lock Spinning

When I'm not using a core, when I'm just spinning a traditional style single with locks, I refer to that as "lock spinning", and when I am spinning only the "cut" ends of the locks, and leaving the curl/tip free, I refer to this as "tail spinning".

When lock spinning, there tends to be lots of joins holding the single together as you spin through the locks. I set my tension on medium, so there's enough draw for the texture to pull onto the bobbin, but enough time for me to get enough twist into the single so the joins hold. You also want to make sure you set the twist on a lock spun yarn right away, instead of letting it "rest". This will also help ensure that the joins stay strong.

One of the things that makes tail spinning

so much simpler on an e-Spinner, is the ability to stop and start so easily with the foot pedal. Reach for the locks, open the fibres, attach to the core, tap the foot pedal and you are away! I make sure all my locks are prepared and organised so the cut ends are all in the same direction. Spend some time separating your defined locks from the rest of the fleece. Do this by finding a separation in the lock structure at the curl end and then pulling back towards the cut end. This will help keep your locks together and stop them from getting frizzy. If you pull from the cut end towards the curl, there is greater chance of pulling the lock apart and just getting fuzz. Once you've separated out all the defined locks, put the fluffy cloud of leftover fleece aside for lock spinning.



Add-ins

Adjusting your twist is also important when adding wrapped inclusions like sequins, ribbon, fabric and other trims because the twist holds them tightly against the foundation of the yarn. Add a little extra twist with medium light tension. I have enough time for twist to build, and help the texture pass onto the bobbin. Also, after I have finished wrapping an element, and secured it to the yarn, I hold back briefly giving the yarn a little additional twist before allowing it to pull onto the bobbin.

Practise – and these techniques will become simple! I am so excited that there is finally an e-Spinner on the market that is really designed with the creative spinner in mind.



Esther loves the e-Spinner Super Jumbo







Cathy and her beautiful cape

Shona's Felting Tips

- 1. Make a toile test garment in cotton first. Shona then used a shrinkage ratio of 3:1, to make the cape (and coat) without any seams showing.
- 2. To give the cape good shape Shona used 5gms of fibre per 10cm² on the body area. The sleeves were lighter, 4gms per 10cm², for easier movement.
- 3. For the first layer of the base felt lay the fibres in one direction, randomly. This way you do not get defined thick and thin lines. Make the layer as even as you can, with small overlaps. The second layer needs to be almost at a 90° angle from the first layer. To begin, fill the areas that are not covered enough, then cover the whole
- 4. After placing the embellishments on the base felt, cover with silk tissue. This can be white, black or dyed. You could use an extremely fine layer of the fibre over the embellishments instead and this will make a slightly heavier undulating felt.
- 5. Shona felts using non-slip drawer liners and fine plastic. These work better and faster than bubble wrap.

Cathy Ashford, Richard and Elizabeth's eldest daughter, has grown up surrounded by spinning wheels, weaving looms and fibre. So, when she and her lovely partner David began planning their nuptials, their ensemble had to include natural fibres and hand crafting.

Cathy, who is a fantasy-fiction author, wanted a flowing cape with hood and furry trim. Shona Schofield, an award-winning felter based in Ashburton, NZ, was asked to felt the cape in white (Vanilla) silk/Merino for Cathy and a coat for Elizabeth in Merino. Elizabeth spun the white silk/ Merino for a hand knitted shawl-collared vest for David. It was going to be an Ashford event!

Shona was delighted to accept the wedding commissions. "My dad was the foreman in the Ashford factory for many years and Joy Ashford taught me to spin so it was a real privilege to felt a wedding cape for Cathy

> and a coat for Elizabeth." Using a shrinkage ratio of three, the Ashford silk/Merino blend created a beautiful reflective surface for the cape. Elizabeth's coat was made from a blend of three shades of Ashford Merino sliver (Aubergine #039, Cherry Red #049, and Scarlet #028), for a lovely depth of colour. Shona added sari silk and Guipure lace embellishments on the shoulders for texture.

The hand spun hand knitted vest fitted well under David's wedding suit



Elizabeth's coat was felted usina a blend of three Merino sliver colours with embellishments on the shoulders and furry collar

Shona gets a thrill from designing and felting garments. Wool and natural fibres mould to the body making them so very comfortable and great for travelling as they do not crease. Shona has won many national awards for her felt works. She is the Creative Fibre Fashion Liaison and is helping to organise the 15th Southern Hemisphere Feltmakers Convergence, Felting FreNZy, being held 22-27 September 2019, in Queenstown, NZ. For more information contact Shona at shona@feltandfibre.co.nz





David's Wedding West

A warm but smart vest for the groom.

To fit size 101-112cm (40-44ins)

You will need:

Yarn: 500gm (17½ozs) of hand spun silk/ Merino DK 2ply yarn approx. 11wpi Needles: 1pr 3.25mm (US3, UK10) and 4mm (US6, UK8)

Editor's NOTE

It was a real joy to spin this yarn for my soon-to-be son-in-law. Thank you Rose and Wendy for knitting it up. As Cathy and David chose to be married in mid-winter on a beach, an extra layer of warmth was needed. The fibre, our silk/Merino in Vanilla, was the same fibre used to felt Cathy's glorious cape.

David on his wedding day wearing his hand spun and knitted vest

Here's how:

Back

With 3.25 needles cast on 130 stitches and rib K1 tbl, P1 for 17 rows.

Change to 4mm needles and stocking stitch until work measures 43cm (17ins).

Shape Armholes

Cast off 10 sts at beginning of next 2 rows then dec 1 st each end of next 5 alt rows (100 sts).

Continue straight until armhole measures 27cm (10½ ins).

Shape Shoulders

Cast off 40 sts at beg next 2 rows then cast off remaining 20 sts.

Front

With 3.25mm needles cast on 132 stitches and rib K1 tbl, P1 for 17 rows. Change to 4mm needles.

Row 1: K5 tbl, P2 (K10 tbl, P2) 10 times K5 tbl.

Row 2: P5, K2 (P10, K2) 10 times P5. These 2 rows are the pattern. Continue in this manner until work measures 43cm (17ins).

Shape Armholes

Cast off 10 sts at beginning of next 2 rows keeping pattern correct dec 1 st at each end of next 5 alt rows (102 sts).

Shape Neck

RSF Pattern 46 sts turn (leave remaining st on needle).

Next row: P to end.

Next row: Pattern 43 sts K2 tog K1.

Next Row: P.

Repeat last 2 rows 3 more times (42 sts).

Continue straight until armhole measures same as back 27cm ($10\frac{1}{2}$ ins).

Last row: K2tog at each end (40 sts) leave st on holder.

Return to st on needle, slip next 10 st onto holder. Rejoin yarn and pattern to end (46 sts), continue on these st and match to other side.

To Make Up

Ioin shoulder seams.

RSF Pick up st evenly around armholes and work K1 tbl, P1 rib for 7 rows. Cast off ribwise. Join side seams.

Collar

Return to 10 sts at neck and 3.25 mm needles.

Row 1: K tbl.

Row 2: P.

Repeat last two rows twice.

Next Row: K1, cable 8 Sts: Sl 4sts on to cable needle, hold at back of work, K4, K4

from cable needle, K1.

Next Row: P5 turn continue on these sts

(leaving 5 sts on holder for other side) K1 tbl, P1 rib increasing 1 st at neck edge on alt rows until there are 50 sts (check to see if collar fits - you may need to do extra rows). Continue straight until required length across back neck. Cast off.

Return to neck 5 sts and complete to match other side. Cast off.

Sew collar into place joining cast off edges together to complete.

Abbreviations

See page 47



The vest knitted in Ashford 8ply Tekapo



My hand spun yarns

A. Smooth warp - a simple 2 ply yellow dyed cellulose yarn from various sources - hemp, ramie, and Tencel

- B. Textured warp and weft a combination NZ wool/Tencel, slub cable
- C. Main weft a simple white combination one ply NZ wool, one ply Tencel yarn
- D. Stretchy weft a pink wool crepe twist single

I use standard industry definitions of yarn types; simple, combination, crepe, and cable yarns. A SIMPLE YARN is **smooth and even in all its parts**, and can be a single, or multi-plied yarn.

A COMBINATION YARN has different fibres spun as singles then plied together, instead of blending. It can be a simple or

fancy two, three or more plied yarn. My favourite is tone on tone, shiny on matte. CREPE and CABLE yarns are both created with excess twist.

Crepe Twist Yarn

A CREPE TWIST YARN always has too much twist, which is *unresolved*, reactive, and used to its advantage. A crepe twist yarn is most often a single but can be two singles plied the same direction they were spun. Crepe twist yarn is never balanced. Use crepe twist as weft for sideways stretch, or as both warp and weft for four-way stretch, or to intentionally skew knitted fabrics. I spin crepe twist yarn twice for evenness. Spin a single, add more of the same twist by transferring it to a second bobbin. Look for extra twist not "crinks" which can't be removed by stretching. Settle the twist by

spraying and drying it on a niddy noddy. The dormant twist will re-energise when wet finished. Crepe needs room to move: tight weaving or knitting defeats the twist. In my scarf the pink crepe makes dimensional collapse stripes lightly gathering the scarf width.

Cable Twist Yarn

A CABLE TWIST YARN is a multi-ply, characterised by excess twist during construction, *resolved by the last operation*. A cable is plied yarns twisted together by reversing twist on each operation, Z/S/Z or S/Z/S. The simplest cable is a 4 ply. It becomes a stable, structurally strong, balanced yarn, with a distinctive look like interlocking loops or chains.



Patsy enjoys designing yarns for weaving



I teach spinners to do a cable as Z/2XS/Z. For this scarf I wanted exaggerated soft texture and chose a combination cabled slub yarn. I Z spun a slubby yarn from soft NZ Merino with a splatter dye pattern. Be sure it plies well when folded back on itself. A soft spun slub yarn will be disappointing. Save a tied ply-back for comparison and as a plying gauge. Z spin a Tencel single with more twist and then S ply with the slub yarn. Check against the tied ply-back to ensure the angle of the plying twist matches the angle of the slub control yarn. Now you need to double the plying twist, 2XS by running it onto two new bobbins in the same plying direction. Cable ply Z two bobbins of the slub/Tencel yarn. Cabled yarns are very decorative, perfect for knitting, warp and finishing fringes.

Rigid Heddle Warping Hints

- 1. Use the versatility of the slots in your rigid heddle loom. Soft, puffy texture slides easily through the heddle slots.
- 2. Show off any textured yarns by framing. That often means a textured varn in a slot, then three smooth yarns in the next eye/slot/eye.
- 3. Choose a selvedge yarn, of a similar colour or texture which will best conceal your weft turnings.

Warping with multiple yarns

- 1. I like "designing in the reed". Using the direct warping method, I have the freedom to thread my different hand spun warp yarns through the slots and eyes in any sequence I like.
- 2. When warping with non-stretch cellulose yarns it may be necessary to adjust the warp tension. Place the reed in the up position and retie the yarns. Yarns in the eyes will be slightly longer than the varn in the slots which will help when changing sheds.
- 3. When weaving with thicker warp like cable yarn, use extra cardboard sticks or pieces of corrugated cardboard to cover the knots and even out the first few wraps around the front roller.

Weaving with multiple weft yarns

- 1. When changing the weft often, the weft tails can add unwanted additional bulkiness. Consider carrying the main weft up the side.
- 2. When alternating colours using two shuttles lay one shuttle down and pick up the next in a consistent way to ensure the yarns cross tidily at the selvedge edge.

After weaving, release the fabric and twist the fringe. Wet finish to energise the crepe stripes, and dry flat.

Now you have a colourful, summer scarf perfect for topping many outfits. Be proud and enjoy your hand spun, hand woven scarf.





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Patsy is a master hand spinner and teacher, who enjoys designing varns for use in knitting, weaving, and crochet. With an extensive NOTE worksnop programme site is a many international lecturer and teacher. See spinninguru.com workshop programme she is a widely-travelled and popular

Tortora, Phyllis G and Ingrid Johnson, The Fairchild Books Dictionary of Textiles, 8th Edition, Bloomsbury Publishing, New York, @2014, Combination Yarn, page 136, Crepe twist, page 158, Cable twist yarn, page 89.



BY ANDREW McCRACKEN, SPRINGWOOD, NSW, AUSTRALIA Without apology, I am a weaver. I love designing the weave. I am enthusiastic, when winding the warps and dressing the loom. I enjoy the moments when throwing the shuttle, even if I have to unweave to fix an error. The music is playing in my "man cave", the dogs visit as they please. I am a weaver. I live in the Blue Mountains, west of Sydney, in Australia. The windows overlook the garden and into the National Park.

In a time "BR" (before retirement) my relaxation was with needle point, tapestries, cross stitch etc. With a demanding job, I could unwind in a world of thread.

Loom weaving had interested me. Over the years I had tried to find out about it. Then, serendipitously, just after I retired I saw the BBC series on Master Crafts, including a program on weaving. There are one-person looms that can fit inside a home! There is a process for weaving real fabric. With that knowledge I was able to go looking. I contacted the Handweavers and Spinners Guild of NSW, who were running beginner weaving lessons.

Thanks to my teacher for the week,

Denise Stevens, that one-week course was the beginning of a journey. I don't know where the journey is going. I have extended my original floor loom, and it is now a draw loom. Don't mention the word "Jacquard"; my wife might be listening.

Table looms are useful as they are compact and easily put away when visitors come. They are great for teaching or taking to classes. I now teach the beginner weaving classes for our guild and we have a range of table looms for those classes, and for our members to hire.

But for me, though, there is nothing better than a floor (or treadle) loom. I have three of them.

The main advantages of the treadle loom are:

- Speed. You don't have to put your shuttle down while you lower one set of shafts and raise the next set. You can raise and lower your pattern shafts and beat the weft into place without having to let go of the shuttle. Faster, easier, rhythmic, makes for a more even beat and better selvedges.
- Simplicity. You don't have to memorise all the shaft numbers in a lifting pattern. You simply tie the shafts for that row of the pattern (say shafts 1,2,5 and 6) to a single treadle, and then step on that treadle whenever you need those shafts lifted.
 Fewer mistakes, and less mentally tiring.

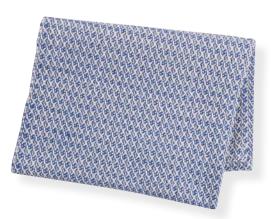
Recently our group acquired a new Ashford Jack Loom. It was delivered to my home for assembly, and naturally I was going to test drive it. Did I mention I love to weave? OK, it is only a test drive, but why only put on a short warp? Eight metres seemed about right. I can weave several tea towels. I can change the tie up between towels to create different patterns. I can use different colours in the weft. We don't want to have eight identical towels - that is no fun.

The loom arrived. A nice new loom! All varnished timber and nice shining metal. It took about eight hours to assemble. I didn't hurry, I followed the instructions, and I was working alone. Easily a oneperson job. It comes with everything to let you start weaving: raddle, cross sticks, a boat shuttle. Just add thread!

I used a simple threading (straight 8). For the non-weavers, this just means the first thread went into the first row of heddles and the second thread into the second row etc., and then repeated. Below is the draft for just one of the towels I wove, the detailed drawdowns for all the other towels are available from Ashford's website at www.ashford.co.nz/wheel 30

I chose to use Ashford's newly released unmercerised cotton. I prefer to use unmercerised cotton for tea towels because it is more absorbent. I chose the 5/2 thickness thread over the 10/2. I like my towels thicker, because they can double their use in handling hot dishes. I am not the chef in our household. My darling wife does the cooking. I am occasionally allowed to help, and I think a nice thick hand woven towel is one of life's secret pleasures indulged in by weavers.

So now I have eight new tea towels, all freshly hand woven, all different and all woven on the same warp.



Cotton Towel

You will need:

Loom: Eight shaft loom 60cm (24ins) or wider

Reed: 12dpi (48/10) sleyed 1,2,2,2,2,1,2,2,2,2

Warp yarn: Ashford Unmercerised Cotton 5/2 (Ne 5/2, 848m/927yds, 200gm)
Natural Undyed #03 100gm (3½0zs)
Weft yarn: Ashford Unmercerised Cotton 5/2 (Ne 5/2, 848m/927yds, 200gm)
Dazzling Blue #46 100gm (3½0zs)

Here's how:

Number of ends: 482. I like wide towels - so I wanted 56cm (22ins) on the loom. 22epi times 22 inches = 484 threads. I am using a straight 8 threading so I want the number of warps to be divisible by 8 - rounded down to 480 warps. Add the 2 floating selvedges and I wound 482 warps. Sett: I used a sett at 22epi, it was a bit too close. I would recommend 20 or even 18. Width in reed: 56cm (22ins) Finished size: 80 x 50cm (32 x 20ins)

Weave structure: Twill variation

Warping

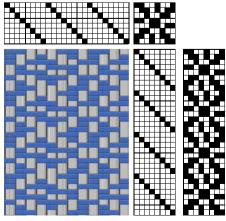
Wind warp and thread as per the draft.

Weaving

Weave a few picks of tabby and then follow the draft.

Finishing

- 1. Remove from the loom and machine zigzag each end.
- 2. Wash gently and steam press.
- 3. Fold the hem and stitch by hand or machine.
- 4. Press again.



Draft for the blue tea towel

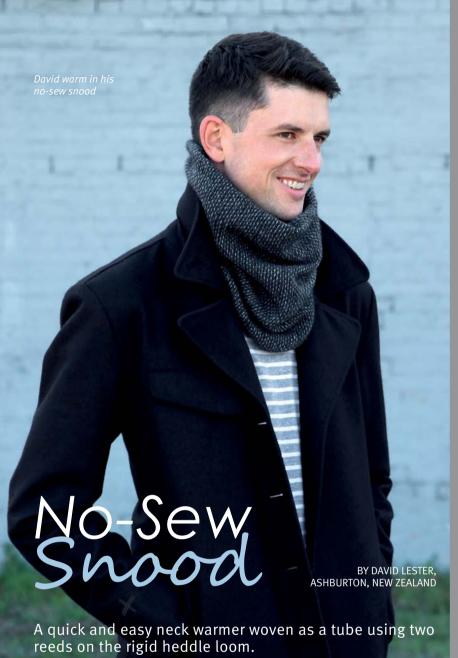
Editor's NOTE

Andrew sells his weaving through a cooperative, has exhibited at the Braemar Gallery in Springwood and has won awards in several competitions. For more information about The Hand Weavers and Spinners Guild of NSW, Australia, go to: www.nsweave.org.au



Andrew thinks there is nothing better than a floor loom





Exploring double heddle weaving techniques has added another whole dimension to my rigid heddle loom. I have enjoyed experimenting with double width, double layer and double density techniques. For this project I wanted to make a cosy snood from a woven tube. It is a simple and exciting way to utilise the second heddle option, now standard on all Ashford rigid heddle looms, to create a finished garment without the need to sew - which really appealed to me!!

For my snood, I chose a fluffy possum/Merino yarn warped using two 5dpi reeds so that my fabric would be a slightly looser weave for increased breathability. I also wove twice the desired finished length to wear the snood folded double layer for extra warmth.



David enjoys the versatility the double heddle gives to our rigid heddle looms. See Issue 28 of The Wheel for his beautiful woven blanket.

*All new Ashford Rigid Heddle, Knitters and SampleIt looms have the second heddle option as standard on the loom. For older rigid heddle looms you will need a second heddle kit.

You will need:

Loom: 40cm (16ins) rigid heddle or wider with double heddle kit* Warp yarn: 4ply 75% Merino, 25% Possum (240m/262yds; 50gm net) light grey, 1 skein (155m/170yds; 50gm net) dark grey, 1 skein Other: 2 x Pickup sticks

Here's how:

Total warp ends: 156 Total warp length: 100cm (39½ ins)

Warping

to warp up your loom with a double heddle for weaving a tube, the only difference is the

Weaving

Weave complete warp length with the dark grey

up position. Weave one pick. Left to right. Shed 2 (bottom layer) — Place the back reed in the down position. Weave one pick. R-L position, slide top pickup stick forward and turn on side. Weave one pick. Slide top pickup stick to the back. L-R

pickup stick to the back. R-L

Finishing

trim fringe to the desired length. Warm hand





Raven and her lamb Greta Gobo (Gobo is the Japanese word for burdock and Greta's favourite food)

Raven wears her grandmother's sweater



Political art

BY RAVEN RANSON, VICTORIA, BC, CANADA

One sock may not make a difference, but a pair of socks is a statement to the world.

With a cup of tea and my spinning wheel,

I'm snuggled up in the sweater my grandmother knitted over half a century ago. White and brown yarn so thick it could have been roving, with Fair Isle designs reminiscent of the traditional sweaters of the local Cowichan First Nations. It took my grandmother months to knit this sweater for her sweetheart, but now both are gone, I claim it as my own in this unusually severe winter storm.

Three things compel me to create textiles: people in my life, connecting to the past, and most of all, the plight of our planet. People, past, and planet intertwine like the bright orange threads of my father's loom I used to play under as a toddler - my first childhood memory and a time when it was more economical to buy a floor loom and weave curtains rather than purchase them from a shop.

I take a sip of tea and place it on the table near to the distaff, already dressed in long line flax I processed with the local Flax to Linen group in the heat of the summer. Grown locally in a field just down the road, every aspect from sowing seeds to harvest,

retting, processing, spinning, done by hand by a dedicated group of volunteers whose mandate is to educate the public by demonstrating practical alternatives to industrial cotton and synthetic clothing. The simple act of working with linen becomes a revolutionary stance when done publicly - and thanks to the hard work of this group, and others like it all around the world, awareness of the impact of industrial clothing and the demand for locally-sourced cloth are growing.

The fibre adorning my distaff was processed at the August Fibre Festival, and this reminds me of my very first Fibre Festival fifteen years ago. A diehard knitter, I was already concerned about where my yarn was coming from. An attempt to find local yarn failed, so I bought an old Traditional spinning wheel but lacked the confidence to spin on it until I took a class from Brenda Nicholson. Suddenly the complexity of grist, Z and S twists, and all that gobbledygook from the book was the most intuitive thing in the world. That afternoon, Brenda introduced me to weaving - the first time since my

childhood I interacted with a loom. I loved it!

Now on my own farm with sheep and flax growing side by side, observing the patterns in the weather is vital to success, but also concerning, as our climate is changing - summers hotter and dryer with smog from the unprecedented forest fires making it difficult to breathe. Roads clogged with sudden snow squalls in a city accustomed to winters filled with rainy mist. With our climate changing so fast, I'm pleased to see political movements like the one that will ban single-use plastic shopping bags in my town this summer. But the question hangs in the smog, will it be enough? What more can we do?

Let me tell you what we can do. We can knit, crochet, spin, felt, and weave our own solutions. I read lately that half of the agricultural carbon footprint comes from industrial textiles, primarily cotton - and that doesn't include shipping, processing and synthetic cloth. When you look at it this way, knitting a pair of socks becomes a revolutionary act. One sock may not make a difference, but a pair of socks is a statement to the world.

I am grateful that the sweater my grandmother knitted is perfect for wearing when shovelling the driveway. This sweater has seen nearly sixty winters, and I imagine the stories it could tell. One sweater, three generations, and over half a century of use. Compare that to the goods of our disposable society, and it is no longer a question of what inspires me to craft - the question is, how could I not?



These bags are strong, but lightweight, to toss in your handbag for emergency shopping trips.

FOR THREE BAGS You will need:

Loom: Four shaft loom 40cm (16ins) Reed: 40/10cm (10dpi) sley 3 threads per

dent

Sett: 12ends/cm (30ends/in)

Yarn: Ashford Mercerised Cotton 10/2 (Ne 10/2, 1696m/1854yds, 200gms) 1 cone Scuba Blue #44, 1 cone Green Glow #52, 1 cone Celosia Orange #50

Other: belt shuttle for the strap, sewing thread and a sewing machine or needle and thimble.



Mercerised 10/2 cotton

Simple and striking, hand woven shopping bags are the perfect opportunity to play with vivid colours.

FOR THE BODY OF THE BAG Here's how:

Number of ends: 480 threads, plus floating selvedges

Width in reed: 40cm (16ins) Warp length: 3m (3.3yds)

Finished size each bag: 35.5 x 35.5cm (14 x 14ins) plus the handle

Weave structure: 2/2 twill

Warping

Wind 240 threads Green Glow and 240 threads Scuba Blue. Thread as per the draft.

Weaving

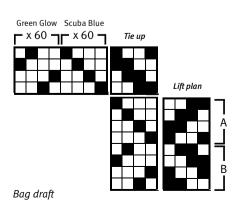
Following treadling A, weave 2.5cm (1in) orange for the hem and 20cm (8ins) green. Treadling B, weave 20cm (8ins) blue and 2.5cm (1in) orange for the base. Treadling A, 2.5cm (1in) orange, 20cm (8ins) blue. Treadling B, weave 20cm (8ins) green and 2.5cm (1in) orange for the hem. Repeat for the other two bags.

Finishing

Remove from the loom and secure the ends with a zigzag stitch. Machine wash and hang to dry.



Weaving the bag material on the Ashford Four Shaft Table Loom



FOR THE WARP-FACED STRAPPING Here's how:

Number of ends: 60 threads, plus floating selvedges

Width in reed: N/A - no reed used Warp length: 7.5m (8.3yds)

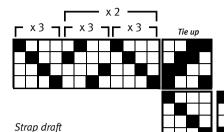
Weave structure: warp-faced 2/2 twill

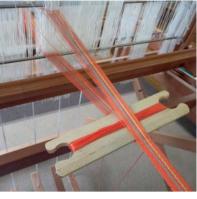
Warping

Wind 20 Celosia Orange, 4 Green Glow, 12 Celosia Orange, 4 Scuba Blue, and 20 Celosia Orange. Wind on the back beam and thread the heddles as per the draft. Remove the reed and tie directly onto the cloth beam.

Weaving

Using Celosia Orange for weft, weave as per draft, but instead of beating with the reed, beat against the fell line, inside the shed with the edge of the belt shuttle to create a warp-faced fabric.





Weaving the warp-faced straps

Finishing

Remove from the loom and cut into 3 x 2m (78ins) lengths.

Making the bags

- 1. Hem the top edges of the bag.
- 2. Fold and iron a crease to guide you, 7.5cm (3ins) in from each side
- 3. Starting at the bottom of the bag, pin the strap along the creases, leaving loops for handles at each end. Sew the straps to the bag.
- 4. Right sides together, pin to match up the colours and sew the sides of the bag.
- 5. With the bag still inside out, pinch and pull apart the corner so that the seam sits on top and there is a little triangle made by the orange bottom of the bag. (see picture). Sew across this triangle, approximately one inch from the point.
- 6. Turn right side out and fill with delicious groceries.





Pin and sew the straps to the bag



With right sides together, sew the bag sides



Sew across the corner triangle



Turn right side out



Raven spins yarn, weaves cloth, collaborates with sheep, wrangles llamas, hugs alpacas, weeds flax, and conspires with cotton on the family farm on the west coast of Canada. Follow her adventures at www.crowinghen.ca





Elsa makes smart cushions with honeycomb bands on her real loom.

The very first loom I knew was a rigid heddle loom which my mother used for making rag rugs. I had great fun with it when she gave the loom to me.

Later I began weaving my way through several shaft looms, and today I own an eight shaft Jack Loom (an early Ashford model) and a Finnish four shaft countermarch loom. I love weaving on them, but I have not forgotten my weaving roots. I adore my small looms, a 60cm (24ins) Rigid Heddle loom and a 30cm (12ins) Knitters Loom, both from Ashford. I always put long warps on the shaft looms, so if I want to weave something smaller, like scarves or cushions in fancy yarns and hand spun yarns, or if I would like to test some ideas or new yarns, I go to my rigid heddle looms.

A rigid heddle loom may look simple, but it is a real loom with lots of room for experiments.

One of my favourite rigid heddle techniques is using pickup sticks to create patterns and textures. These techniques are based

on the fact that on a rigid heddle loom the warp ends in the slots are free, i.e. not going through a hole, so they can be manipulated behind the reed to make a new shed in front of the reed, and the pickup stick can be left in the warp behind the reed for the next pattern pick.

Using a pickup stick is like adding shafts to your loom. The stick can create floats, breaking the over/under pattern of plain weave to make lace, spot weaves, honeycomb, and other interesting patterns.

The wonderful fact is that on a rigid heddle loom you can switch from one pattern sequence to another, with the same or a different number of "shafts", on one warp - if you so wish.

Hint: To make it easier to see the slot ends when making the pickups, put a strip of cardboard or a folded piece of paper in the shed between the slot ends and the hole ends behind the reed, a light colour if the warp is dark, and a dark colour if the warp is light. *Hint:* If you need to overlap the ends of old weft and new weft in the web, always do it in a plain weave pick, never in a pattern pick.

Notes on Pickup Sticks

The pickup sticks should be smooth, minimum 2.5cm (1in) wide and just thick enough to be able to stand on edge.

To prevent the pickup sticks from sliding out when you want to move the loom, put a stick on top of the one in the warp, and wrap a rubber band around at each side. With two or more pickup sticks, wrap a rubber band around the ends of both or all of them. Alternatively tie a safety thread from one hole in the pickup stick to the other.

Honeycomb Hints

This technique creates oval cells with a fine yarn, outlined by a heavy yarn. To make the picks curve around the honeycomb cells, press down with the edge of the stick shuttle, while it is in the shed. This also helps pack the weft in the cells.

Honeycomb weaves have messy selvedges and bundles of long weft floats on the backs, so they are best used in cushions, bags, and other items where these characteristics are hidden. If used

for bags, purses etc, they should be lined.

As the selvedges are not going to be seen, leave any weft tails at the selvedges instead of overlapping the ends in the weaving. After washing the finished weaving, I machine zigzagged along the selvedges, and cut the hanging tails quite close, before the cushions were sewn up. Washing makes the pattern more distinct and the cells deeper, so do not skip the finishing.

Cushions with Honeycomb Bands

This attractive variation of honeycomb is made on your rigid heddle loom with two pickup sticks. On a shaft loom it would need three shafts.

Technique: honeycomb and plain weave **Finished size:** $39 \times 39 \text{cm}$ ($16 \times 16 \text{ins}$), woven length for one cushion front: $41 \times 47 \text{cm}$ ($16\frac{1}{2} \times 18\frac{1}{2} \text{ins}$)

You will need:

Loom: 50cm (20ins) or wider rigid heddle Reed: 50/10 (12.5 dpi) reed Flat stick shuttles: min. 50cm (20ins) long x 2

Pickup sticks: min. 50cm (20ins) long x 2 Warp yarn: cottolin 22/2, 21gm (3/40z) light grey, 14gm (1/20z) dark grey, and 9gm (1/30z) black per cushion front. Double these amounts if you want to add a plain weave back to the cushion. Add loom waste.

Alternative warp suggestions: instead of cottolin 22/2 you can use cotton 8/2 (same running length) or cotton 16/2 double.

Here's how:

No. of warp ends: 233 double ends = 1 loop in each slot and each hole.

Width in reed: 47cm (18½/ins)

Warp length: 57cm (22½/ins) per cushion front (double if with plain weave back).

Warping order (lt= light grey, bl = black, dk = dark grey), beginning with a loop in a slot: 14 lt + 13 bl + 13 lt + (25 dk + 13 lt + 13 bl + 13 lt) x 3 + 1 lt.

Pickup pattern

With the reed down and behind the reed, with pickup stick "A", go under the light grey slot ends, over the black ends, under the light grey ends, over the dark grey ends etc. all across.

Push "A" to the back of the loom when not in use.

Pickup stick "B" follows the opposite route: goes over the light grey slot ends, under the black ends etc.

Note: these two pickup sticks do not slide past each other. "A" is staying in the warp behind the reed all the time, but "B" has to be put in when needed and taken out after use. They are used with the reed in the up position, turned on the side and lying flat against the reed.

Grey Cushion with White Pattern* Weft yarn

Thick weft: cotton 16/2, 28gm (1oz) light grey, 4 ends wound together, pattern (the honeycomb cells): cotton 16/2, 7gm (1/4oz) bleached white, used single.

For plain weave cushion back if wanted: cotton 16/2, 35gm (1½oz) light grey, 4 ends wound together.

Alternative weft suggestions: instead of 4 ends of cotton 16/2, you can use 2 ends of cotton 8/2 or cottolin 22/2.

*For the instructions for Elsa's other two cushions please go to our website www.ashford.co.nz/wheel30

Weaving

Weave 15cm (6ins) plain weave with the thick weft, ending with a pick with the reed down.

Begin pattern:

Reed up, pickup stick "A" flat against reed, with the thick weft, weave. Slide pickup stick "A" to the back of the loom.

1. Reed down, thick weft, weave. Put pickup stick "B" in place behind the reed.

2. Reed up, pickup stick "B", fine weft, weave.

3. Reed down, fine weft, weave.
4. – 9. Repeat instruction 2 and 3 three times.

10. Reed up, pickup stick "B", fine weft, weave. Remove pickup stick "B".



Pickup stick "A" and "B"



The thick weft between the "cells" should be laid in a generous arc



Pack the weft in the "cells"

The Rigid Heddle Loom is a Real Loom continues...

Repeat 1. – 10. with pickup stick "A". Repeat 1. – 10. with pickup stick "B". Reed down, thick weft, weave. Reed up, pickup stick "A", thick weft, weave.

This is one pattern band. There are 9 fine picks in each row of cells, and 3 rows of cells to a band.

The thick weft pick between the honeycomb cells should be laid in a generous arc so it can curve around the cells (see Hints).

Weave 5 pattern bands with 7 plain weave picks with the thick weft between each band. This means that there are 11 thick picks between the last fine pick in a honeycomb band and the first fine pick in the next band when we include those curving around the cells and those done with a pattern stick.

Now weave 15cm (6ins) plain weave with the thick weft.

There are 4 p/cm (10ppi), a pattern band measures 3cm (just under 1½/ins) at the widest place, and the area with the five pattern bands should measure approx. 22cm (8¾/ins).

This is the front of the cushion. If you want to weave the back of the cushion, continue with plain weave for another 45cm (18ins).



Elsa, who for over twenty years distributed Ashford products in Denmark is a spinner, weaver and author. Her titles include *The Ashford Book of Weaving Patterns from Four to Eight Shafts* and *The Ashford Book of Eight Shaft Projects*.

Many of her patterns are sourced from archival material from local museums. Elsa brings a wonderful sense of continuity as well as smart Danish-style!



BY RASA DUNLOP, TAS, AUSTRALIA

Rasa, a self-taught textile artist, shares two helpful hints.

My love of yarns comes from both the colours and textures and the fascinating way they interact: one can almost never tell how a finished piece will look! And the fun is in the journey... I find weaving and spinning very meditative. I progressed to weaving from knitting, and just love my Ashford Knitters Loom. Here are two fun things to try.



No more pins

Weaving with a Wavy Shuttle

The shuttles are super easy to use and create interesting and decorative patterns. The shuttle is lightweight, smooth, and of course still holds a lot of yarn: one side has big waves and the other has smaller waves.

The secret to getting the waves right in your weaving is:

- First weave 2.5cm (1in), or more, of plain weave.
- Then use the wavy shuttle to put your first wave in, change the shed and PUSH the wave down into the plain weave.
- Leave slightly more take-up in the weft than usual or the edges will draw in.
- Finish with plain weave.
- Most of the time, you need to firmly pack the waves in right through

the weaving unless you are using a "stickier" yarn. These yarns, like mohair, will retain the shape of lovely open loose waves through the weave after very gently fulling.

 You can also move the wave around, creating a look like waves on the sea or almost-3D effects, by moving the waves to one side and then the other every few rows, a little at a time.



Create lovely patterns using a wavy shuttle



No More Scarf Pins

Leaving a slit in your woven scarves or shawls allows you to pull one end of the scarf through the slit and then drape in a multiplicity of ways - without the worry of the scarf falling off. No more knots or pins! The slit can be anywhere within the width, but I recommend placing it in the centre third, away from the edge.

Here's how:

1. I "anchor" the slit at both ends. First do one row of weft, picking up two warp threads (one from a slot and hole) at the start of where the slit is going to

be, and wrap the shuttle around those two warp threads to tie them together. Complete that row; close the shed and repeat from the other direction so that the slit is firmly anchored, twice: the weave before and after the slit won't gape with use.

2. Then, using two shuttles or a shuttle and a butterfly, go in from each edge, on an 'Up' shed, bring the weft yarn to the front, out of the weave between the two warp threads that have been tied together; change shed, and go out from the centre on the 'Down' shed, leaving

- a gap: effectively you are weaving two pieces side by side.
- 3. Make the slit long enough to easily put a hand through that way the weaving either side won't be stressed when the other end of the shawl is passed through.
- 4. When the slit is the right length, again anchor two rows as at the beginning and then carry on weaving normally, across the entire width. You should only have two tails, hanging off one edge, to weave in.













Rasa is a member of the Australian Handweavers, Spinners and Dyers Guild of Tasmania. In 2017 she was selected to join the Burnie Makers' Workshop in Tasmania as a textile artist where she sells most of her work - apparently to visitors who are in shock at how cold they are in a Tasmanian summer!



BY SARA VON TRESCKOW, FOND DU LAC, WI, USA

Enhancing the Variations in a Coloured Fleece



Teasing the scoured fleece prior to spinning



Spinning on the Country Spinner

A simple fibre preparation technique retains all the colour variations of a natural fleece.

Often we find a beautiful coloured fleece with lovely variations in colour. The tips can be a bit sun-bleached, there can be variation in the fleece colouration, and the sheep can be multi-coloured like a Jacob sheep. Particularly when weaving simple weft-faced rugs of hand spun natural coloured wool, those colour variations and bleached tips can be desirable as a design element.

If such a fleece is carded – either by hand, drum carder or fleece processor, the results are similar - uniformly coloured, prepped wool for spinning.

So, after spinning for decades, I have developed a process to keep these lovely variations, by gently separating the locks, fluffing them into a loose bundle that allows spinning directly from the bundle into a thick, unkempt rug weft yarn. The unkempt appearance is part of the charm of treating a natural coloured fleece this way.

The rugs pictured here were spun from two natural Romney fleeces purchased from a Wisconsin breeder, Carol Pine of Yorkshire Rose Farm. The fleeces had a nice staple length of 12-15cm (5-6ins) and were mostly free of vegetable matter. I like to scour fresh low-grease fleeces like Romney in a simple overnight soak in cold water followed by a thorough rinse. This technique requires a fresh (not more than a few months after shearing) fleece from a breed that doesn't have excessive grease. Suitable breeds include Romney, Coopworth, Lincoln, Cotswold, Eider (German Whitefaced Meat Sheep), Frisian, Finn, Shetland – most of the Northern European "Land Race" sheep. Merino, Merino Cross, Rambouillet and similar have a waxy grease that makes them unsuitable.

The scouring process is straightforward. Skirt the fleece, leaving it in one piece and the lock structure intact. Fleeces from these breeds are usually quite robust and remain as shorn during the scouring. Place the fleece in a large tub and cover with water. If there is enough in the rain barrel, I prefer it, but tap water is also fine. In summer, the temperature of water in a rain barrel is not really cold and that is good. Submerge the fleece, move around a bit and make sure it is wetted. In a fresh fleece, the suint or dried sweat from the sheep has cleansing properties. When the fleece is soaked, this substance frees up the worst dust and dirt, matted tips, and cuts some of the grease. After soaking overnight or up to a full day, the fleece is rinsed until the water is light-coloured. The first dark brown liquor from the soak contains no soap or detergent and is suitable as fertilizer for vegetable or flower beds. Place the rinsed fleece on a drying rack out of full sun and wait until dry.



Sara began spinning and weaving in the late 1970's when living in Osterroenfeld, Schleswig-Holstein, an area of South Jutland that lies behind sea dikes to protect it from the North Sea. Sara and her husband Hans now live in Wisconsin and own The Woolgatherers Ltd, a fibre shop featuring Ashford products, Swedish looms from Öxabäck, and imported linen yarn.

This process leaves sufficient grease on the wool to make it spin nicely with minimal or no prep (carding or combing) and removes enough of the "dreck" to give it a nice hand without stickiness and a soft, sheepy fragrance. This method of scouring takes me back forty years ago to Schleswig-Holstein (Germany). There, hand spinners could go to the wool co-op and purchase "Rueckenwaesche" (washed on the back) which was wool from the sheep grazing the dikes (German Whitefaced Meat Sheep or "Weißkopf" with a long stapled, somewhat lustrous, fleece) and those sheep had been run through tide pools a good two weeks prior to shearing. It needed no further scouring prior to spinning and was like butter in the hands. Leaving some grease in the wool makes it less prone to dryness and static and helps it cling together better when drafting. It is necessary to spin such wool in a warm place, and many old spinning pictures have the spinner sitting near the fire. Should a novice leave too much grease in the wool, it can lead to the orifice and hooks on the wheel getting "gunky". Using a cotton bud dipped in alcohol is an easy way to clean the wheel.

It is quiet and mesmerising to gently tease the wool apart so that it still hangs together and yet will draft out to a thick yarn. There is no special technique other than separating the fibres in your hands until the desired consistency is achieved. It isn't tearing or pulling but spreading the locks into a rough sort of cloud. This will probably differ from spinner to spinner depending on how smooth or rough the desired yarn will be. It does make spinning easier if the hand-teased fibre remains in a medium to large-sized piece. It aids in drafting later.

Spinning a thick yarn without a smooth surface is a perfect task for the Country Spinner. The slow speed and large orifice make the spinning process quite effortless. Yes, spinning thick yarn is not always easy once a spinner learns to do a consistent



Skeins showing the lovely natural colouration

fine yarn, but with a little practice it isn't that difficult. It is important to keep a bunch of fibres in the hands and not let it become too thin during the drafting process. It is also relatively easy to control how rough or smooth the surface of the yarn becomes. An interesting effect when woven is created by leaving some of the bleached or discoloured tips standing out above the yarn surface.

Since the fleeces are still partially in the grease, the yarn needs scouring prior to use. Skeins are soaked in hot water and Orvus (a gentle shampoo) and rinsed well. This scouring also relaxes the skeins. The yarn is now ready for weaving as is – simply wind onto a shuttle and insert in the shed.

These rugs are simple, weft-faced plain weave rugs at 4 working ends per inch (2.5cm)

I used a 4-ply Navajo churro wool, also a natural grey – very strong and works well with the roughly-spun Romney. I prefer a wool warp for hand spun rugs provided the wool is firmly spun and plied and has little or no give. A wool warp allows a firm beat, lays flat on the floor, and doesn't go limp when the rug is washed. This rough-hewn yarn would also be suitable for wall hangings and tapestries – and spun a bit finer would make a very interesting outer garment.

Naturally, this technique of hand teasing a natural coloured fleece would also be suitable for thinner or more even yarns as desired. That is the joy of hand spinning – the spinner can determine the properties of the yarn and tailor them to the expected finished product.











BY KATE SHERRATT, ASHBURTON, NEW ZEALAND

Not a 90's pop song but rather a topic that you may want to explore if you are about to delve into the wonderful world of weaving.

What is sett?

Sett is simply the number of warp threads (ends) in a set unit of measurement – usually ends per inch (epi) or ends per centimetre (epcm).

If you can calculate the sett for your project to your best estimate you will reduce the number of samples you need to do (yes always sample, sample, sample!).

What does the sett affect?

The sett of your warp will determine the drape, the feel, the handle and the durability of your finished fabric. If your sett is too low there will be too few threads and your fabric may be slippery and not stable. If your sett is too high there will be too many threads and your fabric may be stiff and hard.

With every yarn there comes the question "what sett do I weave this at?" to which the reply will be "it depends". The sett will depend on three things – the yarn, the weave structure and the end purpose.

You need to know the sett before you can calculate the number of ends to wind for your warp. The sett multiplied by the width of your project gives you the number of ends to wind.

Determining the sett

End Purpose

I like to start with the end purpose – what is my fabric going to be used for? Drapey scarf or shawl, firm upholstery fabric, or fabric for sewing clothing. Once I know this I can choose a weave structure that is suitable.

Weave Structure

The weave structure will also affect how the fabric drapes, feels, and the handle - this is due to the interlacement of the weft and warp threads. Think about plain weave, your weft goes over one wrap thread, under one, over one etc. so the fabric is significantly interlaced. The weft in twills, however, typically goes over two or three threads in a group so there are fewer interlacements. This is why twill weaves drape better than plain weaves. Knowing the weave structure and the interlacements will help you determine your sett more accurately.

Yarn

You need to calculate the wraps per inch (wpi)/wrap per cm (wpcm) of the yarn you are using. To calculate the wpi (wpcm) take your warp yarn and wrap it around a ruler until 1 inch (2.5cm) is covered.

Do not wrap too tightly or push the wraps too closely together, or stretch the yarn. Count the number of wraps – this is your wpi (wpcm).

The sett calculation

Now you need to do some maths.

 $Sett = (W \times R) / (I + R)$

W = Wraps per inch

R = Number of warp threads in one repeat

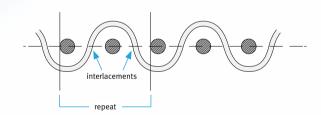
I = Number of interlacements (one interlacement occurs when the weft thread passes between the warp threads, from above to below and vice versa). For example in plain weave there are two interlacements for every two warp threads.

To determine the sett for our Ashford 5/2 Mercerised Cotton:

Plain weave calculation:

W = 30, I = 2, R = 2

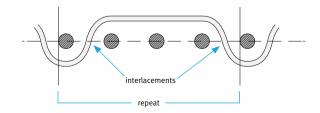
Plain weave sett = $(30 \times 2) / (2+2) = 15epi$



Twill weave calculation:

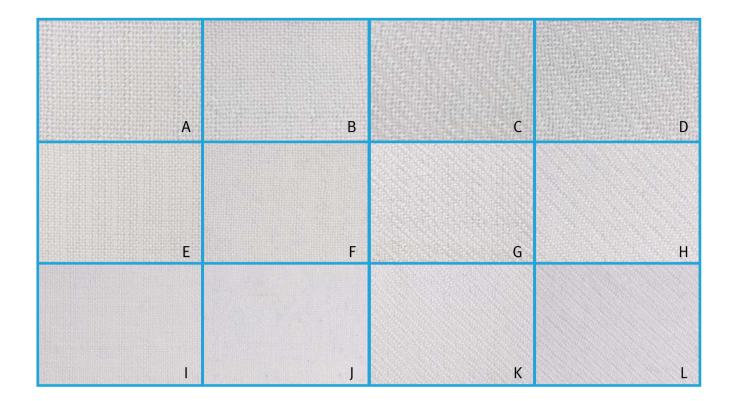
In a twill weave there are two interlacements for any four warp threads.

W = 30, I = 2, R = 4Twill weave sett = $(30 \times 4) / (2+4) = 20 \text{epi}$



Or more simply, if you are going to do a balanced plain weave, divide the total number of wpi (wpcm) by two - this is your sett. If you are doing a twill weave your sett will typically be 2/3rds of your wpi (wpcm) as you have fewer interlacements.

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These calculations are a great starting point – but there are a few other things to consider once you reach this starting sett number:

- Slippery yarns need to be sett slightly higher (closer) to avoid slippage of warp or weft resulting in unstable fabric.
- The sett on fabrics that need to drape well should be slightly reduced from the calculation by 5 10 %.
- Firm, durable, hard-wearing fabrics for upholstery need to be 15-20% more than the calculation to give the necessary firmness. Don't forget your beat will have to be increased accordingly also.
- Woollen yarns will "blossom" a lot more than other yarns so reduce the sett by 10-15%.

Samples

All samples are woven in Ashford Mercerised Cotton 5/2 White #01.

Sett 14epi

- A Plain weave, off loom, not washed, medium handle.
- B Plain weave, washed, soft handle.
- C Twill weave, off loom, not washed, a little slippery.
- D Twill weave, washed, soft handle, loose drape.

Sett 18epi

- E Plain weave, off loom, not washed, firm handle.
- F Plain weave, washed, medium handle, durable.
- G Twill weave, off loom, not washed, medium handle.
- H Twill weave, washed, medium to firm handle.

Sett 22epi

- I Plain weave, off loom, not washed, extremely stiff.
- J Plain weave, washed, very stiff, firm fabric.
- K Twill weave, off loom, not washed, firm handle.
- L Twill weave, washed, firm handle, very durable.

Hints for ensuring you do the happy dance when your fabric comes off the loom and is finished!

- Sample, sample, sample this sounds tedious, but is really worth doing to ensure the finished fabric is right. Start at your calculation sett. Weave a reasonable size sample 6-8ins (15-20cm) square, remove from the loom and wet finish (wash). This will also show you the shrinkage of the fabric that you will need to take into consideration. Adjust your sett up or down as required.
- Remember what the fabric looks like on the loom and what it looks like once finished is quite different.
- Keep records this is so very helpful to the future you! If will save you time and effort.
- Develop good habits and remember to take time, be patient and enjoy the process!







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Inspire 2018

BY ANNE GRASSHAM, NELSON, NEW ZEALAND

Inspire is an annual Festival that reaches out to over five hundred upper primary and early college students (9-14 year olds).

Run by the Ministry of Inspiration, a New Zealand charity, the Festival aims to inspire young minds with hands on STEAMS (science, technology, engineering, arts, maths, and society) learning.

Organisers want to encourage these young people to think dynamically and creatively about their future. Described as a "magnificent opportunity to inspire the future innovators of New Zealand", this year's Festival held at Nayland College, Nelson 6-7 September, offered two days of challenging lectures, thought-provoking discussions and hands-on experiences.

I am an Ashford dealer and trained scientist, and took three fibre-based workshops. I jumped at the opportunity to help the next generation discover the same satisfaction I get from thinking creatively – not just in the artistic sense or to solve problems, but as an approach to learning and life in general. I wanted students to think about why they were spinning or felting, so I posed questions like:

- In New Zealand, we have a plentiful supply of a wonderful fibre harvested from locally-grown sheep, but it is only 10
 15cm long. How can we turn these fibres into something useful, such as fabric to help keep us and our homes warm?
- Why would we even choose to use wool? (Looking at the advantages and disadvantages of wool for any given situation).

In the first workshop we talked about turning short fibres into a strong continuous thread so it can be knitted or woven, and how we can turn the apparent drawback of wool shrinking when washed, into an advantage – making felt.





Preparing the fleece

While this discussion was taking place, students were shown how to comb fleece locks, draft the fibres out to make a sliver (distributing the breaks or weak points evenly along the sliver), and twist the sliver (to make a strong thread by holding the individual fibres in a bundle) to make a single ply.

The climax – folding the single ply back on itself under tension, and letting it twist – all by itself – into a two-ply yarn. They had all learnt how to spin in under an hour! Students also had the opportunity to try spindle spinning and we talked about how they could make a first spindle from things they could find around home.

The second class was on making felt. Each student was provided with a kit containing Merino sliver, and a square of bubble wrap in a resealable sandwich bag. I love to teach felting this way because it creates minimal mess, even though we use detergent and water. We again used drafting and stacking in layers to distribute the fibre breaks evenly, talked about the need to lay fibres at right angles to provide strength in all directions. Once the prefelt stage was achieved, the children hardened their felt on the textured base of meat trays, another great way to contain the mess.

In the last class the students used needle felting and wet felting techniques to create felt jewellery and embellishment pieces.

I believe it is only by understanding the strengths and weaknesses of materials and processes that we can optimise creative outcomes. As a scientist, I am keen to foster the confidence to experiment with fibrecrafts, having the attitude that "failures" are simply a wonderful opportunity to learn and move forward.



To find out more about Inspire go to: ministryofinspiration.org

Anne, who has a wealth of experience working with fibre, from sheep breeding to experimenting with new fibrecraft techniques, and inspiring others to explore their creative potential, runs a fibre and equipment business in Nelson, NZ, Fleecewood Woolcraft. www.woolcraft.co.nz

Every Which Way

Jo unravels the magic of cable and crepe yarns.

Have you ever looked closely at a cable or crepe yarn and wondered about its construction? I hope this article will demystify how these delightful yarns are made.

BY JO REEVE, WELLINGTON, NEW ZEALAND

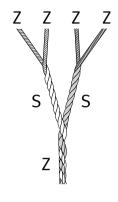
Cable Yarn

A basic cable yarn is made from two over-plied 2 ply yarns that are 'cabled' together in the opposite direction to the plying twist giving a distinct 'braided' look. It's a rounded varn that provides wonderful stitch definition in knitting. It is stable, strong and more hard-wearing than a 2 ply yarn. The multiple layers of thread protect the fibre from abrasion, and that means no pilling. There are three twist directions in the construction of the yarn:

- Four singles spun Z
- Singles paired and plied S
- Plied varns cabled Z

Making the Yarn

- 1. Spin four single yarns Z twist with your usual amount of twist.
- 2. Make two 2 ply varns S twist with twice the amount of twist you would use for a balanced varn. As there is a third twist direction in the construction of the yarn, you'll need this extra twist to balance the yarn in the second ply. Pull about 30cm (12ins) off the bobbin and let it twist back on itself. If you don't see the 'braid', more twist is needed. It's quite



hard to achieve consistent over-twist in the plying so you might prefer to do it in two stages by plying the yarn as you normally would, then running it through the wheel again, adding the same amount of twist as you did in the first plying. Or you could use a whorl a size or two smaller to introduce the extra twist. Whichever way you choose, the plying should be consistent so count your treadles.

3. Now for the exciting part – the cabling.



The secret to success is plenty of twist in the first plying, and very little in the second. I like to let the over-plied yarns rest overnight, then 'cable' together Z twist. It's very tempting to ply as you usually would but you will soon see that a light touch is all that is needed. Use your largest whorl, or treadle very slowly for the right amount of twist. Watch the yarn closely and you'll see when the cable appears. Stop periodically to check it looks correct.

Crepe Yarn

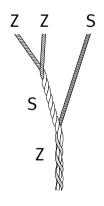
Not to be confused with crepe fabric which is woven using highly twisted singles, a crepe yarn is a plying variation, and a very elegant one. It is a smooth, rounded yarn that is durable and, as with the cable varn, provides great stitch definition in knitting. These yarns look stunning if one of the singles is a different fibre, or colour. A basic crepe yarn is 3 ply made by plying an over-plied 2 ply yarn with a single to give a regular balanced yarn. The yarn is constructed of:

- Three singles two spun Z and one spun S
- Two singles plied S
- S plied yarn and S spun single plied Z

Making the Yarn

- 1. Spin two singles Z twist and one S twist with your usual amount of twist.
- 2. Ply the two Z spun singles S with twice the normal amount of twist you would use for a balanced yarn.
- 3. Ply the S plied yarn with the S spun single Z twist for a balanced yarn.

Learning the basics of cable and crepe yarns is well worth adding to your spinning



repertoire. Many variations can be created - colour, yarn thickness or texture, and the number of singles. Experiment and have fun with these amazing yarns. What's not to love about them?





Jo is a knitter, spinner, weaver NOTE and author of in Ashford Book of and author of The

Spinning and The Ashford Book of Carding. She is a member of Creative Fibre (the NZ Spinning, Weaving and Woolcrafts Society) and the Professional Weavers' Network of New Zealand.

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Match a hand spun and hand knitted cowl with a hat and pompom to be on trend this winter.

You will need:

Yarn: Approx. 300gms (10½0zs) hand spun bulky 2 ply, 8wpi, or Tekapo 12 Ply Triple knit (134m/146yds, 100gm) #706 Natural White x 3 balls

Needles: 5.5mm (9 US, 5 UK) Other: Pompom

Abbreviations

Alt: Alternate

Cable 6 Sts: SI 3sts on to cable needle, hold at back of work, K3, K3 from cable needle

Cont: Continue Dec: Decrease

K: Knit

K2tog: Knit 2 stitches together

P: Purl

P2tog: Purl 2 stitches together PSSO: Pass slipped stitch over

Rep: Repeat

RSF: Right side facing Sl1: Slip 1 Stitch St(s): Stitch(es)

Tbl: Through the back loop

Tog: Together

Hat

Sizes: Child (Adult)

Using 5.5mm needles and long tail cast on method, cast on 58 (78) sts.

Rows 1-6: Sl1, (K2, P2) rep to last st, P1. Row 7: Sl1, (K2, P2), rep 4 (6) times, Cable

6 sts, cont in 2 x 2 rib to last st, P1. Row 8 - 12: Sl1, (K2, P2) rep to last st, P1. Keeping cable correct rep Rows 7 - 12 four

times more (6 Cables in total). Work 2 rows in 2 x 2 rib pattern.

Decrease:

Row 1: Sl1, (K2tog, P2) rep to Cable sts, (P2, P2tog, P2) cont (k2tog, P2) to last st,

Row2: Work sts as they come.

Row 3: Sl1, K1, (P2tog, K1) rep to Cable sts, (P2tog, P1, P2tog) cont (K1, P2tog) to last

Row 4: K2tog to end.

Adult size only:

Row 5: P2tog to end.

Draw yarn through the final sts to close the hat and sew the back seam.

Attach the pompom.

Cowl

Sizes: Child (Adult)

Using 5.5mm needles and long tail cast on

method, cast on 74 (110) sts.

Row 1 – 6: Sl1, (K2, P2) to last st, P1. Row 7: Sl1, (P2, K2) 12 (17) times, Cable 6

sts. cont in 2 x 2 rib to last st. P1.

Row 8: Sl1, (K2, P2) to last st, P1.

Keeping cable correct rep Rows 1 – 8 four

times more (5 Cables in total).

Rep Row 1 - 6.

Cast off loosely and join back seam.

Editor's NOTE

Sylvie, originally from Lac St-Jean, Quebec, Canada, always has several creative projects on the go, from spinning to sewing to furniture making. She has set herself a very long "to learn list" and says she will need to live to a very old age to complete the list!

Indirect Warping on the Rigid Heddle Loom

BY ELIZABETH ASHFORD, ASHBURTON, NEW ZEALAND

Smart table setting woven on just one warp on a rigid heddle loom, using the indirect warping method.

As you know I am a fan of the rigid heddle loom and learnt how to warp directly onto the loom from Rowena Hart over 35 years ago. I just love the way you can quickly and simply tie on, pull a loop though the reed slot, circle a warp peg, wind on, thread through the reed eye and then tie on. Warping done - and onto the fun part! But there is another way to warp your loom - using a warping frame. And there are times when this indirect method could be preferable.

 If you want a very long warp. My set of placemats and napkins required a 6.5m (7yds) warp. It may not be possible to physically have the space from the loom to the warping peg required.

- If you prefer or need to warp sitting.
- A very wide warp.
- A pattern with stripes with uneven numbers or a complicated colour order.
- If you may be interrupted before finishing. The direct method does take up space and it isn't so convenient to leave the process half way through warping.

Yes, both methods have their place. So, when Richard redesigned the Rigid Heddle Loom to include a warping frame, I just had to try.







Indirect Warping

- Calculate the length of your warp. Tie
 the warp yarn at the start peg on the
 warping frame, and wind around the
 pegs for the required warp length and
 return following the same path back to
 the beginning. Remember to include a
 threading cross which keeps the yarn
 in the correct order for threading. To
 prevent tangling add choke ties on
 either side of the threading cross and at
 intervals along the length of the warp.
- For wide projects wind your warp in two or three separate warps. To remove the warp begin at the end peg. Take your hand through the loop and reach for the warp pulling it back through the loop.

- Put your hand through the new loop and continue chaining until the end.
- Pick up the threading cross and insert your fingers on either side of the cross.
 I am right-handed and find it more comfortable to hold the cross in my left hand and use my right hand to thread the reed.
- 4. With the cross secure on your fingers, cut the top loops.
- Remove the choke ties by the threading cross.
- Place the reed in the neutral position.
 Start sleying the reed by taking the outermost warp thread on the cross and thread it through the reed from the

- front of the loom to the back. Unlike the direct method you thread slots and eyes (not just slots) sequentially.
- 7. Once all the warp yarns are threaded through each slot and eye, tie them to the back warp stick in small bunches and wind on. Keep the warp under tension and insert cardboard warp sticks as you wind.
- 8. Cut the loops and tie on to the front warp stick, check the tension is even and start weaving.

That was fun! So now I have two ways of warping my loom: directly using a warping peg or indirectly using a warping frame. Or I could use elements of both techniques!







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Seaside Setting

A set of cotton placemats and napkins in thick'n'thin for the summer holidays woven on a rigid heddle loom.



Rowena who worked with us for many years learnt the direct warping technique from Danish weaver Elsa Krogh. Elsa recently told me that she had discovered this method from Mary Butler who wrote in the NZ Home Journal in May 1970 how to "warp without a figure of eight". Mary's version was a little complicated, so Elsa simplified it to the direct warping technique we promote today.

Editor's NOTE

For more detailed instructions how to use the rigid heddle warping frame go to www.ashford/indirectwarping
As I needed a 6.5m (7yds) warp I used the warping frame on my 60cm (24ins) rigid heddle loom. You can wind a 6.7m (22ft) warp on this size loom.

You will need:

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

Warp Yarn: Ashford Mercerised Cotton 5/2 (100% cotton; 848m/927yds, 200gms) 1 cone each Bleached White #01, Fog #03, Dazzling Blue #46

Weft Yarn: Ashford Mercerised Cotton 5/2 doubled (100% cotton; 848m/927yds, 200gms) 1 cone Bleached White #01; Ashford Mercerised Cotton 10/2 (100% cotton; 1696m/1854yds, 200gms) 1 cone Bleached White #01

Here's how:

Total warp ends: 210
Total warp length: 6.5m (7yds)
Width in reed: 35cm (14ins)
Finished size: placemats: $32 \times 45cm$ (12½ $\times 17^3$ /4ins) and napkins: $29 \times 29cm$ (11½ $\times 11^1$ /2ins)

Warping

Warp the reed in stripes of Bleached White, Fog and Dazzling Blue.

Weaving

Weave complete warp length for the placemats alternating one pick of the Bleached White 10/2 single and one pick of the Bleached White 5/2 doubled. Beat firmly. For the napkins weave with the Bleached White 10/2 single.

Finishing

Remove weaving from the loom. Hem and wash.





Kate and Richard have been super busy designing and testing new products and accessories. There is the brandnew e-Spinner Super Jumbo, a redesign of our popular Kiwi Spinning Wheel (see back page), rigid heddle looms and Hobby Bench, and great new accessories and kits.



THE NEW e-SPINNER SUPER JUMBO!!

The e-Spinner Super Jumbo combines all the best features of the Country Spinner 2 and the e-Spinner 3 in a super size, portable electronic spinner! It has the huge flyer and bobbin of the Country Spinner 2 and the power, versatility and portability of the e-Spinner 3 - what more could you want? Spin all types of yarn - fine yarns, chunky yarns, creative yarns, textured yarns and of course all your plying.

The new e-Spinner Super Jumbo features:

- Convenient spinning and plying with a super size sliding hook flyer
- Frictionless yarn guides
- 27mm (1½ins) orifice and two additional reducer bushes - 15mm (5in) and 9mm (3in)
- Quick and easy bobbin change
- Belt driven bobbin lead with a soft leather flyer brake
- Weighs only 3.65kg (8lbs)
- Compact 39.5 x 25 x 32.5cm (15½ x 9¾ x 12¾ins) size

- · Smooth lacquer finish
- The e-Spinner Super Jumbo has a quiet but powerful 12 volt motor with soft start and infinitely variable flyer speed of 0-500rpm to control and manipulate the yarn. Go as slow or as fast as you want!

Includes:

- One huge 1.40kg (3lbs) capacity bobbin
- · Padded carry bag
- 12V power pack with interchangeable wall plugs
- An on/off foot switch and a bottle of our spinning wheel oil

REDESIGNED HOBBY BENCH

Our new 2018 Hobby Bench 2 has been redesigned with some great new features:

- Seven height positions from 54.5 to 62.5cm (21½ to 24½ins) for comfortable weaving.
- The seat can be tilted 12mm (½in) to suit your weaving position
- It's strong and robust made from beautiful Silver Beech hardwood with a lacquered finish
- There is a handy storage shelf under the seat
- The bench is quick and easy to assemble
- Seat 68 long x 27cm wide (26³/₄ x 10⁵/₈ins)
- Weight 7.9kg (17.5lbs)



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RIGID HEDDLE LOOM -EVEN BETTER

Second Heddle Option

All our standard Rigid Heddle, Knitters and Samplelt Looms now come with the second heddle side posts as standard. Having a second heddle allows you the flexibility to weave double width, double layer, double density fabrics as well as allowing you to do exciting patterns and techniques like "Theo Moorman".

Indirect Warping Option

All standard Rigid Heddle Looms have holes drilled in the bottom of the rails, so you can use your loom as a warping frame for the indirect warping method.

By purchasing a set of Rigid Heddle Warping Pegs you can convert your loom into a warping frame. There are 14 pegs included in the set to allow you to wind a variety of warp lengths.

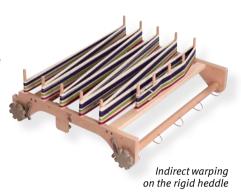
The indirect warping method is great for super-long warps or mixed warps of different colours. It takes up less room, too!

The approximate maximum warp lengths for each size loom are:

Rigid Heddle 40cm (16ins) - 4.7m (15.5ft) Rigid Heddle 60cm (24ins) - 6.7m (22ft) Rigid Heddle 80cm (32ins) - 8.7m (28.5ft) Rigid Heddle 120cm (48ins) - 12.7m (41.5ft)



Second heddle option as standard





Rigid Heddle Warping Peg set

UNMERCERISED COTTON

Our new unmercerised cotton is available in two weaving weights 10/2 and 5/2 and eighteen vibrant colours.

Unmercerised cotton has less sheen and a more natural cotton look and feel than the mercerised cotton. It also wicks faster making it a weavers' favourite for hand towels, napkins and tea towels.

NE 10/2, 1696m/1854yds, 200gm

NE 5/2, 848m/927yds, 200gm



TABLE LOOM STAND

Due to popular demand we are offering the Table Loom Stand without the treadles. This strong, folding table loom stand has two shelves and is at the perfect height for weaving.

Optional 4 Treadle Kit fits all Four and Eight Shaft Table Loom Stands and is available separately.

Wavy Shuttles come in three sizes

HANDI HANDLES

These Handi Handles are designed for weavers with limited hand mobility or strength to assist when turning the handles to advance the warp on Ashford looms. The Handi



Handle is simply placed over the existing nylon handle of your loom and turned gently. Remember not to over-tighten your tension as too much tension will make weaving harder, reduce the shed and could damage your loom.

The Handi Handles come in two sizes: Small - for Katie, Knitters and Samplelt Looms and Large - for Standard Rigid Heddle and Table Looms. They are sold individually.



WAVY SHUTTLES

Create interesting and decorative patterns by beating the weft into place with our Wavy Shuttles. You can use these shuttles with any Ashford looms.

The shuttles have different size waves on either side and have a smooth lacquered finish. These shuttles are available in three lengths: Small 40cm (16ins), Medium 50cm (20ins) and Large 70cm (28ins).

Kiwi 3 Spinning Wheel with Folding Treadles

Our popular Kiwi Spinning Wheel has evolved!!

The new Kiwi 3 has folding treadles, timber veneered MDF wheel, three speed whorl and wooden threading hook!

With all the great features of the Kiwi 2, the enhanced Kiwi 3 will be even more in demand from new and experienced spinners everywhere.

- · Folding treadles for convenient transport and storage
- Timber veneered MDF wheel with ball bearings ensure smooth, silent spinning
- 3 speed whorl with 5.5, 7.5 & 9.5:1 flyer ratios
- Double treadle, mounted on polyurethane hinges, for effortless treadling
- Sliding hook flyer with frictionless yarn guides and 10mm (%in) orifice
- · Quick and easy bobbin change with snap-in front flyer bearing
- · Scotch tension for precise tension adjustment
- Includes 3 large 130gm (4-5ozs) capacity bobbins
- Built-in Lazy Kate
- Weighs only 5.5kg (12lbs). Choose either natural or smooth lacquer finish







 Robust construction quick and easy to assemble with the Allen key supplied

Still at an affordable price!

Optional extras: Kiwi Super Flyer and Kiwi High Speed Kit

