

PARALLAX

A series of 4 striking double-knit scarves
by Alasdair Post-Quinn

fallingblox
designs



PARALLAX

This ebook © 2014 Alasdair Post-Quinn. All rights reserved. Please do not distribute or modify this document without permission. Support hardworking knitwear designers!

All designing, knitting, photography, graphics & layout done by Alasdair Post-Quinn.

Statues from Parkman Plaza, Boston and Davis Square, Somerville were used in lieu of models.

Tell your friends! Visit <http://www.double-knitting.com> for more patterns, links and double-knitting info.

Thank you for your support and patience as I completed all of the work that went into this project, from 2011 through 2014. Sometimes we just don't know how long a thing will take until we've done it. I hope you enjoy it!

TABLE OF CONTENTS

Introduction	4
Techniques	
Standard double-knitting cast-on	5
Double-knitting stitches	6
Three-color double-knitting	6
Locked double-knit Selvedge	7
Standard double-knitting bind-off	7
Double-knit decreasing	8
Double-knit increasing	10
Following charted decreases and increases	11
Joining a new skein	12
Weaving in ends	12
Blocking double-knitting	12
Glossary	13
Global Key	13
<u>Patterns</u>	
Parallax v0.1	15
Parallax v0.5	19
Parallax v1.0	23
Parallax v2.0	27
Parallax v3.0	34
About the author	37

INTRODUCTION

parallax - n - (par'-uh-laks)

1. the apparent displacement of an observed object due to a change in the position of the observer.
2. a series of op-art double-knit patterns designed by Alasdair Post-Quinn

I was working the registration desk at FiberCamp Boston in January of 2011. Most of the attendees had already arrived and were in sessions, so I was left to my own devices. Sometimes I'll just doodle with Adobe Illustrator and see if I come up with any interesting charts. That day, I think I channeled a memory from childhood and came up with the prototype of Parallax v1.0. When I was a kid, I got coloring books from my parents -- as did many other kids my age. My coloring books were different, however. Instead of featuring Disney characters or whatever was in at that time, I got the stained-glass coloring books, the Celtic knot coloring books, the op-art coloring books. I had great fun coloring in these designs and even sketching my own when I ran out of pages. Somewhere along the way, though, I grew up. I don't get in as much coloring as I used to.

But there's still an itch inside, a need to play with color and shape and see how things can be put together. I think this is what drives my knitting interest. So many untapped possibilities.

The op-art patterns of the Parallax series are not unheard of in the crafting world. However, they're far more common in quilting and weaving than in knitting -- presumably because in order to be really bold and striking, the patterns need a higher resolution. At the higher resolution, the larger squares would require long floats which are certainly possible but impractical. And don't even get me started on thinking about doing one of these patterns in intarsia.

Enter double-knitting. The technique has long been considered one of the higher peaks of advanced knitting -- and why not? Even to experienced knitters, it seems like magic. It allows you to do complex colorwork using charts that would be impractical in any other colorwork technique, but keeps flexibility similar to stockinette -- and there's no wrong side: the opposite side is similar to the facing side, a mirrored image in opposite colors. But at its simplest, it's no more complicated than 1x1 ribbing.

The Parallax patterns look very complicated at first glance. However, they're quite a bit simpler than most other double-knitting. If you look at the gridwork they're created from, you'll notice that the color-changing happens in the same location in every row. This means that once you've set up the first row, the color changes will happen in the same place every single time.

This means that you can use the row below as a guide -- since you don't need to think about the locations of the color changes -- and read the chart differently than you would most double-knit patterns. As a matter of fact, you'll probably notice that you don't need the chart at all. You can think of the chart in terms of matching rows and changing rows. Every matching row, you're matching every stitch below in both color and type of stitch. In changing rows, you're still knitting your knits and purling your purls, but you're changing the color of every stitch -- every Color A is worked with Color B, and every Color B is worked with Color A. In multi-color work, there's a different logic to the changing rows but it's fundamentally the same concept.

To figure out when you work the changing rows, everything is based on a simple number progression, like (for example) 1,1,2,2,3,3,4,5,4,3,3,2,2,1,1. The same progression that creates the first row is also applied to the number of rows between changing rows. But of course, you can also just work the pattern from the chart, and let the deeper understanding of the pattern seep in organically.

Once you get how this works, and how simple it really is, you'll wonder why it hasn't been done sooner -- and indeed, why it's even necessary to have patterns! Still, I hope you enjoy the experience and play with color and post your beautiful creations to the [Fallingblox Designs board on Ravelry](#). We'd love to see them!

TECHNIQUES

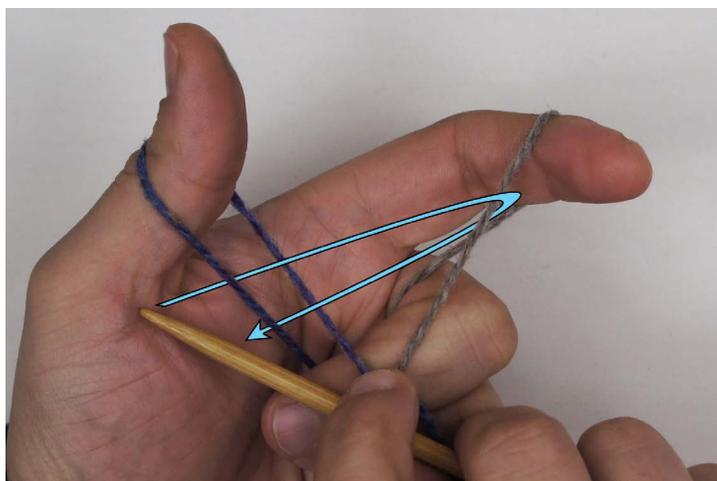


Standard double-knitting cast-on

To begin, make a slip-knot with both colors held together, leaving a 6-8" tail. Insert the needle through the loop and tighten.

Position your hands so that the yarn feeds from the held slip-knot in between your thumb and forefinger; one end wraps around your finger and the other around your thumb – both from inside to outside. The active ends of the yarn pass into your closed fist and down to the source yarn balls.

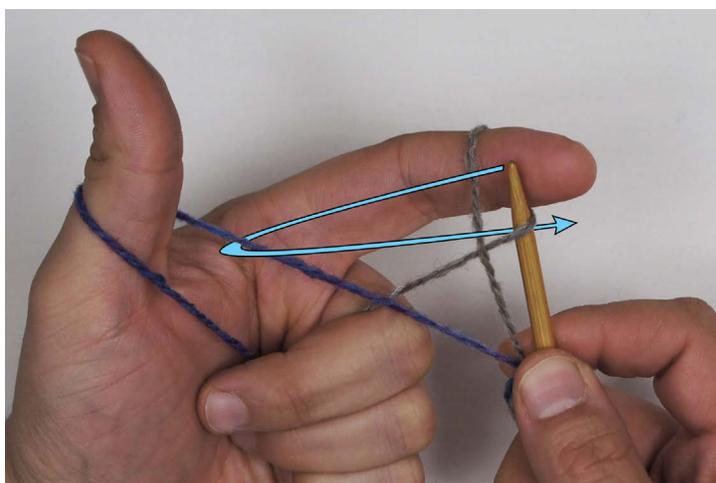
You will need to differentiate among the four end segments for the next steps. From the front to the back, you should have the outer TC (thumb color), the inner TC, the inner FC (finger color) and the outer FC. (The TC and FC will be defined in each pattern)



With your needle in front of all the ends, bring it up from underneath the outer TC. Pass the needle over the top of both inner TC and inner FC then down between the inner FC and outer FC. Pull the inner FC down with the needle tip; with that loop of FC on your needle, pass the needle back down between the inner and outer TC (the same way you came in). Drop the thumb loop, pick up the hanging end of TC on your thumb again, and tighten. You should have a loop of FC on your needle.

Next, we'll do the same thing in mirror image for a reverse long-tail cast-on stitch. Bring your needle in back of all of the ends.

Bring your needle up from underneath the outer FC. Pass the needle over the top of the inner FC, then down in between the inner FC and inner TC. Pull the inner TC up with the needle tip; with that loop of TC on your needle, pass the needle back up between the inner and outer FC (the same way you came in). Drop the finger loop, pick up the hanging end of FC on your finger again, and tighten.



This has created a pair of stitches, the first in your FC and the second in your TC. Continue doing one regular and one reverse long-tail cast-on stitch to continue alternating cast-on colors. I recommend you tighten this cast-on a little more than you normally would for a long-tail cast-on. It will make the first row after the cast-on more difficult, but the final edge will be much cleaner.

Double-knitting stitches

All double-knitting is worked in pairs. The first stitch in the pair is always the facing-side stitch, is always knit, and is always worked with all active ends in back (wyib). The second stitch in the pair is always the opposite-side stitch, is always purled, is always worked with all active ends in front (wyif), and in standard double-knitting is always worked in the opposite color from the facing-side stitch. Each pixel in the chart represents one pair, but only shows you one of the two colors.

It is also important to remember that on the opposite-side (even) rows, you are working with the opposite side facing you and therefore all colorwork is reversed in color and all directional symbols are reversed in direction.

For two-color double knitting, all stitches are worked in pairs, thus:

- 1) K1 with one yarn wyib (with both yarns in back)
- 2) P1 with other yarn wyif (with both yarns in front)

To change colors in the middle of the row, continue the stitch pattern but simply switch which color you knit with and which you purl with. To follow the chart, just (on odd-numbered rows) knit in the color indicated by the chart and follow it up with a purl in the opposite color; on even-numbered rows, knit in the opposite color from what the chart indicates and purl in the charted color. Either way, every pair is always one of each color. The order in which they occur is called the pair's *color orientation*.

As you knit, you'll find that your ends may become twisted around each other. Try to be conscious of the direction you twist your yarns when you change colors. If you alternate twist directions when changing colors, you may find the two ends remain separate more readily.

Many people have observed that double-knitting has a different gauge than standard knitting. This is not necessarily the case, but if it is, you may find yourself wanting a needle a size or two smaller or larger than your normal needle size for your chosen yarn. The important thing is that everyone's gauge is different and swatching is doubly important when you are working in a new technique. Do what you need to do to get the fabric you want!

Three-color double-knitting

In standard double-knitting, the opposite side is simply a mirror-image version of the facing side in opposite colors. When you want to add more colors, you can no longer simply switch colors from one to the other, ensuring that there are only two possible pair types (AB and BA). With three-color double-knitting, there are 6 possible pair types (AB, BC, CA, AC, CB, BA) but only three are typically used in any given piece of standard three-color DK. Rather than switching colors, you choose a color rotation and stick to it. In other words, for one possible rotation:

- 1) When color A is used on the facing side, use color B on the opposite side.
- 2) When color B is used on the facing side, use color C on the opposite side.
- 3) When color C is used on the facing side, use color A on the opposite side.

With the change in color allocation rules comes a structural change as well. Whereas in standard double-knitting, a pair consists of a knit and purl stitch in opposite colors, with three-color DK there is a strand of a third unused color that runs between the two stitches. This strand does not normally show up, but it can be troublesome since it causes the fabric to be a little less flexible.

There will be places in three-color double-knitting where several pairs of a single color orientation are done in succession, leaving a long strand of the unused color inside the work. If pulled taut, this strand will make the finished work much less flexible. It's a good idea to keep an eye on your tension in these cases – when you're about to create a stitch that uses the previously long-unused color, give the recently-created fabric a pull to make sure the inside strand has some slack before finishing the stitch and locking the strand in place.

Locked double-knit selvedge

This is a combination of two techniques – a twist at the beginning of the row and a pair of slips at the end. The twist closes the edge and the pair of slips both clean up the edge tension and pull the twist out of sight inside the work.

The edge consists of two special types of pair, notated as an “L” and an “S” in the chart.

The locked pair, or “L” is worked as the first pair in every row, and is generally going to be the same color orientation as this column began (i.e. the background color from the first row). The color can be changed but it’s not usually a clean transition because the slip-stitches make the selvedge stitches twice as tall as normal stitches.

In standard double-knitting, the locked pair simply incorporates a twist into one of the two first stitches made, to make sure the edge is locked together. In multi-color DK, the twist is more involved, because it’s not just a matter of making sure the edge is sealed, but also making sure that the unused color is anchored into the twist as well. In order to do this as cleanly as possible, I follow this procedure to integrate the twist into 2 pairs rather than only one. There are other ways but this is the cleanest and most foolproof, since it works with any number of colors:

- 1) With all ends in back, knit the first stitch in the color required (usually the same color you’re knitting into)
- 2) Bring all ends to front. Insert your needle into the next stitch as if to purl. Pick up the color you need (usually the same color you are purling into) from over the top of the other colors and complete the purl stitch.
- 3) Bring all ends to the back. Knit the next stitch, making sure to take the required color from underneath the other two strands.
- 4) Bring all ends to the front and purl to finish the second pair as usual, in whatever color it requires.

This works a little bit like the anchoring move in stranded knitting – the yarns twist in one direction, then back in the other, and when the twist and untwist occur, the unused strand is trapped.

The slipped pair, or “S” is worked as the last pair in every row, and because it is slipped rather than worked, it is always charted as the same color as whatever was below it. The only opportunity for color-changing the edge comes while working the locked pairs. When you encounter this element in the pattern:

- 1) With both ends in back, slip 1 stitch as if to purl.
- 2) Bring both ends to the front; slip 1 stitch as if to purl through the back loop.

Essentially, you’re following the rules governing end movement, but slipping instead of working the stitches. The last stitch which is purled through the back loop sets the loop twisted on the needle, to be untwisted when you turn and knit into it. Why does this work? I’m not entirely sure – but in 99% of the cases it does. I think it has something to do with the natural twist direction you use when working the locked pair – so if you notice that one column in your selvedge is twisted and the other is not, it may mean your natural twist is the opposite direction – so try slipping both purlwise.

Standard double-knitting bind-off

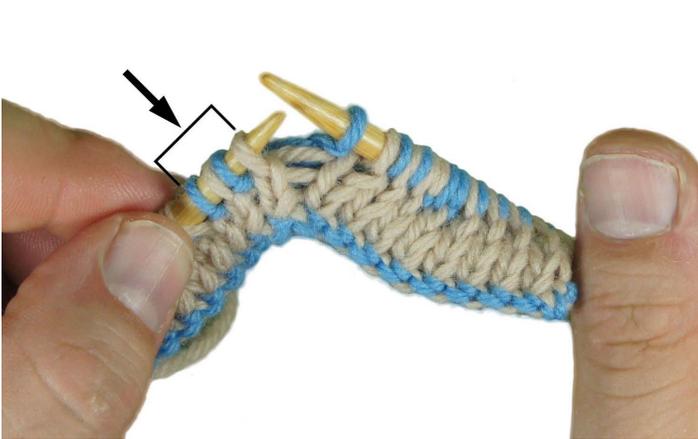
The double-knitting bind-off I use most frequently is a clean way to make sure your bind-off matches the gauge of the rest of your work.

- 1) Work another row in the same color orientation as the first pair. Work the last pair instead of slipping.
- 2) Slip back to the beginning of the row (if on DPNs or circulars, just slide to the other end)
- 3) Starting with the first stitch you worked at the beginning of the row in step 1, SL1 kwise, SL1 pwise, PSSO
- 4) SL 1 kwise, PSSO; SL 1 pwise, PSSO; repeat until 2 stitches are left on the needle.
- 5) Break the ends; pass both ends through both loops and tighten.

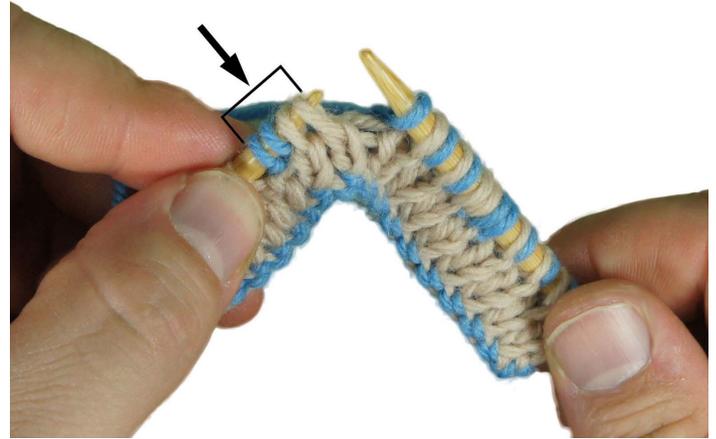
Double-Knit Decreasing

Decreasing in double-knitting requires a little bit of stitch reordering. Currently, your stitches always run in alternating knit and purl. In order to decrease, you need to temporarily separate the layers and put two or three knit stitches together, followed by two or three purl stitches. You will then decrease (or double-decrease) those groups of stitches to make a single pair again.

Single decreases – 2 pairs into 1 – are generally considered to be either left-slanting or right-slanting. As a matter of fact, these are misnomers – the difference between the decreases is not which way they slant, but which of the two stitches ends up on top. It's how they're positioned relative to other decreases and pattern elements that dictates how they slant. I frequently use "left-slanting" decreases to send a group of pairs to the right or vice versa, depending on how I want the design to look.



Here are two pairs, next up to be worked on the left needle. There are many ways to reorder the stitches, using a cable needle or otherwise.



And here are the same two pairs after reordering. Notice they have gone from K-P-K-P to K-K-P-P.

The pair-reordering method I use is similar to cabling without a cable needle. Essentially, all you need to do is to switch the positions of the two center stitches (the second in the first pair and the first in the second pair). To do this:

- 1) Slip 3 stitches purlwise to your right needle.
- 2) Insert your left needle, from behind, into the second (middle) stitch to hold it in place.
- 3) Pull your right needle gently out of two stitches. One of these stitches is held in place but the other will pop out to the front of your work. You can hold your thumb at the base of the stitch to keep it from dropping.
- 4) Insert your right needle into the released stitch.
- 5) Slide the two stitches on your right needle back to the left needle.

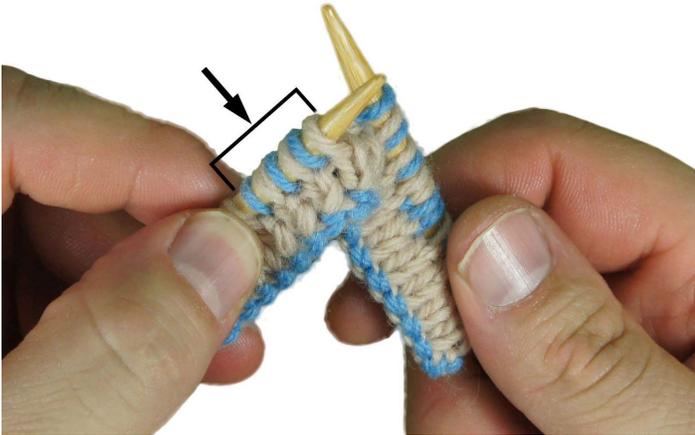
Once the reordering is done, follow these steps to complete a:

Right-slanting decrease (left stitch on top): Wyib, K2Tog in color indicated by chart; wyif, SSP with opposite color

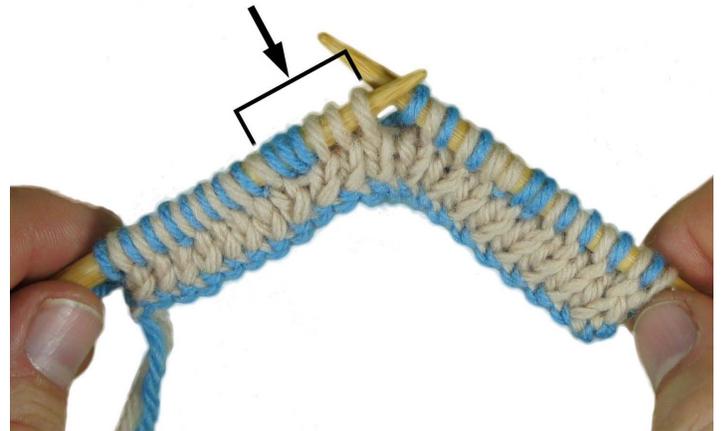
(SSP: slip 2 stitches separately knitwise, pass same 2 stitches back to left needle. P2Tog TBL)

Left-slanting decrease (right stitch on top): Wyib, SSK in color indicated by chart; wyif, P2Tog with opposite color

Double-decreases – 3 pairs into 1 – are done in a similar way. In this case, there are three pairs which need to be reordered before the corresponding knit and purl decreases can be done.



The method is similar for the three pairs involved in double-decreases



These are the same three pairs, now reordered from K-P-K-P-K-P to K-K-K-P-P-P

Here we're going to switch the positions of the four centermost stitches of these 3 pairs, leaving the two outer stitches where they are:

- 1) Slip 5 stitches purlwise to your right needle.
- 2) Insert your left needle, from behind, into the second and fourth stitches to hold them in place, skipping over the stitch in between them.
- 3) Pull your right needle gently out of four stitches. Two of these stitches are held in place but the other two will pop out to the front of your work. Hold your thumb at the base of the stitches to keep them from dropping.
- 4) Insert your right needle into the two released stitches.
- 5) Slide the two stitches on your right needle back to the left needle.

Once the reordering is done, there are several different types of double-decrease you can use; in this ebook, only one is used: a centered double-decrease with the two side stitches overlapping on top:

Standard double-decrease (center stitch underneath): Wyib, SI 1 kwise; K2Tog in color indicated by chart; PSSO. Wyif, SI 1 pwise; SSP in opposite color; PSSO

This technique should have created a single pair again, in whatever color orientation is needed.

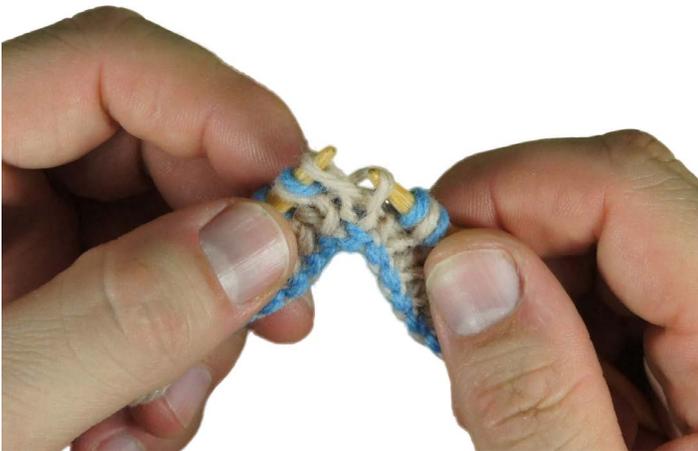
Double-Knit Increasing

Increases, like decreases, have a directional component that is used in shaping or decorative double-knitting. Instead of slanting, however, they're distinguished by the side of the pair the increase is on. Typically, in double-knitting, we use lifted increases (one on the knit side, and one on the purl side) to create new pairs without creating holes in the fabric.

Because of the directional nature of knitting – followed right to left – a right-side increase is done before the pair being increased into is made; a left-side increase is done after. A double-increase is simply a right-side increase, a pair, and then a left-side increase. See page 11 for more info on how to follow these increases in charts.

Unlike decreasing, there is no preparation required before an increase.

For a right-lifted increase, work up through the pair before the two pairs encompassed by the chart element.



- 1) Wyib, insert your right needle into the right leg of the stitch below the next stitch on your left needle, from inside to outside.
- 2) Slide this stitch onto your left-hand needle; Ktbl with the color indicated by the chart.



- 3) Wyif, flip your work up so you can see the back. Insert your right needle into the right leg of the stitch below the next stitch on the left needle, from inside to outside.
- 4) Slide this stitch onto your left-hand needle; Purl with the opposite color from the knit you just made.
- 5) Work the next pair as indicated by the chart.

For a left-lifted increase, first work the first pair encompassed by the chart element.



- 1) Wyib, insert your left needle into the left leg of the stitch two below the previous stitch on your right needle, from inside to outside.
- 2) Leave this stitch on your left-hand needle; Knit with the color indicated by the chart.



- 3) Wyif, flip your work up so you can see the back. Insert your left needle into the left leg of the stitch two below the previous stitch on the right needle, from inside to outside.
- 4) Leave this stitch on your left-hand needle; Ptbl with the opposite color from the knit you just made.

For a double lifted increase, simply work a right-lifted increase, work the pair, then work the left-lifted increase. The left-lifted increase will be tighter because the right-lifted increase has already been worked into the other leg of the very same pair.

Following charted decreases and increases

Increases and decreases are charted the same way for single-sided knitting and double-knitting. I have attempted to make my chart elements as intuitive and literal as possible so that it's clear what is going on.

Decreases are relatively self-explanatory: you work the row up until you reach the decrease element in the chart, and you reorder the next two (or three) pairs to work the decrease. Sometimes the decrease will not appear to line up with the chart below in the way that you'd expect -- but trust the designer; the decrease is placed correctly so that the final fabric will look right. The row in which the decrease appears will be one pixel shorter than the row below it.

Increases are trickier because a stitch (or pair) is created out of thin air. Lifted increases are especially tricky because they are created out of a particular side of a particular stitch. In the chart, the pixel in which the vertical line appears is the stitch into which the increase is worked (as a matter of fact, the increase is worked into the stitch below that -- but you've understood that from the technique steps above). The diagonal line points from the bottom of the vertical line into the pixel which signifies the increased stitch (or pair). The direction the diagonal line points is the direction of the increase: a right-lifted increase will have a vertical line with a diagonal pointing right; a left-lifted increase will have its diagonal pointing left. Of course, a double-increase will have both.

The pairs created out of these techniques are subject to the same rules as standard double-knitting. The chart indicates the color of the first (knit-side) stitch created; the second (purl-side) stitch is created in the opposite color. This may be the same color orientation as the pair you are increasing into, or it may be the opposite. Pay attention to the chart and it's not hard to follow.

Similarly to decreases, the increase may push the resulting chart in a direction that seems not to line up with what's below it. The row in which the increase occurs will be one pixel longer than the row below it -- although it can be cancelled out by a corresponding decrease. Sometimes, in order to maintain a coherent overall pattern, the designer will shift the row itself in one direction or the other.

Joining a new skein

There are several ways to join a new skein -- from the Russian join to the good old spit-splice. These tend to be bulky and unpredictable, so I like to join new skeins in a unique way that uses double-knitting to its benefit.

If possible, as you approach the end of a skein, try to find a larger expanse of a single color orientation. Stop somewhere in the middle; take the short end (it should be 6-12" long, enough to weave in easily) and bring it to the opposite side from where it was last used (if on the facing side, the end should hang out on the opposite side of the work, or vice versa). Bring the new end from a fresh skein and put it alongside that end, so the new end is parallel to it. Holding the new source yarn and the other end together, continue with the row. The stitches around the join will be a little loose; just tug the two ends gently until their corresponding stitches match the surrounding ones.

Once you've gone a row or two beyond and worked a bit of fabric on top of this join, you can double-check the tension of the stitches, then tie a loose half-knot in the two ends. The half-knot should sink inside the fabric but not distort the stitches it's connecting on the other side of the work. Then, the two ends can be woven in, in opposite directions.

Weaving in ends

If your yarn is grippy enough (wool or most other animal fibers), you can get away without anchoring your ends. All you really need to do is tuck the ends down into the space between the layers. Take a tapestry needle with both ends through the eye and feed it into a convenient hole -- wiggle the needle around inside the work, checking both sides to make sure the needle is staying inside. Push the needle through several color-changes -- this is where the sides grip each other most tightly -- then when it's gone as far as it can, pop it out through one side or the other. Pull the yarn through, being careful not to tighten it too much and distort the fabric. If you have enough yarn, send the needle through the same hole but in a different direction. When you're done, pull the ends out of the needle. Cut the yarn near where it comes out, then give the fabric a tug and the ends will get sucked inside, never to be seen again.

Blocking double-knitting

Double-knitting is stubborn stuff. And that's no surprise -- it's reinforced. What one layer wants to do, two layers will want to do that much more. Increases and decreases will hold their natural shapes more strongly, and the gauge you get will be the gauge you keep -- unless you block. Of course, blocking cannot help loose stitches -- only gauge swatching and practice will help you there. But if you find your fabric is a little uneven, or tighter, or not quite the shape you want, blocking may work well for you. Double-knitting blocks the same way as single-sided knitting; it just requires a little more forcefulness. I recommend wet-blocking when possible; there are plenty of tutorials on this online and in books so I won't go into the details. The differences, however, are important:

- 1) It may require a little more time to soak and more force to squeeze out. Double-knitting is partially hollow and holds water as well as air.
- 2) Because the fabric is more stubborn, you may want more pins to keep it in place.
- 3) The fabric has two sides, and you're drying it on a flat space. Make sure you flip it over and re-pin it midway through the drying cycle to get it dry on both sides.

Got it? Good! Now go forth and create something amazing!

GLOSSARY

K	Knit
P	Purl
kwise	Knitwise
pwise	Purlwise
Wyif	with (all) yarns in front
Wyib	with (all) yarns in back
K2tog	Knit 2 together
Ptog	Purl 2 together
SSK	Slip-Slip-Knit (see page 8)
SSP	Slip-Slip-Purl (see page 8)
PSSO	Pass slipped stitch over (and off the needle)
TC	Thumb Color (see page 5)
FC	Finger Color (see page 5)
pixel	a colored square in the chart
element	a symbol in the chart

GLOBAL KEY

	.....	Color A
	.....	Color B
	.....	Color C
/	.....	Right-Slanting Decrease (see page 8)
\	.....	Left-Slanting Decrease (see page 8)
^	.....	Standard Double-Decrease (see page 9)
✓	.....	Right-Lifted Increase (see page 10)
∨	.....	Left-Lifted Increase (see page 11)
∨	.....	Double Lifted Increase (see page 11)
	.....	Locked pair (see page 7)
	.....	Slipped pair (see page 7)



PARALLAX v0.1

This is actually the latest Parallax pattern, created to help my LYS, Mind's Eye Yarns in Cambridge, MA, move an over-stock of bulky yarn inherited from the previous owner. It's the largest yarn I've ever double-knit with and while I'm glad I had the opportunity to try, I'll stick to smaller needles from now on. Still, it's a quick project in cushy yarn made doubly cushy with the double thickness. And what better to make from cushy yarn but ... a cushion! The double-knit fabric makes it comfortable to sit on without having to stuff it, and the Parallax grid gives it the illusion of being more three-dimensional than it actually is.



Yarn:

[Color A] Mirasol Ushya (98% Merino Wool, 2% Acrylic; 114yds/100g skein); #1720; 1 skein.

[Color B] Mirasol Ushya (98% Merino Wool, 2% Acrylic; 114yds/100g skein); #1709; 1 skein.

Needles & Notions:

1 US13/9mm 24" circular needle, or needle size required to achieve desired gauge.

Tapestry needle

Gauge:

Before blocking: 11 sts/16 rows = 4" in standard double-stockinette fabric.

After blocking: 11 sts/11 rows = 4" in standard double-stockinette fabric.

Dimensions as worked are approx. 16" square.

Pattern:

Using Color A as TC and Color B as FC, CO 45 pairs or 90 total stitches. Turn and follow Chart 1. After finishing the chart, bind off and weave in ends. Block carefully to square and gift or use with pride!

Notes:

Because of the large blocks of color, even two colors which don't contrast well will look great in this pattern.

Once you're done, you can choose an orientation on the chair it's going to get used on and crochet a couple of loops to secure it to the back posts so it won't fall off.





PARALLAX v0.5

I came up with the Parallax concept back in January of 2011. Later that year, my book "Extreme Double-Knitting" came out. While book-touring, I put in an appearance at Stitches East and was hosted by Carl and Eileen of Bijou Basin Ranch. Their luxurious yak-blend fibers were mostly new to me at that point, and I felt like I should thank them for hosting me at their booth by designing something in one of their yarns. I had also wanted to design a Parallax scarf in a lower resolution for double-knitters who might not want to jump in with both feet. This is a quick knit (for a double-knit scarf) and your hands will love it. You may not want to give it away when you're done!



Yarn:

[Color A] Bijou Basin Ranch Lhasa Wilderness (75% Yak, 25% Bamboo; 180yds/56g skein); #12; 2 skeins.

[Color B] Bijou Basin Ranch Lhasa Wilderness (75% Yak, 25% Bamboo; 180yds/56g skein); #15; 2 skeins.

Needles & Notions:

1 set US5/3.75mm straight needles, or needle size required to achieve desired gauge.

Tapestry needle

Gauge:

23 sts/29 rows = 4" in standard double-stockinette fabric. Dimensions as worked are 7" wide x 68" long.

Pattern:

With Color A as TC and Color B as FC, CO 41 pairs or 82 total stitches. Turn and follow Chart 1 14 times; add new skeins as necessary. After finishing the 14th chart repeat, work rows 1-5 one more time, then bind off. Weave in ends, block if necessary and gift or wear with pride!

Notes:

This probably does not need blocking -- the sample did not get any, and you can see how clean it looks.





PARALLAX v1.0

This is the very first Parallax scarf I designed and the first to be cast on. At the time, I was still working in twisted stitches as a preference, so this one is worked that way. Ironically, it was also the last one to be bound off. It's done in Kauni Effektgarn, my very favorite yarn for double-knitting. Parallax patterns and Kauni go together beautifully -- the long color gradations are shown off to their best extent, and if you pair two Kaunis together, you will always have the excitement of seeing how the colors will play off each other as you go. Sometimes they'll contrast really well and sometimes you'll get two together that are fairly close -- but at that point, the Parallax pattern gives you the added bonus of this shimmering effect where another pattern might be lost. In the two I chose here, the darker color may appear solid but is actually shifting from a rich blue to a black to a deep purple.



Yarn:

[Color A] Kauni Effektgarn (100% wool; 660yds/150g skein); #EH; 1 skein.

[Color B] Kauni Effektgarn (100% wool; 660yds/150g skein); #EL; 1 skein.

Needles & Notions:

1 set US2/3mm straight or circular needles, or needle size required to achieve desired gauge.

Tapestry needle

Gauge:

30 sts/32 rows = 4" in standard double-stockinette fabric. Dimensions as worked are 7.5" wide x 60" long. Blocks to 7" wide and 70" long.

Pattern:

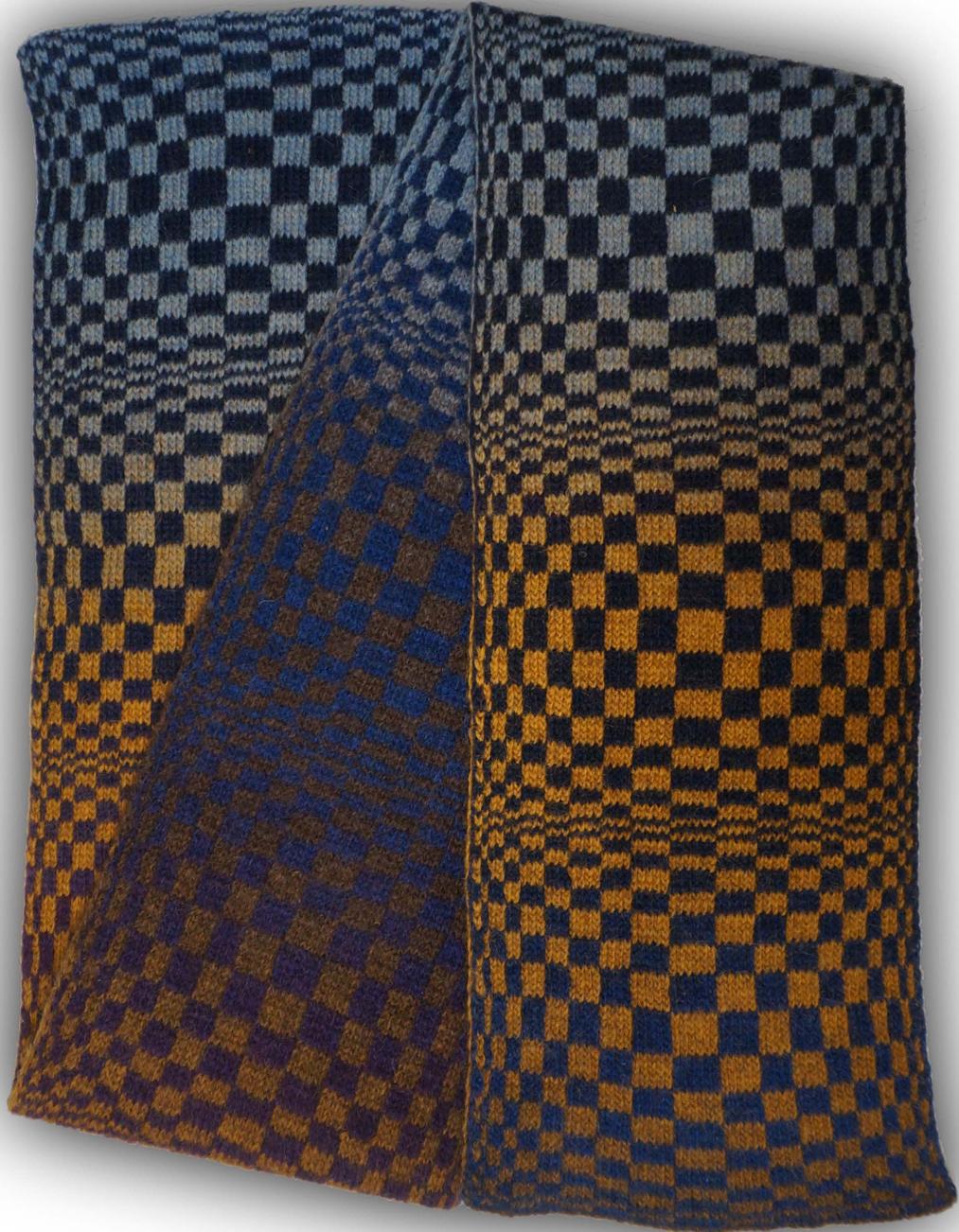
With Color A as TC and Color B as FC, CO 57 pairs or 114 total stitches. Turn and follow Chart 1 9 times or more if you want a longer scarf. After finishing the final chart repeat, work row 1 one more time, then bind off. Weave in ends, block if necessary and gift or wear with pride!

Notes:

You may find that your gauge will make this slightly larger than my finished item because of my twisted stitches. However, given my further work in double-knitting in Kauni using untwisted stitches, I believe the gauge is not far off from what it should be and any inconsistency will block out.

This entire scarf will be able to be done in much less than the entire 150g skein -- Kauni sells balls as small as 130g and that should easily suffice.

Be careful with Kauni color changes! I have run into issues a couple of times where a ball of Kauni will have a knot between two radically different colors. I'd recommend that you wind the entire ball off to a ballwinder, which will give you the chance to see whether there are any knots in odd places.





PARALLAX v2.0

Here's where we begin to go off the deep end. As you've probably noticed from Parallax v0.5 and 1.0, in a standard scarf you get the opportunity to show off the expansion or compression areas of the Parallax patterns. Parallax v1.0 centers on the expansion points -- making the repeats look like pillows or fisheyes. Parallax v0.5 centers on the compression points -- making the repeats look like stars. I wanted to show both of these in the same scarf, but I didn't want to make it overly wide. So I made it on the bias, moving every other row over by one pair through judicious use of increase and corresponding decrease. The pattern for this is complicated, but as you get into it, you'll begin to feel the rhythm and perhaps you might not even need the chart after a while. The forest green color I chose is actually a Kauni Solid; I wanted to highlight the fact that Kauni has an amazing range of solid colors as well as their Effektgarn line. Most shops don't carry it but you should be able to get them to order it and maybe that will change.



Yarn:

[Color A] Kauni Effektgarn (100% wool; 660yds/150g skein); #EB; 1 skein.

[Color B] Kauni Solids (100% wool; 660yds/150g skein); #RR6; 1 skein.

Needles & Notions:

1 set US2/3mm straight or circular needles, or needle size required to achieve desired gauge.

Tapestry needle

Gauge:

30 sts/32 rows = 4" in standard double-stockinette fabric. Dimensions as worked are 7" wide x 76" long after blocking.

Pattern:

With Color A as TC and Color B as FC, CO 3 pairs or 6 total stitches. Turn and follow Chart 1. Work Charts 2 and 3 alternating, 4 times. Work Chart 4; when finished there should be 1 pair on the needle. Break your ends, insert both ends through both loops and tighten. Weave in ends, block carefully and gift or wear with pride!

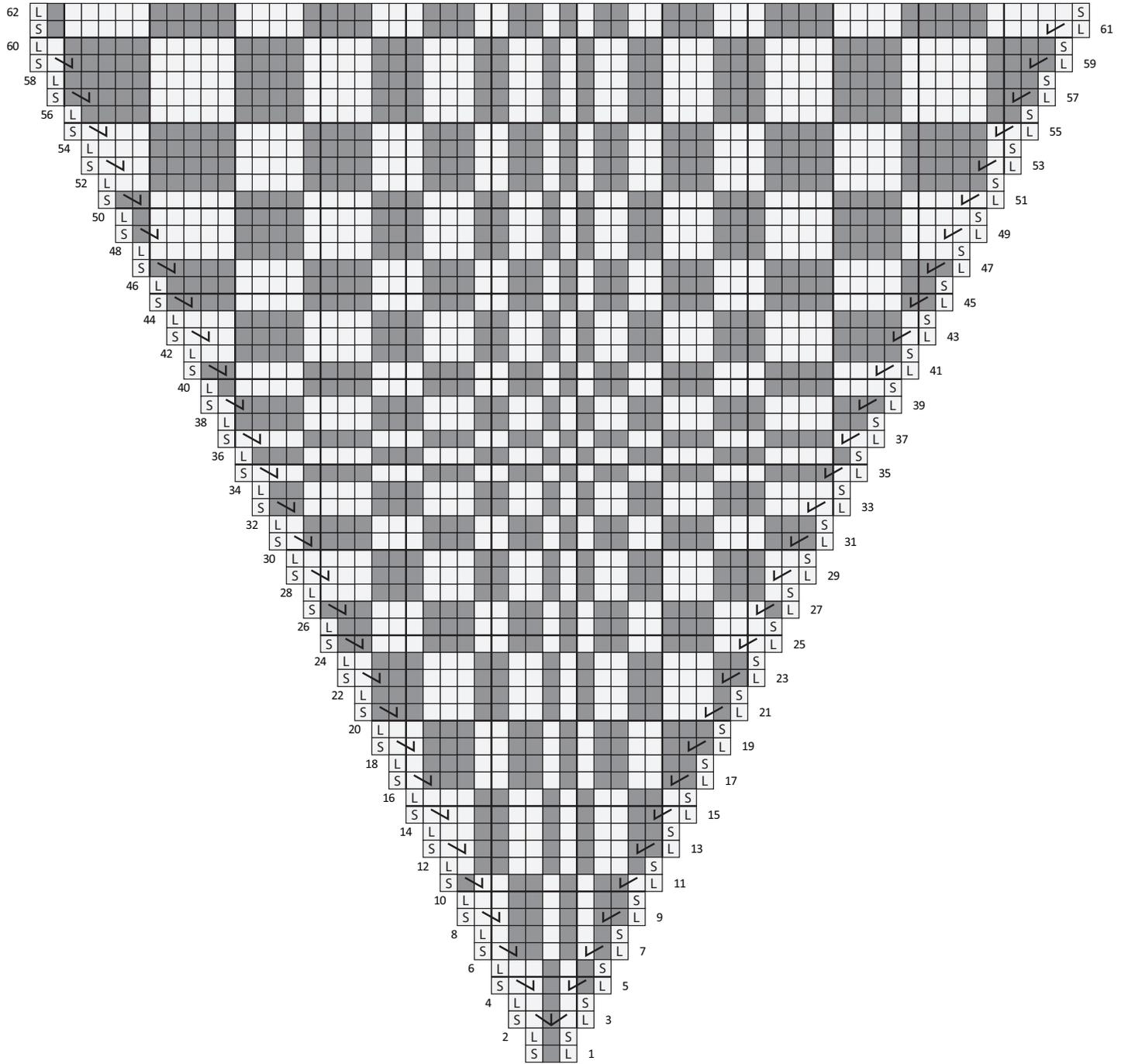
Techniques:

See pages 8-11 for instructions on double-knit increasing and decreasing,

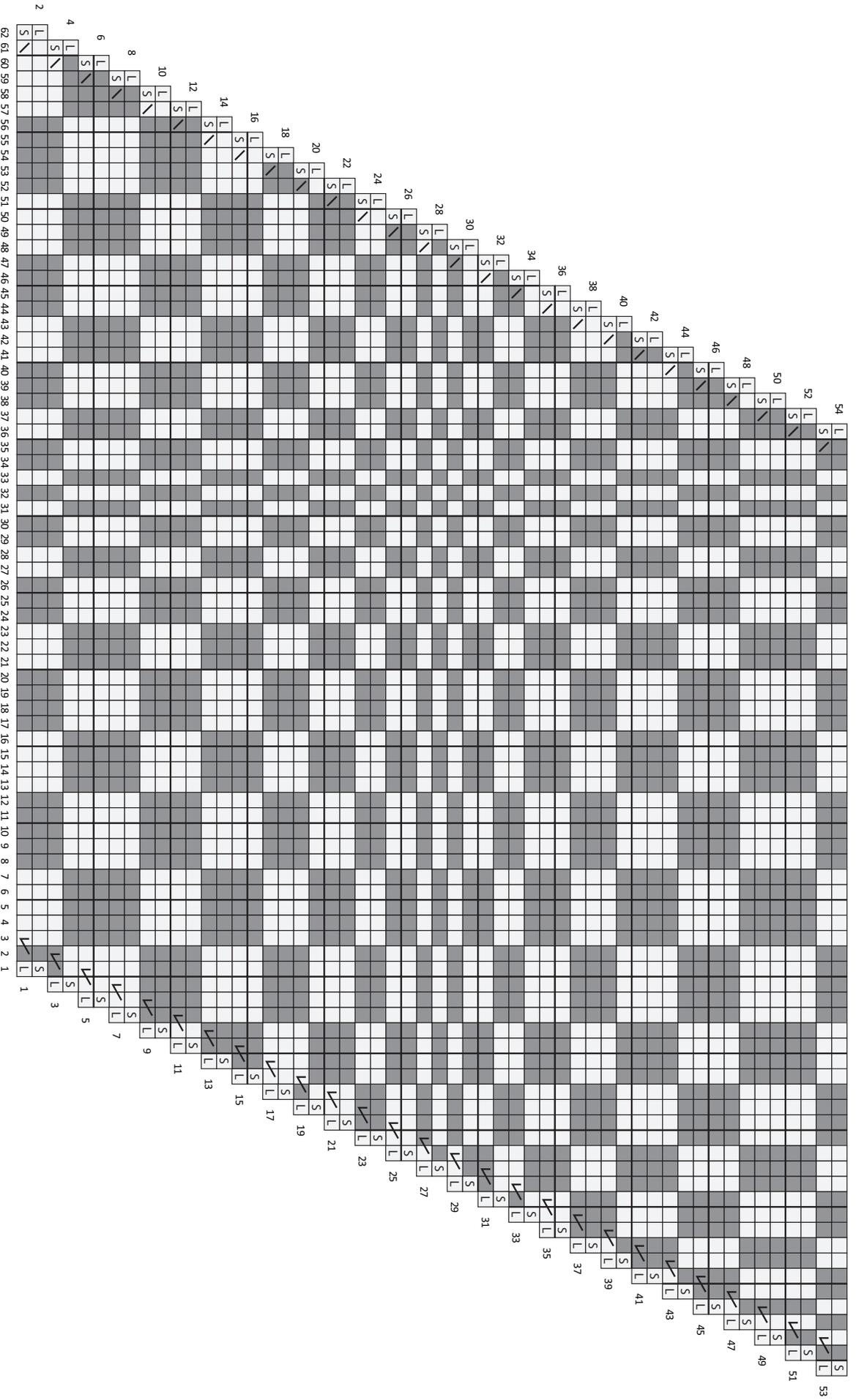
Notes:

The ends of this scarf (Charts 1 and 4) are worked with different increase/decrease patterns to get as close as possible to 90 degree corners. The discrepancy is due to the subtle difference in dimensions between an increase and a decrease (owing to the laterally asymmetrical nature of knit stitches). Blocking will flatten out the ends so they're almost perfectly square to the edges. The edges may also have more tension than the body of the work due to the combination of selvages and bias knitting -- again, this will block out.

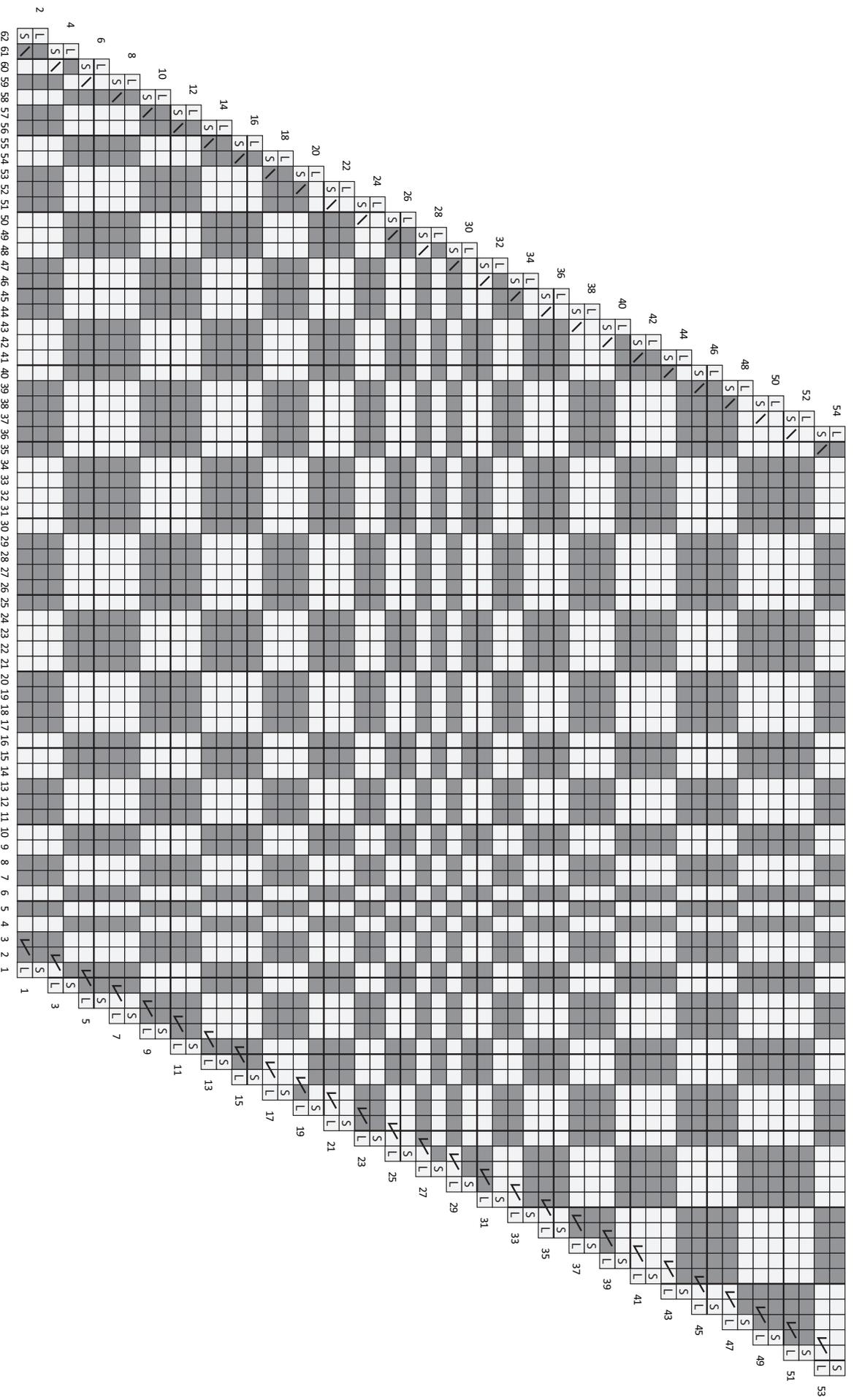
Parallax v2.0: Chart 1



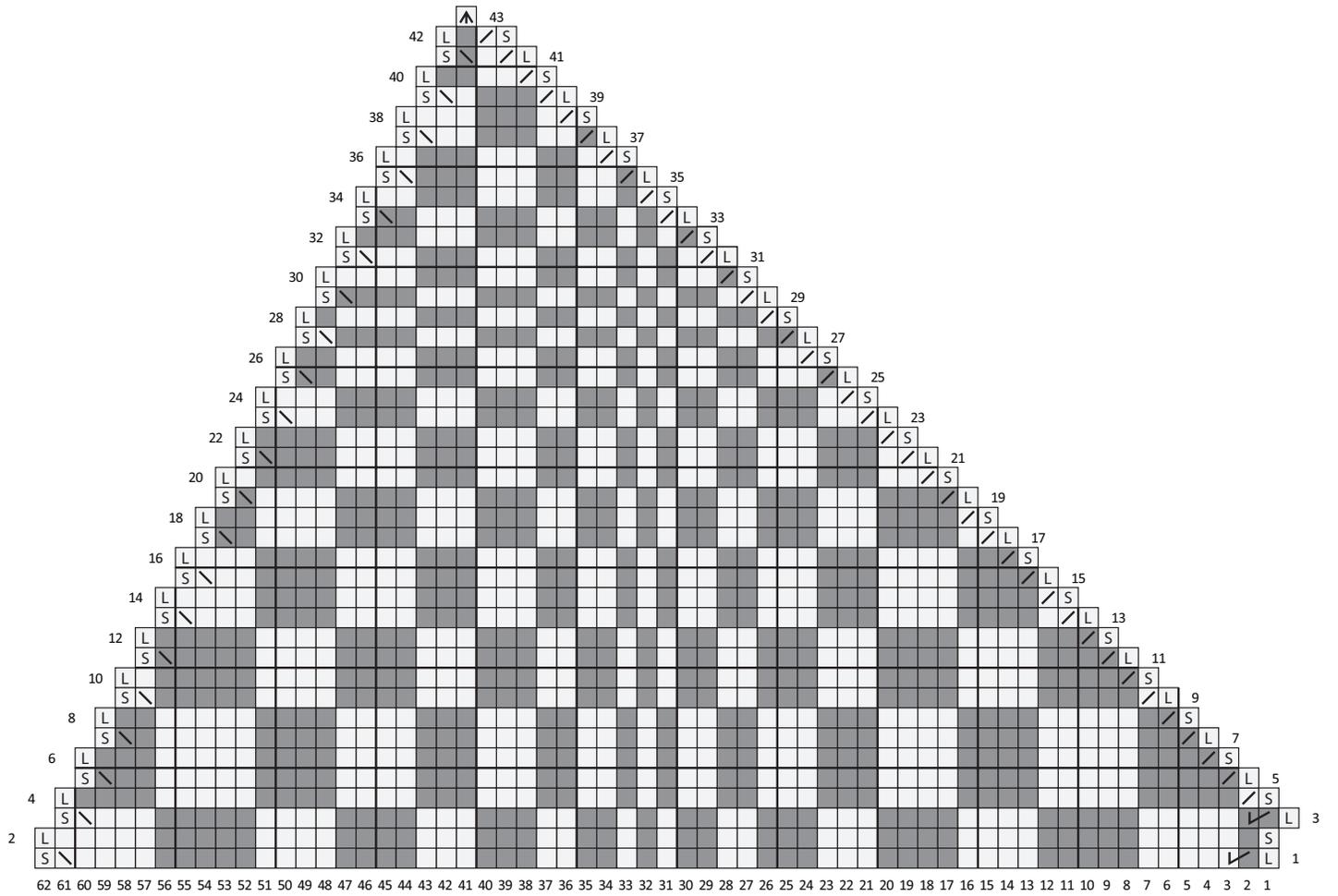
Parallax v2.0: Chart 2



Parallax v2.0: Chart 3



Parallax v2.0: Chart 4

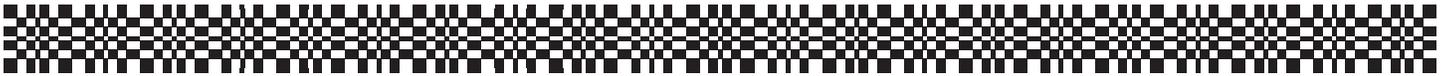






FARALLAX v3.0

This piece is truly worthy of the label “Extreme Double-Knitting”. Here we get to play with three different colorways of Kauni Effektgarn and show off how they interplay in a totally different way. All three colors are changing constantly, and the mixture of colors is even more striking here than it might have been in the two-color versions. As you choose colorways to work with, I would recommend you avoid any that share a single color since there’s a better-than-average chance that you’re going to end up with them both running at the same time at some point. However, as you can see, there are mixtures where two colors come very close to each other and this can be exhilarating! Because of the border in this pattern, two of the colors get used more than the third, so it will take much longer for the color mixture you got at the beginning to return again -- if it ever does!



Yarn:

[Color A] Kauni Effektgarn (100% wool; 660yds/150g skein); #EU; 1 skein.

[Color B] Kauni Effektgarn (100% wool; 660yds/150g skein); #EYC; 1 skein.

[Color C] Kauni Effektgarn (100% wool; 660yds/150g skein); #EH; 1 skein.

Needles & Notions:

1 set US2/3mm straight or circular needles, or needle size required to achieve desired gauge.

Tapestry needle

Gauge:

30 sts/32 rows = 4" in standard double-stockinette fabric. Dimensions as worked are 7" wide x 76" long after blocking.

Pattern:

With Color A as TC and Color B as FC, CO 55 pairs or 110 total stitches. Turn and follow Chart 1. Add Color C; work Chart 2 8 times (or longer if you want a longer scarf). Work Chart 2 one more time, ending with row 49. Work Chart 1 one more time to close off the border (you will actually be working it from the opposite side; just match the color of the border stitches all the way across and copy that row 3 times). Bind off, weave in ends, block carefully and gift or wear with pride!

Techniques:

See page 6 for three-color double-knitting. As mentioned, there is a color rotation you must use with a three-color double-knit piece. In this piece, Color A on the chart is worked as A/B on the facing side and B/A on the opposite side. Color B on the chart is worked as B/C on the facing side and C/B on the opposite side. Color C on the chart is worked as C/A on the facing side and A/C on the opposite side.

See page 7 for the locked double-knit selvedge and pay special attention to making sure the third color is locked into the edge as well.

Notes:

While it may seem that you need to constantly be watching the chart, there is an easy rhyme and reason to the changing rows: Each change consists of one color that was used in the previous row but on the other side, and the unused color (in some order). Watch the changing rows for that rhythm; it will make it easier for you to construct the pattern with less thought.



About the Author



Alasdair Post-Quinn is the owner of Fallingblox Designs and author of the critically-acclaimed book “Extreme Double-Knitting: New Adventures In Reversible Colorwork” and a smattering of other patterns, mostly also double-knitted. He has been working to push the boundaries of double-knitting since 2003.

Alasdair lives in Cambridge, MA with his wife and cat, and his day job is in computer repair. In his spare time, he travels around North America to teach, and he’s hoping to slowly transition to spending more time designing, publishing and teaching double-knitting techniques and patterns.

Please visit Alasdair online:

www.double-knitting.com: more info on Alasdair’s books and patterns

www.fallingblox.com: a sporadically-updated blog

www.facebook.com/fallingblox: the Fallingblox Designs FB page

www.twitter.com/fallingblox: the Fallingblox Designs Twitter feed (updated about as often as the blog)

www.ravelry.com/groups/fallingblox-designs: the Fallingblox Designs Ravelry group

www.ravelry.com/groups/double-knitting: the general double-knitting group, moderated by Alasdair

Also, if you find any errors in this ebook, please let me know at doubleknitting@gmail.com. Thanks!

