## Appendix D

## DUBIOUS PRACTICES

This appendix describes some alternate ways to chart knitting instructions.

## As-Worked Charts

Occasionally charts show private-side rows "as worked" rather than what they look like from the public side. Doing so shows all knit stitches, public side or private side, with the same symbol (in this book, the empty rectangle) and shows all purl stitches, public side or private side, with the same symbol (the rectangle with a dot).

In the rest of this appendix, we'll refer to the charts shown elsewhere in the book as pub-lic-side charts, and the rewritten charts we're about to make will be called as-worked charts.

## Simple Fabrics

Let's start with some of our "Basic Knitted Fabrics."

## lxl Ribbing

Here's the public-side chart from part one.


## The As-Worked Chart

Let's construct the chart as it would be worked, reading the private-side rows from right to left the same way we read public-side rows. The first row, as a public-side row, would not change.


When we turn the work at the end of row one, the first stitch will look like a knit, because on the public side we purled it. Since we form ribbing by stacking knits on knits and purls on purls, then the first stitch on row two will be knitted. We work the rest of the row alternating between purls and knits, so the only thing that changes in this as-worked chart row is the position of the private-side row number.


For $1 \times 1$ ribbing on an even number of stitches, the as-worked chart looks exactly the same as the public-side chart (except for the location of half the row numbers).


4
3
2
1
Let's compare this chart's symbol key with what we see in "Basic Knitted Fabrics."

| Public-Side Chart Symbol Key |  |
| :--- | :--- |
| $\square$ | Knit on RS, purl on WS |
| $\square$ | Purl on RS, knit on WS |


| As-Worked Chart Symbol Key |  |
| :---: | :--- |
| $\square$ | Knit |
| $\square$ | Purl |

## With an Odd Number of Stitches

Let's add just one stitch to our chart. To keep the stitch pattern going, we'll add one knit symbol to the end of the first row. ${ }^{1}$


Now let's see what we have to do for row two. Since row one ended with a public-side knit, it will look like a purl when we turn the work. As before, we always stack knits on knits and purls on purls to work ribbing, whether we're working a public- or private-side row. That means we start row two with a purl, then alternate knit and purl across. Since we're showing the chart as worked, we read every row from right to left and put the row number next to the first stitch worked on each row.


Let's duplicate these two rows with the correct row numbers to make a four-row chart. The symbol key would be the as-worked key above.


The as-worked chart looks very different from both the public-side chart and the swatch. The question is, Is the as-worked chart better than the public-side chart? I think the only way it could be is if we covered up the private-side chart row below the public-side row we're

[^0]currently working (in addition to the row above, if we're following the recommendation from part one's "Working from a Chart"). Otherwise, I think seeing the wrong symbols on the previous chart row would constantly trip us up, since they wouldn't match what we were seeing in yarn on our needles.

## Seed Stitch

Let's do the same experiments with seed stitch. The public-side chart shows the checkerboard placement of knits and purls, with the two types of stitches alternating both from right to left and from bottom to top.


## The As-Worked Chart

The first row is unchanged because it's a public-side row.

| $\bullet$ | - | $\bullet$ | $\bullet$ |  | $\bullet$ |  | $\bullet$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

At the end of the row, we work a public-side purl, which will be a knit when we turn to the private side. Since we make seed stitch by always working the opposite of the stitch, we will have to purl the first stitch on the private side. From there we alternate knit and purl across the row.


To get ten rows in this variation, we duplicate these two rows four times with the correct row numbers.


The as-worked chart looks the same as the public-side chart when seed stitch is worked on an even number of stitches.

## With an Odd Number of Stitches

Let's again bump up the stitch count by one. We'll add a knit symbol at the end of the first row to continue the stitch pattern. ${ }^{2}$


Now, when we turn to the private side, the first stitch will look like a purl. Since we make seed stitch by always doing the opposite of what the stitch looks like, we need to knit the first stitch. Then we'll alternate purl and knit for the rest of the row.


When we duplicate these two rows with the proper row numbers to make the chart ten rows tall, we get a very different appearance between the as-worked chart and the swatch, and also between the as-worked and public-side charts.

| $1 \cdot 1$ | $1 \cdot 1$ | $1 \cdot 1$ | $\cdot 1$ |  | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \cdot 1$ | $\cdot 1$ | $1 \cdot 1$ | $\bullet$ | - | 9 |
| $1 \cdot 1$ | $\cdot 1$ | $1 \cdot 1$ | $\bullet$ | - | 8 |
| $1 \cdot 1$ | $\cdot 1$ | $1 \cdot 1$ | $\bullet$ | - | 7 |
| $1 \cdot 1$ | $\cdot 1$ | $1 \cdot 1$ | $\bullet$ | - | 6 |
| $1 \cdot$ | - | $\bullet$ | $\bullet$ | $\bullet$ | 5 |
| $1 \cdot 1$ | -1 | $\cdot 1$ | $\bullet$ | - | 4 |
| $1 \cdot 1$ | -1 | $\cdot 1$ | $\cdot 1$ | $\cdot$ | 3 |
| $1 \cdot 1$ | $\cdot 1$ | $\cdot 1$ | $\cdot 1$ | - | 2 |
| $\cdots$ | $\bullet$ | $\bullet$ | $\bullet$ | - |  |

[^1]Once again, the question must be, Is the as-worked chart better than the public-side chart? Taken in its entirety, I would have to say no, because it doesn't remotely resemble the work in progress.

If we want to look at one chart row at a time in isolation from the row below it, then it could be used to work the current row. If we get confused about where we are, though, we have to resort to counting stitches from the beginning of the row, which is not a big deal when there are only ten stitches on the needle.

But what if we have a couple hundred, because we're making a 3XL sweater? What if there are multiple stitch patterns across the project? If we can't line up the current chart row's symbols against the previous row's because of the way we've drawn the chart, then what benefit has going to the trouble of drawing the chart given us? Perhaps we would be better off just working from knitting gibberish. We'd at least be knitting sooner!

Let's now look at a chart with multiple stitch patterns, although it has well under a hundred stitches.

## The Aran Sampler

We'll look at only the first eight rows of the chart as it appears right before the heading "Is This Chart Good Enough?" from part one's second project.


For the basic knitted fabrics, which we can work just by looking at the stitches themselves, we simply put the symbols in the chart rows in the order we work them: from right to left. But there is actually another way we could chart private-side rows as worked: we could put them in the order they'd need to be if we turn the chart upside-down for those rows. That means they would be on the chart in left-to-right order when the chart is right-side up.

Since we can order the private-side symbols either right to left or left to right, we'll work through the Aran sampler chart twice.

## Reversing Row Two for Right-Side-Up Chart Usage

Here's row two in the public-side chart.


Let's read from left to right, swapping knits for purls, and vice versa, while we add the stitch symbols from right to left in our as-worked chart. The right-most column usually has the public-side row numbers. But the charting rule tells us that the row number is placed next to the first stitch worked on each row, which means the private-side row number now needs to be in what is the column for the public-side row numbers, since we're now going to put the private side's first stitch symbol all the way to the right.

The second column contains the single stitch of reverse stockinette, so we have to reverse the symbol to be a knit, and the third column will have the six stitches of Braid. Since we work Braid's private-side rows as purls, that's how we show them in an as-worked chart.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |

## If We're Charting on Paper

Here's one big issue already. In the public-side chart, the Hugs and Kisses Cable was in the third column from the right, and it was eight stitches wide. Now that that column contains Braid on row two, it only needs to be six stitches wide. In the partial chart above, the pattern column is still eight stitches wide.

Of the five main stitch patterns, only the center stitch pattern, Fishbone, will remain in the same column for both public- and private-side rows. The other four main patterns will have to mirror-image themselves on the private-side rows. As we've just realized, Braid's six symbols fit in Hugs and Kisses' eight symbols, but when we get to the left end of the chart, Hugs and Kisses' eight symbols will not fit into the area that hold Braid's six symbols.

In the same way, Cable 3/3 Right and Wavy Cable will share two columns. Since Cable 3/3 Right is six stitches wide and Wavy Cable is seven stitches wide, then Cable 3/3 Right will fit in Wavy Cable's existing space, but Wavy Cable will not fit in Cable 3/3 Right's space.

Unless we planned to do an as-worked chart from the very beginning, the public-side chart will have each pattern's symbols right up against its neighboring patterns' symbols. There won't be any blank areas. We now need to make four of the five pattern columns wider, and we don't have the space. What can we do? Here are just four options.

We could cut apart the pattern columns, then cut four new columns from graph paper. Two of the new columns would have to be eight stitches wide to hold public-
and private-side rows of Hugs and Kisses (and Braid), and the other two would need to be seven stitches wide for Wavy Cable (and Cable 3/3 Right). Once we've redrawn the patterns in the four new strips, we can tape them together to make a single project chart.

We could steal the needed space from the columns of reverse stockinette. If we used a pencil, we can just erase all the columns of purls between the main patterns, then draw in those places the private-side symbols that the wider patterns now need on every other row. Of course, we then have to remember to work the reverse stockinette between all the main patterns, since it will no longer be in the chart.

We could erase all the private-side symbols of the four main patterns, then force the wider patterns' symbols in, squashing Hugs and Kisses' eight symbols into Braid's six cells and Wavy Cable's seven symbols into Cable 3/3 Right's six cells.
We redraw the entire chart, leaving empty grid cells where narrower pattern rows are in the wider pattern rows. We may have to draw an X or slightly shade in those cells to remind us that there aren't any stitches in those locations on those rows.

## Finishing the Rest of Row Two

While we reverse row two, we'll just let each table column be whatever width it needs to be for the stitches of each pattern. The right-most main pattern column now is now the proper width for Braid's six stitches.

|  |  |  |  |  |  |  |  |  |  | Braid |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  | $\bullet \cdot 1 \cdot \cdot \bullet$ | $\bullet \cdot \bullet$ | $\square$ |

The next column will be the two stitches of reverse stockinette that we put between the main patterns. We of course work them as knits to get purls on the public side.

|  |  |  |  |  |  |  |  |  |  | Braid |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  | $\square$ | $\square \cdot \cdot \cdot \cdot \cdot \cdot \cdot \square$ | 2 |

Then we have the six stitches of Cable 3/3 Right. Like Braid, we have to purl them on the private side to get knits on the public side.


We add two knits for the reverse stockinette between the cable patterns. Now we have to put in the private-side stitches for Fishbone. All of its private-side rows are worked as purls, so that's how we show them. We have another two-stitch column of reverse stockinette after it, again shown as two knits.


After Fishbone is Wavy Cable. On row two, we work two knits, three purls, and two knits to get two purls, three knits, and two purls on the public side. It's followed by two stitches of reverse stockinette, which on the private side looks like stockinette.

|  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $\square$ |

The final stitch pattern is Hugs and Kisses, which is eight stitches wide. All of its privateside rows are purled, which is how we show them in an as-worked chart. The column after it is a single stitch of reverse stockinette, which looks like stockinette on an as-worked chart.

|  | Hugs and Kisses |  | Wavy Cable |  | Fishbone |  | Cable 3/3 Right |  | Braid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot$ | $\square$ | $\square 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ | 1 | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$ | 1 | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot$ | 1 | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot$ |  | 2 |

Since we've now rewritten the row to show it as we would work it, what is normally the column for private-side row numbers is no longer needed.

|  | Hugs and Kisses |  | Wavy Cable |  | Fishbone |  | Cable 3/3 Right |  | Braid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bullet \cdot 1 \cdot 1 \cdot \bullet \cdot{ }^{-1}$ | 1 | $\square 1 \cdot 1 \cdot 1$ | $\square$ |  | 1 |  |  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ |  | 2 |

## The First Two As-Worked Rows

Let's combine our new as-worked row two with the original row one, which remains unchanged since public-side rows are already charted as worked. Since four columns now contain two stitch patterns, the descriptive top chart row has been modified as well.

|  | $\begin{gathered} \text { RS: Braid } \\ \text { WS: H \& K } \end{gathered}$ |  | RS: Cable 3/3 R WS: Wavy Cable |  | RS and WS: Fishbone |  |  |  |  |  | RS: Wavy Cable WS: Cable 3/3 R |  |  |  |  | RS: H \& K WS: Braid |  |  |  |  | $\square 2$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | $\square \square^{\square} \cdot 1 \cdot \bullet$ | $\square$ | $\bullet \cdot 1$ | -1 | - | $\bullet \cdot$ |  |  |  | $\bullet \cdot$ | $\bullet \cdot 1 \cdot 1$ |  |  |  | $\bullet \cdot$ | - |  |  |  |  |
| $\bullet$ | $\square \square$ | $\bullet \cdot$ | 1 | $\bullet \cdot$ | 1 |  |  |  |  | - |  | ? | $\cdots \cdot 1$ |  | 1 |  |  |  |  |  |  | 1 |

In my computer, my charts' table columns are usually centered instead of being either left- or right-justified. That means that the six stitches of Braid are centered above or below the eight stitches of Hugs and Kisses with a blank space the width of a stitch on each end. In the same way, the one-stitch difference in the widths of Wavy Cable and Cable 3/3 Right is split in half in their two columns.

If we were charting by hand, we might place the narrower patterns' symbols either all the way to the left or all the way to the right when they're in the wider columns.

## The Eight-Row Right-Side-Up As-Worked Chart

We do on rows four, six, and eight the same thing that we did on row two. The public-side rows, already charted as worked, are all unchanged. Note that it would be really hard to add stitch labels to this chart, since four columns don't have the same number of stitches from one row to the next.

|  | RS: Braid WS: H \& K |  | RS: Cable 3/3 R WS: Wavy Cable |  | RS and WS: Fishbone |  | RS: Wavy Cable WS: Cable 3/3 R |  | RS: H \& K WS: Braid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ | $\square$ |  | $\square$ | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot$ | - | $\bullet \cdot 1 \cdot 1 \cdot \bullet \cdot$ | - | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ |  | 8 |
| $\square$ | $\square$ | $\bullet \cdot 1$ | [1/-1/-1 | $\bullet \cdot 1$ |  | $\bullet \cdot$ | $\ldots$ - | $\bullet \cdot$ | $\bigcirc$ | - | 7 |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$ | $\square$ |  | $\square$ | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot \bullet$ |  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot \square$ | $\square$ | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot \bullet$ |  | 6 |
| ${ }^{-}$ | $\square \mathrm{L}$ | $\bullet \cdot$ |  | $\bullet \cdot$ | $\begin{array}{l\|l\|l\|l\|l} \hline 1 & \\ \hline \end{array}$ | - | $1 \cdot 10 \times 0$ | - | $1{ }^{1}$ | - | 5 |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ | $\square$ | $\left.\bullet \cdot 1 \cdot 1\right\|^{+1}$ | $\square$ | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ | $\square$ | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ | - | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot \bullet$ |  | 4 |
| $\square$ | $\cdots$ | $\bullet \cdot$ | $\bigcirc$ | $\bullet \cdot$ | Sxen L | - | $\cdots$ | $\bullet \cdot$ | M | $\bullet$ | 3 |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 10$ | $\square$ |  | 1 |  | $\square$ | $\stackrel{-1 \cdot 1 \cdot 1 \cdot 10}{ }$ | $\square$ |  |  | 2 |
| $\bullet$ | $\square \mathrm{L}$ | $\bullet \cdot$ |  | $\bullet \cdot$ |  | $\bullet \cdot$ | $\cdots \quad \cdots \cdot$ | $\bullet \cdot$ |  | - | 1 |

If we're charting on paper, then of the four options suggested earlier, option three will squish Hugs and Kisses' eight symbols into Braid's six stitches and Wavy Cable's seven stitches into Cable $3 / 3$ Right's six stitches. Doing so will give a chart with no blank areas, but the symbols will also be misaligned with the rows below and above them.

If we use any of the other three options, then depending on the exact stitch patterns we're charting, we might have blank areas in some patterns' columns. Those blank areas will again mean that each row's symbols are not positioned in proper relation to one another. If we're allowing an empty grid cell to indicate a knit stitch, we'll also have to be careful to indicate that some of the empty cells aren't actually stitches by putting an X in them, shading them in slightly, or using some other marking technique.

The final as-worked chart for the first eight rows of the Aran sampler looks quite a bit different. Does it look better than the public-side chart? Does it make more sense? Would we be able to keep straight in our minds what we're doing while we're working each publicside row if the private-side chart row below it is visible? Or would we have to cover up the private-side chart rows below (and above) the public-side row as we work it?

## Combining All Pattern Columns

Maybe it would be better to have each row's symbols in a single, very wide column, instead of keeping each pattern's symbols in its own table column. If we're charting on paper, we might chart this way without even realizing it.

It's hard to see how we could include the stitch pattern names in this chart, so we'll do without them.


In this version, the reverse stockinette columns in stitches ten and eleven and in stitches thirty-eight and thirty-nine seem like they're aligned, but that's actually the wrong way to interpret those pairs of stitches, because every other row of reverse stockinette in an asworked chart would have knit symbols, exactly as we see in the eight rows at stitches one and forty-six. The Wavy Cable in stitches twelve through eighteen doesn't look too bad, but its private-side rows don't line up the knit stitches with the crossings below and above them. The areas below and above the crossing for Cable 3/3 Right in stitches thirty-two through thirty-seven are odd as well. We could almost get by with Hugs and Kisses Cable in stitches two through nine. Maybe. As long as we can remember that we're making stockinette.

Of course, if we're combining stitch patterns to make our own design, we'd want to be absolutely sure we've positioned all the patterns in the left-to-right order we want them, because it would be very difficult to shift them around once their symbols have all been joined together in a single table column if we're using the computer. If we're working on paper, well, is there any other choice besides starting over from scratch?

## Reversing Private-Side Rows for Upside-Down Chart Usage

We don't have to leave the chart right-side up all the time. Instead, we could turn it upsidedown while we work private-side rows. Doing so will immediately eliminate the issues we have with the different stitch patterns being different widths, especially if we're charting on paper, because the stitch patterns stay in their own columns instead of being put in reverse order across the chart like they were for the right-side-up as-worked chart.

All we need to do is start with the public-side chart and, for the Aran sampler at least, simply invert knits and purls on the private-side rows, because each symbol remains in exactly the same place in its own table column. For example, stitches forty through forty-six remain in their column for Braid instead of the private-side symbols having to swap places with those in the Hugs and Kisses column. And more specifically, the symbol in location forty stays in location forty; it just needs to be reversed from its public-side persona.


Is this better than the public-side chart? Some knitters would think so. Is it better than

As-Worked, All Symbols in One Column (Right-Side Up)


As-Worked, Each Pattern's Symbols in Separate Columns (Right-Side Up)

|  | RS: Braid <br> WS: Hugs and Kisses |  | RS: Cable 3/3 R WS: Wavy Cable |  | RS and WS: Fishbone |  | RS: Wavy Cable WS: Cable 3/3 Right |  | RS: Hugs and Kisses WS: Braid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$ | $\square$ | $\bullet \cdot \bullet 1{ }^{-1}$ | I | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ |  | $\bullet \cdot 1 \cdot 1 \cdot \bullet$ | 1 | $\bullet \cdot 1 \cdot 1 \cdot \bullet$ |  | 8 |
| - | $\square$ | $\bullet \cdot$ | - | $\bullet \cdot$ | Wend | $\bullet$ | $\ldots$ - | - $\bullet$ | $\bigcirc$ | - | 7 |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot$ |  | $1 \cdot 1 \cdot 1$ |  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot$ |  | $\bullet \cdot 1 \cdot 1 \cdot 1$ |  | $\bullet \cdot 1 \cdot 1 \cdot \bullet$ |  | 6 |
| $\bullet$ | $\square \mathrm{L}$ | $\square$ | $\square \square^{1}$ | $\bullet \cdot$ |  | - $\cdot$ | $\cdots \cdot 1 \times 0$ | - - | 1/ $1 \mathrm{l}_{1}$ | - | 5 |
|  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$ |  | -1••1 | - | $\bullet \cdot 1 \cdot \bullet \cdot{ }^{-1} \cdot{ }^{-1}$ |  | $\bullet \cdot 1 \cdot 1 \cdot{ }^{-1}$ |  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot$ |  | 4 |
| - | $\cdots$ | ${ }^{-}$ | , | $\bullet \cdot$ | Wen L | - | $\cdots$ | - | Cran | - | 3 |
|  | $\cdot \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$ |  | $1-1 \cdot 1 \cdot 1$ | 1 | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 \cdot \bullet^{-1}$ |  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot$ |  | $\bullet \cdot 1 \cdot 1 \cdot 1 \cdot{ }^{-1}$ |  | 2 |
|  | $\square \square$ | $\cdot 1 \cdot$ | - | $\bullet \cdot \square$ | 1/-1/1. | - | $\cdots \quad \cdots \cdot$ | $\bullet$ | 1/1/1_L | - | 1 |



Public-Side Chart

the right-side-up as-worked chart? The main improvement is that each pattern's stitches are aligned properly from row to row, as already noted. The main flaw is that the chart looks like garter stitch while the project is stockinette, but if we prefer to chart this way, we would soon get used to the fact that stockinette alternates rows of knit and purl symbols while garter uses only knit symbols.

## One Final Comparison

All four Aran sampler charts have been put next to one another on the facing page.
Naturally I'm biased, but the only chart that makes any sense at all to me is the publicside chart. Of the as-worked charts, the one where the chart must be turned upside-down for private-side rows makes the most sense. The multi-column right-side-up as-worked chart is better than the single-column version, but that isn't saying much.

Only the public-side chart will look remotely the same as the work in progress; the asworked charts can't come close in that regard.

Like so many things in knitting, the solution we pick will depend on our priorities and preferences.

## As-Worked Charts for Other Projects

Even though the Aran sampler's stitch patterns are all relatively simple, the as-worked charts have issues, especially the right-side-up chart that makes different stitch patterns share the same table columns.

I'm trying-and failing miserably-to imagine a hard lace project, which does increases and decreases on every row, charted as-worked in the way that keeps the chart right-side up for private-side rows. Well, I can imagine the chart just fine (to a certain extent). What I can't imagine is working from it, having to contend with yarnovers and decreases that are simply in the wrong place on every row. Note that it wouldn't be that the lace action is all in the wrong places only on private-side rows, because when we work the public-side rows, all the yarnovers and decreases in the private-side rows below them are also in the wrong places compared to where the chart says they should be.

If such a chart were constructed to be turned upside-down for private-side rows, then at least the lace action would all be in the correct places.

But imagine a lace fabric that isn't simply garter- or stockinette-based; instead, it's textured, with some parts stockinette, some parts reverse stockinette, and/or some parts garter. Every private-side row will show the wrong kind of stitch in all the textures, which would require constant mind-bending reversals to remember that every stitch on the chart is actually the opposite of what it looks like in yarn while we're working into it on the following publicside row.

## The Bottom Line for As-Worked Charts

If we regard a knitting chart as a collection of isolated, somewhat unrelated rows instead of representing the appearance of the finished piece, then as-worked charting is a viable option.

As-worked charting, though, simply obliterates one of the most important advantages of charts: we see how the current row's stitches are positioned relative to those on the previous rows. We can tell almost instantly that we've dropped a stitch, miscounted, or made some other error, because all of a sudden, the stitches are not stacking on top of one another as they ought to based on the chart.

Since in the right-side-up as-worked chart the relationships between the symbols in adjoining rows are just as invisible as they are in the written-out instructions themselves, it really seems to me that there's no point in taking the time to make that type of as-worked chart at all.

As for the as-worked chart we turn upside-down for the private-side rows, that version at least keeps the stitches on top of themselves, but if there were multiple texture patterns, those would be completely lost in the chart unless and until we got used to seeing what various texture patterns look like in as-worked charts. If we get lost partway across the row, we may well have to count from the beginning of the row every time. For large projects, it seems there is little benefit in such charts.

Since as-worked charts break at least one of the rules of reversal we discovered in part one's "Basic Knitted Fabrics," we need to be sure to clearly mark such charts so that other knitters (including ourselves in the future!) don't try to work from them as if they were the much more common public-side charts.

## One Symbol per Cell (Computer Charts Only)

In the section "One Caution" near the end of part one's "Charting in the Computer," I suggested that we might be tempted to put each knitting symbol in its own table cell instead of putting all of the row's symbols in a single cell. This issue seems to come up more often when knitters use a spreadsheet to make their charts, perhaps because when we open a new, blank spreadsheet, each cell is a small rectangle and looks like it's almost exactly the same height and width as a stitch.

Isolating each stitch symbol in its own cell in a word processor table (and, I assume, in a spreadsheet, though I don't use them for charting so I can't say for sure), will work only for certain kinds of projects. Let's look at what happens for other kinds of projects.

Here's what we type to make the chart for a plain old Cable 3/3 Right, taken from part one's "Cables and Twists," if we put each symbol in its own table cell. ${ }^{3}$

[^2]

When we switch the table to the knitting font, we get


If the chart consisted entirely of knit and purl symbols (and any other symbols that are only one stitch wide), the chart would work just fine this way. Because the cable symbol is six stitches wide, the chart is wonky.

## Combine the Cells?

Word processors usually let us combine table cells, so if we combine all the cells on the cabling row, we get


## The Inner Lives of Table Cells

Why is there a strange gap on either side of the cable symbol?
Table cells have internal margins that allow us to control how close the cells' contents can come to the cells' edges. In the chart above, there are margins of 0.01 inch on the inside of all four sides of every cell; each cell's contents cannot come closer than 0.01 inch to any
edge of its cell. So each table cell containing a knit symbol is the width of the knit symbol plus a total of 0.02 inch, from the 0.01 inch of both the left and right internal margins.

Since five table rows contain six cells, the width of the entire table will be greater than the width of six knit symbols by the 0.02 inch total of internal margins in each of the six cells. That means 0.12 inch of the table's overall width comes from the cells' internal margins.

The cell containing the cable symbol only needs to be the width of the symbol plus 0.02 inch total for the left and right cell margins, and if that cell were the only one in the table, that's how wide the table would be. Since the cable symbol is the exact width of six knit symbols, the difference between the 0.12 inch of margins on the non-cabling rows and the 0.02 inch of margins on the cabling row shows up as extra blank space on both sides of the cable symbol, since I have all the cells' justification set to Centered.

Even if we set the cells' internal margins to zero, we still have slight gaps before and after the cable. ${ }^{4}$


The cable symbol's cell, because it's actually six table cells merged together, will most likely cause problems if we try to combine this stitch pattern in a chart with other patterns. Word processors don't always deal with merged table cells in ways we expect, so let's try a few experiments.

## Duplicating the Stitch Pattern

Suppose we want to put two Cable $3 / 3$ Right cables in a chart with two purl stitches between them. We'll start with the chart above, where the cable symbol is in a merged table cell.

[^3]

We add a blank column

and put two stitches of reverse stockinette in each row.


Now we'll add another column, then copy and paste the cable's symbols into the blank column. I selected and copied all of the cable's symbols, as shown by the thick border in the next chart, then pasted them into the single blank column.


Only one of the pattern's six columns was pasted.


What if we add six new columns to paste the pattern symbols into, since the cable is six stitches wide as, indeed, are five of its six rows? Again, the thick border shows the cells I selected and copied. I then selected all the empty cells and pasted into them.


This result is not what we wanted. ${ }^{5}$


Now let's do the same steps but with a chart that has each pattern row's symbols in a single cell.

## The Entire Row in One Cell

In this test, we start with the style of chart we've used throughout the book; it has the six knit symbols of each non-cabling row in a single table cell. The cable symbol is the only symbol in that row's cell, and the entire table consists of only one column.

[^4]| 1 | 1 | - |
| :---: | :---: | :---: |
| 1 | 1 |  |
| 1 | 1 | - |
| $\bigcirc$ | , | , |
| $\square 1$ | 1 |  |
| 1 |  |  |

We add a blank column and put two purl stitches in each of its rows.


Now we'll add one more blank column, to hold the second cable's symbols. The thick border shows the cells I'll copy and paste into the blank column.


This result is the one we expect, and it's how I constructed similar charts throughout the book.


## Summary for One Symbol per Cell

We can put each knitting symbol in its own cell in a table, but only if every symbol is the
same number of stitches wide. If we try to mix symbols that are different widths by combining table cells to accommodate wider symbols, we'll run into trouble when we try to copy and paste table cells that are actually several cells merged together. Note that combining cells is the messy, and more difficult, way of achieving our goal.

The best practice is to put the symbols of each row of a stitch pattern into a single table cell. Then we can copy and paste together lots of stitch patterns, or lots of copies of the same pattern, across the width of a project chart without any trouble.

For an even more practical matter, putting each symbol in its own cell requires lots more presses of the Tab key or clicks with the mouse to continually re-position the cursor. I am way too lazy to do that much more work, especially when I'm going to get wonky results later!


[^0]:    ${ }^{1}$ We could add a stitch at either end or remove a stitch at either end.

[^1]:    ${ }^{2}$ As before, we could add or remove a stitch at either end.

[^2]:    ${ }^{3}$ We've put the symbol for the cable crossing in the first cell of its row, but we'd get weird results no matter which cell it was in, with the exact weirdness depending on which of the six columns the crossing symbol is in.

[^3]:    ${ }^{4}$ Your word processor may not show such gaps, and I'm not sure why mine does. I'm guessing zero is not always equal to zero! (It probably has to do with the fact that a non-zero amount of space is needed to separate the cells, even when I turn off all the cell borders.)

[^4]:    ${ }^{5}$ To fit the chart on the page, I had to shrink the font size manually.

