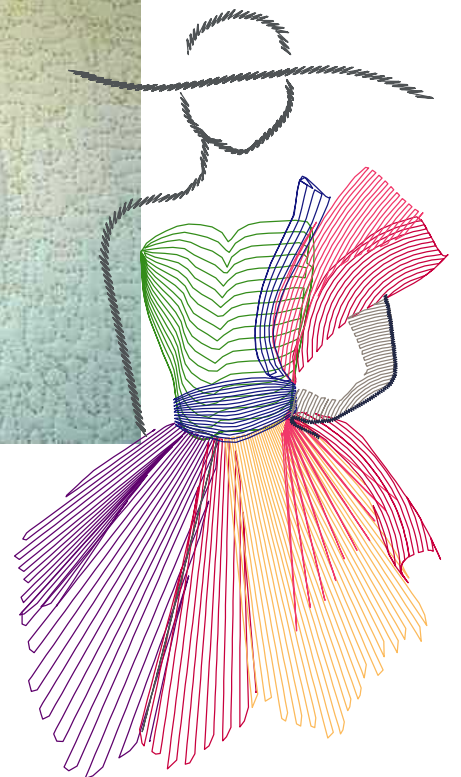


Addendum 11

Introduction to Dimensional Quilting

by

Krys Swirydczuk





About the Author, Krys Swirydczuk



Krys Swirydczuk

Krys was born and raised in England, the daughter of Polish immigrant parents. Inspired and guided by her mother's artistic abilities Krys quickly learnt to sew, knit and crochet. Shortly after receiving her own sewing machine from her mother, Krys travelled to the USA for graduate studies, toting that machine with her. Her educational background is in the sciences, but her artistic abilities allowed her to work as a graphic artist while in graduate school. In 1980 she began a long career as a geologist with the oil industry. Visiting over 30 countries in 28 years, travelling north of the Arctic Circle and south of the Equator, Krys would always locate the market or bazaar and come home with local fabrics and craft work from around the world.

With a husband and three children sewing was relegated to the back burner until her oldest daughter went to college in 2002. Upgrading to an embroidery machine, Krys discovered computerized sewing and embroidery software, and took her first quilting class.

Retired since 2008 Krys bought a HQ 16 with the Pro-Stitcher in spring of 2009. She immediately volunteered to quilt tops for her local Project Linus Chapter in Las Cruces, NM, knowing that the secret to success is practice, practice, practice. She started digitizing designs to match the fabric themes, but was also drawn to traditional whole cloth quilting. In fall of 2009 she entered her first personal quilt (trapunto whole cloth) in the local State Fair and was astonished to find that she had won the Judge's Choice Award. Since 2009 Krys has completed several hundred quilts for Project Linus but a couple of times a year she makes a personal quilt or two. Entering these in local quilt shows she has won Best Machine Quilting (three times), Most Innovative, Viewer's Choice and Best of Show. In 2012 she moved to the HQ Fusion with Pro-Stitcher and Art and Stitch.

Her love of quilting and her long familiarity with digitization provide a unique background that allows Krys to take the quilting software to its limits. As a certified Art and Stitch teacher she hopes to help students learn the basics, and feel comfortable enough and excited enough to step beyond those basics to embrace the depth and great functionality of the Art and Stitch software. Her personal goal is to digitize ethnic designs based on the rich and varied patterns in textiles and art from Africa, the Americas, the Orient, India and beyond.

Krys is open to travel anywhere to teach, and welcomes visitors to her home for one on one or small group classes in Mesilla, New Mexico, where she quilts and digitizes under the power of the sun. (39 solar panels on the roof). Need a custom design digitized for that special quilt?

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Introduction to Dimensional Quilting

Adding dimension to your quilting through the use of various trapunto methods is amazingly easy with the Art and Stitch program. Most people think of trapunto as a technique that requires great skill and associate it with whole cloth heirloom quilts. Today, with computerized longarm quilt machines and Art and Stitch, we can take the classic trapunto technique and adapt it to new projects suitable for many different quilt types.

The basics of creating trapunto design in Art and Stitch

In Italian, trapunto means “to embroider”, but American and English quilters usually refer to it as stuffed work. In the past, a motif such as a flower or a swirl was hand embroidered or sewn onto a quilt sandwich with a running stitch and additional material, such as cotton, was placed inside the motif as it was outlined with stitches. Alternately the batting (or cording) was stuffed through holes in the quilt back after the motif was embroidered using a pick or stiletto and gently pushing batting between the threads of the thin muslin back. The background around the motif was then densely quilted often with stippling or some other pattern of stitches that are close to one another. The stippled background lies flat and makes the stuffed parts stand out even more. Today we can take advantage of computerized sewing machines and water soluble thread to achieve a similar look but with much less work and less skill! There are four basic steps to creating trapunto quilts:

Step 1 is to sew out the design on the computerized long arm machine onto the quilt top and a high-loft batting with wash away thread in the top spool and a cotton bobbin thread.

Step 2 consists of taking the quilt top/high loft batting off the machine frame and trimming away the batting around each of the designs.

Step 3 is where we put our quilt back on the frame together with our low-loft or regular batting, and our quilt top (with the designs that have high-loft batting on the back) just like we do when we quilt a regular quilt. We change out the top thread to our regular thread then sew out the identical design over the wash-away thread design. We finish by adding background quilting or additional quilting as needed.

Step 4 the quilt is immersed in warm water or washed to remove the wash away thread.

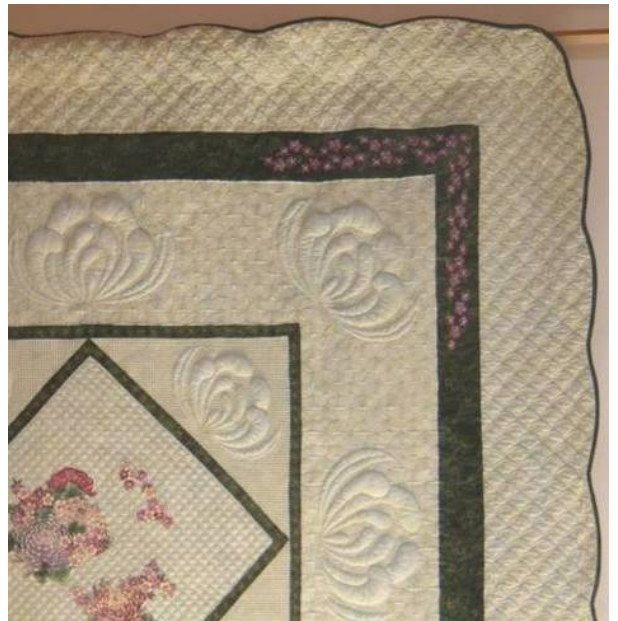


Start by planning the quilt layout

Spend some time looking at your quilt top and decide where on the quilt top you would like to add trapunto. Trapunto elements can be used either in whole cloth or in pieced quilt tops. In a pieced quilt top they generally look best in an area where the fabric is not too busy and there is no piecing – so the element should fit nicely into the quilt piece. (You don't want a seam with two fabrics in your trapunto design!) Here are some examples of my quilts where I have used trapunto. You can tell I prefer not to piece.



I used Scroll designs of Karen McTavish



Once you have decided where you want the trapunto design elements on your quilt you will know the size and shape available to each design element. It may be a triangle, or a block, or in the case of whole cloth it could be anything you can dream of.

Knowing the size is important as that will help you choose an appropriate design which when stitched out will have enough relief – nothing more disappointing than to go through all this effort and then find your trapunto is too flat!

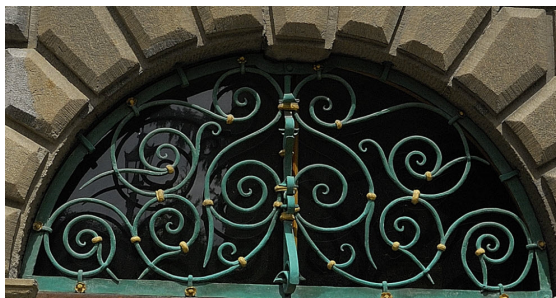


Choose the trapunto designs

To begin we have to select a quilting design with trapunto in mind. I find that my inspiration for designs often comes from scrollwork I see on building facades, doors, furniture, and tiles. Examples of such photos are available in the Art and Stitch Backdrops folder, but once you start to look around you will find many inspirational designs on your own.



04 chair



17 Tuscany window



11 tableware cherries

Most importantly when making the design make sure it is drawn as a closed design, it should not have large areas for stuffing, nor should it have very small and thin necks that will not show well in the finished quilt. Using some of the designs in the Art and Stitch Library I will try and point out some pluses and minuses of these designs and discuss which ones are most suitable for trapunto work. For many designs a quick check on how the design will look “stuffed” can be done in Art and Stitch using the Fill tab. Open the design and select it, then go to the Properties tab (on the right) and under the Artwork tab check Fill and then Apply. The design is colored solid and the solid would represent the area that would be “stuffed”. For some designs this method will not work – such as feather wreath1 – more on this later.

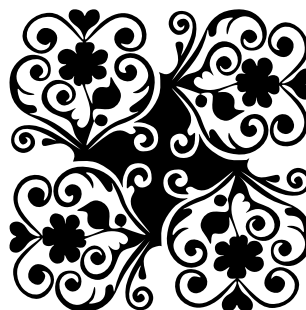
Let's start by looking at some of the designs in the Art and Stitch Library and see if they will work for trapunto.

Library - Block Patterns - Trapunto Block

We may think this is an obvious candidate for trapunto given its name - but this is not so (sorry Theo and Loes). When we look closely at how this design would be stuffed we see that, although it is a closed design, in the outer part of the design the flowers and scroll work could be easily stuffed, but as we move closer into the center of the design, the scroll work in the center could not be continuously stuffed with the rest of the design. This is because the outside line of part of the design has become the inside line of another part of the design.



If we use the Properties Tab, Artwork, Fill, Apply we see that if stuffed this design would result in a large area of fill in the center, and the center scrolls would be negative relief and not positive relief.



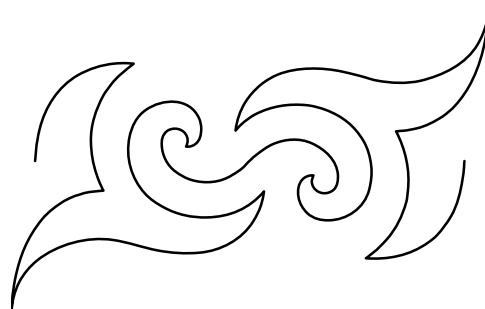
This is easy to modify and we will do a short exercise to show you how we can adapt such designs to trapunto making all the scrolls positive relief and eliminating the large area of stuffing in the center



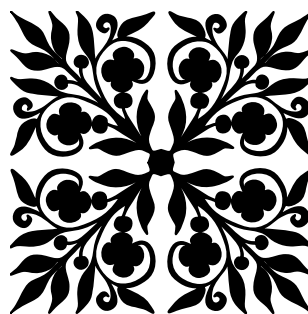
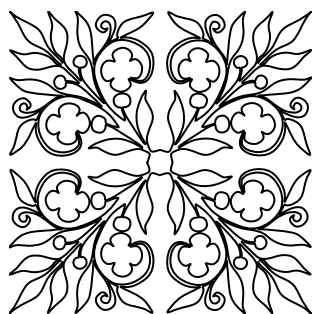
Choose the trapunto designs - Cont'd

Library - Designers Collection**Jessica Schick Tribal Switchback Panto**

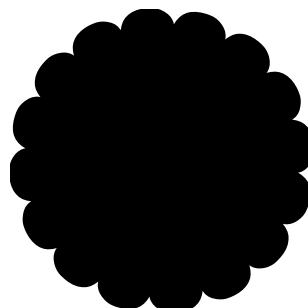
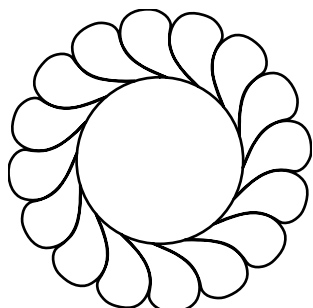
This is an E2E continuous line design and does not lend itself to trapunto as there is no closed design to stuff. In general stay away from E2E designs, unless you find one that can be modified into a closed design.

**Library – Block Patterns – Floral Block**

This is a nice closed design and would look nice as a trapunto element in a quilt – but can you imagine trying to cut around all the intricate detail? Also many of the flower stems are very thin and would not really show up as stuffed after all your hard work. I would stay away from intricate designs and designs that have thin stems such as this one.

**Library – Feathers – Featherwreath1.**

This design is a nice simple design to try trapunto quilting. Cutting away the batting around the wreath and in the center of the wreath would be relatively easy. (this is also one of the designs where a quick check on how a design will look “stuffed” using Properties panel, Artwork tab, box Fill > Apply would not work well. The result would be that not only the feather wreath would be filled but also the circle in the center of the feather wreath!)

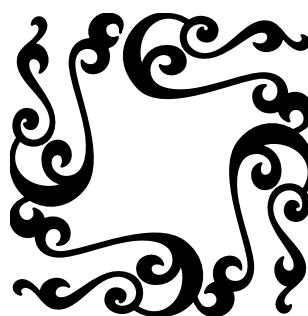
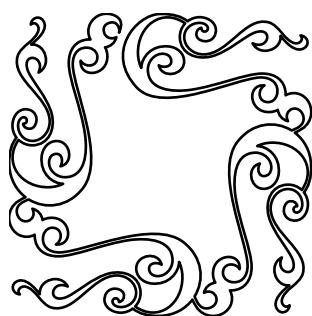




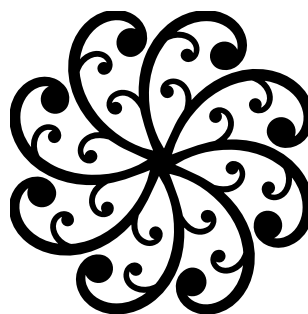
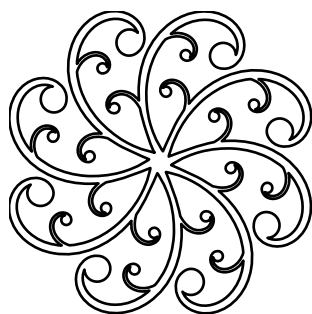
Choose the trapunto designs - Cont'd

Library – Block Patterns – Swirly Frame.

This design is a simple and elegant swirl that would lend itself to trapunto. The design could be split to save only one repeat element, and then that that element would have to be closed. Enlarging the design element to a suitable size is important. Each stem of the swirl should probably be at least ½-1 inch across so that when sewn out the design element will pop out of the quilt with the help of additional background quilting. Sewing out the design in a smaller size would result in the stems being thin and the resulting trapunto would be flat.

**Library – Block Patterns – Swirl Block.**

This design may be too intricate or too detailed, but one repeat element of this design would make a nice scroll which could be enlarged and used as a trapunto design. This is easy to modify and we will do a short exercise to show you how we can adapt this design to trapunto.



Your imagination is the limit. Just follow some basic rules (closed design) and if you are willing to spend a lot of time cutting away intricate batting then go ahead and make your design more intricate! With experience you will learn if the stuffed element is large enough or wide enough so that the detail pops in the finished quilt – there is nothing more disappointing than to make a quilt with trapunto and find the trapunto elements are too flat or too small and not as dimensional as hoped for.

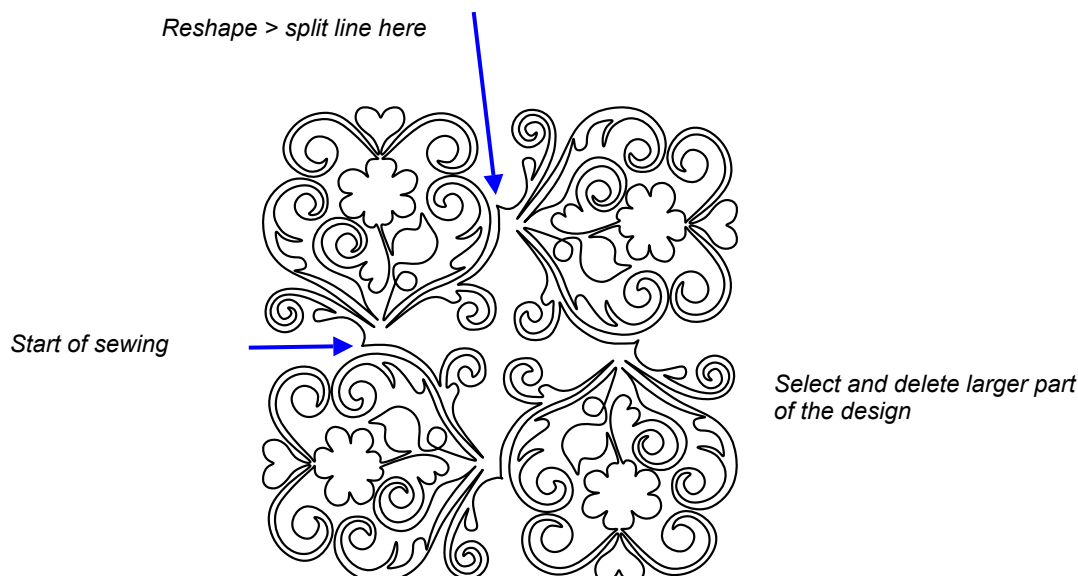


Modifying a design for trapunto - Exercise 1

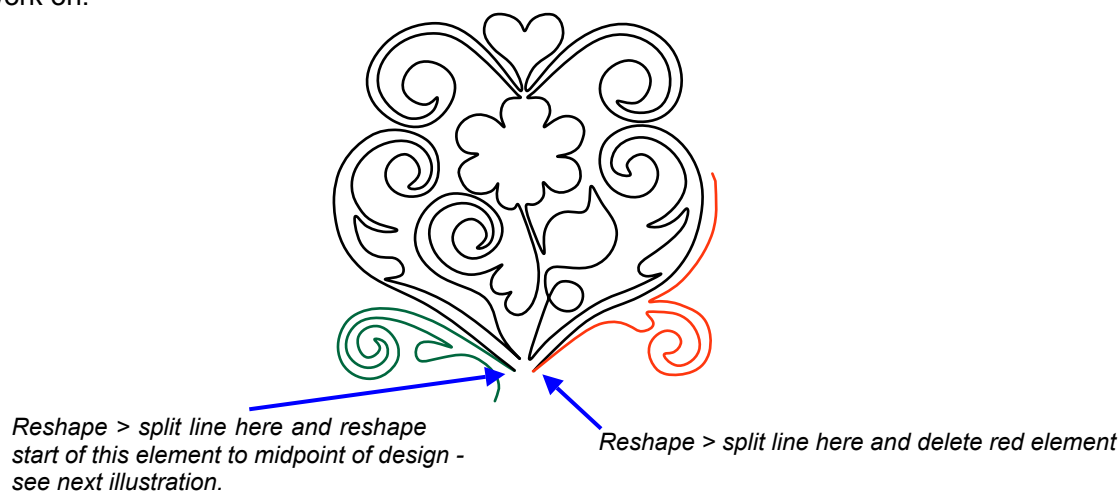
Exercise 1



1. For the first exercise open the design Library – Block Patterns - Trapunto Block. This block uses 4 repeat elements and we will work with just one to make the modification needed to make it more suitable for trapunto. The design stitches from center left clockwise. Check this by turning the design to stitches and then running the sewing simulator. It is always good to know how a design sews before splitting it. Turn the design back into artwork so we can modify the design.



2. Reshape: Split line after the first element.
3. Ungroup and then delete the larger part of the design. This will give you the quarter element we will work on.



4. Reshape - Split bottom right scroll (here red) from main design (here black). Delete red section.
5. Reshape - Split bottom left scroll from main design (here green); reshape start of this element and bend it to the midpoint of the design.



Modifying a design for trapunto - Exercise 1 - Cont'd

Select and duplicate the green section. Mirror horizontally and move to purple position

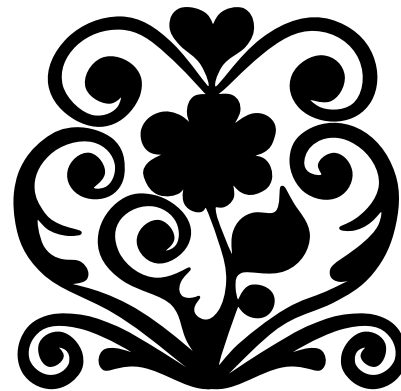
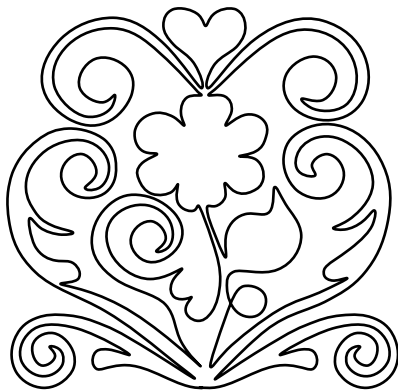


Reshape: manually connect the green object to the black (using T key on your keyboard and move point). Manually connect the resulting object to the purple element. Still in Reshape mode, right-click and choose "Close line".

6. Select the split off section (here green), duplicate and mirror. Move duplicate in place on design (here purple element on the bottom right)



7. Select the green element and in Reshape mode manually connect it to the black main section. Then connect the resulting object to the purple element; Reshape, right-click and choose "Close line".



8. To see how the design will look: in Properties panel, tab Artwork, tick the box Fill, click on Apply.



9. Assign stitches and see how it sews in the sewing simulator. Now we have a design where all scrolls will be stuffed! We can use Magic Square to get back to four elements if needed.

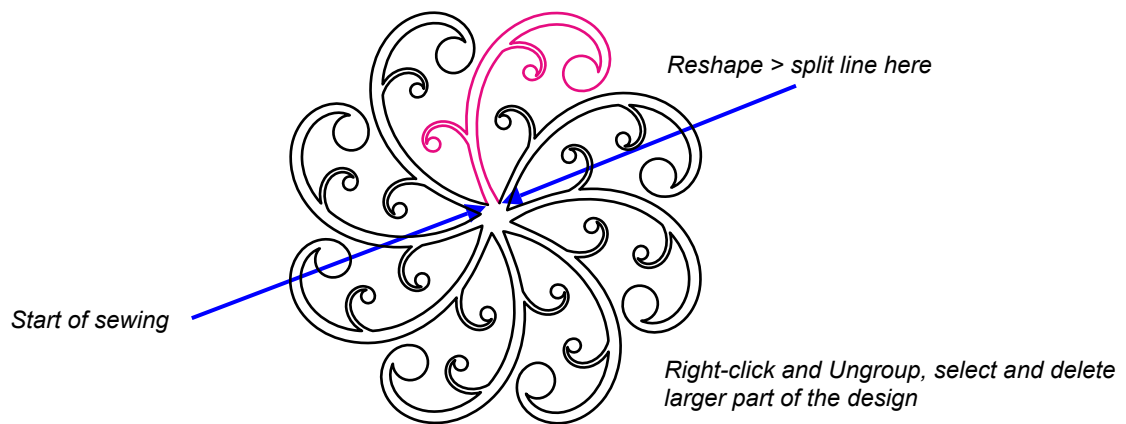


Modifying a design for trapunto - Exercise 2

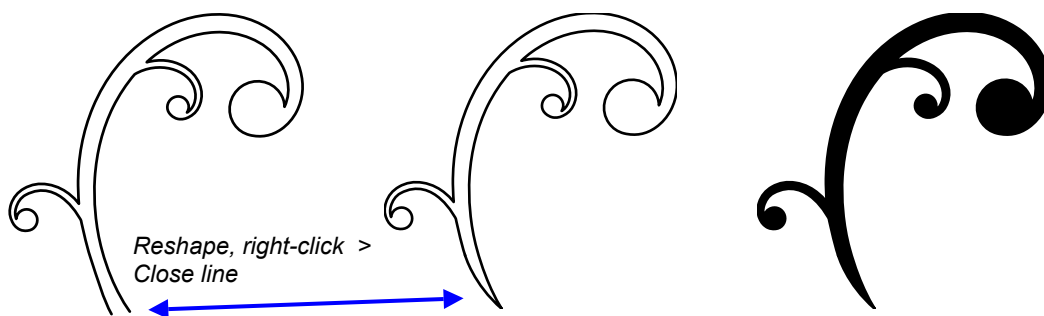
Exercise 2



1. For the second exercise open the design Library – Block Patterns - Swirl Block. This block uses 8 repeat elements and we will use one to make a scroll. Turn the design to stitches and then using the sewing simulator find the start of the pattern. It is always good to know how a design sews before we try and split it as we don't want the start and stop in the middle of the section we are going to work on! Turn back into artwork.



2. Take the Reshape tool and split the line after the first element. Ungroup and then delete the large part of the design.



3. With the Reshape tool, right-click on the object and choose "Close Line".
4. To see how the design will look, go to the Properties Panel, tab Artwork and tick the box Fill > Apply.
5. Assign stitches and see how it sews in the sewing simulator.

Alternatively we could have kept two or more elements and made a more intricate scroll. However, to fill around the trapunto it's best to keep the shape as simple as possible.



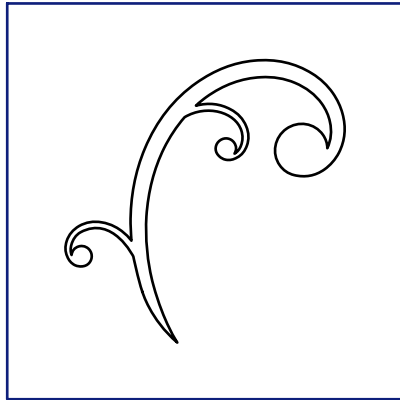
Background fill for trapunto - Exercise 3

Exercise 3 - Simple design, simple background use of Hatch Fill for background

If the trapunto design is simple such as the scroll we made in exercise 2 then it is possible to use Art and Stitch to create a background using simple techniques such as Hatch Fill or Stipple. A more complex design such as the Trapunto design in exercise 1 results in too much overstitching.

Even a simple design such as the scroll in exercise 2, when combined with a background that is made from a Motif Fill will result in too much overstitching, because of the way Motif Stitches are generated around a shape.

Let us explore how to achieve the simple design with simple hatch fill.



*Open scroll design
Resize to 10 inch high
Center to the Design Page
Copy this scroll and paste in a new design page
Draw a square of 14 inch around the original*

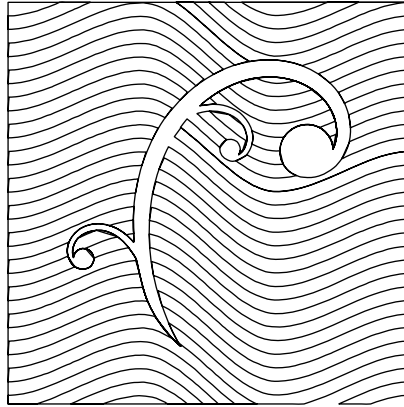
Select All, right-click and Merge

1. Open the Scroll design made in Exercise 2 and resize it: Properties Panel, Tab Transform. Change the Height to 10 inch and click on Apply. Center the design.
2. Choose menu Edit > Copy. Open a new Design Page and choose menu Edit > Paste. We need this copy for a later step. Go back to the Design Page with the Scroll design.
3. Take the Rectangle tool from the Autoshapes, hold down Control and draw a square. Select the square and resize it via Properties Panel, Tab Transform, to 14 inch. Click on Apply. Center this square too.
4. Select both scroll and square together, right-click and choose Merge.





Background fill for trapunto - Exercise 3 - Cont'd



Select the merged design and assign a Hatch fill, first pattern, Style "Wave".

Change Line Spacing in Properties Panel, tab Hatch to 24. Click on Apply.

5. Select original and Hatch Fill , choose the first Pattern, change Style to "Wave".
6. In Properties Panel, Tab Hatch, change line spacing to 24 and click on Apply.
7. If necessary bring the copy of the extra Design Page back to overlay original (this outlines the shape)
8. Check how it sews in the sew simulator – in particular look for the over stitching to see if it is acceptable.

Tip:

If there is over stitching in your designs use a finer thread for quilting (60 wt such as Bottom Line by Superior)



Background fill for trapunto - Exercise 4

Exercise 4 - More complex designs and Custom backgrounds

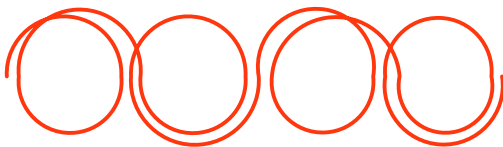
For more complex designs a custom approach can be used. A common way to add further dimension to the trapunto element is to use a dense stitch design around it and then a somewhat less dense background fill. I will show you how we can put a very elegant circle motif around our trapunto element. We will use the scroll we just made for the exercise. In order to make a design around this scroll we will use this scroll as a background for digitizing. First save the scroll as an image. File – Export Image – a screen will pop up which will allow you to choose the folder and the image type (bitmap, jpeg etc). Save the design as an image.

Open a new design window and use the backdrop tool to open the image you just created. Resize as necessary. Remember we want the scroll legs to have a width of between $\frac{1}{2}$ and 1 inch so that there will be sufficient dimensionality to the element.

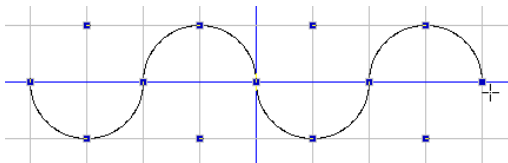
(an alternate way to use the scroll element as a backdrop is simply to lock it in the Sequence View and later delete it).

Circle elements

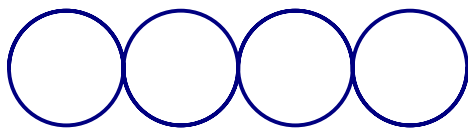
Now let's digitize a series of circles around the trapunto element. It would be very tedious and messy to try and actually digitize small circles all around a motif, but drawing an element of 4 circles with Snap to Grid and then later on using this element with the Power Copy EE function in Art and Stitch makes this a breeze!



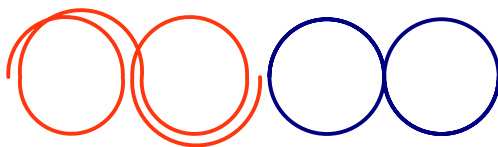
With the 3pt Arc tool, draw an element of 4 continuous circles. This example is deliberately not precise so that you can see the routing for that element.



To draw the precise circles as a continuous path turn Snap to Grid on and take the 3pt Arc tool. You will notice that double lines "disappear" while drawing - that means that the two lines are exactly on top of each other, which is good :)



This is the result, an element of 4 circles, starting on the left, ending on the right at the same level (and therefore connectable). The path is alternating from double over the top to double over the bottom part of the circle.



Use the same method to make a small element of just two circles



Background fill for trapunto - Exercise 4 - Cont'd

Start by digitizing four circles in a row. To make these perfect circles we can use the 3 pt Arc tool for drawing and turn on Snap to Grid. See images on previous page.

At this point the size of the circles is not important. If we have a grid spacing of 0.5 inch then we can easily create small circles that are suitable for this exercise. Using the snap grid function allows for very accurate work.

Now let's digitize another row of only two circles. The four circles will be used on the longer sections of the scroll and the two circles will be used in the more curved sections of the scroll or in tight spaces.

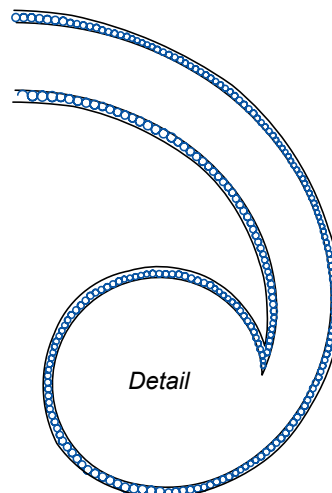
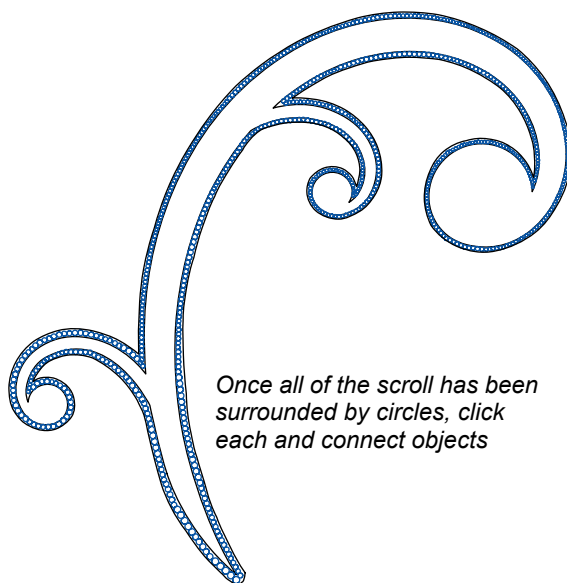
Power Copy EE allows multiple of these elements to be placed side by side around the scroll, in whatever size is best suitable for the design and whatever angle needed.

Remove snap to grid. Select the 4 circle element, right-click and choose Power Copy EE then go to the lower part of the scroll and click and drag to create the right size circles along the scroll element. Click, drag and release the mouse. Keep the mouse pointer exactly on the same position for the next power copy, click and drag and release the mouse again.

You will quickly learn how to adjust the angle of your click and drag so that the circles parallel the scroll outline. When you get to tight corners or curved areas change to the two circle element, select it, right-click and choose Power Copy EE.

When the entire scroll is surrounded by circles then we can begin to connect objects. In Sequence View click on the different sections of circles sequentially and apply Connect Objects. Save as ANS artwork, apply stitches to see how it will sew.

It is important to keep in mind overall size of the element while working through this exercise. In order for us to sew out these small circles on the longarm machine they need to be at least 0.5 inches in diameter. That would mean that most of the scroll stem is about 1 inch in diameter (a nice size to ensure dimensionality). The overall size of the scroll would be about 15 to 20 inches tall. Suitable for a whole cloth quilt, but unsuitable for a small area. Sometimes we get carried away and spend time digitizing, only to realize the end result will not sew out! Imagine if we tried to sew this scroll design at some smaller size such as 8 inches – those circles would be so tiny and not sew well, and our work would be for nothing!



Finish by digitizing a closed shape scroll around the outside of the circled line.

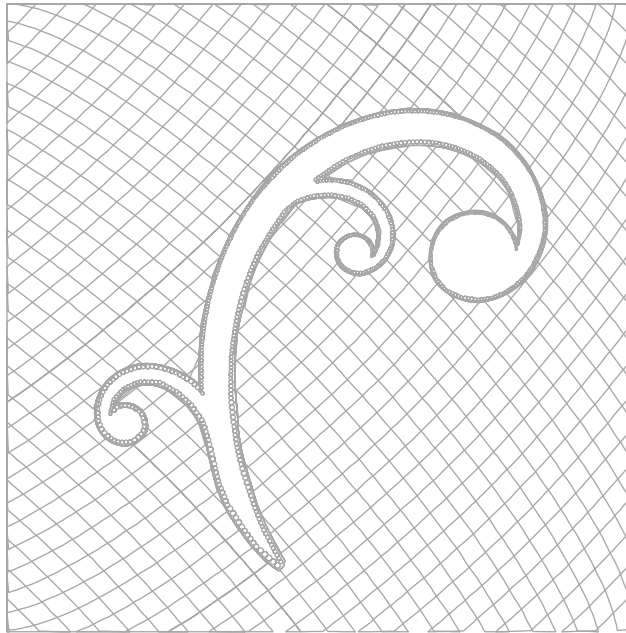
You have three shapes to sew consecutively onto the quilt:

The scroll, the circle elements and then the outline around the circles.



Background fill for trapunto - Exercise 4 - Cont'd

Next we can digitize an outline around those circles to finish off our custom border for the scroll. Use your favorite tool and digitize it as a closed shape. Again you can lock the previous motif and use it as a backdrop for the next digitizing exercise.



This closed shape can also be used to define the outer area for cross-hatching etc.

- Open new design page and open closed shape outline for outside of scroll
- Draw a square around the design (using Library- Shapes- rectangle) and then select both and Merge
- Hatch fill – cross hatch pattern- Wave – Stitch in Sew Simulator then save. Save as .ans and save again in the format of your quilt system.



Designs ready - time to quilt – Basic Trapunto Technique

Once the designs are saved in the format of your machine you are ready to begin.

Start by loading your machine with a cotton bobbin thread and a water soluble thread such as Vanish by Superior Threads as your top thread. If you are one of those people who likes to lick their thread while threading their machine, this thread will break you of that habit – you lick it, you lose it – it just dissolves.

Next we need a good trapunto batting – high loft which usually means a polyester batting. I use Hobbs 9 or 12 oz but others such as Airtex 16 oz work well. You will find which you like to work with. Sometimes I double up the polyester batting if I don't think it has enough loft.

Step 1.

Now take your quilt top – it can be whole cloth or pieced - and load your machine with the poly batting and quilt top and you are ready to sew. Sew only the elements that you want to be stuffed in the location you have chosen for them – sometimes pre-marking a quilt for placement may help you. Sew, roll the top/batting, continue to sew and then roll until all your elements have been sewn onto the quilt top with the wash away thread. Do not worry if you have a fold or buckle in your batting – it will be cut away. But make sure each trapunto design element has smooth batting! I refer to this as Step 1 of the quilting.



Once you have sewn all your trapunto elements take the quilt off the machine and you are ready to trim.

Step 2. This may take a little practice – I nicked my quilt top several times when I first started, but most nicks can be fixed if they are small. I usually use a small pair of sharp pointy scissors to trim the batting from the wrong side of the quilt. Trim the design as closely as possible to the bobbin thread without snipping the quilt top itself.



Designs ready - time to quilt – Basic Trapunto Technique - Cont'd



Once all the designs are trimmed the quilt top is ready for **Step 3**.

Simply load up your machine as you usually do – backing, batting and quilt top (with trapunto batting). I usually use a low loft batting such as cotton or a cotton poly blend for my main batting of the quilt. Change out the thread to the thread you wish to use for quilting. If there is going to be some over stitching then it is always best to use a thinner thread. Once the machine is loaded and the quilt is stabilized align the identical stitch designs over the water soluble thread designs and stitch over the water soluble thread with regular thread. I find it best to sew at a slow speed and if necessary tweak the quilt as it is sewing so that the designs overlay. Finish your quilting by adding background quilting around your trapunto elements and add other designs.



Step 4. When you have finished quilting, the entire quilt can be immersed in warm water until all the water soluble thread is dissolved. (Spraying with water is not sufficient to remove the wash away thread). Alternatively you could finish the quilt (binding etc) and then throw it in the washing machine. The latter is my usual method. My belief has always been if you can't throw it in the wash on gentle then you can't use it, so even my award winning quilts that were quilted in gold thread have been through my washing machine at least once!



Variations on Basic Trapunto

Now that you understand how easy it is to do trapunto here are some variations that you can try:

Reverse Shadow Trapunto

In reverse shadow trapunto a bright fabric is placed between a sheer quilt top and the trapunto batting and so step 1 of quilting with wash away thread includes three layers instead of two. The photo shows a deep purple fabric placed between the white top and the Poly batting. Top stitching is in Wash Away thread.



In Step 2 the cutting around the designs includes the trimming of both the colored fabric and the trapunto batting. Photo shows detail of the back of the quilt top, with purple fabric and poly batting trimmed back to the design



Step 3 - with back, cotton batting and trimmed quilt top, the design is oversewn in regular thread, and background quilting is added to make the element pop. The final quilt is one where the stuffed elements also have a shadow of color – hence the name shadow trapunto.

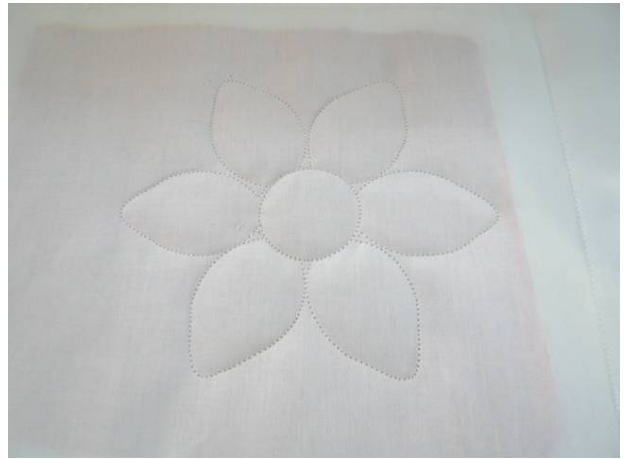
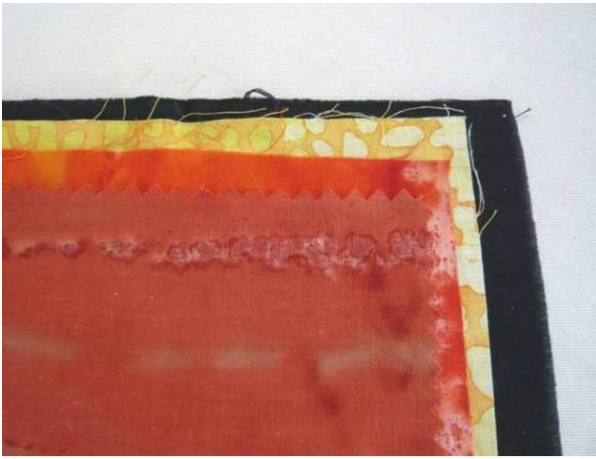
A similar shadow trapunto look can be achieved by simply using a colored (dyed) batting or acrylic felt for the trapunto batting.



Variations on Basic Trapunto - Cont'd

Chenille or Reverse Raw Edge Trapunto

To achieve a colorful and unique look we can add several layers of colored fabric between a quilt and the trapunto batting. This method works best with a simple design such as a flower with a center and five or six petals. I chose four different colored fabrics and placed them in the order you see in the photo below. The four layers of fabric were placed between the quilt top and the poly batting.



Step 1 will sew out the design elements with the wash away thread through all layers.



Step 2 the design elements are trimmed – batting and all colored fabrics are trimmed as close as possible to the bobbin thread. Photos show the back of the quilt top with the flower trimmed.

Caution: Sometimes when a quilt is washed repeatedly the one line of stitching is not enough to hold the colored fabric in place and it will start to come out of the final quilt sandwich – ruining all our hard work! To ensure that the colored fabric stays in place through repeated washings we can run one echo around our design element in step 1 before trimming (Step 2) so that the colored fabric has more anchor in the quilt sandwich, or we can even leave the colored fabric intact and only trim the batting. Remember always practice these new techniques before you take them to your final quilt project!



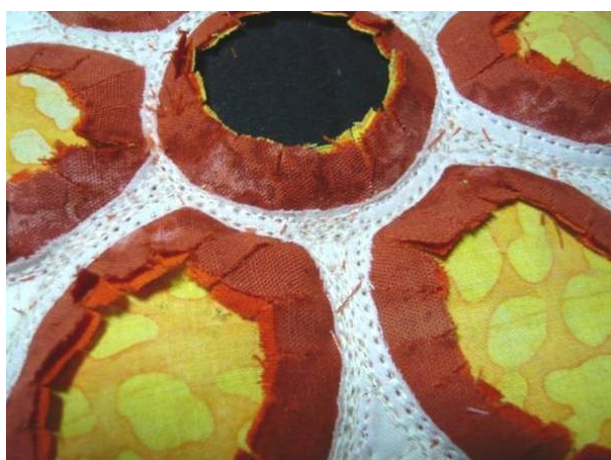
Variations on Basic Trapunto - Cont'd



Step 3 the quilt top, regular batting and back are sandwiched and quilted using regular thread. First the flower design, and then the background.

For this exercise I chose to use Art and Stitch's cross hatch wavy fill. There was some over stitching so I used a 60 wt thread.

Next comes the fun part! We have four layers of fabric between the quilt top and the trapunto poly batting. First I cut away just the quilt top from the petals and the flower center. I cut as close as possible to the sew line. (I could stop here and then would refer to this as raw edge reverse trapunto - if I had intended to stop here I would have only used one colored fabric and not the four.)



Next I will cut back to the level of fabric I want to reveal, but this time about $\frac{1}{4}$ inch from the seam line. This will then be cut every $\frac{1}{4}$ inch perpendicular to the seam line – providing the chenille or rag look which we will achieve in washing. This is similar to how flannel rag quilts are made. For the center of the flower I will cut down to the black fabric, and for the petals down to the yellow fabric.

*This is the chenille look
after washing the quilt*





Variations on Basic Trapunto - Cont'd

Inverted trapunto

To add a fun element to a quilt we can play around with inverted trapunto. The element we want to highlight will be negative and the area around it will be puffy.



By trimming the trapunto batting **INSIDE** the design instead of around the design we are left with the design being lower than the surrounding area.



Filling the design with a motif would enhance the design.

I can't wait to try this technique on some of Linda Matteotti's Baby Kruffy Alphabet (Library- Quilt alphabet and Text) on my next baby quilt!

Shadow trapunto

Shadow trapunto is similar to basic trapunto but by using sheer fabric such as batiste for the quilt top and placing a bright fabric into the quilt sandwich in step 3 we can achieve a unique look to a whole cloth quilt. In this case we would probably substitute a dense white batting for the high loft trapunto polyester. Color contrast is more important than dimensionality.

As you can see your imagination is the only limitation. I hope this section has inspired you to play with adding dimensionality to your quilts.

Happy Quilting!

Krys