

Have you ever looked at a period painting and thought “**Wow, that looks great!**” only to have your heart immediately sink as you realize that you’ve got no idea where to start actually making the thing in the painting? This class will (hopefully) help with that by starting you down the wonderful rabbit-hole that is making your own patterns.

What Is Patternmaking?

Patternmaking, or hand patterning, is the art and science of taking an image of clothing (whether that’s a period painting, a photo, or an idea in your head), breaking it into its component parts, and then sizing those component parts to fit their intended wearer.

Two Parts of Patternmaking: The “What” and the “How”

There are two aspects of creating a pattern. The first part is the “what”: what pieces of fabric will you need? The second part is the “how”: how will all of those pieces be stitched together to create the final garment? The what and the how are very closely related, and both of them must be settled before either of them can really be started.

Cautionary Tale: Cautionary Tail

This was one of my early hand-patterning projects, and this turned out to be the outfit that taught me the importance of figuring out how the pattern fits together before I tried to create any of the pieces. Notice that little brown ribbon? That wasn’t supposed to be there. I created this lovely big tail...and didn’t consider how that tail was going to defy gravity. My pieces were pretty good, but the way they ultimately had to be combined really, really wasn’t.



Recommended Tools

1. **Measuring Tape.** A real measuring tape - the bendy kind that can wrap around your body.
2. **Yardstick.** The non-bendy kind. Used for ensuring that straight lines stay straight.
3. **Craft or packing paper.** You can also use wrapping paper or newspaper, but craft/packing paper is my favorite because it’s more durable. This will be used to actually make your pattern pieces, so you want it to have staying power!
4. **Scissors.**
5. **Pen or pencil.** Either one works—so long as you know what line to cut on, you don’t need to erase.

Basic Steps

Here’s an overview. More details below!

1. **Find your reference.**
2. **Determine what shapes are involved.**
3. **Measure yourself.**
4. **Pick a part and start sketching.**
5. **Repeat Steps 1-4 for everything you need.**
6. **Re-trace with seam allowance.**
7. **Cut your pattern and cut your fabric!**

1. **Find your reference.** Get a reference image whenever possible. If it's in your head, sketch it out. If it's a period painting, print it out. If it's someone else's garb, get an image of it (and get their permission, especially if you're doing anything close to copying).

Sometimes, that reference might lie. Paintings are a great source of general information about a garment. But sometimes painters cut out the not-so-neat details...like stitching, or connecting ties between parts of the gown, etc. And make sure you know where and when the painting was done, and by which artist - I've seen a bunch of "Spanish renaissance" paintings done in the 18th century in France. Create whatever garment speaks to you - but understand where that garment really comes from.

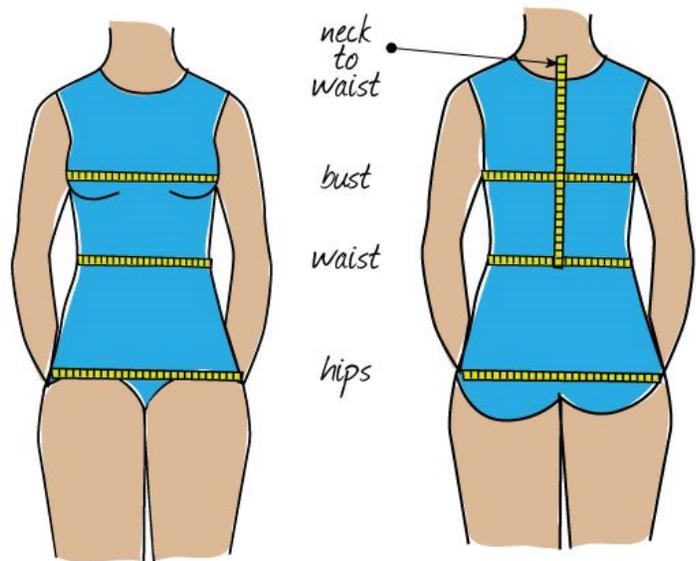


A lovely portrait of Isabel of Castile's court...painted 250 years after she died.

2. **Determine what shapes are involved.** What shape are the sleeves? About how long are they relative to the wearer's body? What does the neckline look like? How full is the skirt? How much does the style contour the wearer's body? What kind of body shape does the wearer seem to have? Notice as many details as you possibly can. This involves a lot of staring at your reference.

Don't forget to consider undergarments. Looking at a late-period painting and wondering how on earth they got the skirt into that cone shape, or how they possibly have their bosom that flat? The answer is their undergarments. Especially with late period items, find extant garments whenever possible. The paintings don't show anything underneath and while you can make some great guesses, it's always nice to be able to confirm.

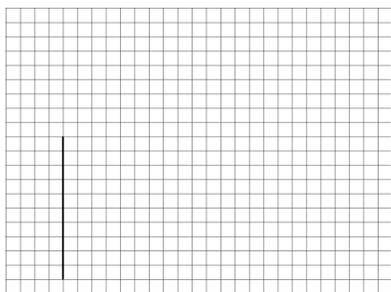
3. **Measure yourself.** Good measurements are the foundation of a good end result. Remember that the measurements you take really define how your garment is going to fit. If you pull that measuring tape as tight as it can go, you're assuming that you're going to pull your garment as tight as it can go - and depending on the fabric and the way you seam it, that garment may or may not be able to take the strain. As a general rule, when making most outfits you're going to need to know at least the following:



- a. **Waist.** This means your natural waist. For women, that's the narrowest part. For men, that's the widest part of your stomach or the place you want your pants to sit.
- b. **Bust/chest.** For women, this is the widest part of your bust all the way around. It's really important to make sure you have the tape even when you do this; it's really common for the tape to end up down by your bra band on the back, and you want it up parallel to your bust. For men, this should be the widest part of your chest.
- c. **Length.** This measurement will vary depending on what you're making. If it's a tunic, you just need to figure out how long you want it to be. If it's a bodice, you'll need to figure out where it should land on you for proper fit (which means a lot of staring at your reference).
- d. **Underarm length.** Place the tape under your arm and move your arm around, testing how and when you end up brushing the tape. Move the tape down until you feel comfortable. From there to the place you want your bodice/tunic to end is your underarm length.
- e. **Shoulder length.** Measure from your neckline edge to the top of your shoulder.
- f. **Arm length.** Measure from the top of your shoulder to where you want the sleeve to stop.

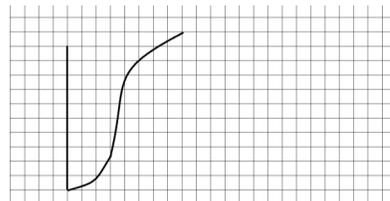
4. **Pick a part and start sketching.** Breaking the outfit into bite size chunks really helps. You might choose to start with the sleeves, or the chemise, or the skirt. It's really your pick - you're going to need to do it all eventually. This example is the sleeves on the dress at right.

i. **Take one element and then start your sketch with the easiest edge you can think of.** When I went to pattern out the sleeves, I started off with the long front area. I knew exactly how long I wanted that to be, and I knew it was just a simple straight line, so I grabbed my yardstick and I drew.

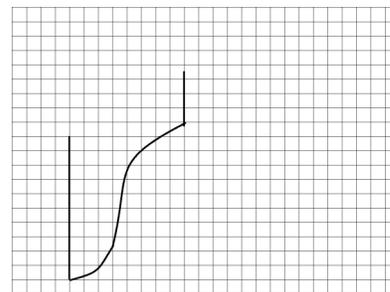


Isabel of Portugal, Portrait by Titian in 1548. If you've seen me dress fancy for an event, this may look familiar.

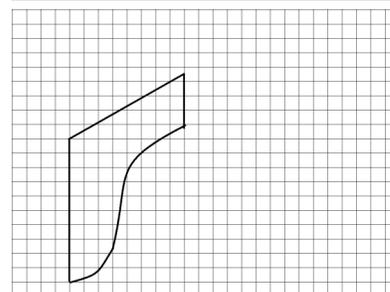
ii. **Pick the easiest line that connects to your first one.** In my example, my second line was the bottom of the sleeve. I knew about how angled I wanted it to be, and I was able to approximate that easily enough with my trusty yardstick.



iii. **Continue picking the easiest line until you're out of easy lines.**



iv. **Get your sketch on.** In most any patterning project, there will come a point when you're out of easy straight lines and it'll be time to put the yardstick away. Make sure you continue to measure, but trust your gut. For my sleeves, this moment came when I was measuring out the angle on the top side of the sleeve, the side that I would eventually connect with buttons. How sharp (or not) should the angle on that be? I guessed, which leads to the last step....



v. **Examine your work and refine, refine, refine!** Once you've got your rough draft of the piece completed, step back and look at it. Does the final shape look like what you want? In my case, I had to play pretty extensively with the "bell" on the bottom of the sleeve and the angle on the top until I felt like they were right.

5. **Repeat those steps for everything you need.** Take your time, check your measurements!
6. **Adjust the fit of the garment by adding ease.** Ease is simply extra fabric that determines how skintight (or not) a piece of clothing is. A loose tunic should be made with a pretty good amount of ease, whereas you want almost no ease for a corset. As a general rule, adding 2 inches will give you a body-skimming effect, 4 inches will give you something loose, and so on. When adding ease to adjust fit, make sure to keep it even on both sides of your pattern. If you add 2 inches on one side seam and 0 inches on the other side, you're going to end up lopsided.
7. **Cut your pattern and cut your fabric!** Once you think everything looks right, there's really nothing for it but to go ahead and cut!

Cautionary Tale: Testing Your Patterns

When you feel like you've finally got your pattern **READY TO GO** it can be incredibly tempting to jump right in and use it to cut your project fabric. Especially if you're new to patterning, I can't encourage you enough to do a test run on some spare fabric. No paper can truly imitate the way that fabric is going to fold on your body. I strongly suggest picking up some kind of fabric that'll do a good job of imitating your chosen material and doing a dry run of your project with that. Trust me, the tighter you are on project fabric, the more you're guaranteed to find some error with your initial pattern!



Muslin is a great fabric to use for testing patterns to be made from linen or other fairly lightweight, non-stretch fabrics.

Tips And Tricks

99% of doing a great job of patterning is trial and error. There's just no substitute for experience to teach you how different types of fabric will fall, how different types of seams will hold, or what particular little quirks will come to define your sewing style. But until you've got that experience, some of these tips might help.

- **If you're not sure, go bigger.** You can always cut away fabric. If you cut too small, you can't add it back in without changing the shape of the dress. When it comes to patterning, any time you're on the fence, more is more.
- **Lay out your seams in advance.** This is especially true if you're trying to seam something particularly difficult. Try to piece together the pattern pieces and make sure that they're going to fit correctly before you cut any fabric.
- **Allow room for any folding, stuffing, etc.** When I did my first hemp-stiffened corset, I dutifully sewed a million quarter-inch channels all around both sides of the bodice, and painstakingly pulled my cording through - and promptly had my mind blown when it was pretty dramatically more narrow than anticipated. I had forgotten to account for the fact that when I threaded the cord through the bodice, that channel would "inflate" - and rather than $\frac{1}{4}$ inch wide space, I suddenly had $\frac{1}{8}$ inch of width and $\frac{1}{8}$ inch of height. Multiply that difference by the many, many rows of hemp in my bodice, and it suddenly becomes a whole lot more narrow than anticipated! Make sure you account for any structural changes like this: interlinings, boning, any parts where you plan to fold an edge in on itself.

- **Make sure your fabric works as intended.** Stretch velvet will never be a good choice for a puff sleeve: it just doesn't puff well. A four-way stretch fabric won't hold up as a skirt. Canvas will never stretch. If you're counting on a fabric to have a certain property, be sure it actually has that property before you select it for your project.

Cautionary Tale: Surprise Stretch! Want to know a secret? I have a Spanish Renaissance gown made from a stretch fabric. To be specific, the kind of fabric that is used to make stretch Jeans leggings. Every bit of black fabric on the dress is that material. I didn't know this when I bought it because I didn't even think to check. I got lucky: it's uni-directional stretch, meaning that it only stretches from side to side, not top to bottom. If I hadn't gotten lucky and it had had four way stretch, I could never have made a skirt - the material's own weight would stretch it out and the skirt would get longer and longer each time.



- **Bring in reinforcements (the fabric kind).** If you're working with a thin fabric that tends to fray and need it to support a lot of weight or be under significant strain, you may want to reinforce it. Reinforcing this material is as simple as putting a band of a something heavier in the center of it. My favorite reinforcement material (because it's cheap) is felt. I line every bodice strap and skirt band with felt. Simply cut a strip of felt as wide as you want the band in question to be, then cut a strip of your actual material to either encase it completely or cover the front of it as needed. Sew down the sides in two neat lines and you're set!
- **Baste it and try it on.** When you're working a new pattern, try it on early and often! If you're the type to live adventurously, you may be able to pin the pieces together and try them. If you'd rather not stab yourself, you can use something called basting or tacking. Set your sewing machine to its widest stitch width and run down your intended seam. You can try on your garment, and if the seam isn't right, that wider stitch can be easily ripped out and tried again.

ABOVE ALL: PERFECTION IS THE ENEMY OF EXCELLENCE

No seamstress ever creates a perfect garment. Whatever I'm wearing, I guarantee that I can point out at least 6 different flaws right off the top of my head. But the point is, none of these flaws stop the garments from being wearable - and more than that, to 99% of all people, those flaws aren't even noticeable anyway. And guess what happens when I see these flaws? ***They become an opportunity to learn.*** They're a roadmap for how to do it better next time.

When it comes to patterning, there's nothing for it but to jump in, give it a shot, and risk being a little bit wrong. Your chances of ending up with something completely unwearable are very slim - so long as you get your measurements right and are somewhat careful with your cutting and sewing, it will probably fit on your body and it will probably look decent enough. Play with it, try new things, and never be afraid to experiment. I look forward to seeing what you can create!

Elena de la Palma
 elenadelapalma@gmail.com
 October 2015

BONUS SECTION: FIXING THE “OOPS”!

So your bodice is unexpectedly too short or too narrow or your pants are too tight through the crotch or your sleeves are falling down. **Do not panic. There is a fix!**

When a top is too tight: Add lacing and a chemise/undertunic. This isn't necessarily period, but this will absolutely save most any garment. You can generally split the side seams as needed and install grommeting/button holes right along there. Just make sure you finish the edges. You don't want that newly raw edge to fray!

When a laced top or tunic is too tight: Add a panel. If you have the material for the bodice left over, add a panel of that behind your lacing. If you've got two sets of lacing, make sure that the panel is on both sides. But remember, open lacing can be period sometimes. This method is only required if you need 100% coverage!

When a waistline is too tight: Add a segment. Lengthening a waistline is as simple as attaching another segment to the waistband itself. Try to mimic the existing construction as much as possible. But most importantly, whatever you do, attach the extension securely! You really don't want that stitching coming loose. This will lead to the pants/skirt/etc in question having a larger/different opening at the back than they did before. This is fine; better that than to not be able to wear your new garment!

When the crotch of the pants is too tight: Add a patch. Figure out exactly what part is too tight (is it the inseam? Or is it actually the seat?) and cut another panel to fit. Rip out the existing seam and add the additional fabric. Be careful to center the new addition.

Any garment is too big: Fit it exactly, pin it, and re-sew it. Anytime something is too big, wear it on your body and use a pin to mark where it should be. This is particularly common with sleeves, but can happen with most anything. Use the pin to test out the new, smaller version, and once you're comfortable with it, sew in the adjustment. You might need to rip out an old seam, but so long as you have the new attachment point marked with a pin you're good to go!

Any garment is too short: Add an extension and cover it or explore out of the box hem treatments. This is a tough one. If you try to extend the garment, you will have a seam and it will look weird. If you have no other option, you can do this, and you can try to cover it with trim. This can work, but it's not ideal. It's pretty much your only option if the raw edge of your garment is clearly too short. If you're finding that you don't really have room to finish your edges and hem them neatly without making the outfit too short, you can try alternative hem finishing strategies. For example, consider making your own bias tape, or simply cutting strips of another type of fabric and using them to enclose the edge. That way you retain every bit of length from the outfit while also protecting your potentially fragile hem edge.