Laddering beads between two rows of leather has been popular now for several years. It all started with the introduction of the laddering technique by Vietnamese jewelry artist and fashion designer, Chan Luu*. In 1996, Chan Luu started creating a line of jewelry themed around freshwater pearls. In just a few years, she expanded her necklace collection to include bracelets of pearls laddered between two rows of leather. So simple but so amazing. Out of nowhere, stitching beads in rows of leather exploded in popularity. A single strand ladder bracelet became a 2 wrap, then a 3 wrap, 4 wrap and now 5 or more wraps! By 2012, when Brittany Ketcham and our team created our video, Tricks to Laddering, the technique had taken off. Ladder bracelets were absolutely everywhere and still are.

It's now 2015, and it's a wonderful time to update samples. We are finding freshwater pearls are harder to source and more expensive to buy. It's sad because we love the freshwater pearl look, but we needed to think about alternative looks that are less-expensive and more sustainable. And it was definitely time to answer your all your laddering questions. We should have done this ages ago… “What thread do I use for gemstones and glass? How much thread do I cut? What about a wrist size larger than 7 inches…how much leather do I need?” The list seemed to grow after the video was published and it's time!

So, this is the companion handout for Tricks to Laddering, but it’s not a replacement for watching the video. You still need to watch it to see the techniques demonstrated, including how to ladder and how to add a thread. With this primer, you can ladder successfully, no matter what beads you use or how many wraps you choose.

*If you would like to read more about Chan Luu, we highly recommend the 2012 interview she did with Christopher Vaughan on the blog, The Center for Ethics and Entrepreneurship. Chan Luu is an extraordinary designer and inspiration to us all.
Before you do anything, you have to look at the bead holes of your beads. This may seem so obvious, but you would be surprised how many projects go awry because the designer is frustrated by the thread not fitting through the bead holes. So, always begin with close attention to this essential detail.

The Tricks to Laddering sample demonstrated by Brittany in the video uses freshwater pearls and gemstones, both of which been known for having extremely fine holes, especially quality gemstones. The tiny holes are primarily due to the fact that gemstones and pearls are sold by weight. Most bead dealers selling by weight lose money when the holes are normal size… their profit is drilled out via the bead holes. So, they make the tiniest of holes, which we have to accept.

With pearls, gemstones, semi-precious, glass, metal and other materials, the holes can vary a great deal from very fine to extra large, no matter the bead size. Looks can be deceiving! A small bead doesn't always mean a small hole. So, it's important to check your bead holes when you are selecting your thread. They have to work together.

When you're laddering different beads (whether they are made of the same material or not), the size of the bead can also effect how much thread you need. Smaller beads = more thread because smaller beads mean more rows of beads per inch, which means more thread. Of course, larger beads need added thread to travel the distance through the hole, but it's easy to see above that the 3mm freshwater pearls have more rows than the 6mm pearls and use up more thread.
Essentially laddering is taking the two ends of your thread (or cord) and bringing them through a bead in opposite directions. And repeating this again and again. Brittany does a great job of demo-ing this in the video.

Once you’ve threaded the bead, pull thread ends until the bead rests between the leather close to the bead you previously strung. Before adding another bead, make sure both ends of thread are positioned to capture the leather to create the ladder effect. It is best to pick a method: either Under and Over or Over and Under and stick with it throughout the project. See Brittany demonstrate this in the video.

Beads with 2 holes, like Tilas, are fun to ladder but can be an added challenge.

Two hole beads, like Tilas, Chexx and Superduos require laddering the same bead twice because of the two holes…and it’s easy to forget that second hole or wrap your threads around the leather the wrong way. Just be mindful as you ladder and you’ll be fine.
Threads for beads with fine-small holes…

Okay, let’s talk thread! There are some threads just made for laddering and others that don’t do as well, for various reasons. In all cases, you want the strongest thread you can ladder with. You will eventually find the thread that suits your projects and your style best. Always take into consideration the smallest holes of your beads. No matter how large they get, everything is defined by the smallest hole you want to ladder in a project. You have to decide if you can ladder without a needle.

We have shied away from recommending thread that must be doubled or is flimsy and needs a needle. Our favorite thread choices for beads with extra small holes is KO or Tuff Cord #0 and #1. Unfortunately, Tuff Cord #0 only comes in black and white, so if you want color (which most of us do!), we recommend KO or going up to Tuff #1. Being the work horse for most beads with small holes, Tuff #1 works really well with Tilas and Superduos. One thread that looks like it should work for laddering but doesn’t is Nymo, aka Superlon D. It’s a good choice for bead weaving with a needle, but it can’t stand up to the back and forth of laddering as a single strand. The wear and tear encourages SuperlonD to shed “gorilla hair”. Micro C-Lon is quite thin, but it has no body and is difficult to through bead holes on its own. Micro C-Lon is superb for Micro Macramé and bead weaving with a needle, but not a favorite for laddering.

I could bore you with the details of thread size; I’m not good with the fractions of an inch for thread selection. I like to look at the holes of my beads and make a decision. But you want our recommendations so you can choose ahead of time! KO and Tuff Cord both have sizing incorporated into the production process that behaves like starch. Yes, the starch wears off with repeated pulling and laddering, but overall, they both perform well without needles. Bees Wax will help condition the thread as the sizing wears off.
Threads for beads with regular to large holes…

It can be challenging to notice the difference between threads side-by-side, but look at Tuff #2 on the left and Superlon18 on the right in the above photo. The difference is quite visible when you go from thinnest to thickest. Again, for laddering we recommend Tuff Cord. Not every color is available in Size #2, so it can mean choosing between a #1 and #3, but I can recommend having all on hand. Tuff Cord is made by a small family-owned factory and they are very loathe to add colors or sizes. Trust me, we have cajoled and pleaded but no luck. So, if you want delicious, rich color options, we want to suggest Fine Weight C-Lon or C-Lon. The ends have to be treated with Bees Wax, Glue or Singed with an Ultra Thread Zapper or I would recommend using a Flexible Eye Needle to help with laddering. I'm assuming your hole sizes are large enough that you can fit thread doubled over when you use a needle on each tail. So, this means you need two needles when you ladder. With fine gemstones and freshwater pearls, needles are not usually an option.

Bees wax can aid in giving thread a longer life; it can add body and improve performance. It will also add some thickness to the thread, which can make a difference in being able to ladder through very-fine holed beads, but it is excellent to have on hand.

Making a needle out of GS Hypo-tube Cement also can help. Drip a fine line of glue along 2 inches of the ends of your thread. Use a plastic bag to wipe off the excess. Allow the glue about 15 minutes to dry and cut the tip of the thread with flush cutters or thread snips to give you a sharp angle-cut end. You can repeat this as often as you need.
Singeing the end of nylon or polyester using an Ultra Thread Zapper can give you a nice tip on each tail to help thread on your beads. You want to melt just the end of the tails, let them cool and cut them to a fine point using your flush cutters or thread snips. You may have to do this multiple times as you ladder your project.

Using two Flexible Eye Needles, one on each tail can help you use all kinds of threads and cords that would be incapable of standing up on their own. Without needles, the laddering becomes frustrating. But if the hole sizes are large enough, you can use a heavier cord like .4mm Chinese Knotting Cord. Embroidery Floss and #8 Cotton can also be used to ladder but we recommend using flexible eye needles and keeping the thread double throughout the project to add strength.

Threads that are really cords...

Once you get into heavier cords, including .4mm Chinese Knotting Cord and larger, the laddering project takes on a whole, new look. It’s much heavier, more intrusive to the design and, if that’s the look you want, that’s great. You need to have beads with very large holes in order to ladder with these cords. Also, cords like Chinese Knotting are extremely silky and if you stop in the middle of laddering to take a break, the work you’ve done can loosen. Using binder clips to hold the work steady while you leave the project is my best recommendation. And you always have to secure any finished work with both GS Hypo-Tube Cement and singe with the Ultra Thread Zapper, whenever possible.

* Chinese Knotting Cord is wonderful for macramé and .4mm can be used for laddering with beads which have large holes, but because it’s so silky, it won’t hold tight the way Tuff Cord does.
Now about leather…

Round leather is primarily made in India and Greece. For laddering, traditionally it started with 1.5mm and more recently to 1.0mm for delicate designs and 2.0mm to meet the menswear demand.

Metallic Leather has a coating on it which adds diameter to the product. It isn’t really a factor in laddering, but when you start stringing beads onto leather, the added size can make a difference.

Dye lots can vary considerably, even with Greek Leather, which is always more consistent in size, color and finish. We always strive to bring you the same leather order after order and/or what you see in one of our samples, but weather can affect the leather and in India, each year the Monsoon’s will hold up drying time, etc.
How much leather and thread do I need to cut?

1. Measure your wrist loosely or guesstimate for a small to medium woman’s wrist, it’s 6 to 7 inches. For a man, it’s from 7-8-1/2. There are so many variations so measuring is always best. For a 6 inch wrist, the Wrap Size is 7 inches. For a 7 inch wrist, the Wrap Size is 8 inches.

2. For leather, it is the Wrap Size x Number of Wraps x 2 = Leather to Cut. If you are making a 4 wrap bracelet for a 7 inch wrist, it’s 8 x 4 = 32 x 2 = 64 inches. I think it’s always best to add another 10 inches, so you have enough for the knot(s) or two button loops or just in case. So, I would recommend cutting **74 inches**.

3. Thread can vary due mainly to the size beads you’re using; very small beads will eat up your thread. Below is a chart which for those who want more exact measurements, I hope it relieves some of your anxiety and does not create more! However, my recommendation is always just starting by cutting a **length of thread 3-4 yards or 108-144 inches**. I know this means you will probably need to add a thread later in your project, but 3-4 yards is a manageable piece that will give you the freedom to explore using different beads and patterns. Why? Because if you know you’re going to add more thread, you might experiment more…or that’s my theory! And with experimentation comes creativity!

In general, just to try and guesstimate the thread you’ll need….

**A Single Wrap:** Can use about 56-76 inches of thread, depending on how many beads per row and the size of the beads.

**A 2 Wrap:** Can use 112-160 inches of thread, depending on how many beads per row and the size of the beads.

**A 3 Wrap:** 168-228 inches of thread, depending on how many beads per row and the size of the beads.

**A 4 Wrap:** 224-304 inches of thread, depending on how many beads per row and the size of the beads.

**A 5 Wrap:** 280-380 inches of thread, depending on how many beads per row and the size of the beads.

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Color Study, Part 1

Color Study used so many different beads, both in size, shape and number per row. It is an Intermediate Level project and I wouldn’t recommend starting out with this as your first laddering design. But no matter how large the holes were, I had to choose thread based on the smallest hole, which was the Tila Beads. My obvious choice was Tuff #1.
Now about designing…

Whether you are making a single wrap or a 5+ wrap, the principles are the same:
1. The leather is folded over in the middle to form two parallel lines. The beads are then woven to form the rungs of the ladder.
2. The button is strung onto the leather and positioned at the middle of the leather which is also known as the halfway point.
3. The thread used to string the beads is also threaded through the button, so it also has a halfway point.
4. Add one inch to your wrist size for each wrap. If your wrist is 6 inches, the total length from the button to the end of the button loop is 7 inches, which is your Wrap Size. Always err on the side of caution and add extra leather and thread to what you think you need.
5. You can begin with an overhand knot as in the single wrap sample below, or you can wrap your thread around the leather a couple of times and then add your first bead (as in the 5 Wrap Dehli Sample and also demonstrated in the Tricks to Laddering video).

Single Wrap: Wrist Size is 6 inches. Wrap Size is 7 inches.

5 Wrap: Wrist Size is 6 inches. Wrap Size is 7 inches.

In a multi-wrap bracelet, you can change your pattern whenever you want, but if you want the pattern to stack, each section will be your Wrap Size except for the last one, which will be less because you add the length of the button loop to become your Wrap Size.
Whether you are a beginner or an old-hand at laddering, I always think there is something new I can learn, so I want to hear from you and see what you’ve created. This is a fun technique to share with friends, family and co-workers. It can be a simple single bead wrap or you can go crazy and wrap everything in site. I recommend allowing an hour of bead time per wrap, especially if you’re new at it.

Here are beauty shots for our new and old samples. Click on the landing pages for each sample to purchase the Ingredients and Studio Essentials and see the Project Maps. And don’t be afraid of making it your own! Add a charm, some special beads you’ve collected or change out the colorway.

Get creative and enjoy!

Pearl & Gem Classic- 4 Wrap
Reflections- 4 Wrap by Savanna Hall
Sage- 4 Wrap by Savanna Hall
Homewood- 4 Wrap by Colette Bakke
Dehli- 4 Wrap by Janice Parsons
Pearl & Leather- Single Wrap by Brittany Ketcham