Biarritz Bracelet Project Sheet
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Byzantine Weave and Assembly

There are more than 1,000 known chainmail weaves and byzantine has been one of the oldest and well known throughout the centuries. It's very versatile and beautiful, whether worn with a simple clasp or embellished with beads, metalwork or leather.

Before we get to the actual weave there are a few things you need to know:

1. **Ring sizes** are extremely important because if they are not the correct size, your weave will be floppy or fall apart. The bracelet I'm wearing is made from 19 gauge hard wire wound on a 3mm mandrel (actually a double pointed knitting needle). If you tried to use dead soft or half hard wire for 3mm rings, they would be too small for Byzantine.

2. **Aspect ratio** is the relation between the inside diameter of a ring and the diameter of the wire used to make the ring. I made mail for years before diving into aspect ratio. Ring sizes for the more popular weaves can be found in books, magazines and online. So if you're bad at math, just allow others to figure it out for you!

3. **Closing a ring properly** is important as well. Hold a ring on both sides with 2 pairs of pliers. Rock them back and forth while adding pressure towards each other. When you hear a click, you're there. I always give my closed ring a look from the side and top to make sure it's a good close. To get a good closure, invest in some magnifiers. You'll be surprised at the difference it will make.

For my byzantine demonstration I'm using larger colored rings so you can see it better. These are 16 gauge, ¼" Start with 4 closed rings and about 10 open ones.

Pass one open jump ring through four closed jump rings and close. Pass an open ring through the same four rings and close. Lay out

Chainmail Tools

2 Pliers

Chainmail Supplies

325 19 gauge, 3mm jump rings
OR
325 18 gauge 3.5mm jump rings

Toggle Clasp

the six rings so they form a 2+2+2 chain. If desired, insert a small scrap wire (or paper clip) through 2 end rings to make it easier to hold onto.

Fold back the two end rings and hold them against the sides.

Spread open the two rings now at the end-this will expose the two rings you folded back in the previous step.

Pass one open ring through the last pair of rings added and close.

Pass one open ring through the same pair, next to the previous ring.

Pass one open ring through the last pair, add two closed rings and close. Pass another open ring through the same pair and close.

Fold back the two end rings and hold them against the sides and spread open the two rings now at the end.

Pass two open rings through the newly exposed rings and close.

You now have one Byzantine unit. Repeat the process from this point.

1. **Assembly**
    a. Using a #57 drill, drill 3 holes on each long side of the leather rectangles.
    b. Connect each rectangle with a Byzantine section using the 3mm jump rings. There should be a mail section on all long sides of the rectangles.
    c. Attach the toggle clasp to the center connector on each end of the bracelet.

2. **Options for increasing bracelet size**
    a. Add the necessary additional number of rings to the bar end of the toggle clasp
    b.   Add one addition rectangle and one additional mail section to the end.