



Lure Crafts

2 Part- Summer Moccasins



Note 1 - Acknowledgements: The original impetus for these instructions came from Garret and Alexandra Conover's excellent book "A Snow Walker's Companion". They are an inspiration in this field.

Note 2 – Lure Moccasin Making Kits: These instructions are intended to be accompanied by our Moccasin Making Kit, which is available through the “Store” section of our website at: <http://lureofthenorth.com>. Of course, you can also gather all materials yourself and simply use these instructions as a guide, modifying to suit your requirements.

Note 3 - Distribution: Feel free to distribute these instructions to anyone you please, with the requirement that this package be distributed in its entirety with no modifications whatsoever. Thanks!

Note 4 – Feedback and Further Help: Feedback is welcomed to improve clarity in future editions. For even more assistance you might consider taking a moccasin making workshop with us. These workshops are run throughout Ontario, and includes hands-on instructions and all materials. Again, check the website for more details and a current schedule.

Our Philosophy: This booklet describes our understanding of a traditional craft – these skills and this knowledge has traditionally been handed down from person to person and now we are attempting to do the same. We are happy to have the opportunity to share this knowledge with you, however, if you use these instructions and find them helpful, please give credit where it is due. We have worked hard to produce this package and would appreciate any acknowledgements given. Thank you.

- The Lure Team, Kielyn & Dave Marrone

Version 1.0, Summer 2013
<http://lureofthenorth.com>

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0.0 For the Love of the Trail!

Your summer moccasins will be most at home right where they were first developed: in the forest. They were designed for the forest floor, the materials come from the forest, and once you've made your moccasins, that is where they will ideally return!

Tucked neatly into a pack during the day, our moccasins are slipped on once we reach the evening campsite. A dry, comfortable, lightweight pair of moccasins that provides an intimate feel for the forest floor, we couldn't ask for a better pair of footwear to complement a back-country experience!

Though we love them as camp shoes, your moccasins can also work great as light-duty footwear on dry days in the bush, as minimalist running shoes, as slippers around the home or camp, or anywhere else you want a beautiful, functional pair of lightweight shoes.

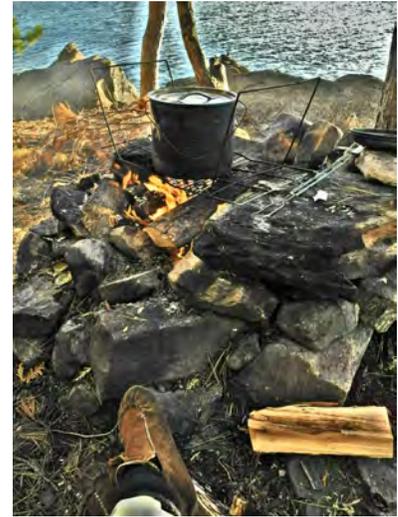


Illustration 1: Lure of the North moccasins at an evening "mug up"

0.1 DIY Benefits

Making moccasins yourself gives you an opportunity to customize and personalize them to your heart's content. This can be elaborate ornamentation, including bead work, burning and the like, or simple elegance. The skills learned in making these moccasins will give you the knowledge and confidence to repair them and other equipment in the field. And of course, this is an opportunity to connect with the heritage of our land and those that have travelled it before us.



Illustration 2: Happy winter moc-shop participants from Georgian Bay Secondary School's Pursuits Program

1.0 Getting Prepared

1.1 Kit Contents

A summer moccasin kit includes all of the items listed and shown below. If you are not purchasing a kit, you can acquire these items separately.



Illustration 3: Everything included in a summer moccasin kit. Note: there are a variety of deerskin colours available - contact for current availability.

- ~ 4 square feet of deerskin (available in a variety of colours);
- Felted wool insoles;
- ~ 3m (10') artificial sinew – enough for project, plus extra for repair kit;
- 2x “Glover's Needles” (Aka. “Triangular Needles” or “Leather Needles”);
- 2 x pre-cut deerskin laces (80cm / 30”);
- 4 x wooden beads;
- These instructions;
- Paper patterns and sizing chart;

1.2 Items Not Provided



Illustration 4: You need only supply a few standard household items.

- High quality hole punch (or hammer, nail and scrap of wood);
- scissors;
- measuring tape;
- ruler;
- Leather burner (optional);
- Pencil, pen or chalk;

1.3 Prepare Your Pattern

The moccasin is constructed from two pieces: a larger piece, known as the “sole” (with integrated ankle flaps) and a smaller piece, the “vamp”. See the illustration at right. For the moment, we are only worried about customizing the **width** of your moccasins. We will leave some extra length which will be trimmed off at a later step to customize the **length** of your moccasin.

1.3.1 Customizing Width With a Kit*

Kits come with a variety of patterns and a handy sizing chart. To select the appropriate pattern, measure the circumference around the arch of your foot, while wearing a pair of socks (if desired in your moccasins) as shown in the photo. Select the pattern size which most closely corresponds to your measurement.

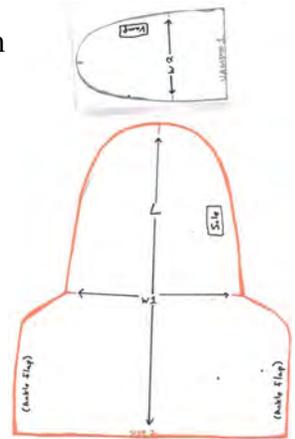


Illustration 5:
Pattern pieces. See
appendix images.

1.3.2 Customizing Width Without a Kit*

Without a kit, you will need to resize the pattern found as an appendix at the back of this booklet. Wearing your socks, measure the circumference around the arch of your foot as shown in the photo. We will call this measurement “C”. Now adjust your two pattern pieces proportionally until $W1 + W2$ equal C. (ie. The total width across the vamp and sole pattern pieces should be equal to the circumference around the arch of your foot). These adjustments are most easily made with an industrial copying machine like can be found at Staples stores – or by hand. If using a photocopier, you may need to cut the pattern in half lengthwise so that it more easily fits on standard paper sizes (legal or ledger).



Illustration 6:
Measuring foot
circumference
("C")

[*With or Without a Kit - Important information regarding insole thicknesses:

Your insole is intentionally left out of this measurement to ensure your moccasins fit quite tight initially. *In fact you may not be able to comfortably get your insole into your completed moccasin at first. This is by design.* Moccasins will stretch – leaving your insole out of this step helps to ensure that they fit well, not sloppy, after initial stretching. This works well with standard thickness insoles of 3 – 6 mm (1/8” – 1/4”). If your insoles are significantly thicker than this, you may want to add a couple mm to measurement “C”].

1.3.3 Ensuring Adequate Length

Once you have selected the appropriate pattern (with a kit) or resized the pattern in this booklet (without a kit), it is time to ensure the pattern has adequate length. Measure the length of your foot (wearing your socks) from toe to heel. The length of your “sole” pattern piece (measurement “L” in the diagram above) should be ~3” longer than the length of your foot. If it is not, increase the length of your sole piece, straight back, as much as necessary. [Note: If you have to increase the length of your sole pattern significantly, you may have to make



Illustration 7: This (winter) pattern is
too short, and should be extended ~ 2".

length adjustments to your vamp as well.]

You now know how to accurately adjust your pattern for any size moccasin, and any amount of insulation.

1.3.4 Customizing Ankle Flap Height

Our 2-part summer moccasins have ankle flaps integrated into the sole pattern (these are the "wings" at the back of the sole). We find these integrated ankle flaps are appropriate for low-top summer moccasins, with, or without a roll down at the ankle. While these wings could be extended further to make high-top moccasins, or moccasins with long fringe at the ankles, the odd shape leads to inefficient use of materials. Higher ankle flaps, or decorative fringe are best accomplished with a 3-part pattern, wherein a rectangle of "upper" material is added to the finished moccasin lowers. This upper sees much less wear than the sole and vamp, therefore it can be made from a variety of materials. Deerskin would be appropriate, or lighter, more economical pigskin or cotton could also be used. If you cannot visualize this modification, please see our Winter Moccasins with Wrap-Style Upper instructions.



Illustration 8: 2-part, low-top summer mocs. With (below) and without (above) ankle rolldown.



Illustration 9: 3-part, high-top summer moccasins with deerskin lowers and pigskin uppers

2.0 Making a Thimble (aka. “The Basics”)

1. Grab your leather needle. Notice the needle has a triangular tip with blades on each edge. This needle is designed to cut through your leather, and will likewise cut you if you're not careful. We will begin by construction a small leather thimble (or two) for protection.
2. Thread the needle. Depending on the type of thread you are using, you may need to split it down in thickness. The sinew we use and supply with our kits, **does** need to be split into thirds before it can be used. Our sinew will easily and naturally split into thirds. If you are trying to force it, try again until you find the natural split. **If your thread is too thick for your needle, you will be struggling with every stitch.**
3. The thread should be hanging unevenly from the needle – that is, one half of the thread should be longer than the other. Put a knot at the end of the long half of thread.
4. From your scrap pieces of leather, cut a rectangle ~ 1 ½” wide and 5” long. Fold this in half width-wise to form a thimble ~ 2 ½” x 1 ½” wide with seams on either side.
 - a) Adjust this size according to your finger... it should snugly fold around the finger you intend to use your thimble on, and reach beyond your first knuckle.
5. You will sew the seams of the thimble using the “Whip Stitch”. This is the same stitch (with some small variations) that you will use for almost every seam on this project. The whip stitch is done as follows:
 - a) Holding the thimble in your left hand and the needle in your right, you will stitch from one open corner up into the fold you have made. Begin by opening the two halves of leather, and push the needle down through just the bottom piece of leather. Pull all the way through to the knot. This initial stitch is placed between your two pieces of leather to hide your knot inside your thimble.
 - b) Bring your needle back up, fold your two pieces of leather back together and push the needle down through both pieces of leather. This is your first full stitch.
 - c) Bring your needle back up and again stitch down through both pieces of leather ~ 1/8” (2 – 3 mm) over from your previous stitch.
 - d) This is the whip stitch. If done properly your thread will lay over the open edge of the thimble. **The key to doing the whip stitch properly is to put every stitch down through the same piece of leather first.** For example, in the thimble you have already started you will continue by always pushing the needle down through the upper piece of leather first (except for your initial ½ stitch which is done to hide your knot...). Stitches continue: down and out, down and out, down and out...



*Illustration 10:
First stitch:
"Hiding the
Knot"*

Note – Whip Stitch Details:



Illustration 11: Appropriate stitch length and stitch depth.

Your deerskin is very forgiving material in terms of how you sew it together. Because the skin does not fray when cut, you do not have to worry about finishing edges. Likewise, you can place your stitches fairly close to the edge of the material without worrying about them pulling through. We like to keep our stitch depth (distance from edge of material) at about 3mm (or 1/8"). The stitch length (distance between each stitch) should also be kept fairly tight (again ~ 3mm or 1/8"). This makes a very nice, professional finish, and is particularly important when you are doing 'pucker' stitches in the toe of the moccasin. Finally, the key to a really nice looking

finished moccasin is consistency. If you can keep your stitch depth and stitch length consistent from one stitch to the next you will do a very fine job. **IMPORTANT:** There is no need to place your stitches tighter together or closer to the edge than 1/8". Unlike woven fabrics, when sewing deerskin you are *cutting holes* in the material with each stitch. Place your stitches too close together and you risk weakening your material.

6. Continue sewing your thimble using the whip stitch until you reach the fold in the leather – you have completed one side, and now need to finish off your stitch.
7. Seams are finished as such:
 - a) After your final whip stitch, bring your needle back up, and stitch down through the exact same hole that you just made. This will lay a second whip stitch on top of your last one.
 - b) Bring the needle back up and make another stitch in the same hole – a 3rd stitch now lays on top of the first two.
 - c) Place a fourth stitch in the same hole, but do not pull tight. Pull the stitch most of the way through, leaving a small loop of thread. Pass the needle through this loop twice. Pull tight to knot.
8. Snip your thread close to your thimble to keep things neat and tidy.
9. Put another knot in the long end of your thread and sew up the second side of your thimble, following steps 5 – 8. Start at the open corner, hide your knot by starting with a ½ stitch (just through one piece of leather) initially, and then whip stitch up into the fold. When you reach the fold, stack four stitches in one hole, make a knot and pull tight to bind.

The thimble should fit very snugly on whatever digit you choose to use it on (force it on - it will stretch). Many people use it on their index finger and/ or thumb, while others find it most useful on the middle finger. This is a matter of personal preference. Make yourself a second or third thimble at this time if you feel you will want the extra protection (though more thimbles are more cumbersome!). Spice up your thimbles by drawing faces, cutting fringe or burning a design in them.

You are now ready to begin your moccasins!

3.0 Making the Moccasins

3.1 Inspect your hide and select a tracing location

[Note: The inside (fuzzy or "suede" side) of the hide is known as the “flesh” side, the smooth side is known as the “grain” side. The grain side is the hair side or outside of the hide.]

You can use either side of the deer hide as the outside of your moccasin, with little to no difference in performance. **Considerations:**

- The flesh side will initially have more traction than the grain side, but will eventually polish with use until there is little difference between the two sides;
- The grain side will take a burning better if you choose to decorate through leather burning;

Inspect your hide for any thin spots, holes, or brands that you may want to avoid. If in doubt, run your hands over the hide, push and pull on any spots you are nervous about. (While we do inspect the sections of hide that we cut for kits, it is still advisable to double-check your hide, and select the best portions of the hide for the sole portion of the moccasin).

3.2 Trace and Cut

1. Place the pattern pieces on the 'wrong' side of the deerskin (ie. The side of the deerskin you intend to be the inside), and carefully trace the patterns using a regular pen or chalk. Be sure to put tick marks where shown on the patterns (both sides and tip).
2. Cut the patterns using a sharp pair of scissors.

3.3 Tack Vamp and Sole together

1. Place the vamp on top of the sole – wrong side to wrong side (Eg. Smooth side to smooth side if you are planning to have the suede side out).
2. Match the right-side tick on the vamp to the right-side tick on the sole (these are right where the 'wings' flare out). **We will call this Point A.** Place 3 stitches through both pieces to tack the sole and vamp together at this point.

Note: These are temporary tacking stitches which can be removed later, therefore you do not need to worry about hiding your knot inside the two pieces as would normally otherwise be done.



Illustration 12: Sole and vamp - tacked and ready to go!

3. Pull the vamp across the sole to match left-side ticks on each piece together. Tack the two pieces together with 3 whip stitches at this point. **This is Point B.**
4. Repeat with your other moccasin.

3.4 Sew the Toe Section

Note: These directions are described for right-handed people. When we begin puckering, “lefties” may want to start by going to their right first... you may find this an easier way to grasp the pucker stitch.

1. Thread your needle with a fresh piece of sinew – approximately an arm-span in length.
2. Pull the vamp up the sole to match the toe ticks on each piece together. This is where you will begin to sew.
3. You should be holding your tacked-together pieces in your left hand, with the toe (rounded end) of your moccasin facing away from you, and the vamp on top. With the needle in your right hand, place a ½ stitch through *just the sole* piece of leather. Remember, this is done on your initial stitch only, so as to hide your knot between the two pieces of leather. **This is Point C.**
4. Bring your needle back up and place a full stitch through both the vamp and sole through the tick. Your two pieces should now be temporarily tacked together at Points A & B, and should have one stitch at Point C. You are now ready to begin 'puckering' your toes!
5. The pucker stitch is done as a variation of the whip stitch. As with your regular whip stitch, the needle will always go down through the same piece of leather first (in this case you will always go down through the vamp and come out through the sole). The difference comes in the stitch lengths (distance b/w each stitch). You will maintain the same stitch length on your vamp (~ 3mm/ 1/8”), but will increase the stitch length on your sole. This difference in stitch lengths will cause the material in the sole to bunch up or 'pucker'. This creates a nice rounded toe.
6. You will begin by stitching to your left (Ie. towards Point B). Create your first pucker by pushing some material on the sole towards your first stitch. Push and hold this pucker in place with your left hand. While holding your pucker in place, put your next stitch through both the vamp and sole, just to the left of your pucker.
7. At this point, your pucker is not tightly held and can easily slip out. Immediately place a second stitch in the same spot as your previous one, down through the vamp and sole. This locks the pucker in place.
8. Continue on to your second pucker. Push and hold the pucker with your left hand; place a stitch just to the left of the pucker. Immediately place a second stitch in the same spot. All of your puckers will continue in this manner – with your first stitch creating the pucker, and a second stitch following in the exact same hole to lock the pucker in place.
 - a) Small puckers are very neat looking and traditional. Creating nice, small, consistent puckers is the most difficult part of the project for many people. After you have done a few puckers, stop, step back and take a look at the result.
 - b) In our experience, very few 'first-timers' will create exactly the pucker stitches they want. That's alright. If they are a bit too big, or lack consistency, don't worry about it. Embrace imperfection. If your puckers are loose and large enough that they have open gaps in them, you can do one of two things:



Illustration 13: The first pucker stitch

- Pull out stitches and start over;
- Back up and place a second stitch in the middle of your pucker... effectively cutting one big pucker into two smaller puckers.

9. You will continue doing pucker stitches around the toe of your moccasin towards Point B, until you have taken up all the 'extra' material in the sole piece. Check this by occasionally lining up the sole and vamp. When the sole and vamp material match up exactly, you are done puckering! If you still have extra material in your sole you will continue puckering further. If you have extra material in your vamp, you have puckered too far, and must remove some stitches.



Illustration 14: Once the vamp and sole line up as shown, you are finished puckering!

10. Once you have finished pucker stitches, you will continue straight whip-stitching (down through the vamp, out through the sole) until you reach Point B. Once you near Point B, you can cut out the temporary tacking stitches you placed earlier.
11. When you reach point B, place one stitch in Point B, and then immediately place a second stitch in the same hole.
12. Reverse directions and begin whip-stitching back towards your pucker stitches... using the same holes you made previously. Thus, you are creating an x-pattern with your stitches and reinforcing this high-stress portion of your moccasins.
13. Continue whip-stitching until you reach the point where you had finished your pucker stitches. Finish your stitch at this point as described in Section 2 “Making a Thimble” (I.e. Place 4 stitches right on top of each other, knot and pull tight).
14. You have completed one half of the toe of one moccasin! This may have taken a while, and your puckers may not be as consistent as you want, but it gets easier, and the differences in pucker size are purely cosmetic. Embrace your moccasin's (cosmetic) imperfections – this is part of what makes it your unique project. Don't embrace functional imperfections though... take the time now to make it right or your project may end up in the bottom of a closet later.
15. Begin the other half of your toes by returning to Point C. Hide your first stitch between the two pieces of buckskin by placing it just through the sole piece... As always, all other stitches will go through both pieces of buckskin – down through the vamp, out through the sole.
16. Begin puckering to your right (towards Point A). You will have to adjust how you do your puckers a little bit while puckering to your 'off side'. Rather than pushing puckers with your left hand, you will now have to pinch them. I like to pull the pucker and stack it up against the previous puckers you made. Place your first stitch to the right of the new pucker. Immediately place a second stitch in the same spot to lock your pucker in place.
17. Continue puckering towards Point A, until the material on your sole and vamp matches up.
18. Whip stitch to Point A (remember to remove your temporary tack stitches as you near Point A).

19. Place two stitches in Point A, and then reverse directions... continue whip stitching back up through your previously made holes until you reach your puckers. Finish your stitch (4 stacked stitches) at that point.

You are done the toes of one moccasin. Already your moccasin should be taking on a nice shape. Put on the socks you intend to wear in your mocs (if any) and slide into the moccasin – test out the fit! Really tug the moccasin on, into place. Force it if need be. The deerskin will relax quite a bit, so don't worry if it's tight at this point, as long as you can get your foot in! If you sized your pattern correctly in Section 1.3, you should have a great fit at this point.

While the pucker is still fresh in your mind, complete the toes of your other moccasin. You are now done doing pucker stitches. Phew!



Illustration 15: Toes complete!

3.5 Customizing the Length (Ie. measure and cut heel)

You may recall in step 1.3, when creating our patterns, we intentionally left our patterns too long and did not worry much about exact length measurements. Now that our toes are done, we can trim the heel to length to achieve a truly custom fit! You will appreciate the help of a friend in marking the heel.



Illustration 16: Wrap the moccasin around your heel and mark the overlap.



Illustration 17: Divide that overlap by two and make a new mark.



Illustration 18: Draw a straight line across the rear of your moccasin from point to point and trim. REMEMBER: this should be HALF the overlap measured!

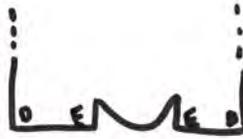
1. Put on your socks (continue to leave the insole out), and place your foot into your moccasin toe. Pull the moccasin on so its a nice, snug fit. Have a friend wrap the two back corners of your moccasin up to match behind your ankle. Overlap the rear portion of your moccasin as much as necessary to create a snug fit. Have your friend make a mark at the extent of your overlap.
2. Remove the moccasin, measure the distance from the rear of the moccasin to the newly plotted point your friend made (ie. Measure the amount of overlap). Divide this distance in half and mark a new point on both sides of the rear of the moccasin. This is the amount of excess material that needs to be trimmed off to create a tight fit.
3. Draw a straight line from point to point, and cut along this line to trim excess length off your moccasin. **REMEMBER: This is half of the measured overlap only!**
4. Put the moccasin back on and re-measure. Now when you fold the rear of the moccasin up around the back of the foot, the ends should just barely meet at the back of your foot. If you need to trim further – trim further. Remember, the moccasin should be snug to start.
5. With your moccasin on your foot, have your friend trace the shape of your heel on the sole. This tracing should follow the outline of your heel, but should be spaced back from your heel to just kiss the edge of the buckskin. **Ensure this crescent is centred in the rear of the moccasin.**
6. Remove your moccasins and cut out this heel crescent which you have just drawn.
7. Your moccasins are now perfectly sized to your foot and are ready to be completely sewn.



Illustration 19: The "heel crescent", drawn and cut out at the rear of the moccasin.

3.6 Sew the Heel Section

1. The back of your moccasin should now look like the diagram pictured below.



2. Fold the rear of the moccasin up to place points D together – wrong side to wrong side (ie. insides together). Whip stitch from D to E.
3. Finish your stitch (4 stitches in 1 hole) at points E.
4. Flatten out the seam you just made, by pulling apart with your hands (don't be shy), while simultaneously pushing down on the seam with your thumbs. If you have done a whip stitch (and not a running stitch), you should be able to perfectly flatten out this seam with some pulling and pushing, creating a really nice rear seam on your moccasin.



Illustration 20: The flattened seam

5. Fold the heel crescent up over the seam you just created. **Note:** This is a step commonly done incorrectly in our workshops. You should be bringing your heel crescent right up and over the bottom ~2” of heel seam, so that the crescent completely covers the bottom of the seam. Many people try to line up the open edges of material here. Overlap.
6. Whip stitch from one end of the heel crescent to the other. This whip stitch is slightly different here because you do not have an open edge to sew over. We call this a “closed whip stitch”:

- a) Use the edge of your heel crescent as the edge you will 'whip' over. Stitch down on one side of this edge, and come back up on the other. Eg. every stitch should go down through both pieces of material (ie. The heel crescent plus the rest of



Illustration 21: The finished heel seam - showing a "closed" whip stitch.

the moccasin), but then should come back outside the heel crescent (ie. Needle comes through just one piece of material).

- b) Every stitch should continue in this manner: down through both pieces of material, up through one, down through two, up through one.
- c) If done correctly your stitches will lay over the edge of your heel crescent just as with all other whip stitched seams you have created.

3.7 Lacing Up

1. Finish off by punching holes using a high-quality hole punch (ideal) or hammer and nail (against a scrap of wood). With a rolled down ankle, you will be punching through two layers of material, without the roll you will only need to punch through a single layer (see illustration in Section 1). Run your lacing through the holes - the holes will stretch with use. Trim ankle flap as desired. Add wood beads, leather burning, decorative beading, etc to your heart's content!
2. Slip your moccasins on and test out the fit! Remember they are supposed to be tight at this point, perhaps very tight. If you cannot get the insole in yet, that's fine. Wait for your moccasins to stretch out and then slide them in.



Illustration 22: Our completed moccasins - ready for a romp in the woods!

Happy Crafting!

4.0 Final Words

Now that your mocs are done, its time to get out and use them! At Lure of the North we are passionate about making aesthetically beautiful, natural handcrafts, but all of our items are also designed to be functional gear that can be used in the bush. There is no better way to truly appreciate your new craft than getting out and using them, so please, tie them on your feet, and take a hike!

www.lureofthenorth.com

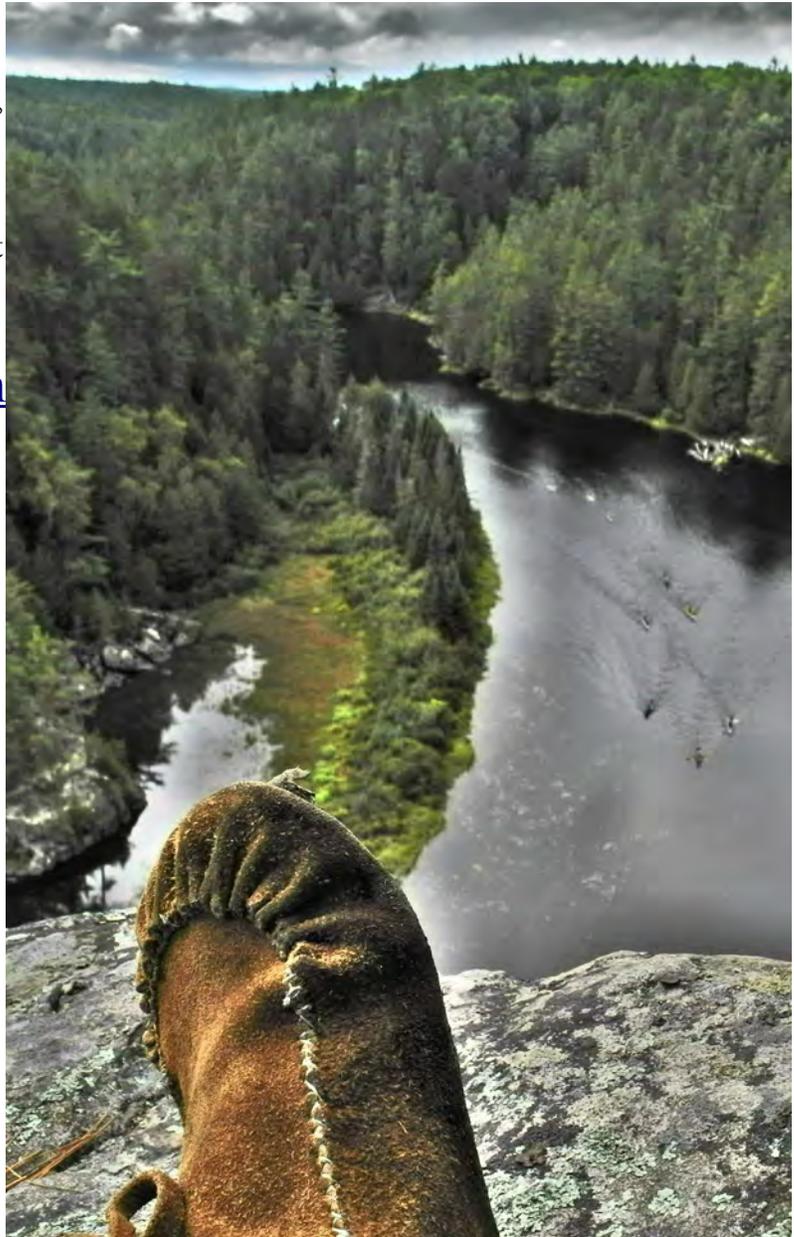


Illustration 23: Lure moccasins high above a fleet of canoes on the Petawawa River

Appendix 1: Pattern Pieces

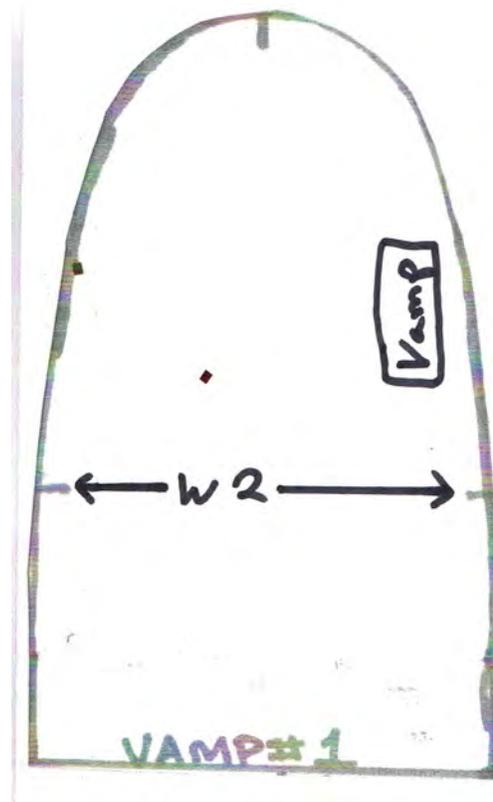


Illustration 24: Vamp pattern. Note, this item should be resized at the same ratio as the sole piece, below.

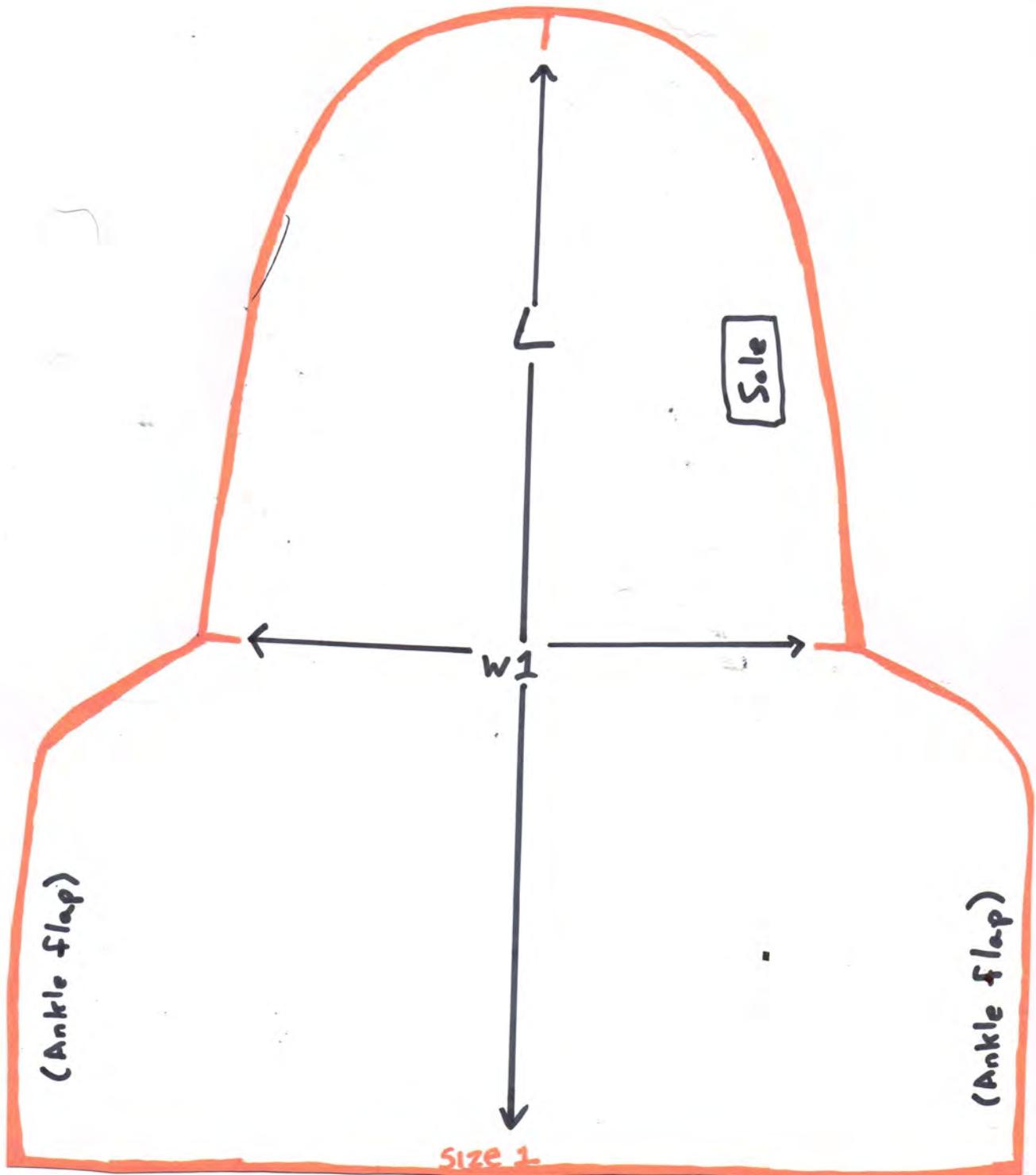


Illustration 25: Sole Pattern. Note this pattern will need to be resized according to directions in Section 1.