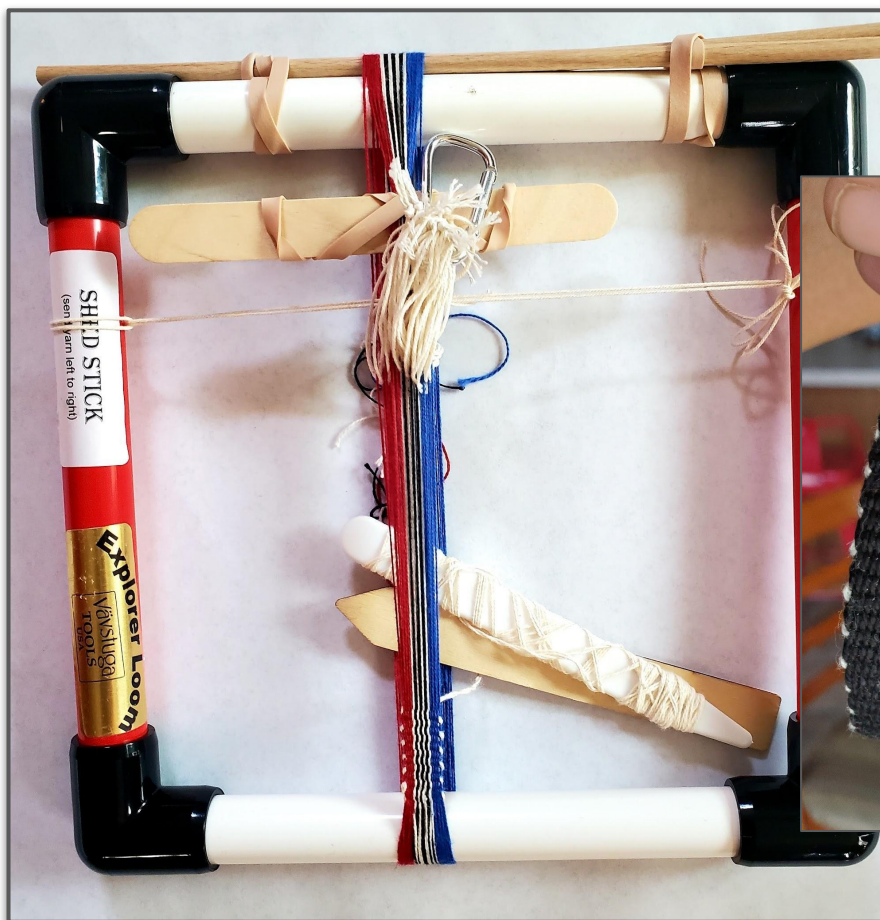


# Mobile Frame Loom Weaving

**Quest 1: Weave a warp patterned bracelet using basic frame loom mechanics**



‘Weave ‘Whatever, ‘Whenever, ‘Wherever



# Table of Contents

## **Introduction - Mobile Frame Loom Weaving 3**

- Getting Started
- The Voyager Bracelet

## **Loom Set-Up - Assembling a Mobile Frame Loom 5**

- Tools and Supplies
- Setting up a Mobile Frame Loom

## **Warping the Loom- Creating a circular warp 7**

- Warping Notes
- Warping the Loom

## **Preparing to Weave - Setting up weaving sheds 9**

- Securing the Stationary and Heddled Weaving Sheds
- Winding a Shuttle for Weft

## **Weaving- How to weave a voyager bracelet 12**

- Weaving Procedure and Sequence

## **Finishing- How to finish the bracelet 14**

- Removing the Bracelet from the Loom and Tying/Trimming Loose ends
- Creating a Sliding Closure

## **Summary 15**

## **Weaving Terms 16**

## **Acknowledgements 18**

## **Appendix**

- Warp Patterned Bracelet Patterns
- Blank Charts
- Resources

# Introduction

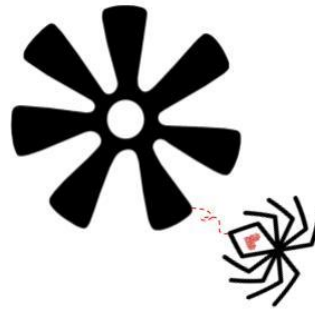
## Mobile Frame Loom Weaving

Congratulations on joining in the legacy of artisans who weave wonders with sticks and string. With this booklet, you will learn valuable skills for weaving on a frame loom and create the charming warp-patterned Voyager Bracelet.

Once mastered, this loom can help you explore ethnic weaving traditions from around the world while creating textiles to be treasured for a lifetime and beyond.

A weaver works with:

Shared Wisdom, Dexterity, Perseverance, Creativity



We have a “Spider Sense” that must be developed and nurtured through practice and exploration. One of the best ways to hone your spider sense is to weave with simple tools.

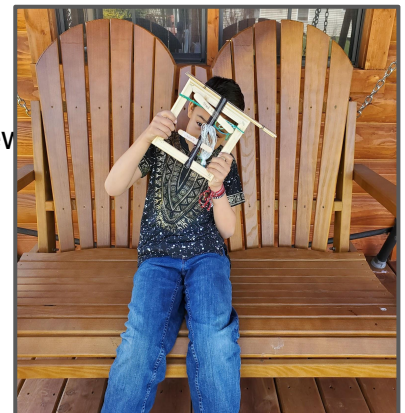
Working with just sticks and string, you can let your natural creative instincts guide every step of the process. A spider weaves its magnificent web with just thread, intuition, and a sturdy frame to hold it all. So can you!

The mobile frame loom is extra special because it is one of the few ancient innovations that can still be found in use on every continent. Portability, easy storage, versatility, efficiency, and low cost are just a few reasons why this loom is still in use around the globe all these centuries later.

Despite its simplicity, the frame loom continues to weave cloth that cannot be replicated with modern technology. The brilliance comes from the hand of the weaver who creates a magnificent cloth one thread at a time.

Why should we weave? People weave for various reasons. To name a few:

- To connect with others
- To Self-Express
- To gift
- To innovate
- To relax
- To persevere and carry-on
- To reduce waste



☞Weave ☞Whatever, ☞Whenever, ☞Wherever with your mobile frame loom

# Introduction

## The Voyager Bracelet

Weaving a narrow textile is a useful way to learn and practice new techniques and work with new materials.

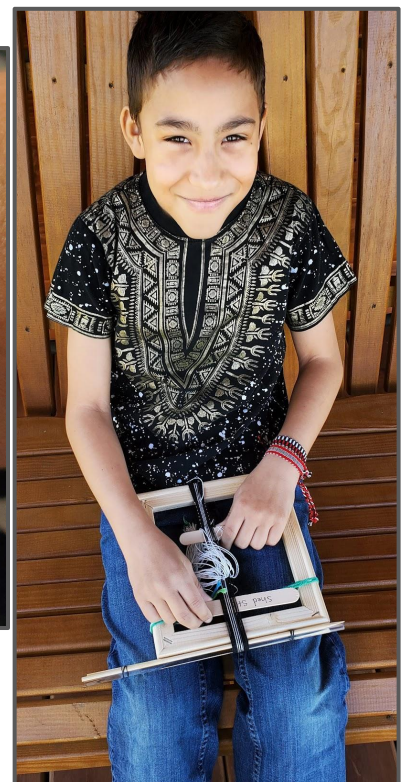
The Voyager Bracelet was designed with versatility in mind. The project is portable, making it easy to take your weaving wherever you go and share your journey with others. Its simple design allows for infinite variations. Weave mini versions of designs and colorways inspired by textiles from the North, South, East, West and every place in between into a Voyager Bracelet.

Quest 1 teaches the basics of weaving a simple warp-faced cloth. Once mastered you can design and weave more textiles with different colors or you can move on to other techniques and weave structures.

Be sure to check out Quest 2 which will show you how to add weft twining to your weaving.



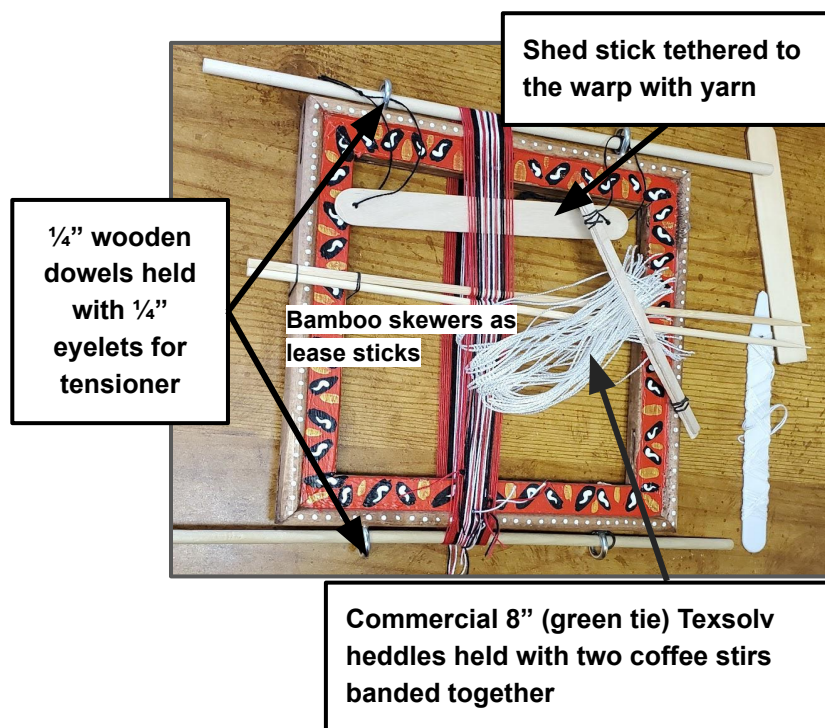
A few of the many ways to weave the Voyager Bracelet with just 4 colors.



# Loom Set-Up

## Tools and Supplies

- **PVC Explorer frame loom kit** (available at [www.Vavstuga.com](http://www.Vavstuga.com)) or 8" X 8" artist canvas with canvas removed, or any other frame at least 8" square (Loom)
- **4- 1/4" dowels or pencils** (Lease sticks for creating the weaving cross and tensioning threads)
- **2- or more bamboo skewers** (Warp Tensioners or lease stick)
- **Strong Yarn with high twist**. Size 8/2 or 10/2 cotton or cotton embroidery thread for warp and weft yarn. Nylon bead thread, mercerized cotton, or rug warp is an excellent choice for Heddles and Loom setup. You may also choose to upgrade with ready-made Texsolv heddles
- **Yarn or string cut 36" inches** in length (Loom set-up)
- **3-tongue depressors** (Shed Stick, Beater, Shuttle)
- **6- rubberbands** (Loom setup)
- **ruler or measuring tape**
- (Optional) **locking clip** or extra string (bundle/store string heddles)
- (Optional) **4- 1/4" eyelets** to secure tensioning dowels to the loom
- (Optional) **2- coffee stirs** (bundle/store string heddles)

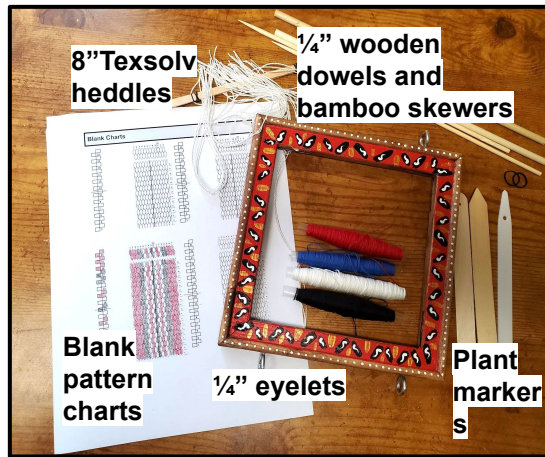
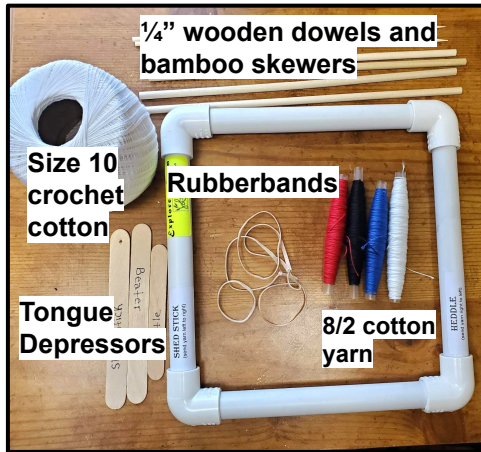


## Loom Set-Up

1. **Create a tensioner.** Use 2- rubber bands to tie 2-dowels or pencils together at both ends. Secure them to the top of the frame. If the warp **ends** become too tight as you weave, a pencil can be removed to loosen the tension.
2. **Attach the lease sticks.** Bundle 2- dowels or pencils with a rubber band then attach them to the left hand side of the frame so they are oriented parallel to the tensioner pencils. These **lease sticks** will divide your threads to create a **weaving cross**

# Loom Set-Up Page 2

## Loom Materials and Assembled Loom

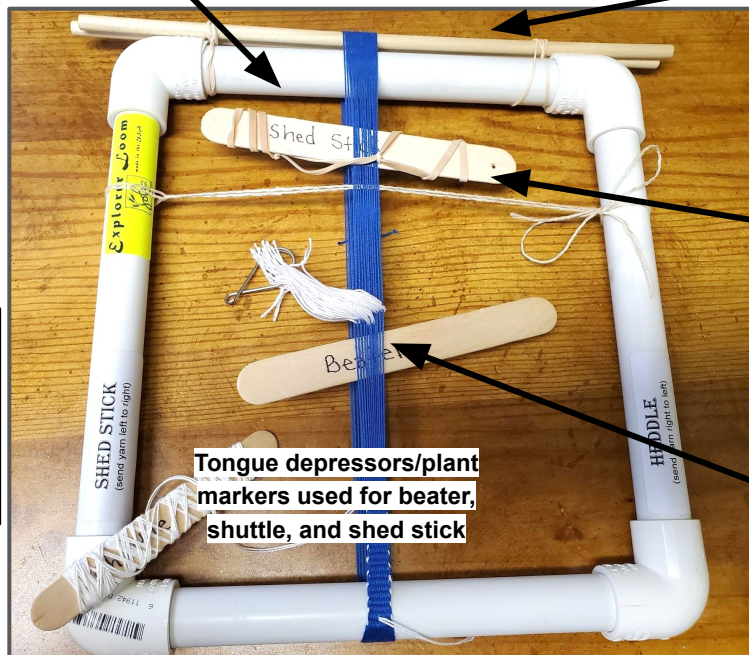


Any sturdy frame can be set up as a mobile frame loom. 1/2" PVC makes a nice study frame that breaks apart for easy storage and travel. An 8"X8" wooden canvas frame with the canvas removed makes a nice loom as well. 1/4" eyelets may be screwed into the corners to hold tensioner dowels in place during weaving. Rubberbands can also hold the tensioners in place.



Save and store string heddles for future weavings

Shed Stick tethered to the warp



1/4" wooden dowels attached with rubber bands

Life line through the stationary shed

String heddles made with crochet cotton

Tongue depressors/plant markers used for beater, shuttle, and shed stick

# Warping the Loom

## Creating a Circular Warp

### Warping Notes

Warp **yarn/end** counts are described as the number of passes around the frame loom. One pass wraps one yarn end around the loom on a continuous figure 8 path.

On the **1st pass** around the loom the yarn travels *OVER the lower lease stick* then *UNDER the UPPER lease stick* then around the *BACK* of the loom.

On the **2nd pass** around the loom, the yarn travels *UNDER the Lower lease stick* then *OVER the upper lease stick* then around the *BACK* of the loom.

The pattern **draft** has 2 rows of colored ovals/squares. The first row represents threads that travel over the upper lease. The second row represents warp ends that travel over the lower lease. Working from left to right on the draft, wrap the warp yarn around the loom alternating one thread on the lower or upper lease with each pass.

Warp yarn is only cut when a new color is being added. The warp is wound onto the frame in one continuous loop.

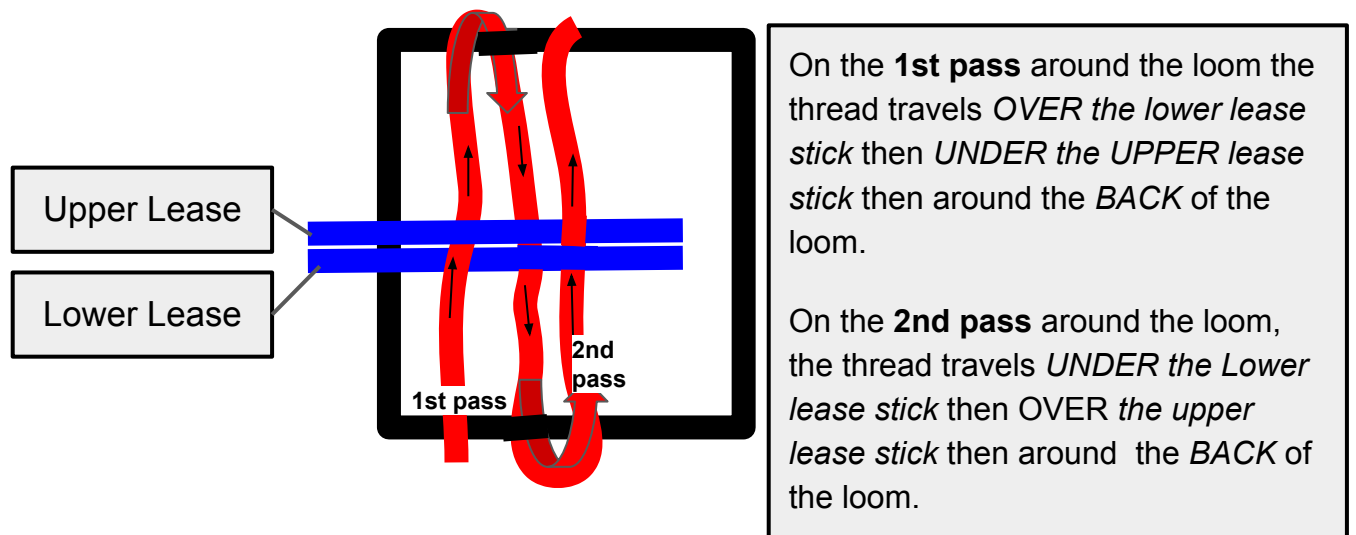
Use a double square knot or overhand knot when adding new yarn ends to prevent slipping.

Use firm but not tight tension when warping the loom. Warping the loom too tight will make it difficult to open the **weaving sheds**. Warping too loose can also make it difficult to separate the sheds and cause uneven weaving.

Slide the warp ends together frequently during the warping process. Strive to keep them closely arranged on the loom without any overlapping.

# Warping the Loom Page 2

1. Secure the first **warp end** (following the pattern draft) to the bottom left side of the loom with a temporary slip knot or tape. (You will tie this end to another warp end after warping is finished)
2. Wrap the warp end around the loom as described in the warping notes. Cut and tie on new warp colors as needed according to the pattern draft.  
*Tip: Leave a 2" tail when cutting warp ends for color changes so that you will have enough space to tie-on the next warp end.*
3. Scooch the warp ends together so they touch without overlapping.
4. After the last warp end is passed around the loom, cut and tie the loose end to the nearest cut warp end at the bottom of the loom. **Make sure the last warp end travels underneath the bottom loom segment so that your warp can rotate freely around the frame.**
5. Undo the slip knot/tape at the beginning of the warp, pull the warp end snug if it has loosened. Tie the loose end to the nearest cut end.





# Preparing to Weave

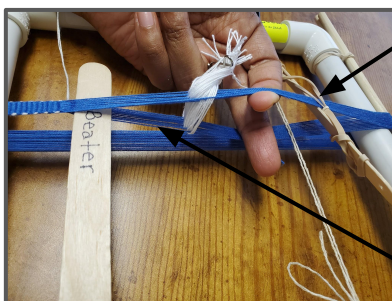
## Rotating the Warp for Weaving the Voyager Bracelet

Rotate the warp around the loom. Pinch the warp yarns firmly in your fingertips. Rotate it down and around the bottom of the frame until the cut end knots are in the middle of the back of the frame. Be careful not to let the threads slide out of place as you move them. You will start weaving at the lower edge of the frame.

## Securing the Stationary Weaving Shed

1. Secure the **stationary weaving shed**. Using your **upper lease** dowel as a guide, place a **shed stick** into the shed opening created by the upper lease dowel.
2. Insert a **life line** into the **stationary shed**. Cut a piece of yarn or cord 2 yards long. Double the yarn then tie it to the left side of the frame, pass it through the shed created by the upper lease stick, then tie the loose end around the right side of the frame with a loop knot that you can easily remove after the weaving is finished. **IMPORTANT NOTE:** The lifeline saves the shed from being lost in case the shed stick falls out. Weaving is impossible without a *weaving cross*. **ALWAYS** insert a lifeline

*Tip: Tether the **shed stick** to the warp so that it stays in place. You can tether it with 3 looped rubberbands secured on both ends of the stick. The shed stick will slide back and forth and be turned on-end to raise threads for the stationary shed. It is then laid flat to lower the threads after the weft shot.*



Lifeline in place. Shed stick turned on end

The stationary shed space opens in front of the string heddles

# Preparing to Weave Page 2

## Creating a Heddle Shed

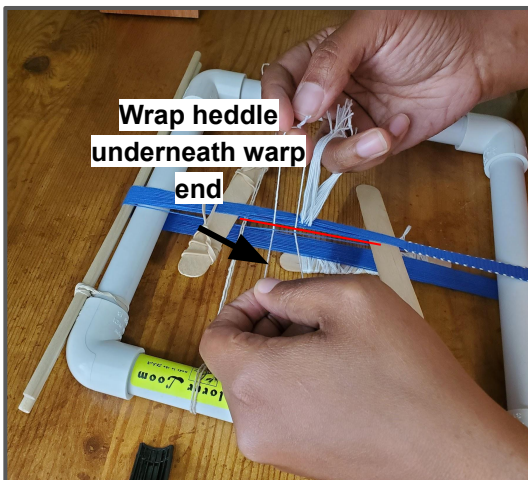
1. Create String **Heddles**. Cut durable, high-twist yarn into 12 inch lengths. Join each strand into a loop by tying the ends with an overhand knot. These heddles can be saved and reused for future weaving.

*Tip: Commercially prepared 8" (green tie) texsolv heddles can be purchased in bundles of 100 for this purpose as well.*

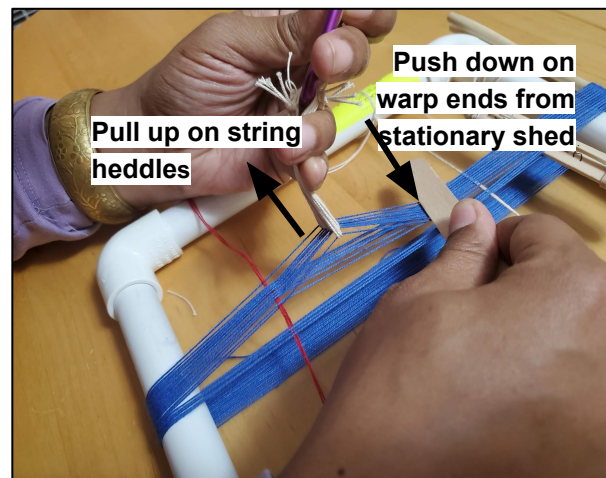
2. Secure the **heddle shed**. Wrap a string heddle around each warp end that travels over the **lower lease stick**. Once each warp end has been wrapped in a heddle, secure the heddles into a bundle by placing the loops on a locking clip or tying them with string. You can now control the heddle shed by lifting the threads up by the heddle bundle.

*Tip: You can use a skewer to help lift/isolate the individual threads as you install the heddle.*

3. Remove the lease sticks



Wrap a string heddle around each warp end



Open the heddle shed by pulling up on the string heddles while pushing the stationary shed warp ends down

# Preparing to Weave Page 3

## Winding a Weft Shuttle

*Tip: Use your wingspan to help you measure the weft yarn. Hold one yarn end in one hand then draw a length of yarn out in front of your body as far as your arms can reach, as if you're spreading your wings. This will measure close to 2 yards of yarn.*



1. Wind a weft. Measure out 2-3 wingspans of yarn (approx. 4 yards). Hold the 2 cut ends together. You will weave with 2 strands of weft yarn wound double on the shuttle.
2. Wrap the doubled yarn along the length of a tongue depressor by winding the yarn along one side to the end of the shuttle then flipping it over and winding the yarn back to the starting point.



Wind the weft shuttle with 2 ends held together

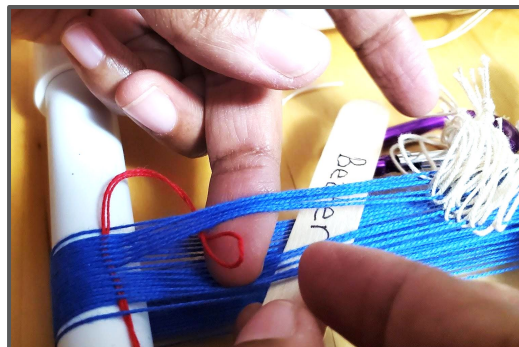
# Weaving

## Start Weaving the Voyager Bracelet

1. Open the **stationary shed**. Lift and turn the **shed stick** on end to open the stationary shed. Pull the threads apart with the shed stick or your your fingers to open the shed *in front of the string heddles*. Clear the shed of any heddled warp ends with your fingers or **beater** tool.
2. Pass the weft from **left to right** leaving a 2" tail.
3. Open the **heddle shed**. Lift up the heddle bundle while simultaneously pushing down on the threads of the stationary shed from behind. Look through the side of the shed to make sure the space is clear. Only the threads with heddles should be raised.

*Tip: You can use your fingers or beater tool to agitate the threads inside the shed to help clear it. ALWAYS check the **fell line**. Warp ends should be alternating over and under the beater forming a space for the next weft pick. If you skip this step your fabric can have unsightly random **floating warp** ends from the previous shed on the surface.*

4. Beat/Pack the previous weft. Insert the beater in the new shed and pack the warp ends together with a firm rocking motion. Hold the weaving in place to keep it from shifting around the loom. Check the **fell line** for accuracy.
5. Tuck the loose end of the first **weft shot** halfway through the shed (you will clip this loose end once the weaving is finished).
6. Pass the weft through the open shed, from **right to left**.

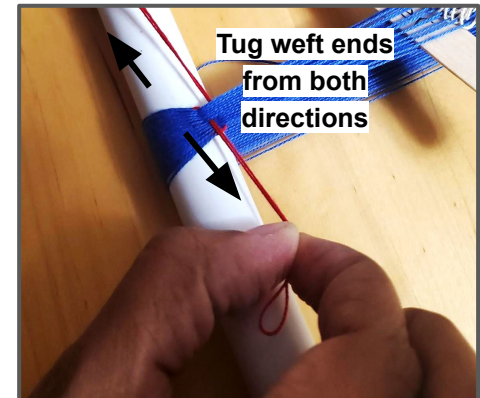


Tuck the loose end of the first weft shot halfway through the shed

# Weaving- Page 2

7. Set the fabric width. Tug on the weft to draw the warp threads together so that no weft shows across the weaving. You will only see the weft at the sides of the weaving.

*Tip: Create neat **selvedges** by keeping consistent weft tension. Pinch the weft between your thumb and index fingers as you slide the weft through the shed opening.*



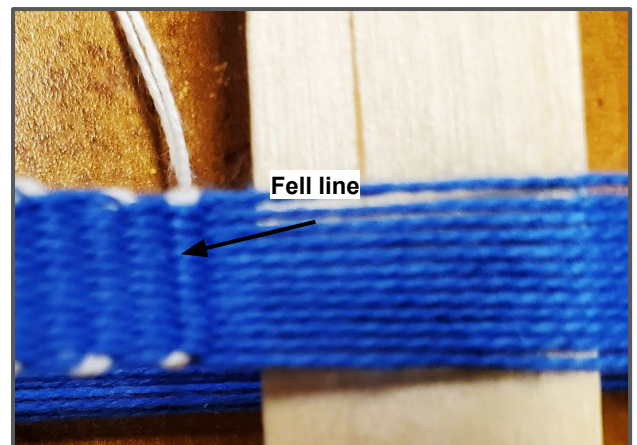
## The Weaving Sequence

Continue weaving using the following sequence:

1. Open (Shed Stick) Stationary Shed
2. Check Fell Line
3. Beat/Pack the weft
4. Pass Weft Shuttle (left to right )
5. Open Heddle Shed
6. Beat/Pack Pack the Weft
7. Check Fell Line
8. Pass Weft Shuttle (right to left)
9. Repeat

In Short:

- Shed stick, Check Fell, Beat, Shuttle Left (to right)
- Heddle, Check Fell, Beat, Shuttle Right (to left)



Always check the fell line before passing the weft

*Tip: If you forget which shed should be opened remember this:*

- Shuttle resting on the **LEFT** side open Shed Stick shed
- Shuttle resting on the **RIGHT** side open the **HEDDLE** shed

Weave until the bracelet measures 4 ½” inches long. You will need to rotate the warp and adjust tension as needed.

Adjust Tension. If the warp gets too tight to open the shed while weaving, remove a pencil/dowel from the top of the loom. If the threads become too slack, add thinner bamboo skewers to achieve the right tension.

# Finishing the Bracelet

## Removing the Bracelet from the Loom and Securing/Trimming Loose Ends

1. Cut the weaving off the loom at the knots.
2. Cut the weft leaving a 6 inch tail.
3. Remove the string heddles and store them on the locking clip
4. Secure the loose weft end by knotting it to the last 2 warp ends on the bracelet.
5. Trim the loose warp ends to 6 inches on each side of the bracelet. Divide the loose warp ends in half. Braid/ Twist the ends. Knot and trim them (shorter for small hands/ longer for larger hands).



## Creating a Sliding Closure

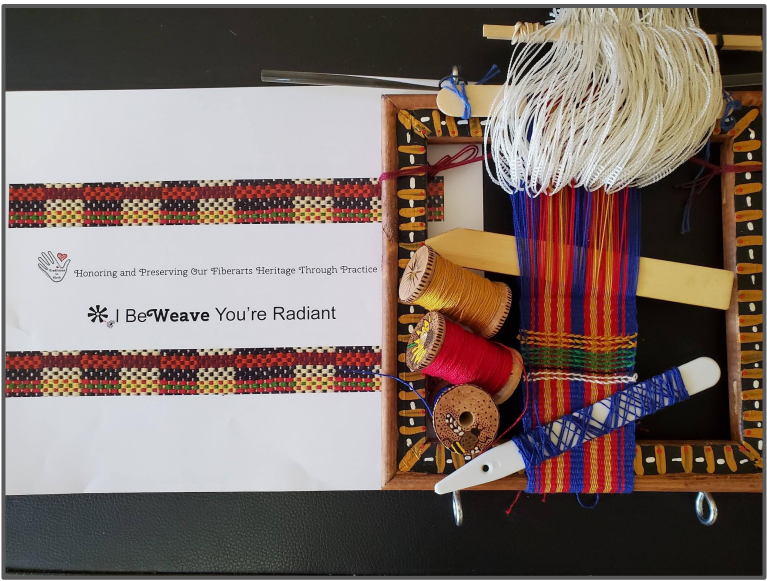
1. Create a slide closure. Cut a 12 inch length of weaving thread/yarn and fold it in half. Join the braided/twisted ends of the bracelet into a bundle by crossing them on top of each other.
2. Loop the thread around the bundled bracelet ends with a lark's head knot. Holding the braided ends together, make 5-7 tight half-hitch knots around the bundled bracelet ends. You should be able to slide the bracelet ends apart to fit it over the hand then pull them together again to make the bracelet fit snug on the wrist.



Enjoy wearing or sharing your Voyager Bracelet!

# Summary

Now that you've learned the basics of weaving on a mobile frame loom there is so much more to discover. You can weave wider fabrics and play with color and stripe proportions for more designs. You may adapt your frame loom to weave different structures or add twining, brocade, beads, and fringe for style. We hope you choose to continue your journey and share this tradition in creating beautiful textiles for generations to come. ❤️



The mobile frame loom can be set up to weave many different structures and designs

# Weaving Terminology

**Beat or Pack-** inserting the beater in a new shed and packing the threads together with a firm rocking motion.

**Beater-** sword-like tool that is inserted into a shed to open space for the weft yarn to pass through and to pack the weft thread firmly in the shed

**Draft-** weaving pattern that displays important weaving information such as number of warp ends, color order, details about yarn quantities, and loom set-up.

**Ends-** Cut weaving yarn/thread

**Fell Line-** Place where the weaving cross meets the newly woven fabric

**Floats-** yarn/threads that travel over more than one weft pick. This can be planned as a design element. It may happen by mistake if the fell-line is not checked before the weft pick is passed after each shed is opened.

**Heddles-** looped yarn used to organize and lift warp ends for weaving

**Heddle Shed-** Weaving space that is created by opening the shed with string heddles

**Lease-** sticks/dowels that separate the weaving cross. The upper lease holds the stationary shed warp ends. The lower lease holds the string heddle shed warp ends.

**Lifeline-** string secured to both sides of the loom that travels through the stationary shed. It saves the shed from being lost in case the shed stick falls out. Weaving is impossible without a weaving cross. ALWAYS insert a lifeline

**Pass-** The path of the warp yarn around the loom. One pass wraps one thread around the loom in a continuous figure 8 loop

**Pick/Shot-** one complete pass of the shuttle through the weaving shed



**Shed**- space between upper and lower warp ends that weft passes through. A frame loom has a stationary shed that is lifted with a shed stick and a heddle shed that is lifted by string heddles.

**Shed Stick**- A stick or dowel used to temporarily separate the warp ends of a weaving shed

**Shuttle**- holds and guides yarn through the weaving shed

**Stationary Shed**- Weaving space that is created by turning the shed stick on end

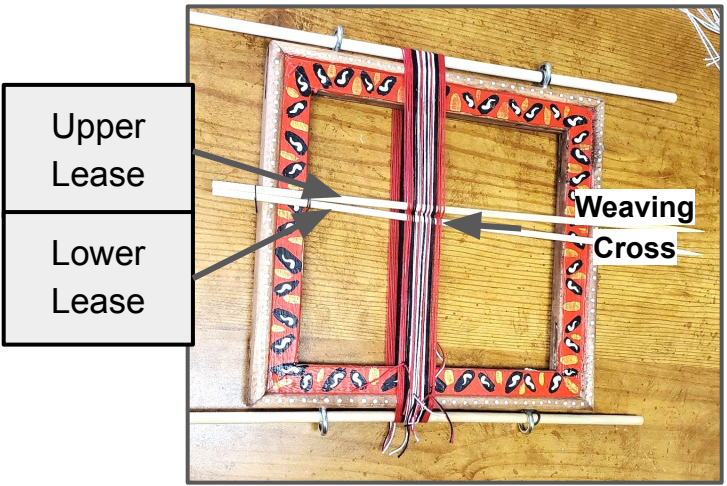
**Warp** - Yarn/warp ends running vertically in a cloth

**Warp faced weave**- Fabric in which the vertical warp yarns are dominant or completely cover the weft yarns to create the woven fabric.

**Weaving Cross**- place where upper and lower warp ends intersect and alternate up and down during weaving

**Weft**- Yarn running horizontal in a cloth

**Yarn**- 2 threads twisted/plied together as one



Lease sticks temporarily separate the warps into 2 layers to create a weaving cross

# Acknowledgements

I am ever grateful for all of the unsung weavers from all over the world who have built the collective knowledgebase of weaving that we work from today.

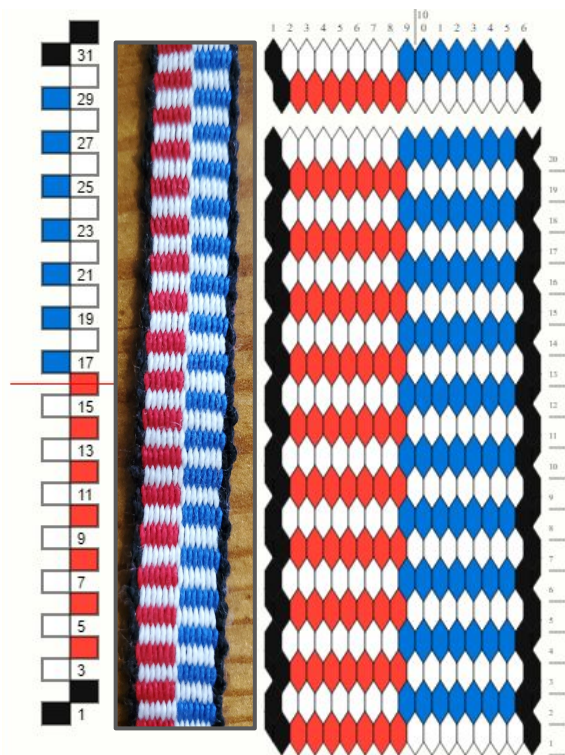
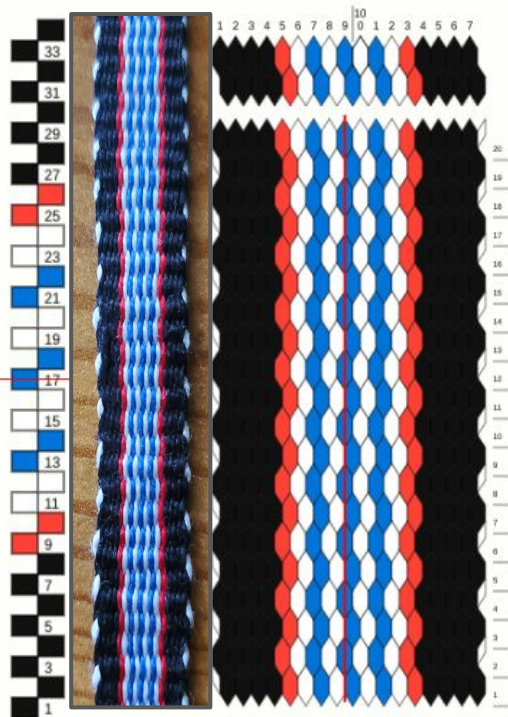
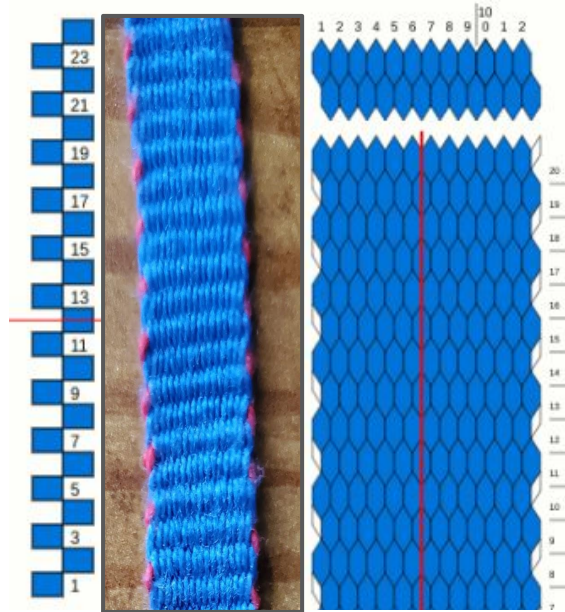
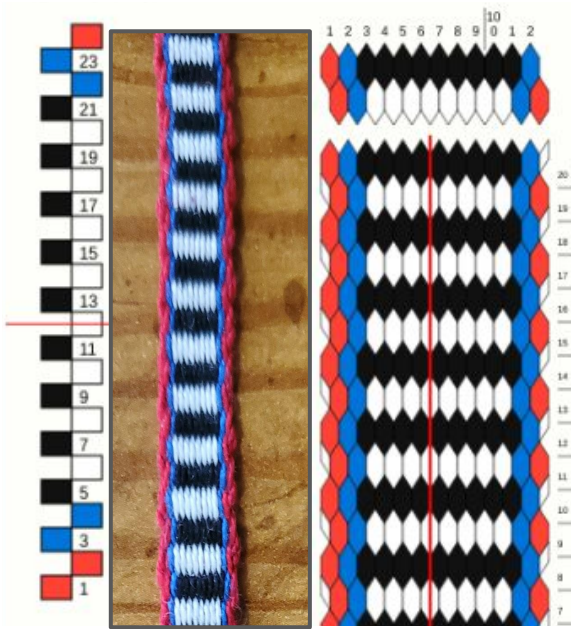
Thank you Raktress.net for sharing freely Seizenn Loom Pattern Editor. All pattern charts provided in this booket were created using Raktres.net. Visit the website to view an extensive library of warp-faced weaving designs and create new designs of your own

Thank you Duneland Weavers and Spinners Guild, Vavstuga Weaving School, and The Society of Black Ladies Who Weave for encouraging me on this journey and providing valuable feedback.

A special thank you to The Ddora Foundation and Gist Yarn for providing funding for this project and programs that support artisans in preserving traditional skills.



# Pattern Drafts



The pattern **draft** has 2 rows of colored ovals. The first row represents threads that travel over the **upper lease**. The second row represents threads that travel over the **lower lease**. Working from left to right on the draft, wrap the threads around the loom alternating one thread on the lower and upper lease with each pass.

# Colorways

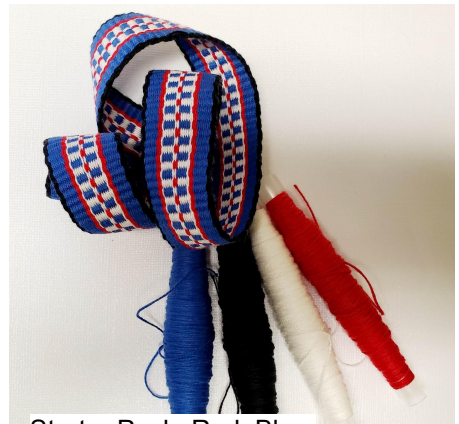
An infinite variety of designs and color combinations are possible when you choose to weave your own textiles. While this is quite liberating it can also be daunting for a new weaver. No need to worry. You can do a lot with just 2,3, or 4 colors. Consider purchasing a variety pack of embroidery floss or a few skeins of crochet cotton to get started. Here are a few colorway ideas.



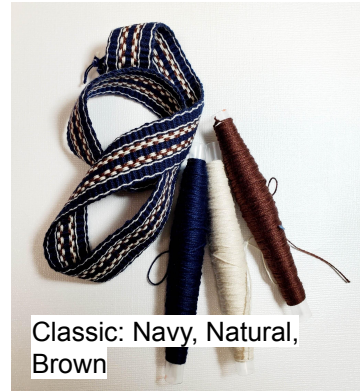
Nature's Palette: Green, Brown, Natural



Earthy: Brown, Burgundy, Natural



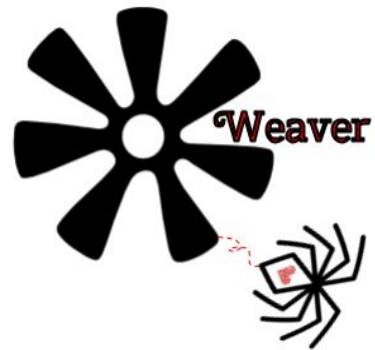
Starter Pack: Red, Blue, White, Black



Classic: Navy, Natural, Brown



Nautical: Navy, White, Red



Majestic: Royal Blue, Golden Yellow, Ruby Red

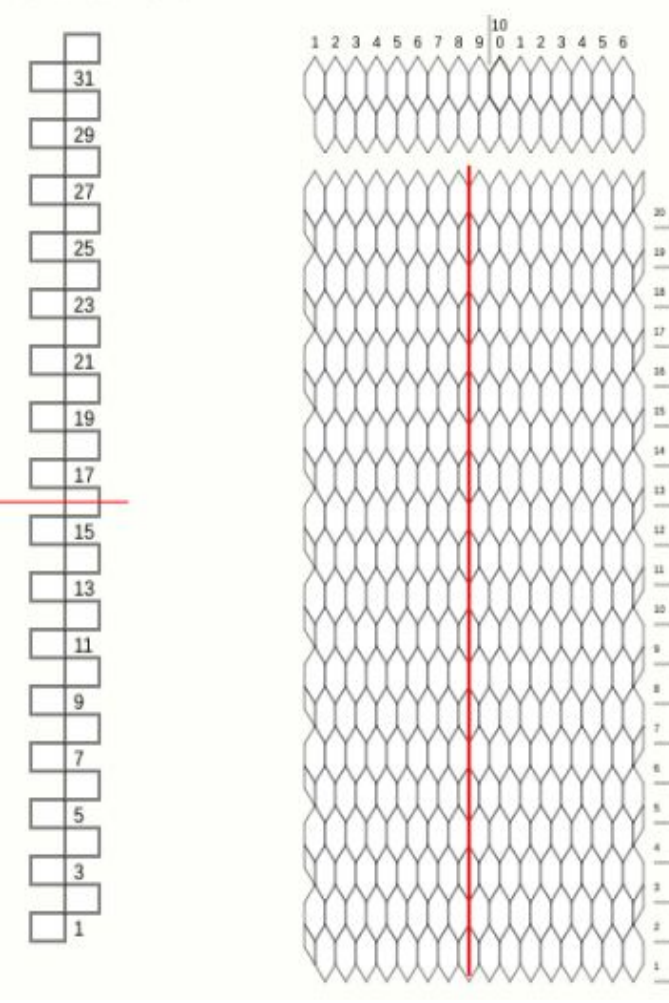
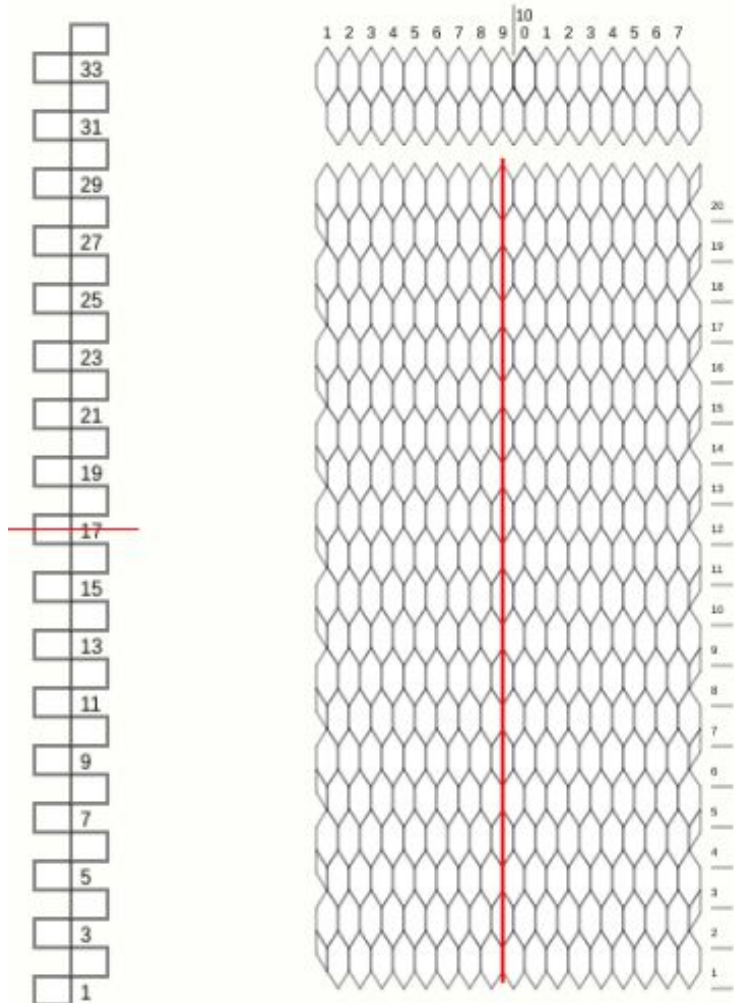
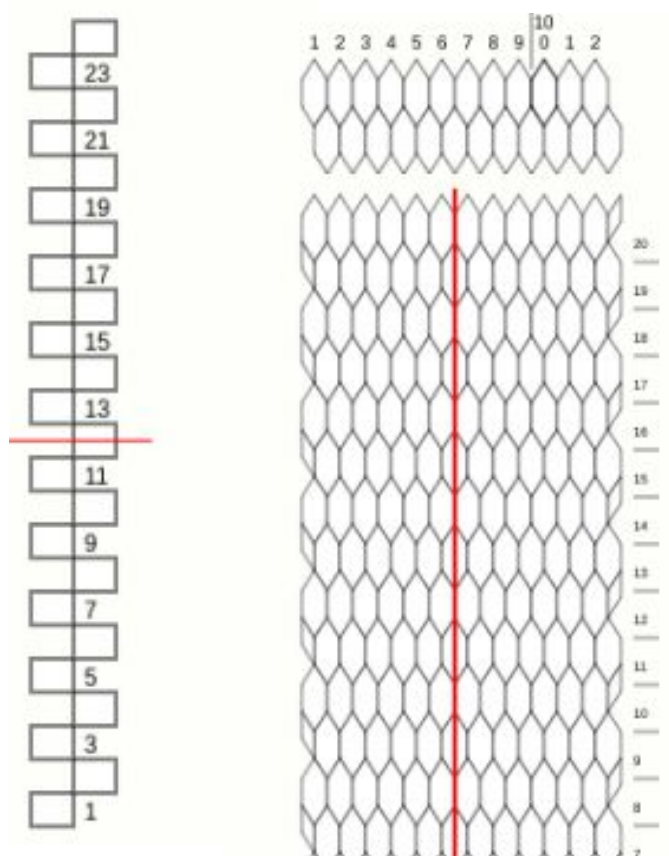
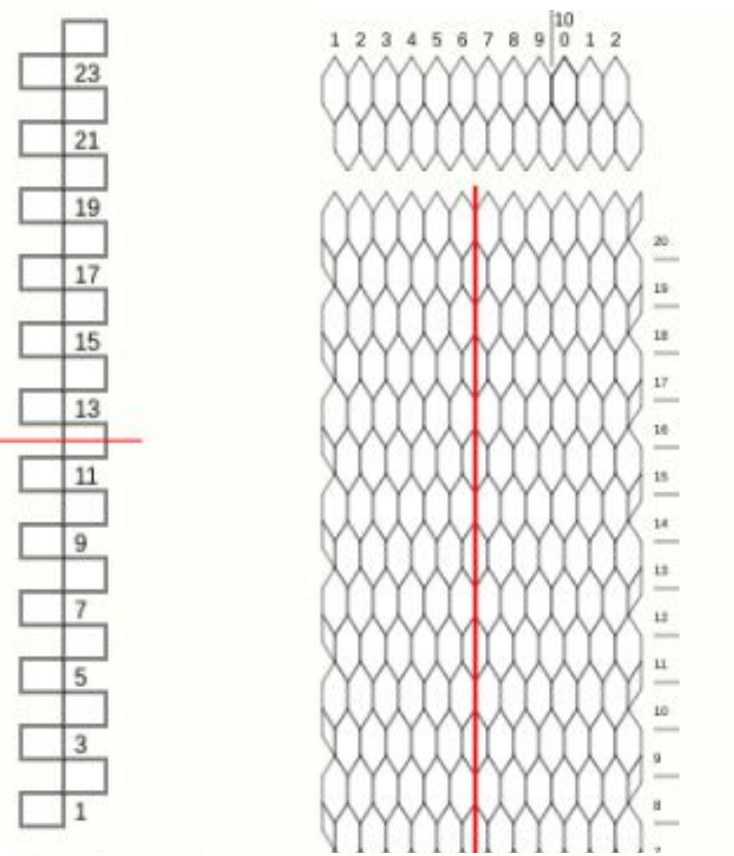


Bold: Black, White, Red



Paradise: Blue, Fuschia, Purple, Emerald, Orange, White

# Blank Charts



# Resources

## Yarn/Looms/Supplies

Eugene Textile Center  
[www.eugenetextilecenter.com/](http://www.eugenetextilecenter.com/)

Gist Yarn Co  
<https://www.gistyarn.com/>

Lunatic Fringe Yarns  
<https://lunaticfringeyarns.com/>

Vavstuga Weaving School  
<https://store.vavstuga.com/>

## Books & Magazines

Broudy, Eric. "The Book of Looms." A history of the handloom from ancient times to present. Brandeis University Press, 1979.

Little Looms Magazine  
<https://littlleooms.com/>

Print the Mobile Frame-Loom Booklet  
<https://www.fabric-of-life.org/>

## Websites/Blogs

Backstrap Weaving  
<https://backstrapweaving.wordpress.com/>

Mobile Frame Loom Instructional Video  
[vavstuga.com/ExplorerVideo](http://vavstuga.com/ExplorerVideo)

Mananaaet - tejiendo  
<https://mananaart.wordpress.com/>

Raktres-Loom Pattern Editor  
<https://www.raktres.net/>

Textile Trails  
<https://textiletrails.com.au/>

Traditions in Cloth  
[www.traditionsincloth.com](http://www.traditionsincloth.com)







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