



# Easy to Read weaving handbook Part 2



### Partners



ΧΑΡΟΚΟΠΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ  
HAROKOPIO UNIVERSITY



## Easy to read weaving hand book Part 2

This handbook will help you learn weaving.

The information you will find in this handbook comes from the tradition of five different countries in Europe.

Tradition is what people used to do in the old times.

In this handbook you can find information about:

- What weaving is.
- Which tools and materials you need to weave.
- How to make thread from fleece.
- How to dye threads naturally.
- How the loom works.
- How to learn weaving
- How to learn different weaving techniques.

This handbook comes in 2 volumes:

- Easy to read weaving hand book Part 1
- Easy to read weaving hand book Part 2

The Five countries that participated in writing this handbook are Greece, Romania, Albania, Portugal and Spain.

## **Easy to read weaving hand book Part 2:**

- Chapter 8 – Learn to weave a rag rug
- Chapter 9 – Learn to weave a kilim rug
- Chapter 10 – Learn to weave fine cloth
- Chapter 11 – Troubleshooting

## Weaving a rag rug



## Chapter Content:

1. Things I need to know at weaving a rag rug
2. Cut fabric and turn it into weft
3. Winding the shuttle
4. Weaving the header
5. Plain weave
6. Plain weave: join wft of same colour
7. Plain weave: change colour in a rag rug
8. Removing the rug from the loom
9. Simple fringe knot on the warp ends of a rag rug
10. Cutting strips for shag weave
11. Shag weave rug

## Things I need to know about weaving a Rag rug

Weaving a rag rug is one of the most popular types of weaving.

It is called a **rag** rug because you use rags to make it.

With 1000 grams of fabric strips, I can weave a rug sized around 100cm x 75cm.



**Warp:** A 10/6 hemp cotton yarn is suitable for a durable rug.

**Reed:** 8 or less (that is 7 or 6) dents per 2.5 cm.

For a thick warp I will use a sparse reed.

For a thin warp, I will use a dense reed.

**Weft:** Strips of fabric 1 to 3 cm wide, depending on the fabric I will use.

When I weave a rag rug with a thin weft, the weft will cover the warp threads.

When I weave a rag rug with a thick weft, I will see the warp threads in the rag rug.

## 2. Cut fabric and turn it into weft



I will need:

- a pair of scissors



- old cotton fabrics



The hem is the edge of the fabric. The hem is different from the rest of the fabric.

The hem is sewn with a seam or it has fringes.

I have to cut off the hems on the fabric.



## Chapter 8: Learn to weave a rag rug



I cut the hem off.



I fold the fabric in two.

I place it on my working table.



When I use lightweight fabric,  
I cut wide strips.

The strips must be 3cm.

## Chapter 8: Learn to weave a rag rug



I use the scissors to cut strips.



When I use heavyweight fabrics,  
I cut narrow strips.

The strip must be 2cm.

## A different way to cut the fabric into one long strip:



I place the fabric on the working table unfolded.



I cut the fabric in a 3cm wide strip.

I stop cutting around 3cm before the edge of the fabric.



I turn the fabric.

The cut strip is in front of me.

I cut the fabric again in a 3cm wide strip.

## Chapter 8: Learn to weave a rag rug



3cm before the edge of the fabric, I stop cutting.

I turn the fabric again so I can continue to cut.

I cut the fabric until it turns into one long strip.

### 3. Winding the shuttle

I will need:

- a stick shuttle
- a long strip of fabric for weft



My left ← hand holds the shuttle.

My right → hand holds the weft.



I place the weft on the stick.

My left ← thumb holds the weft on the shuttle.



With my right → hand I circle the weft around the pointy part of the shuttle.  
I can also make a slipknot to secure the weft on the shuttle before I begin to wind it.



I pull the weft so it is tightened.



I wind the weft around the shuttle.

This is the easiest way to wind a shuttle.

Wind it around 20 to 25 times

### A different way to wind the shuttle is:



Holding the weft, I make figure 8 shapes at the one side of the shuttle.

This way of winding can hold more weft in the shuttle.



I keep on wrapping until the one side is full.



I wind the other side of the shuttle in the same way.

## Chapter 8: Learn to weave a rag rug



I cut the strip and the shuttle is ready.



## 4. Weaving the header



I will need:

- a long strip of fabric for weft



The header is the weft that is woven at the beginning and at the end of each rug.

The header is an easy way to check for threading errors and fix them before the weaving begins.

The colour of the header must be different from the colour of the weft.



When I tie the warps to the cloth roller, there are gaps between the warp threads.

Weaving the header will fill the gaps.



I walk treadle 1 to open the shed.

My right foot is walking the treadle.

## Chapter 8: Learn to weave a rag rug



I hold the weft in my right hand.

I place the weft through the shed.



I pull the weft from the centre and move it towards the reed.

The weft has an arrow shape.



I walk treadle 2.

My left foot is walking the left treadle.

## Chapter 8: Learn to weave a rag rug



The header is caught between the warps.



I pull the beater towards myself and gently touch the weft.

I slide it.

I do not beat it.



I pass the weft into the shed again.

I leave a loose edge on my weft.

## Chapter 8: Learn to weave a rag rug



I keep on weaving the header.

I pull the beater gently in each row.



Weave a few rows.

I will need 8 to 10 rows of header.

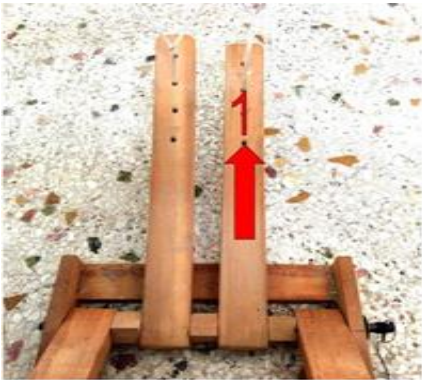
I check that there are no gaps left between the header and the reed.

## 5. Plain weave



I will need:

- a stick shuttle



I walk treadle1 with my right foot.



My toes touch the rope.

My heel lies on the treadle.

I press with my foot and the treadle moves downwards.

I push down with my foot and the treadle moves downwards.



The shed is open.

I pass the shuttle with the weft through the shed.



My left hand grabs the centre of the beater and pushes it towards the shafts.

My right hand holds the shuttle and places it in the shed.



I pass the shuttle inside the shed.

Push the beater gently towards the shafts. It makes the shed wider.

I put the shuttle close to the reed. It is easier to slide the shuttle there.



When the shuttle sticks out of the shed, I swap hands.

My right hand holds the beater.

## Chapter 8: Learn to weave a rag rug

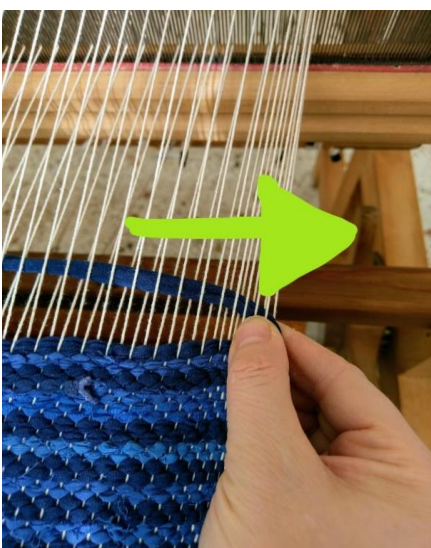


My left hand pulls the weft gently from the shed until it touches the selvage.



I try not to pull the weft tightly because it will ruin the selvage.

The weft is just touching the selvage.



My right hand holds the weft on the selvage and stretches the rug towards the arrow.

## Chapter 8: Learn to weave a rag rug



My left hand holds the weft from the centre of the warps.

I move the weft towards the beater creating an arrow shaped line.



I walk treadle 2 on my left foot.



The weft is caught between the warps.

Beat the beater.

Rag rugs need hard beating.

This makes the rug dense and tight.



## Chapter 8: Learn to weave a rag rug



When I finish a row, I let loose two rounds of weft from the shuttle.



I start all over again.

My left hand holds the shuttle.

My right hand pushes the beater.

My left foot walks the treadle 2.

## 6. Plain weave: Join weft of same colour



I will need:

- a stick shuttle



- weft



My weft is not long enough to finish off a row.

I need to join in new weft.

In this picture the weft is on the right side of the loom.



I cut the edge of the weft in half.



I walk treadle 1.

## Chapter 8: Learn to weave a rag rug



The shed is open.

I pass the weft inside the shed.



I make an arrow shaped line with my weft.

I grab the edge of the weft and slide it towards the rug.



I check the selvage.

The weft should just touch the warp on the side.



Using my fingers, I tuck down the edge of my weft towards the rug.



I cut the edge of the new weft in half.



I walk the same treadle.

I pass the new shuttle through the shed.

I pass the shuttle from the right side because my foot is walking the right treadle.

I finish weaving the row.



The new weft passes over the old one.

I stop pulling the weft when it crosses over the old one.

I count 3 to 4 warp threads where both wefts are together.



I grab the edge of the new weft.

I slide it on top of the old weft.

The edges of the wefts stick out a bit.

I tuck them down with my fingers.



My right hand holds the joint of the wefts.

My left hand grabs the new weft and slides it towards the reed.

I make an arrow shape with the new weft.



I walk treadle 2 on my left foot.

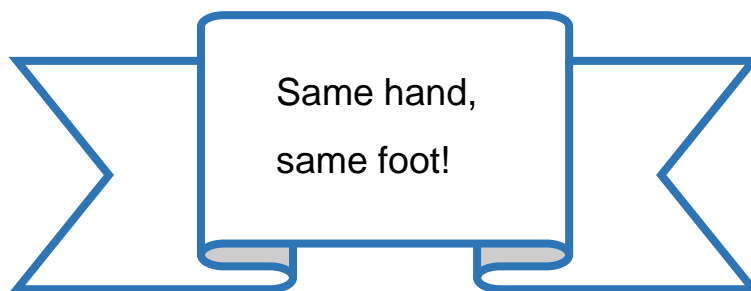


I beat the beater.



I continue weaving the rug.

It is helpful to remember:



When I walk the left treadle, my left hand passes the weft.  
When I walk the right treadle, my right hand passes the weft.

I walk the treadle only when the row is finished.

## 7. Plain weave: Change colour in a rag rug



I will need:

- 2 different coloured strips of fabric
- scissors
- a stick shuttle



The rug is brown.

I want to change colour.

The red weft is the new weft.

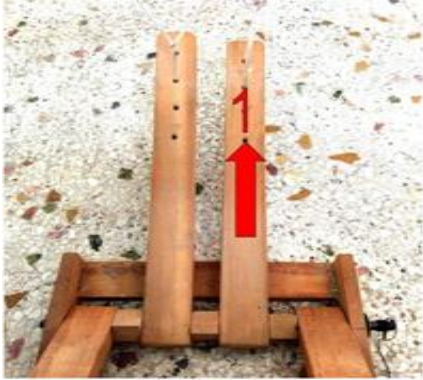
I will join the new red weft to the brown weft



The row is finished.

The weft is on the right side of the rug.

## Chapter 8: Learn to weave a rag rug



I walk treadle 1.



I cut the strip of the weft I am weaving.

The scissors must be far away from the selvage!



I hold the edge of the weft.

I cut it in half lengthwise for 4 cm.





Place the weft inside the shed.  
I pay attention to the selvage.  
The weft just touches the selvage.  
I leave the edge of the weft sticking out of the warps.



I pass the red weft inside the shed.  
The shuttle passes from the same side I placed the weft.



Pull the weft until a piece (6-8 cm long) is left outside the shed.  
I cut the red weft on the edge in half for 4 cm lengthwise.  
I cut the weft away from the selvage!

## Chapter 8: Learn to weave a rag rug



I use one hand to hold the weft that is left outside the shed.

Using my other hand, I hold the weft and place it close to the reed.

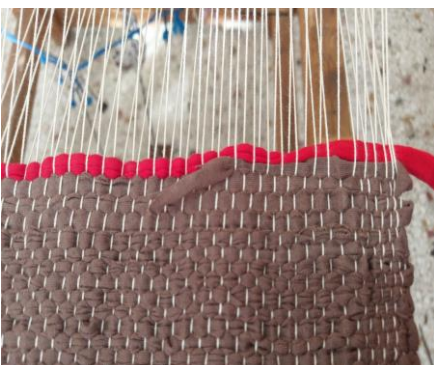
I make an arrow shaped line with my weft.



I walk treadle 2 on my left foot.



Beat the beater.



The two wefts are joined.

## Chapter 8: Learn to weave a rag rug



Place the rest of the red weft inside the shed.

Leave the edge of the weft sticking out of the warps.



I unwind some weft from the shuttle.



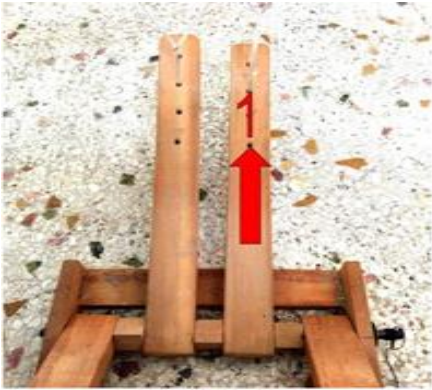
I continue walking the left treadle.

I pass the shuttle through the shed.



I place the weft correctly on the selvage.

## Chapter 8: Learn to weave a rag rug



I walk treadle 1.



I beat the beater, the joint is ready.

I will cut the strands that stick out of the rug later.

I will cut them after I finish the fringe of the rug.

## 8. Removing the rug from the loom

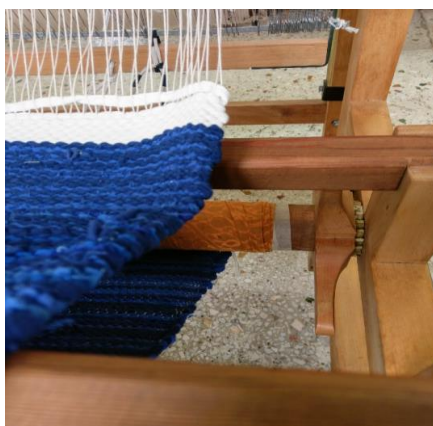


I will need:

- A woven rag rug with header
- A pair of scissors



I remember to weave a header at the end of the rug.



I need to advance the rug to the cloth roll.

I wind the rug to the cloth roll.

I stop winding when the header reaches the front beam.

I let the warps loose.



I put pressure using my body on the rug so that the warp threads remain loose between the beam and the beater.

I need around 40 cm of warp to be loose between the reed and the front beam.

I need to cut between the header and the reed.



I use the front beam as a guide to cut the warp straight.

I grab a tuft of warp threads.

I cut between my hand and the beam.

I place the scissors 5cm after the header.  
The warp threads fall in front of the reed when they are cut.



I need to secure every tuft I cut.

I tie the warps into a bow.



I can also tie a simple double knot.

I tie the knot loosely.

Tying the warp threads will minimise any accidental unthreading!



I continue cutting the warps.

I tie every tuft.

When I cut the last tuft of warp threads, the rug falls in my lap.



I set loose the front cloth roller.  
I unwind the rug.  
I roll the rug. I do not fold it.

Rolling keeps the loose ends in place until I tie the knots.



I place the rolled rug between the beater and the shafts.

The tied warp ends of the rug lie on the beater.



I untie the warp ends from the cloth roller.



The rug is removed from the loom.

The light green weft is the header.

I keep the header in place until I begin to tie the fringe.

## 9. Simple fringe knot on the warp ends of a rag rug

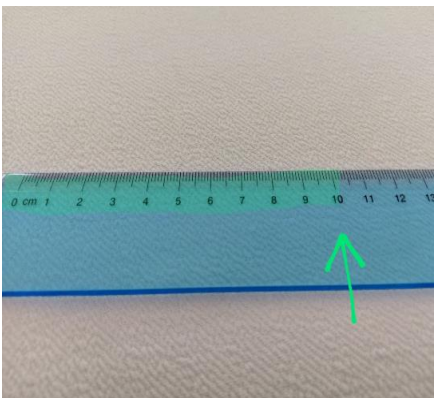


I will need:

- a rag rug with loose warp ends

When I remove the rug from the loom, the warp ends are loose.

I need to tie down the warp threads so the rug will not peel off.



The warp ends should be at least 10 cm long.



I place the rag rug gently on my working table.

I make gentle moves because the warps are loose.

The rug can easily peel off.





I remove part of the header so I can reach the first row of the rug.

I want to reach the warps I will tie down.

I leave the rest of the header in place.



To make the fringe knot,

I will need 6 warp threads.

(If the warp thread is thick,

I can use 4 threads).



I place my index finger where I want the knot to be.



I circle the warp ends around my index finger.



I try to put the edge through the loop.



The warp threads are inside the loop.



My left hand holds the loop.

It stays steady where I want the knot to be.

My right hand pulls the warp ends so I can tighten the knot.



The first knot is ready.



Here is another way to make the knot.

I twist the warps with my index finger and thumb.

The threads look like one big cord.



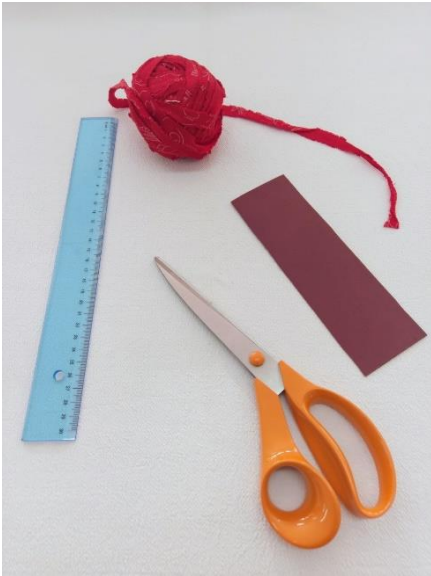
It is easier then to pull them through the loop.



I place my right hand where I want the knot to be.

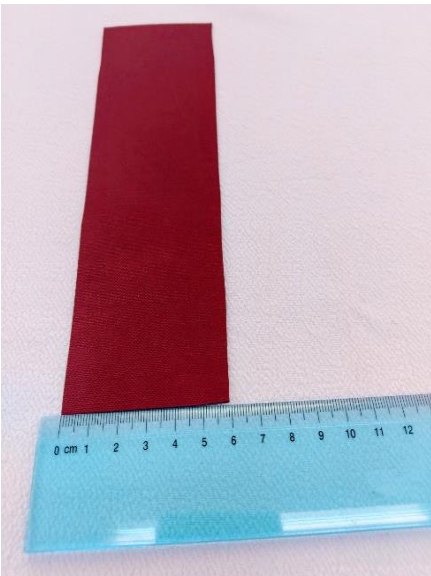
My left hand pulls the warp ends to tighten the knot.

## 10. Cutting strips for the shag weave



I will need:

- Scissors
- Strip of fabric
- Ruler or measure tape
- Cardboard



I will measure the cardboard, depending how long I want the shags to be.

In this example, I will cut a cardboard 6 cm wide.

The length doesn't matter.

This will make 12 cm long strips.



I push the edge of the strip between the cardboard and my finger.

I start winding the strip around the cardboard.



I keep on winding.

I can count the winding times.

I count 15 turns.



I use the scissors to cut the strips.



The strips are ready.

I throw away the first knot if it is shorter than the rest of the knots.

## 11. Shag weave rug



I will need:

- several thick strips of fabric cut around 10cm long
- strips of fabric to use as weft



The strips must be thicker than the weft.

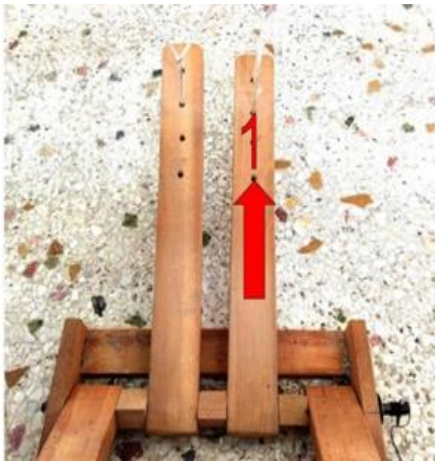


I always start a rug by weaving the header.

## Chapter 8: Learn to weave a rag rug



I weave the weft to start the rug.



I walk treadle 1.



I weave four rows of plain weave.



When I place the strips, I do not walk the treadles.

I leave the selvage with no strips.

This will make a neater edge.





I pick up the first couple of warps after the selvage.



I place a thick strip under the two warps.



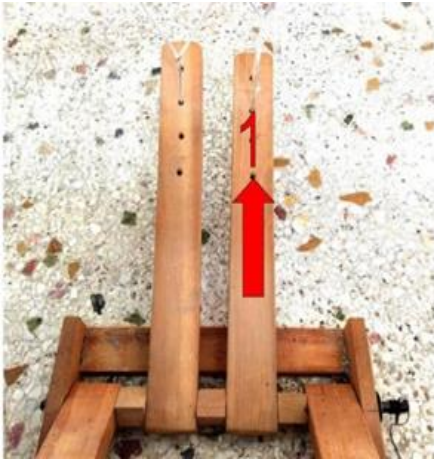
I pick up the second warp from the previous couple and the next warp that follows in line.

I place the strip under these two warps.



I place more strips until I reach the selvage.

I leave the selvage without strips.



I walk treadle 1.

The weft is on the right side of the rug.



I weave two rows of plain weave.



I continue placing the strips in the same way as above.

The selvage always remains without strips.



When I want to finish the shaggy rug, I weave four rows of plain weave.

I remember to finish off with the header.

## Chapter Content:

1. Preparing materials before weaving
2. Preparing the loom before weaving
3. Starting to weave with 1 colour
4. Weaving with 2 colours to make horizontal stripes
5. Weaving with 2 colours to make dots
6. Weaving with 2 colours to make vertical lines (pick and pick weave)
7. Variation on pick and pick weave with 2 colours - cross design
8. Variation on pick and pick weave with 2 colours - checkers design
9. Variation on pick and pick weave with 3 colours - fence design
10. Shag weaving
11. Making a butterfly
12. Shoumak weaving
13. Pibione weaving
14. Kilim slit weave technique
15. Inlay weaving technique

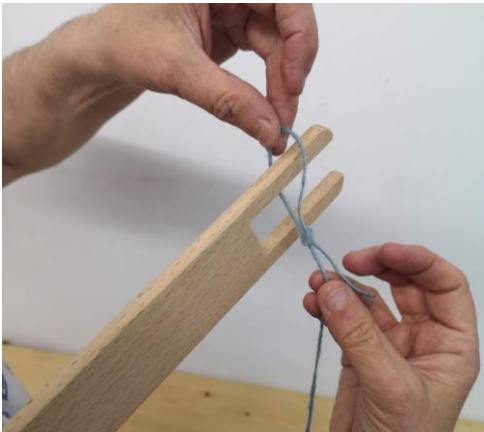
## 1. Preparing materials before weaving



For weaving a Kilim rug I use wool.

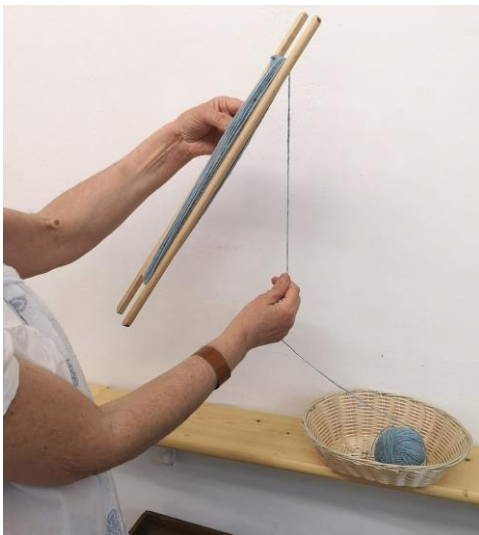
I choose colours that look good together.

I wind my shuttles with every colour.



I make a loop on the wool.

I pass the loop on one prong of the shuttle.



I wind the wool around the shuttle.



I wind each shuttle with a different colour.

I am now ready to weave.

## 2. the loom before weaving



### Warp:

I will use a cotton twine for my warp.

The size of this thread is 10/6.

It is a very strong thread.

It is ideal for kilim weaving.



### Reed:

I will use a no. 7 reed.

It means it has 7 dents per inch (2,5cm).

If my warp and wool is thicker,  
I can also use a no.6 reed.

If the wool is thinner, I can use a no.8 reed.



### Shed:

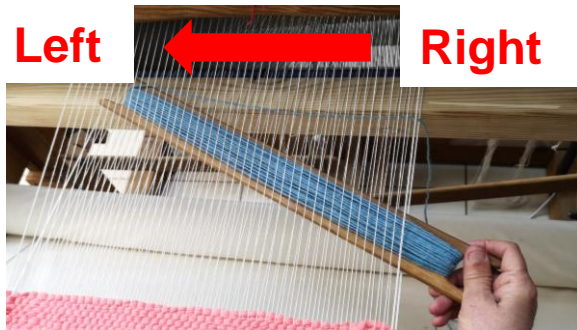
To start weaving I must open the shed.



When I start weaving,  
I want the 1st warp thread to go down.

When I open the 1st shed,  
the 1st warp thread is always down.

### 3. Starting to weave with 1 colour

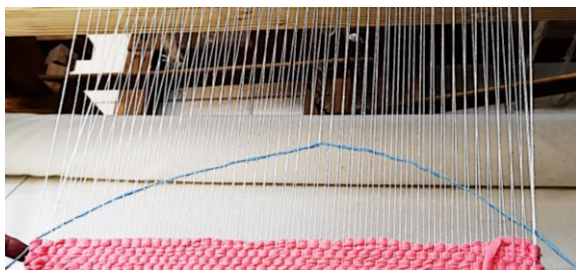


I open the 1st shed.

I pass my shuttle through the shed.

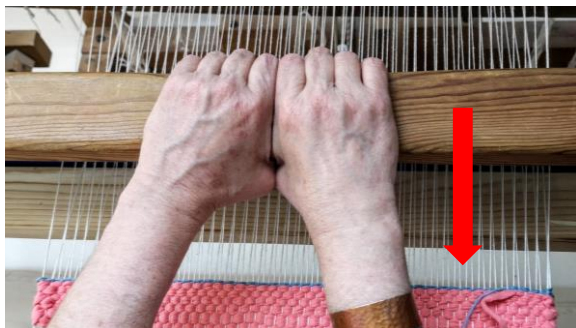
I start at the right side of the warp.

I end at the left side of the warp.



I create a small bubble (curve) with my thread.

I beat the beater.



I change shed. I open the 2nd shed.

I beat the beater.

I beat the beater with both hands.

I have woven 1 row.

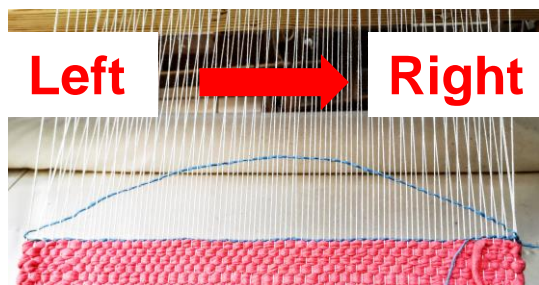


On the right side of the warp,  
I weave in the loose end of the thread.

I pass it under the 1st row of weaving  
This is called anchoring.  
It keeps my thread secure.

I use it every time I use a new thread.

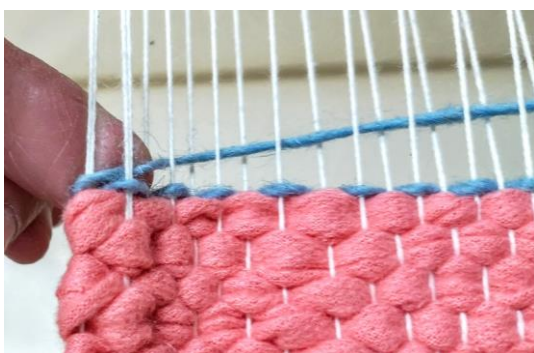
I can anchor the thread on both sides  
of the warp.



After I have anchored my thread,  
I continue to weave.

I pass my shuttle from left to right.

I always create a bubble with my thread.



I always fix the weft thread on the ends.

I want the warp ends to be straight.

The warp ends of the weaving are called  
selvages.

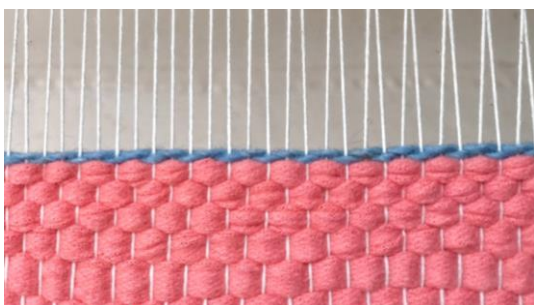
I try to keep my selvages straight and even.



I change shed.

I beat the beater.

I beat the beater with both hands.



I have woven 2 rows.

Rows are also called passes.

Here I have woven 2 passes.



I continue weaving the same way:

- I weave 1 line.
- I beat the beater
- I change the shed
- I beat the beater

I continue weaving this sequence.



When I finish with one colour,

I cut the end of the thread.

The thread end must be 5 cm long.



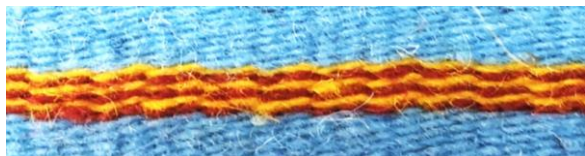
I anchor my thread end.

I beat the beater.

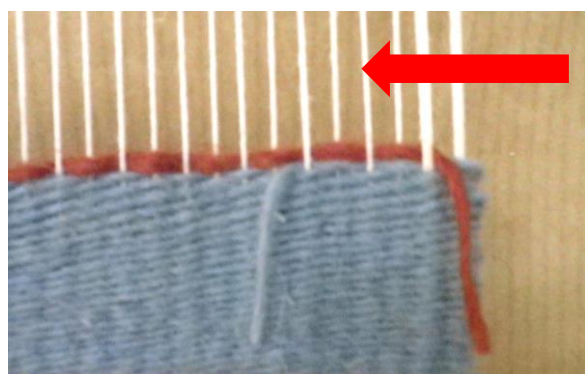
I am ready to add a new colour thread.



## 4. Weaving with 2 colours to make horizontal stripes



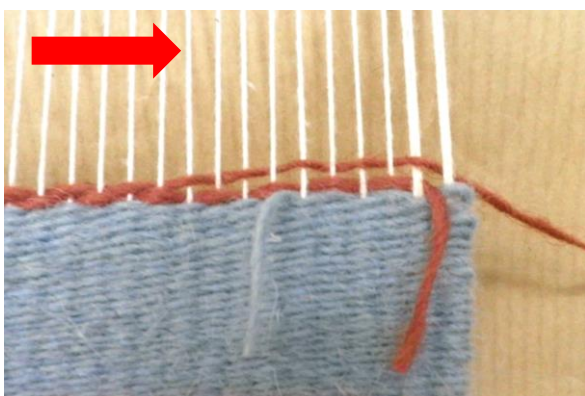
I will use brown and yellow threads to make stripes.



I first weave a line with the brown thread.

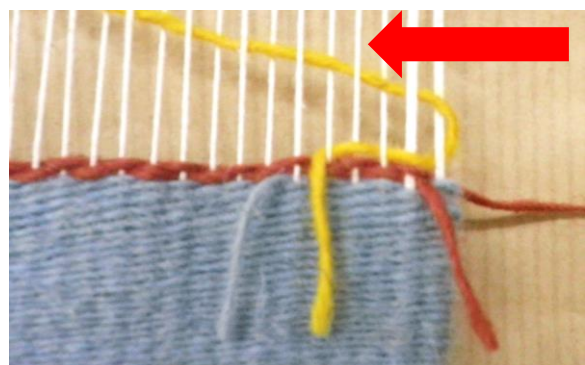
I pass the thread from right side to left.

I will leave the edge of my thread to hang.



I change the shed and anchor the end.

I weave 1 more line with the brown thread.

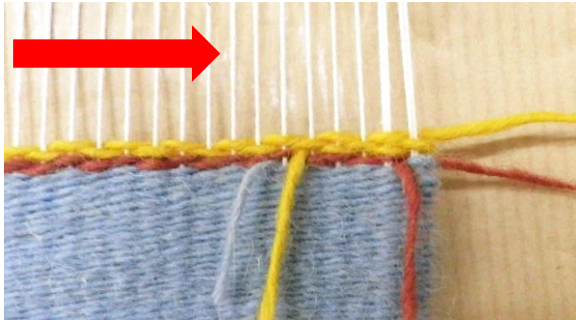


I will now use the yellow thread.

I weave 1 row with the yellow thread.

I pass the thread from the right to the left and anchor its end.

I weave 1 more line with the yellow thread.

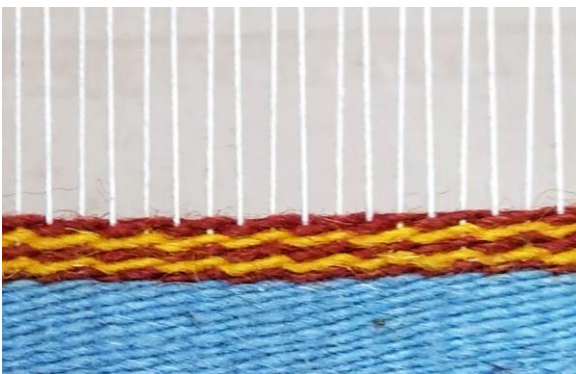


I weave one more row of yellow.

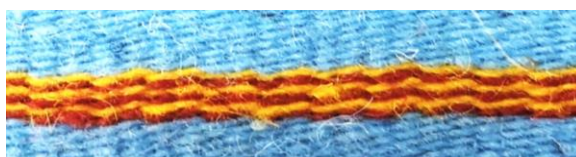
So far I have:  
2 rows of brown and  
2 rows of yellow



I carry on weaving in sequence  
2 rows (passes) of each colour.



As I progress I can see the stripes.  
When I am happy with the weaving,  
I cut and anchor the threads.

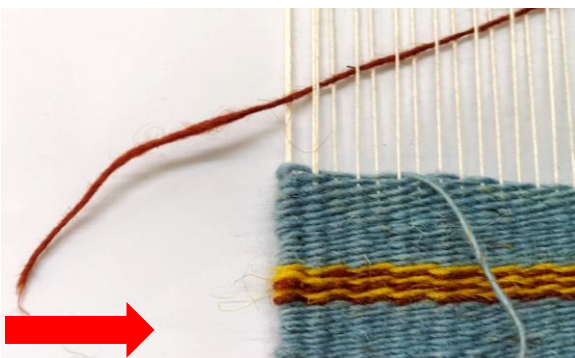


I continue weaving the background colour.

## 5. Weaving with 2 colours to make dots.



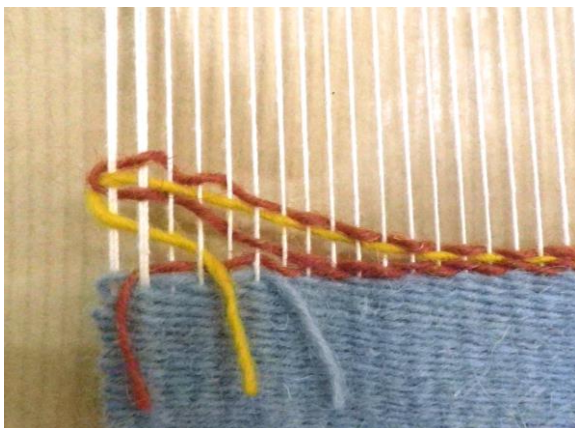
I will use brown and yellow threads to make dots.



I start on the side of the anchored thread.

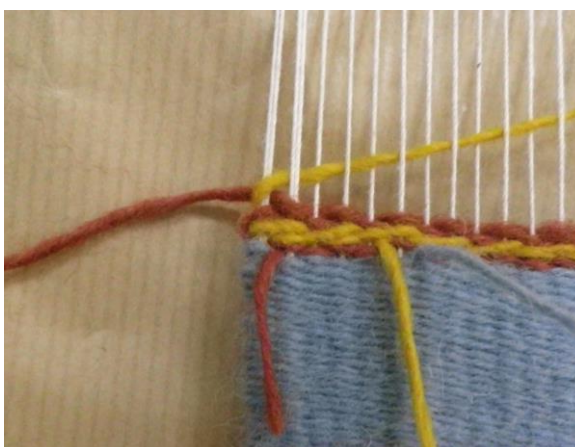
I weave the brown thread from the left.

I leave the brown thread end loose.



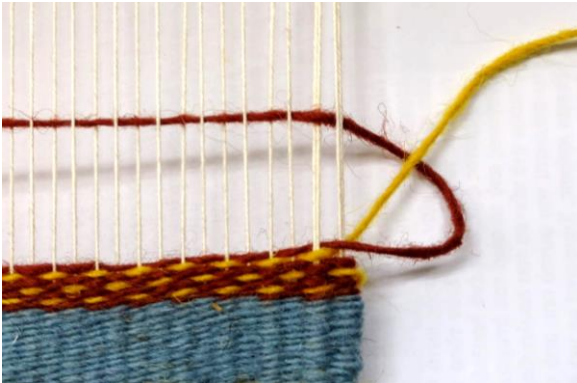
I weave 2 rows of brown thread  
and I weave a row of yellow thread.

I anchor the yellow thread and continue to weave.



I weave 2 more passes of brown thread  
and

I weave 1 more pass of yellow thread.



While I weave the 2 rows of brown and the brown thread meets the yellow at the selvage.

I pass the brown thread around the yellow. So the yellow thread goes through the loop created by the brown weft.



To get dots I weave the sequence below:

2 lines of brown thread  
1 line of yellow thread

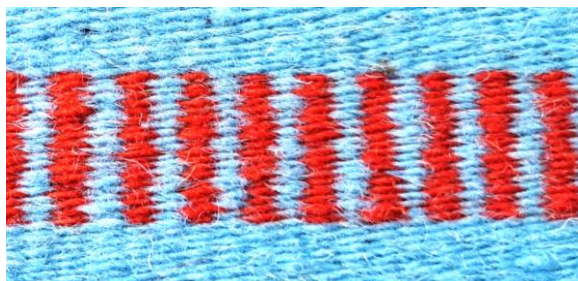
And I keep repeating the same sequence.



When I am happy with the weaving, I cut and anchor the threads.

I weave some more background colour.

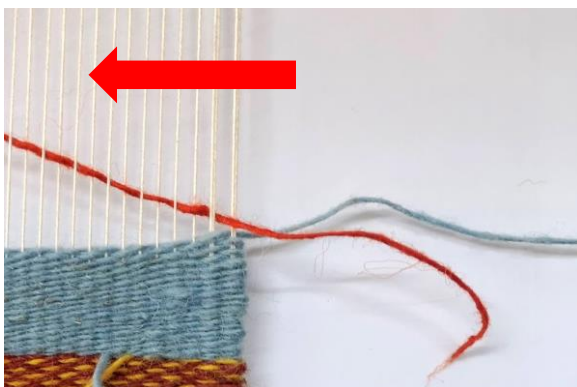
## 6. Weaving with 2 colours to make vertical lines (pick and pick weave).



I will use blue and red thread to make vertical stripes.

Blue is also my background colour.

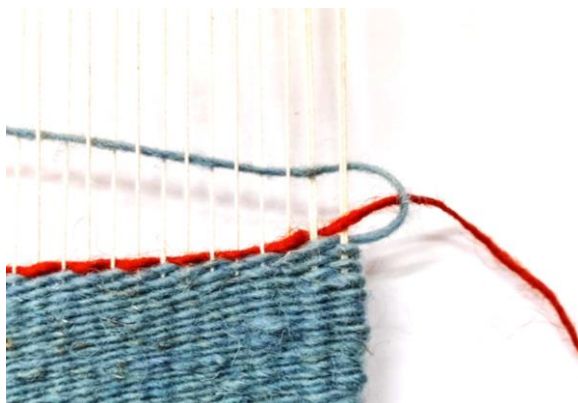
This is also called pick and pick weave.



I weave 1 row with the red thread.

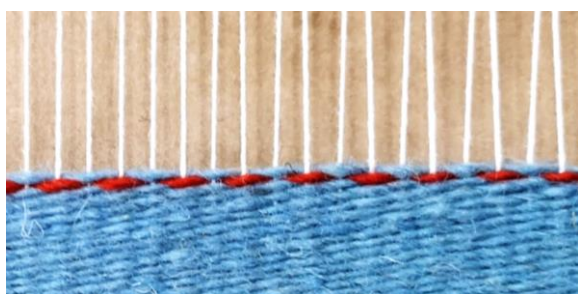
I start from the side the blue thread ended.

I weave from right to left.



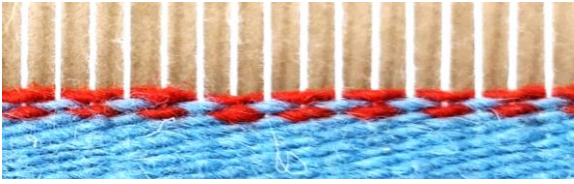
I weave 1 row with the blue thread.

The blue thread goes over the red thread.



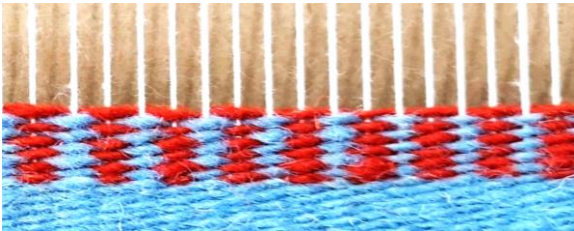
I have woven:

- 1 row of red thread
- 1 row of blue thread



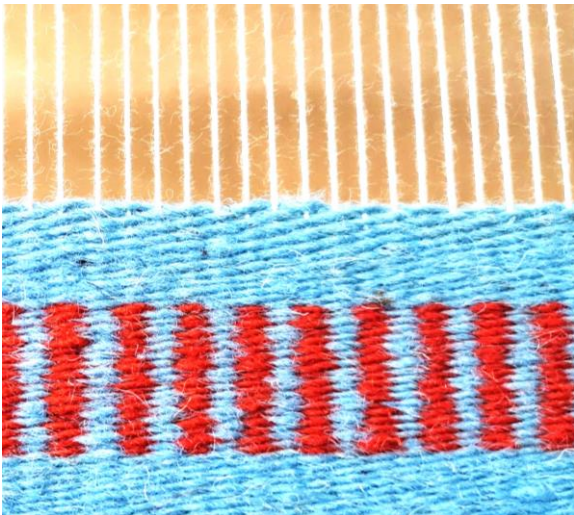
The pick and pick weaving sequence is:

- 1 line of red thread
- 1 line of blue thread



I repeat this sequence.

The more I weave the higher the lines get.



When I am happy with the size of the lines:

- I cut and anchor my thread
- Weave more background colour.

## 7. Variation A on pick and pick weave with 2 colours-cross design.



For this pattern I will use yellow and green threads

### Step 1:

Repeat 5 times:

- 1 row of yellow thread
- 1 row of green thread

### Step 2:

- Weave 6 rows of yellow thread

### Step 3:

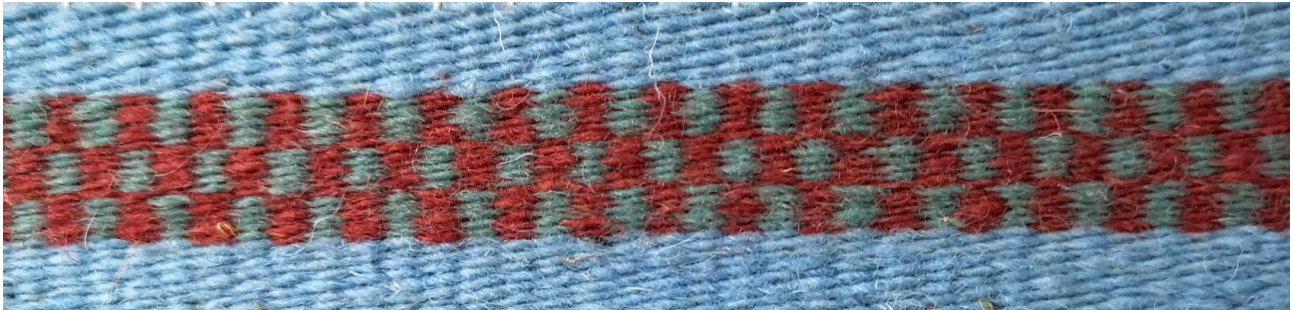
Repeat 5 times:

- 1 row of green thread
- 1 row of yellow thread

### Step 4:

- I cut and anchor yellow and green threads
- Weave more blue thread for background colour.

## 8. Variations B on pick and pick weave with 2 colours – checkers design



For this pattern I will use brown and green threads

### Step 1:

Repeat 5 times:

- 1 row brown thread
- 1 row green thread

### Step 2:

- 1 row of green thread

### Step 3:

Repeat 5 times:

- 1 row green thread
- 1 row brown thread

Repeat steps 1 to 3 times as many times as I wish.

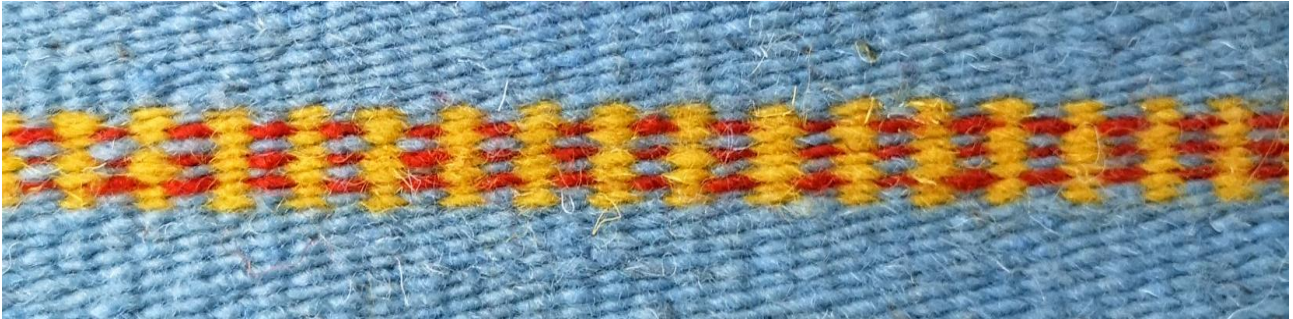
### Step 4:

When I am happy with the design

- I cut and anchor brown and green threads
- Weave more blue thread for background colour.



## 9. Variation on pick and pick weave with 3 colours.



This pattern is made with 2 colours and the background colour.

Here I use:

- orange thread
- yellow thread
- blue thread same as thread used for background

### Step 1:

I weave in sequence:

- 1 line yellow thread
- 1 line blue thread
- 1 line yellow thread
- 1 line orange thread

### Step 2:

Repeat above sequence as many times as you like.

For the above pattern we have repeated the sequence 3 times.

### Step 3:

- Cut and anchor yellow and orange threads.
- Weave more blue thread for background colour.

## 10. Shag weaving



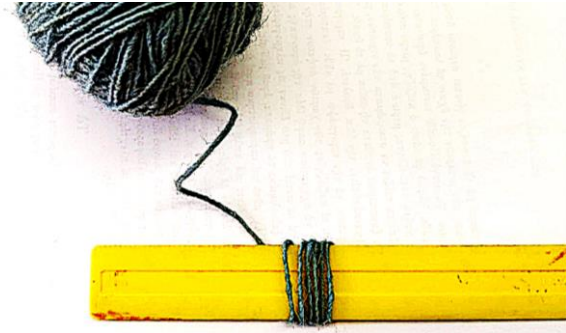
For shag weaving I need:

- Wool thread on shuttle for background.



- Wool thread to make strands
- A ruler

## How to make wool thread strands



### Step 1:

I wind the thread around the ruler.

If I don't have a ruler,  
I can use a piece of card.  
It can be about 2,5cm wide.



### Step 2:

I cut the thread in the middle of the ruler.



### Step 3:

The strand of threads are ready.



### Step 4:

I need many strands for shag weaving.

## Shag weaving

- When weaving a shag rug I always weave with an open shed.
- I do not place wool strands on the 2 selvage warps on both sides of the rug.
- I can use a single, double, triple or quadruple strands of wool depending on the thickness of the wool.
- Traditionally shag rugs are woven using wool for both warp and weft.



I open the shed.

I start on the side that the last row has ended.

I pass the first strand under the 2<sup>nd</sup> and 3<sup>rd</sup> open warp.



I pass the next strand under the 3<sup>rd</sup> and 4<sup>th</sup> open warp .

I pull the strands down.

I add more strands the same way.



I continue until I get to the end of the row.

I keep the last 2 warp threads on the selvage empty.

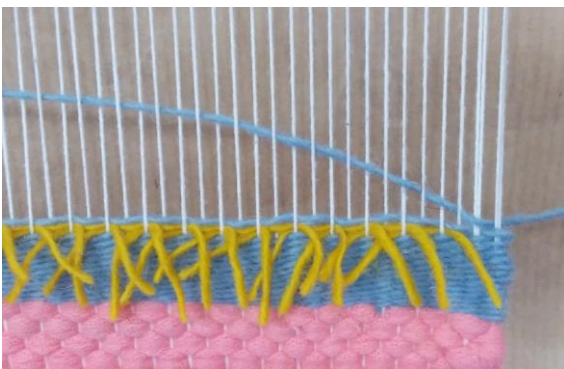


When my row of strands is ready

I weave on the same shed 1 row of background colour.



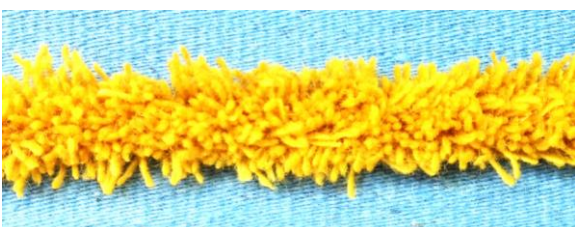
I beat the beater.



I change the shed and weave one more row of background colour.

I beat the beater hard.

These 2 rows secure the strands in place.



I carry on weaving as many rows as I wish.

I can weave a whole shag rag in this technique or use it in parts in a decorative way.

## 11. Making a butterfly

A butterfly of thread helps keep the thread in order.  
It will not tangle when I use it.

I can make a butterfly with a single thread or more strands together.



Here I use the thread doubled.  
I use 2 strands of thread.

I secure the thread with my thumb.

The loose end can be 15- 20 cm.



I start winding the thread.

I use my thumb and my little finger.

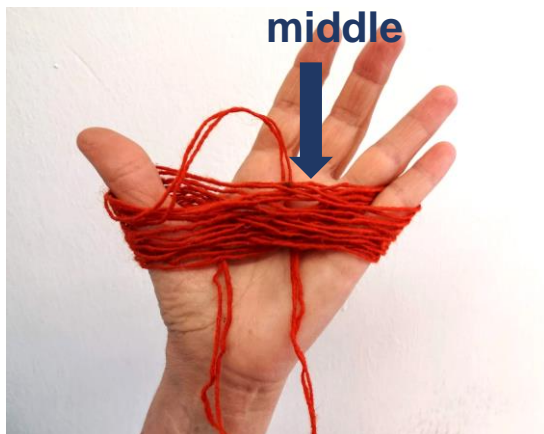
I use a figure-of-eight movement.

I make a loop around my thumb.



I wind the thread over my little finger.

I make a loop around my little finger.



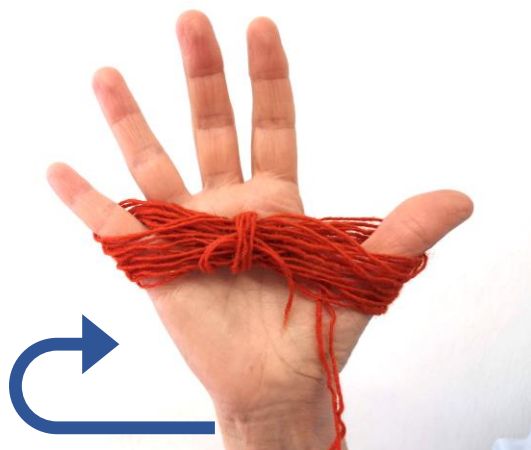
I wind enough thread around my fingers.

I pull the end of the thread behind the threads in the middle .



I wind the end around the middle.

I wind it 3- 4 times and secure it.



I pull the end of the thread through the loop created in the middle.



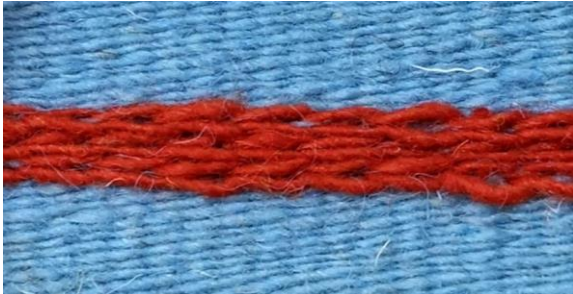
I remove the butterfly from my fingers.

The butterfly is ready to use.

I pull the loose end of the thread to weave.

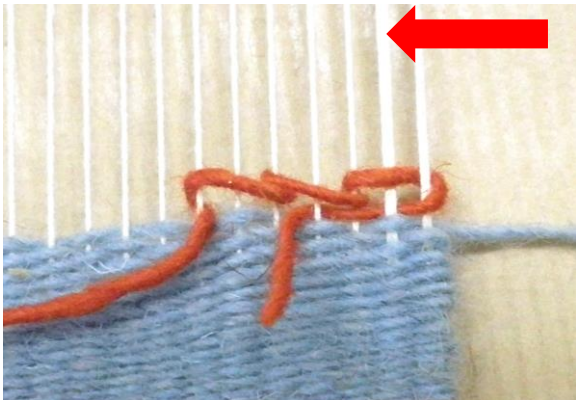
**Pull this end to start weaving**

## 12. Soumak weaving



An other very decorative technique is Soumak weaving.

It can be woven with a single or a double thread.

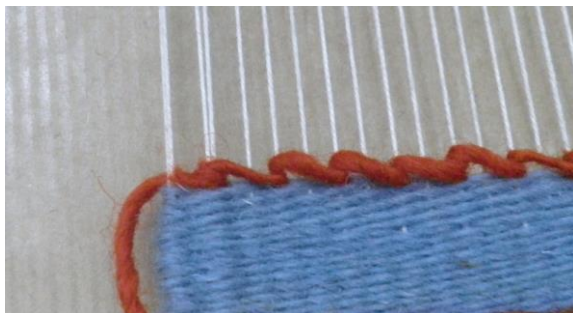


I weave soumak on a closed shed.

I anchor my thread on the 1st couple of warp threads.

I pass the weft over the next 2 warps.

I pass the warp under the 2nd warp.  
This creates a loop.



I continue by doing the same way until the end of the row.

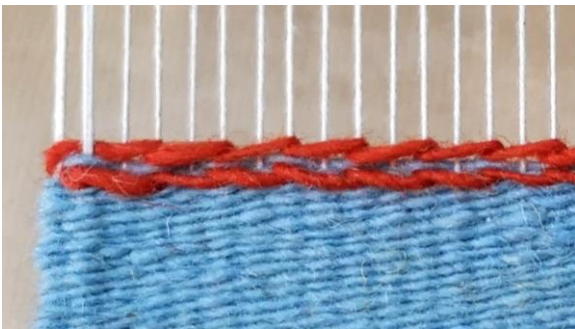




When I finish a line of soumak weaving,  
I weave 2 more rows.

The woven lines keep the soumak in place.

I can then weave 1 more row of soumak  
Towards the opposite direction.  
Left to right.

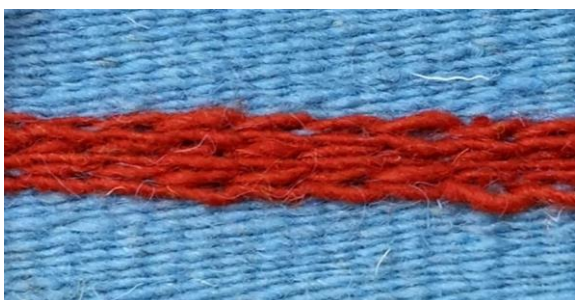


The 2 lines of soumak create a braid.



I carry on weaving to create more lines.

When I finish, I cut and anchor my thread.



I then weave with my background thread.

### 13. Pibione weaving



With pibione weaving, I can create loops.

I need a wooden rod to create loops with.

The thicker the rod, the bigger the loops.

I weave pibione with an open shed.

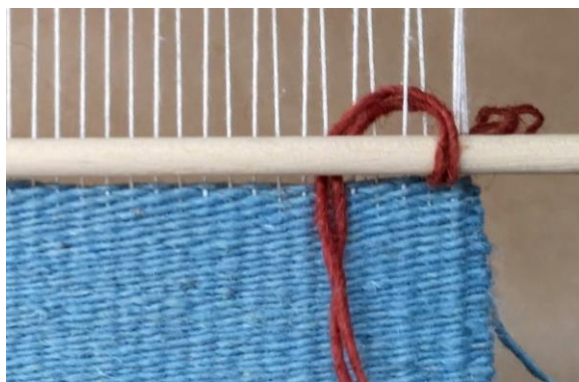


I need to open my first shed to start.

I secure my weft on the first warp thread.

I am using a double thread as weft.

I place the rod above my weaving.  
I hold the rod in place.



I take the weft and do the following:

- I pass it over the rod
- I pass it under the next warp thread
- I pass it under the rod

I have created one loop.



I repeat the steps above to make more loops.



When I finish my 1st line of loops:

- I weave 2 lines of background thread. (blue thread)
- I beat the beater.
- I anchor the start of the pibione thread. Here, brown thread.



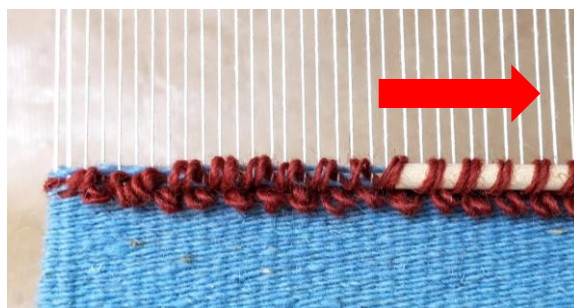
Now that the loops are secured, I remove the rod.



I continue to weave 1 more line of pibione.

I change the shed and do the same thing. I take the weft and:

- I pass it over the rod
- I pass it under the next warp thread
- I pass it under the rod



After every row of pibione weaving, I weave 2 lines with background thread.

I then remove the rod.

I carry on weaving the same way. In the end I cut and anchor my thread.

### 13. Kilim slit weave technique

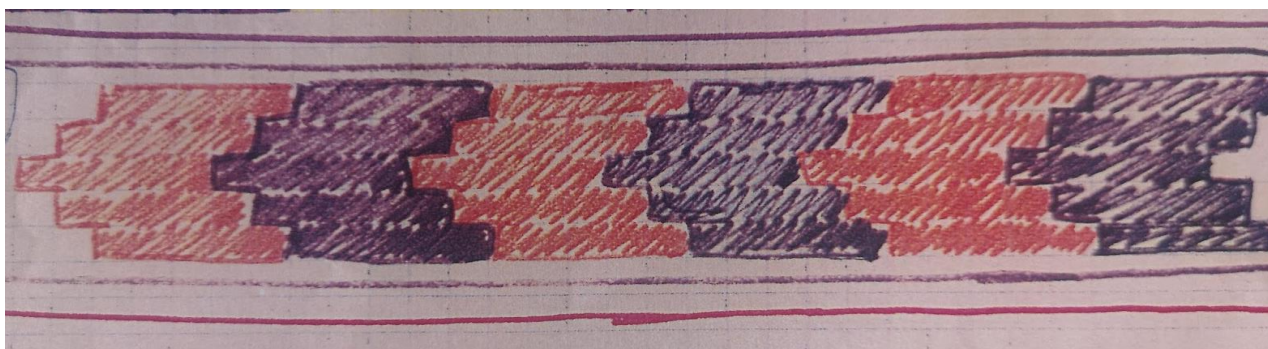
I use the kilim slit weaving to create shapes in rugs.

#### The basic rules for the kilim slit weaving and dovetail weaving are:

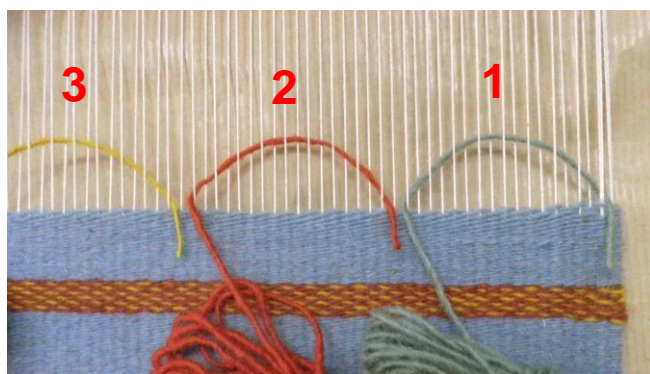
1. The kilim rug needs to be woven row after row, one butterfly after the other.
2. All butterflies must have weft of the same thickness.
3. I place each colour on the warp threads according to the pattern, but every colour must have an even number of warp threads.
4. I always start on the right hand side of the shed with the first warp thread down.
5. I always start with a butterfly of the selvage colour. I start with the butterfly that hangs on the inner side of that colour (and not the edge). The rest of the butterflies will follow in sequence.
6. When I need to expand towards both directions to create the pattern,
  1. I expanding towards the left.
  2. I expand towards the right.



In slit weaving I usually follow a pattern like the one below.



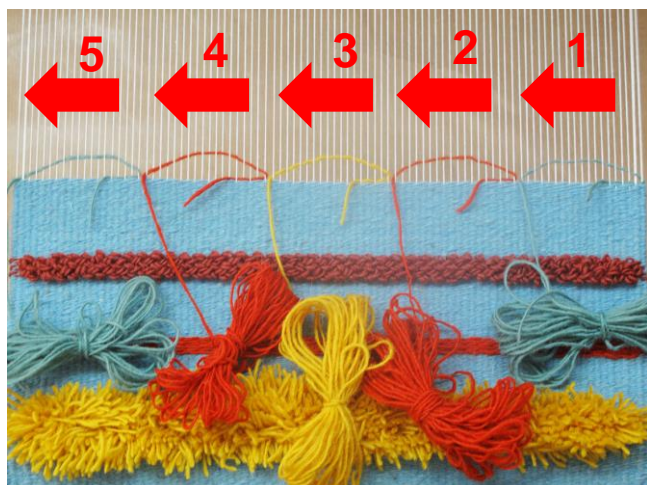
I will weave this pattern with steps.  
I make 6 butterflies of thread:  
2 \*green  
3 \*orange  
1\* yellow



I divide my warp threads in 5 parts.

I position and anchor my threads.

I put the threads in the same shed.  
I start with the butterfly that hangs on the inner side of the selvage colour.  
In this case the green no1.

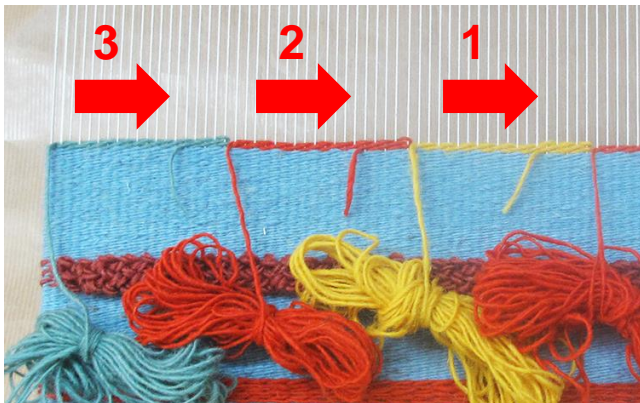


I start to weave.

I start at the right hand side.

I weave until the next colour starts.

I weave the colours in sequence.



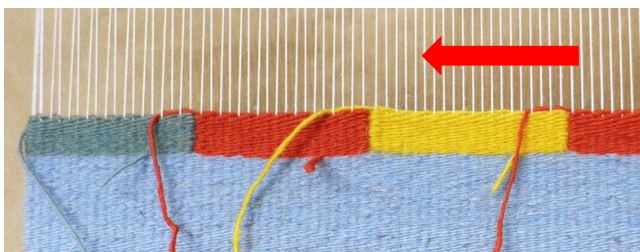
After I weave the whole line:

- I change shed
- I pull the beater

I now continue weaving from the left.

I weave all colours at the same time.

I want the blocks to be 2 cm high.



The blocks are now 2 cm high.

When the direction is Right to Left:  
I weave 4 more warps towards the left  
to make the step.

I do this on all colours.



I also add a new thread on the right.

I look at my pattern.  
I follow my pattern.



I weave the blocks for 2 cm.

When I make 3 steps, I go backwards.

I weave from left to right.

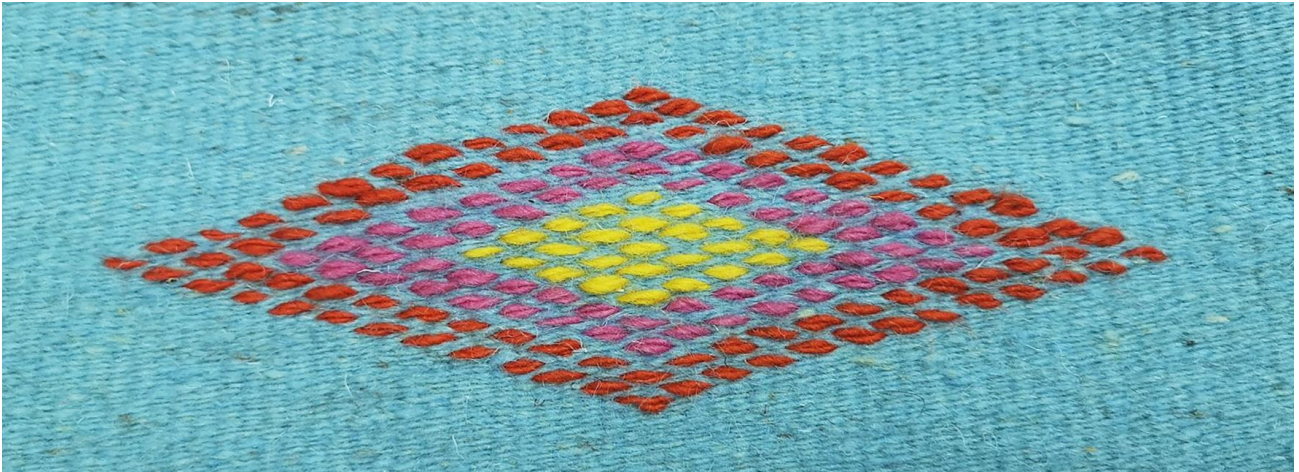


I weave 2 more steps backwards.

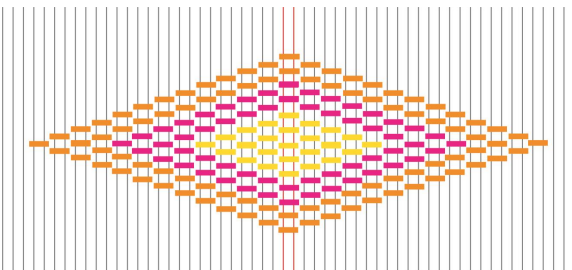
My pattern is finished.

I anchor and cut my threads.

## 15. Inlay weaving technique



For the inlay weaving technique I need:  
Wool in a shuttle for the background.



A pattern of a diamond shape



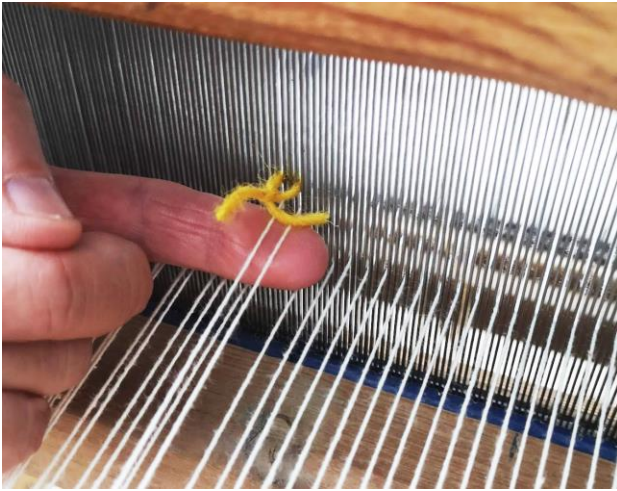
Butterflies of double thread.

For this pattern I need:

- 2 orange
- 2 pink
- 1 yellow

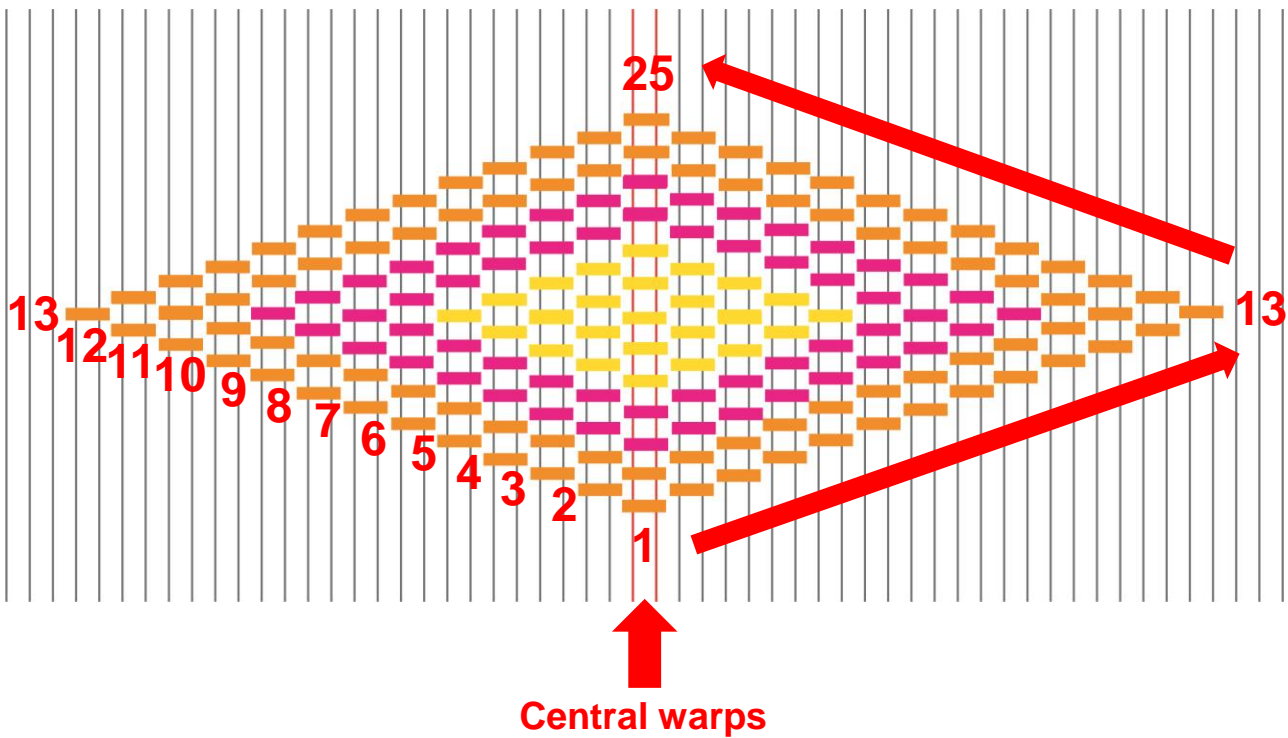


A mirror



I need to find the 2 central warps.

I use a thread to mark them on the reed.



This is the pattern I will follow.

I start weaving inlay from the bottom of the pattern row no.1.

This technique is woven on the wrong side of the weaving.

I weave one line after the other (1 to 25).

I weave inlay technique on a closed shed.





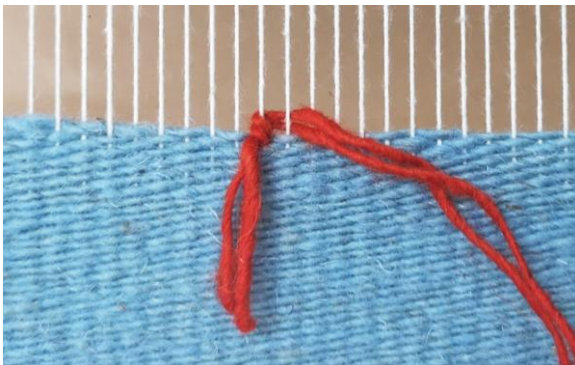
I find the central pair of the warp.

I use my finger to pass the thread under them.

The first thread I use is orange.



I anchor the thread on the left warp of the pair.



I pull down the anchored thread.

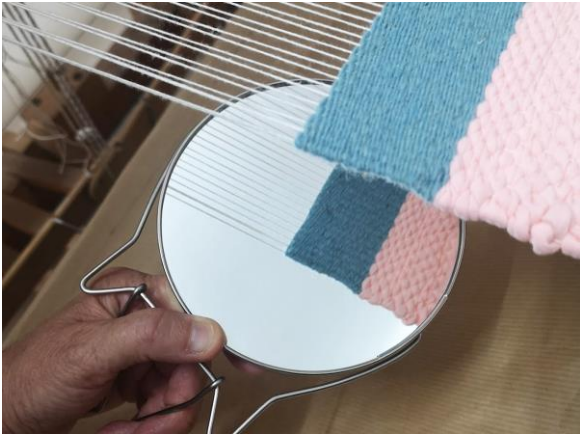
This is the first line of the inlay.



I weave 4 rows of background colour.

The inlay is woven back to front.

I see the back side while I weave.



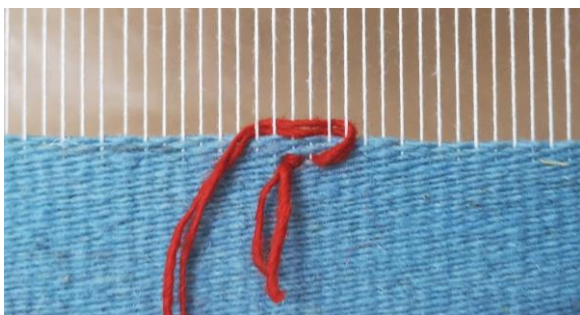
I use a mirror to see the back side of the weaving (right side of the cloth) .



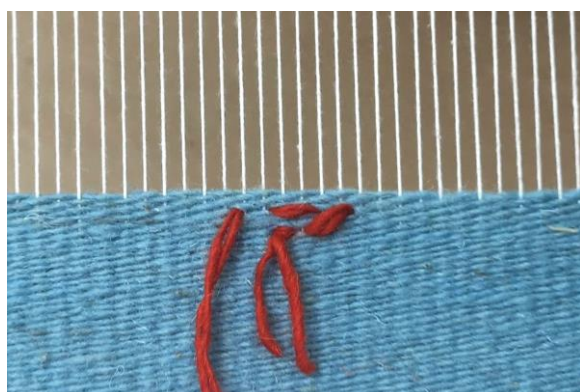
I follow my pattern and go to row 2.

I take the next 2 pairs of warps.

They are on the left and right of the central pair of warps.

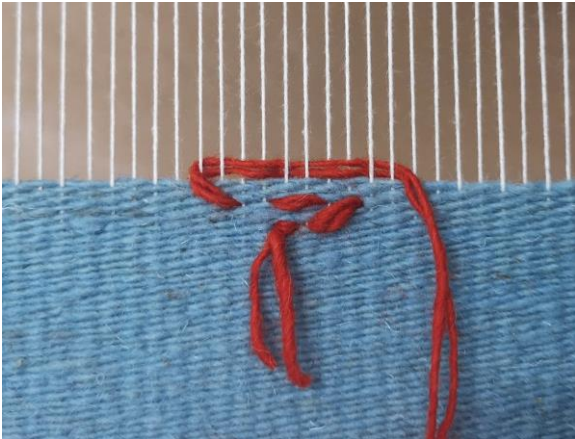


I pass my thread under the next 2 pairs.



I weave 4 rows of background colour.

Every line of inlay weaving is followed by 4 rows of background colour weaving.



I follow the pattern.

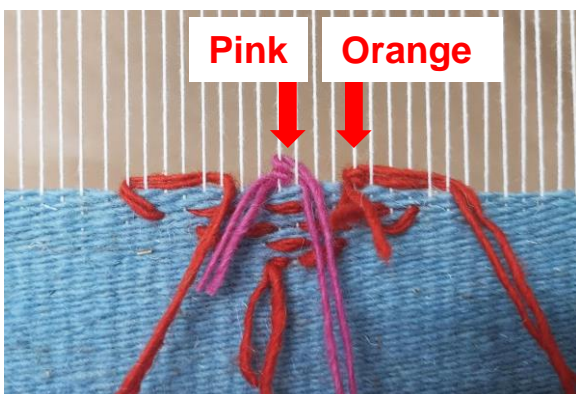
I weave the inlay of row 3.



I pass my finger through the warps.

This makes the inlay have a better relief.

I follow the pattern and continue weaving.



When I get to row 5 I add the pink thread.

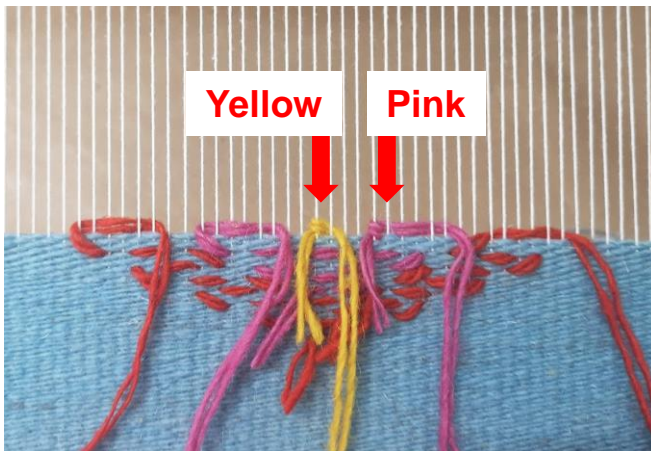
I also add a new orange butterfly.

This helps me to weave  
both sides of pattern simultaneously.



I follow the pattern.

I always weave 4 rows between inlay.



When I get to line 9:

I add an anchor the yellow thread

I add 1 more the pink thread.



I follow pattern and carry on weaving.



I use the mirror to see the back side of the weaving ( the right side of the cloth).

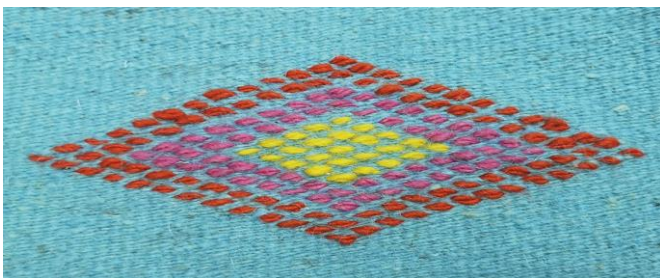
This helps me find possible mistakes.



When I finish the pattern,  
I cut and anchor my threads.



I weave more background colour.  
This is what the weaving looks like on  
the loom.



When I take it off the loom,  
I can see the front side of the pattern.

## Chapter Content:

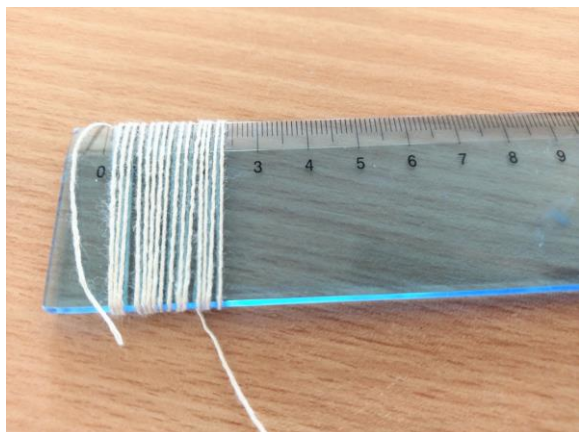
1. Things I need to know on weaving a cloth
2. Winding and placing the bobbin in the
3. Plain/ tabby weave using one colour
4. Joining weft of the same colour
5. Joining weft of a new colour
6. Weaving horizontal stripes with two rows of a different colour
7. Weaving pick and pick technique
8. Italian hemstich weaving technique
9. Cutting and removing the cloth from the loom
10. Tying off the warp ends
11. Simple warp tying techniques

Tidying up the loose thread ends to have a finished piece

Practice weaving a fine cloth

## 1. Things I need to know on weaving a fine cloth

To weave a cloth, I need to decide what the warp and the weft are made of. I choose the reed according to the weft and the warp.



### Warp:

I count the number of warp threads I want to weave using a ruler.

I wind the warp around the ruler until it reaches 2,5 cm.

When placing the thread,

I pay attention to even the distance between the warp threads on the ruler.

I spread the yarns according to how dense I want the warp to be.

- Placing more warp threads will create a denser cloth.
- Placing less warp threads a sparser one.
- In this chapter, the examples shown have 13 warp threads per inch.



### Reed:

Reeds are measured according to how many dents there are per 2,5 cm. 2,5 cm is the length of an inch.

In this chapter, the photos show a 13 dents per inch reed.

### Weft:

I choose the weft according to the warp.

The weft needs to be slightly thicker than the warp threads.

In our example, the weft is made of cotton.

## 2. Wind a bobbin



I will need:

- A bobbin and a ball of thread
- A bobbin winder
- A boat shuttle



I place my ball of thread in a container.





I place the thread inside the bobbin.



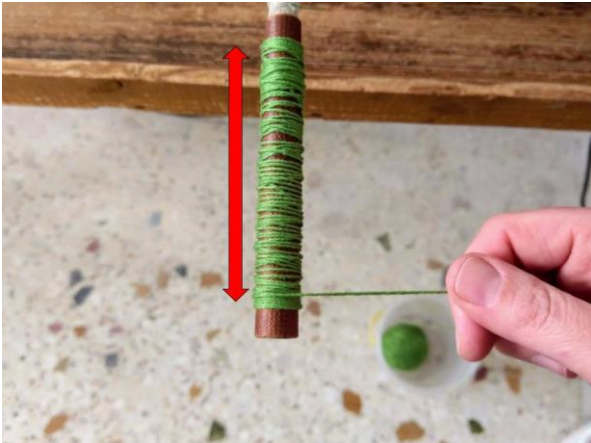
I place the bobbin at the winder.

The thread is between the winder and the bobbin.



I wrap the thread 3 times around the bobbin.

I hold the thread in my hand and start winding the winder.



I fill the bobbin leaving each side without thread.

I can check the edges from winded bobbin.



The bobbin is winded.

I remove it from the winder.

I need to cut the edge of the thread.



I place the bobbin on my working table.

I cut the thread close to the bobbin.

The bobbin is ready.

## Placing the bobbin in the shuttle:



I raise the spindle of the shuttle.

I place the bobbin in the spindle.



I place the winded bobbin in the shuttle.

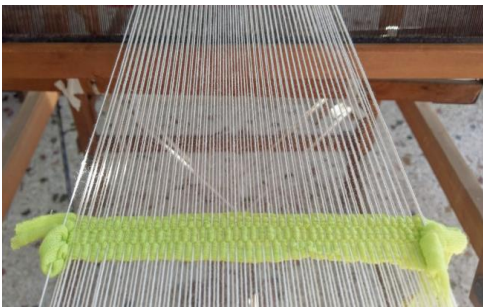
The edge of the weft will pass  
the opening of the shuttle.

### 3. How to weave plain weave



I will need:

- A boat shuttle with a winded bobbin.



I remember to weave the header.



I begin weaving from the right side of the warps.

I step on treadle 1.



I place my toes close to the rope.

My heel lies on the treadle.



I hold the shuttle in my right hand.

I place the shuttle inside the shed.



I push the shuttle to slide through the shed.

I keep the shuttle close to the reed.



Place the shuttle on my lap.

Leave the edge of the weft hanging on the right selvage.

I will place it inside the shed on the next row.



Step on treadle 2.



Hit the beater.



The weft is pressed on the header.



I place the edge of the weft inside the shed.

I tuck the weft inside

I pay attention to the selvage. The weft should just touch the selvage.

## Chapter 10: Learn to weave fine cloth

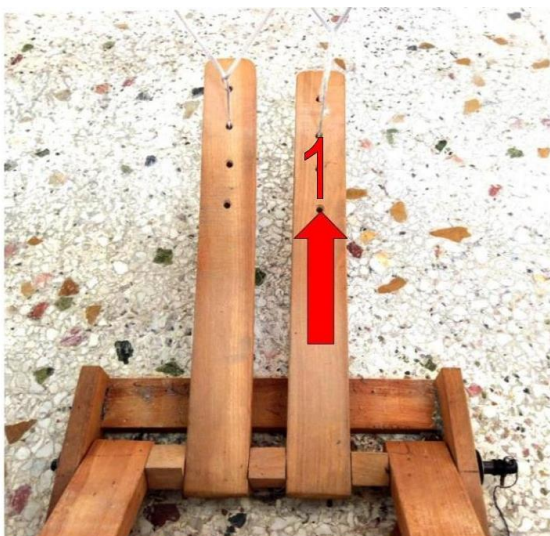


Hold the shuttle with my left hand.

Throw the shuttle inside the shed.



The weft and the edge of the thread are both in the shed.



Step on treadle 1.



Beat the beater.



I continue weaving the cloth.



## 4. Joining weft of same colour



I will need:

- A pair of scissors
- A boat shuttle with a winded bobbin.



The weft in the bobbin is over.

I need to join more weft.



The weft is on my left.

I step on treadle 2.



I tuck the end of the thread inside the shed.

I pay attention to the selvage.

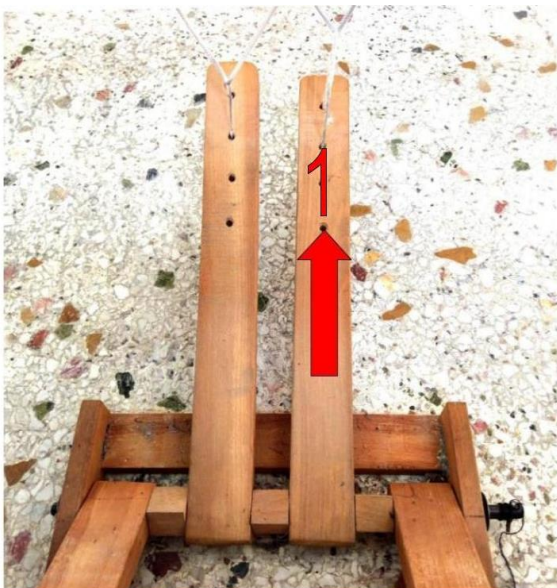
The weft only touches the selvage.



I throw the shuttle with my left hand.

The two wefts must join for 3 cm.

I leave the edge of the new weft stick outside the warps.



Step on treadle 1.

## Chapter 10: Learn to weave fine cloth



Beat the beater.



The old and the new weft are joined.

I can continue weaving the cloth.

## 5. Joining weft of a new colour



I will need:

- A pair of scissors
- A boat shuttle with a winded bobbin.



I cut the weft around 6 cm outside the warps.

I always join wefts on the side of the cloth, to make it look better.



Step on treadle 1.



I tuck the edge inside the warps.

I throw the shuttle through the same direction as the previous weft.

My right hand is holding the shuttle.



I leave the edge of the new warp outside the shed.



Step on treadle 2 and beat the beater.



I tuck the blue weft inside the shed.



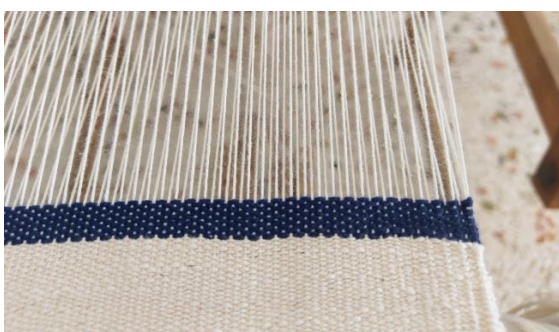
With my left hand I throw the shuttle.



Step on treadle 1 and hit the beater.



The two wefts are joined.



I continue weaving with my new coloured weft.

## 6. Weave horizontal stripes with two rows of a different colour

I will need:



- 2 boat shuttles
- 2 bobbins with weft



The cloth is on the right side of the warps.



Step on treadle 1.



I throw the shuttle with the blue weft from the right side of the cloth.



The edge of the blue weft is left outside the warps.



Step on treadle 2.



I place the blue weft under the white one.

Hold the white weft.

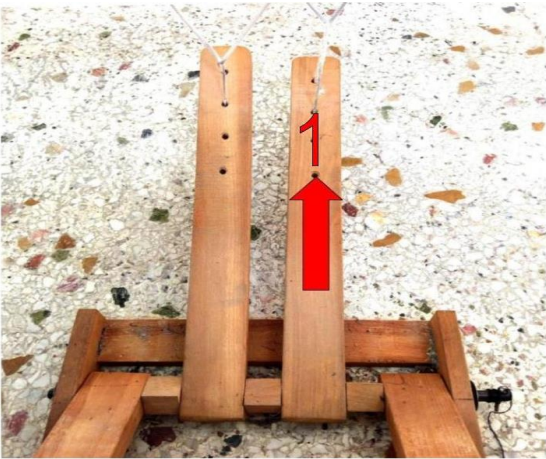
Pull the blue weft so it reaches the selvage.





I throw the shuttle with the blue weft from the left side.

Change the treadle and hit the beater.



Step on treadle 1.



The two wefts are on the same side.

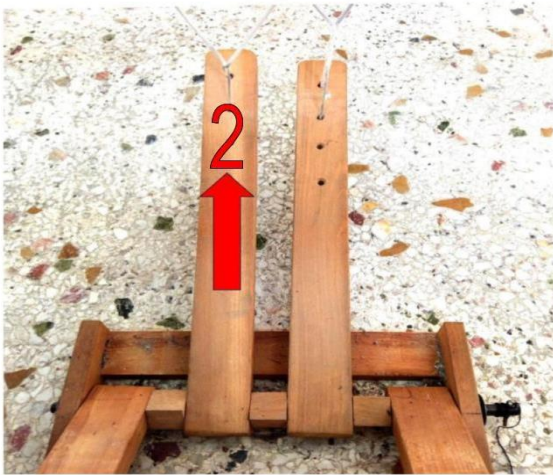
I need to throw the white weft.



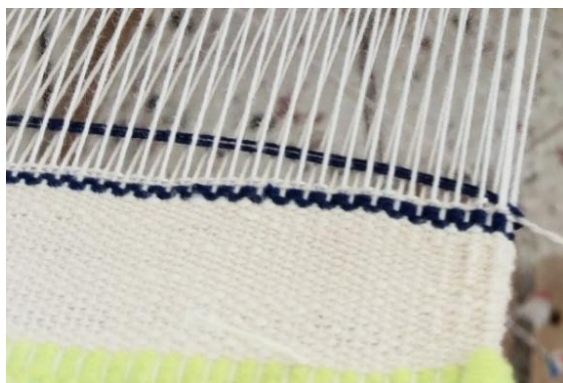
I place the white weft inside the shed.



Hold the blue weft until the white weft touches the selvage.



Step on treadle 2 and beat the beater.



I weave two rows with the white weft.  
Then I weave two rows with blue weft.



I weave the number of stripes I want.  
When I finish the stripes,  
I cut the blue weft outside the warp threads.  
I place the edge inside the shed.

## Chapter 10: Learn to weave fine cloth

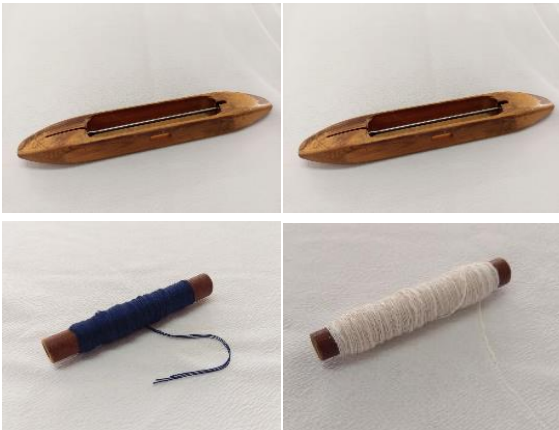


Throw the white weft inside the shed.

Continue weaving the cloth.

## 7. Weaving pick and pick technique

I will need:



- 2 boat shuttles

- 2 bobbins with weft

“Same hand, same foot”  
doesn’t work on weaving  
pick and pick!

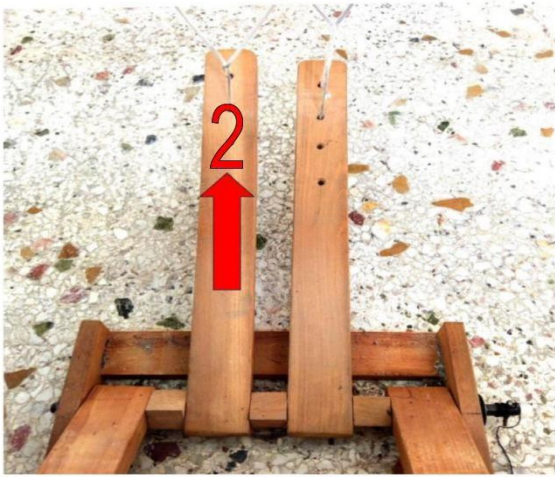


Step on treadle 1.



The weft is on the right side.

I throw the brown weft inside the shed.  
I leave the edge of the weft stick out of the shed.



Step on treadle 2 and beat the beater.



I pass the white weft inside the shed.

The last warp threads of the selvage are up.

I pass the brown weft through the loop from the upper side.



Step on treadle 1.

Hit the beater.



I tuck the edge of the brown weft inside the shed



My foot is on treadle 1.

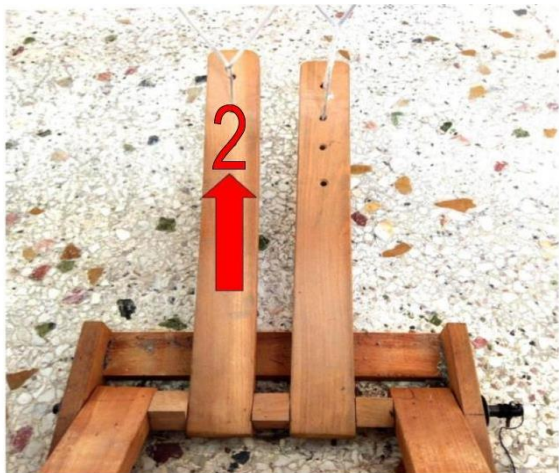
I throw the shuttle with the brown weft.

I hold the shuttle with my left hand.



Check the selvage.

The brown weft is gently wrapped around the white weft.



Step on treadle 2.



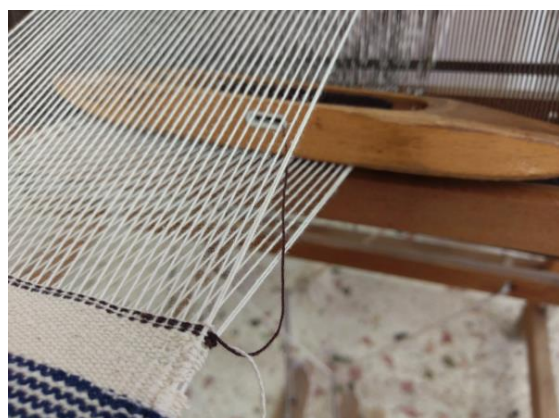
The pattern begins to show.

I pass the white weft.



Step on treadle 1.

Hit the beater.



Both wefts are on the right side.

I throw the shuttle with the brown weft.

The white weft is interlacing with the brown weft.

# Chapter 10: Learn to weave fine cloth



I keep on weaving pick to pick.



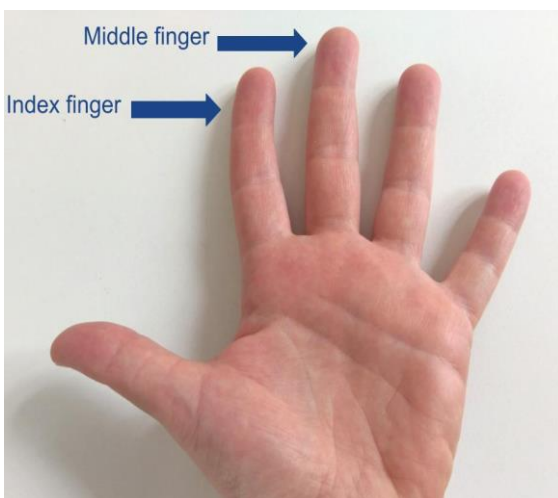
## 8. Italian Hemstitching

To weave Italian hemstich I will need a thread that is thicker than the weft.



I will need:

- A boat shuttle with
- A bobbin with weft
- A piece of cotton thread



To weave Italian hemstich I use :

- my index finger and
- my middle finger

## Weaving Italian hemstich without stepping on the treadle:



The weft is on my right hand.



Step on treadle 1.

I open the shed as if to weave a plain weave.



I place the end of the green thread on the side of the cloth.

I place half my index finger inside the shed and secure the thread.



Step on treadle 2.



I place the thread inside the shed.

I place it for as many warp threads as in the previous row.

I leave the rest of the thread to stick out of the warp threads.



I place my feet off the treadles.

I pick the warp threads after the green thread.

Pick 4 warp threads with my right hand.



Pick 4 warp threads with my left index finger.

Keep them separated.



I place my middle finger under the warp threads on the right.

My middle finger grabs the threads.



My middle finger moves under the ones on top and then over them.

The warp threads create an X.



I pass the end of the thread through the opening of the warp threads.



I pull the green thread.

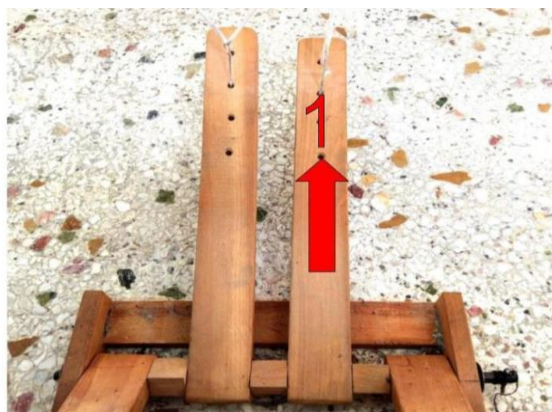
The first hemstich is ready.



Follow the same steps with the rest of the warp threads.



I slide the reed to push the thread towards the cloth.



Step on treadle 1.

I open the shed as if to weave a plain weave.



I place the thread inside the shed at the end of the row.

Hit the beater.

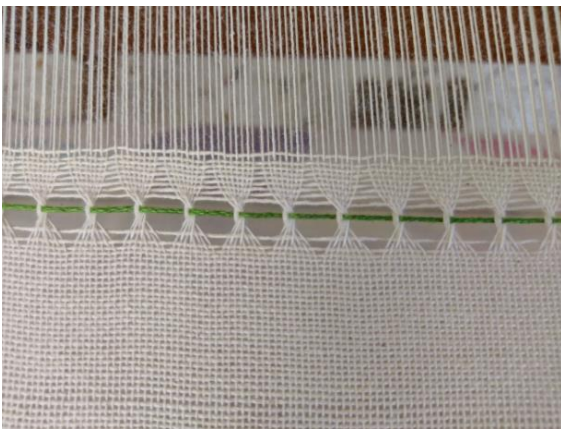


Step on treadle 2.



Place the green thread inside the shed.

Stick the thread out of the shed where the hemstich begins.



Weave plain weave.

The hemstich is ready.

## 9. Cut and remove the cloth from the loom



I will need:

- A pair of scissors



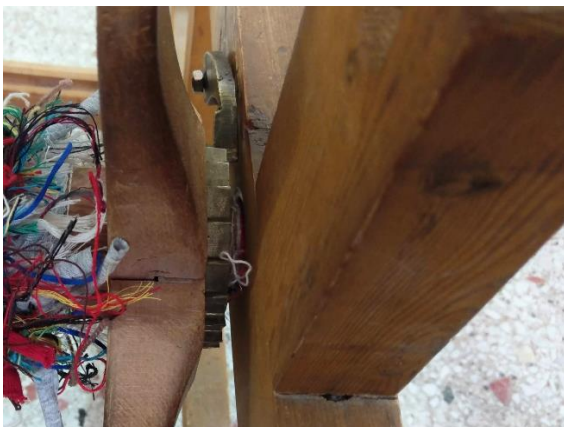
I always remember to weave the header.

I weave the header with a weft of different colour.



The warps are tensed.

I need to loosen the warp threads to remove the cloth.



I release the tension from the cloth roller.



I push my body to the front beam.

The cloth hangs between the front beam and the beater.



I grab a tuft of warp threads.

I cut close to the header.

When I want the cloth to have a fringe ending, I keep at least 13 to 15 cm warp length to tie a simple fringe knot.



To keep the warp threads secured, I tie a bow knot (or a slip knot) after each tuft I cut.



When I finish cutting all threads should be secured in knots in front of the beater.





The cloth is now on my lap.

It is better to roll it instead of folding it.



I roll the cloth.



I can cut the woven cloths as they are unfolded from the cloth roller.

I place the cloth on the beater.



I cut in the middle of the header.

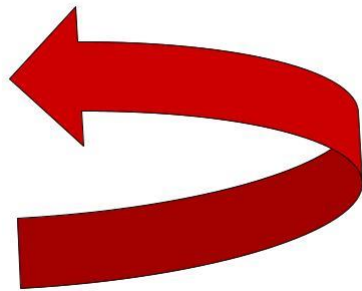
This only works for cloths that need no fringe.

## 10. Tie the warp ends (simple fringe)

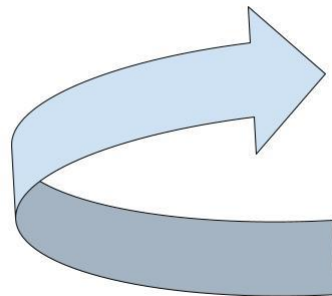
I will need: weaving cloth with loose thread ends (around 10cm long)

To twist the tassels I turn the threads clockwise and anticlockwise.

**Anticlockwise**



**Clockwise**



I grab some loose warp threads (around 10 –15 threads) with my left hand.

I twist the threads anticlockwise to create one thick thread.



With my right hand, I grab the edge of the warp.

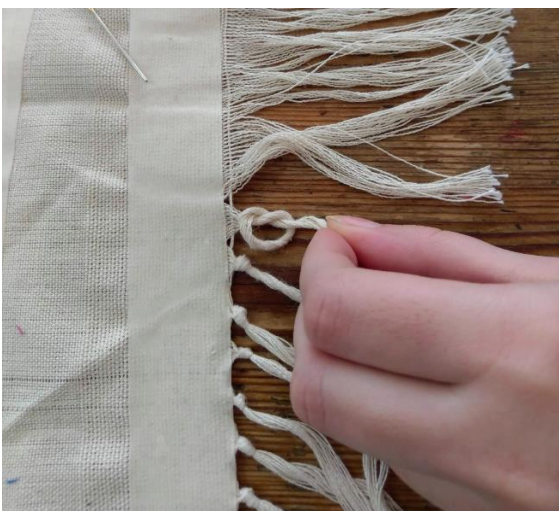
My right hand holds the warp threads close to the cloth.

I want to create a loop.



I pass the edge of the warp around the loop.

I pass the warp threads through the loop.



I keep my left hand steady.



My right hand needs to move the loop towards the cloth.

My left hand is pulling the threads towards myself.



When the knot is tightened without having reached the cloth, I need to loosen it and start all over again.

## 11. Simple warp tying techniques

### Double and tripled knotted fringe



To create a double knotted fringe, I tie a simple fringe knot.

I pick the first pair of tassels, to create an overhand knot.



I follow the same steps with the simple fringe knot.



I leave some space from the first knot.  
The threads create a triangle.



I keep on knotting the warp threads.

My right hand leads the knot to the spot I want to tighten it.



I can continue tying more overhand knots.

Always pick two tassels and turn them into one.

I trim off the excess threads once I complete the knotting.

## Twisted tassels

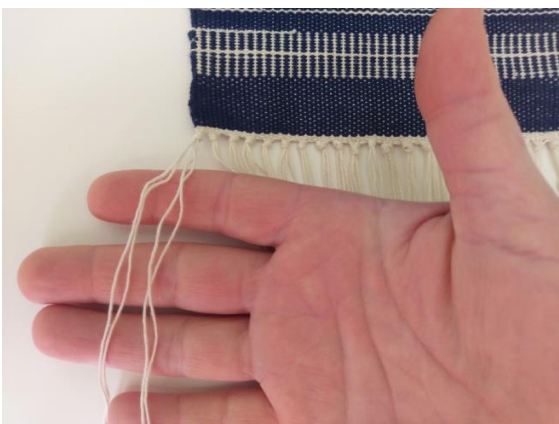


I tie a simple fringe knot



I cut a small piece of paper tape.

I stick it on the table, next to the cloth.

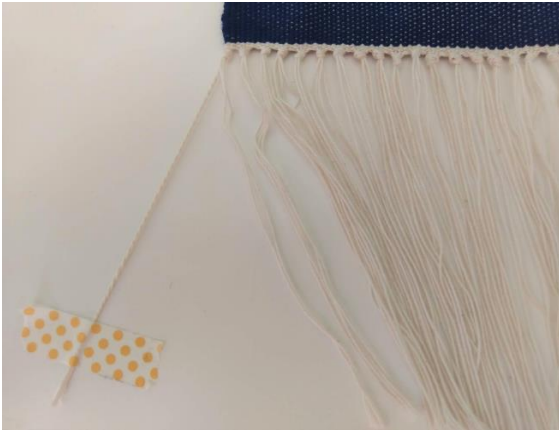


I pick the warp threads of the first knot.

I separate them in two.



I start twisting the first couple of threads between my thumb and my index fingers, clockwise.



I stick the twisted threads with the paper tape on the table.

I place the other couple of threads between my index finger and my thumb and twist them clockwise once again.



I place the other threads between my index finger and my thumb and twist them.

I twist them towards the same direction as the previous ones.



I hold both twisted ends in my hand.

I twist them towards the other side.





I make a knot on the edge of the threads.



I cut the threads that excess the knot.

## Chapter Content:

- How to fix a broken warp thread
- How to fix a broken warp thread in a fine cloth
- How to fix a loose selvage
- How to secure a warp thread around a needle
- Dealing with dropping selvages

## 1. How to fix a broken warp thread



A loose thread on the cross stick means that a warp thread is broken.



A loose thread on the rag rug means that a warp thread is broken.



I use a piece of thread from the thread I used to warp the loom.

I measure 150 cm. To fix the broken warp I need to tie it with a piece of thread from the same material I used as warp.



A 150cm long thread will serve as a new warp.

I place the end of the thread on the beginning of the measure tape.

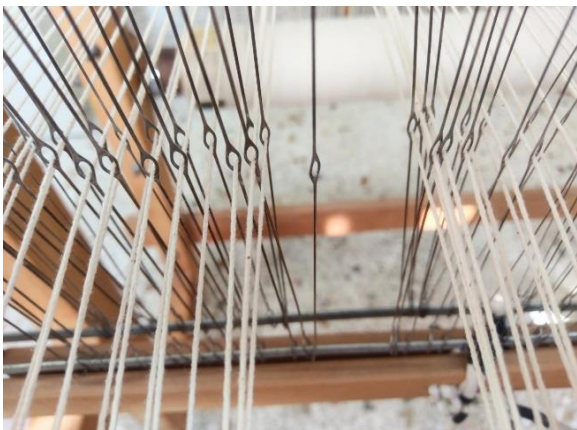


I cut the thread at the end of the measure tape next to 149.



I stand on the back of the loom.

I tie the broken warp thread with the new using a weaver's knot.



I follow the warp thread next to the one that is broken towards the heddles.

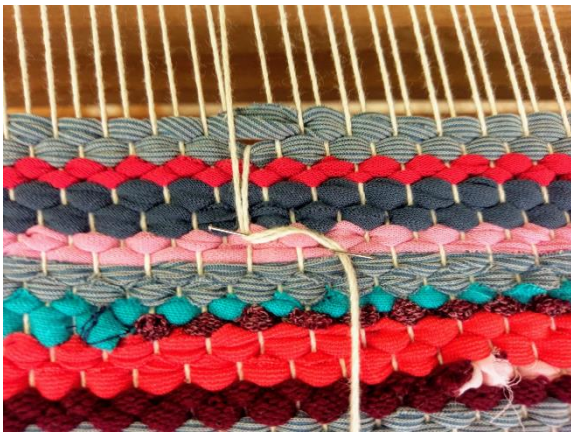
I find the empty heddle.



I pass the thread through the empty heddle towards the reed.

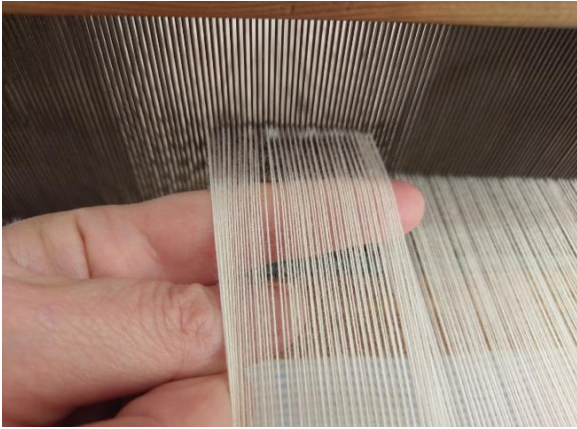


I sit on the looms bench.  
I place the threading hook inside the  
empty dent.  
I slide the thread towards me.



I secure the two warp threads in the rug.

## 2. Broken warp in weaving a fine cloth



A small gap in the reed is a sign of a broken warp thread.

To point out the exact dent where the warp thread is missing, I place my finger under the threads.



A loose thread on the cross sticks is a sign of a broken warp thread.



I tie the broken warp thread with the new one.

Pass it through the heddle.  
Once I reach the reed, I will place my finger under the warp threads to locate the empty dent.



Secure the new warp thread with the broken warp with the use of a needle.

### 3. How to fix a loose selvage



I fold a piece of paper in half (transversely) over and over until it turns into a rectangular shape.

The length of the paper should be 5 cm wider than the loose selvage.



On the back roller, from the side of the loose selvage, I place the folded paper parallel to the warp threads.



Wedge the paper inside the warp threads, in order to create tension to the loose warp threads.

Continue weaving as normal.

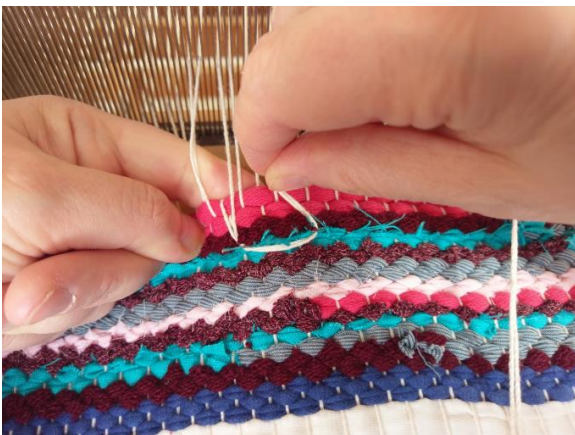
#### 4. Secure a warp thread around a needle



I pull the broken warp thread towards me.

Place the needle next to the warp thread.

Push the needle inside the rug.



Place my index finger on the back of the rug so the needle can come through the other side.

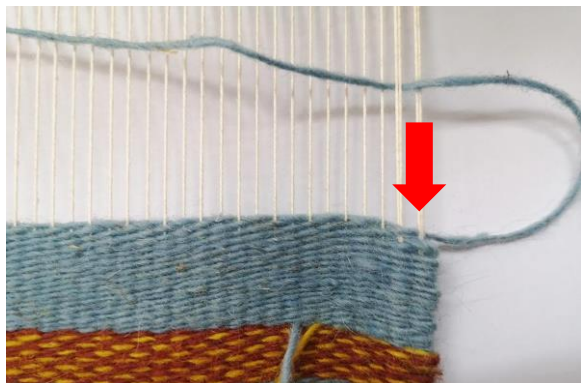
Place the new and the broken warp thread around the needle.



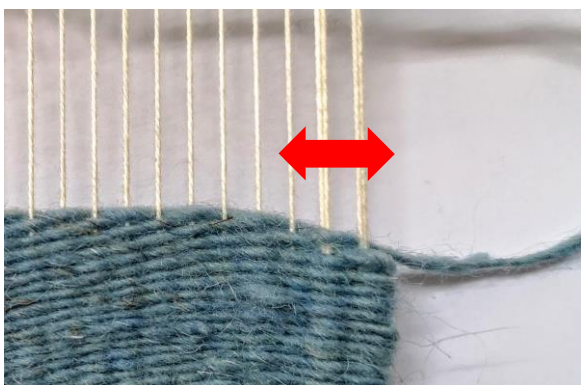
Place the warp threads around 5 to 6 times.



## 5. Dealing with dropping selvages



While weaving, some times the selvages drop.

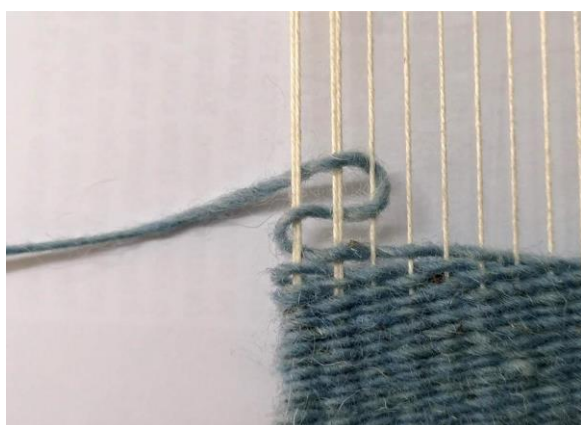


I find the warps on the selvedge that the weft drops on.



I weave around these warp threads in order to build up the selvages.

I do it as many times as it is necessary for my weaving to become even.



This needs to be done on both sides of the weaving.