Once we have the draw-down the rest of the analysis is purely mechanical. The first step is to find the threading. To do this we compare the warp ends in the draw-down. We start at the left, and make a cross above the first warp end (fig. 1).

\[
\begin{array}{cccccccc}
\times & \times & \times & \times & \times & \times & \times & \times \\
\text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} \\
\text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} \\
\text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} \\
\text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} \\
\text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} \\
\text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} & \text{mm m m m} \\
\end{array}
\]

Fig.1 Fig.2 Fig.3 Fig.4 Fig.5 Fig.6

Then we look closely at the way the warp interlaces with the weft, and try to find other warp ends which are woven in the same way. The first end goes under three picks of weft, over one, under one, and over one (the warp is white). We find that the third end from the left is exactly the same as the first. Therefore we place the mark for threading corresponding to the third end on the same line as the first cross (fig. 2). No other end is woven in the same way, so we go back to the second warp end and make a cross on the second line above the draw-down (fig. 3).

Now we examine the warp ends to the right to find out whether there is another end which goes under one, over one, under two, over one (a shorter way is to say: black, white, two black, white, black, white). Yes, there is. It is the fifth and we mark it accordingly (fig. 4). Any more like the second? No, no more. Then we go to the fourth end from the left, and make a cross on the third line above the draw-down (fig. 5). We look again to the right for another identical vertical line (or warp end) and find that the sixth is the same as the fourth (white, black, white, three black, white). Therefore we place the cross on the same (third) line, as in fig. 6.

\[
\begin{array}{cccccccc}
\times & \times & \times & \times & \times & \times & \times & \times \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\text{mm m m m} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} & \text{mm m m x} \\
\end{array}
\]

Fig.7 Fig.8 Fig.9 Fig.10 Fig.11

Once more we look to the right and we find one more end which is different than all the other ends. It is the last one. Therefore we place the cross above it on the fourth line (fig. 7). This completes our analysis of the threading draft.

The next step is to find the treadling (not the tie-up). We proceed exactly as for the threading, but this time we examine the picks of weft, instead of the warp, or the horizontal lines instead of the vertical ones. We make a cross in line with the
first pick of weft (fig.8), and then look down to find whether there are other identical picks of weft. If they are identical, they can be woven on the same treadle. The third pick from the top is the same as the first, and we make another cross under the first one and in line with the third pick. The last pick of weft is also identical with the first and the treadling mark is placed under the first two (fig.9). Now we come to the second pick of weft and make a cross in line with it and to the right of the marks already made (fig.10). This of course means another treadle. No other pick of weft is identical with this one, therefore we go to the next one (the fourth). This as a new one is placed on the third vertical line of the treadling (fig.11).

![Diagram](https://via.placeholder.com/150)

The sixth pick is the same as the fourth, and we mark it in the same line (fig.12). Then comes the fifth pick and it has no companion; we mark it on the fourth vertical line of the treadling draft (fig.13).

![Diagram](https://via.placeholder.com/150)

Thus we have the threading and the treadling but no tie-up. The latter is deduced from the remaining parts of the draft. For instance: to weave the first pick of weft we must have the frames 1, 2, 4 tied together to one treadle. To find this out we look up from each black square of the examined pick of weft. In case of the first pick of weft the black squares lie under the marks on frames: 1, 2, 1, 2, and 4. Therefore we mark these three frames in the tie-up right above the treadle (No.4) which has been used to make the first pick (fig.14). The second shot of weft requires frames 1 and 3 (fig.15). The third is the same as the first. The fourth was made on frames 2 and 3 as in fig.16, and the fifth on frames: 1, 3, and 4 (fig.17). The sixth pick is identical with the fourth, and the seventh with the first. We have now all the treadles necessary to weave the sample which has been analysed. The draft is now complete, with the threading, tie-up, and treadling. We shall see in the next lesson how the drafts resulting from an analysis can be rearranged to suit our purposes.

IN THE NEXT ISSUE: WEAVERS' GUILDS, LENO FOR FOUR FRAMES, DESIGNING THE TIE-UP FOR MULTIHANNESS WEAVING, ANALYSIS OF FABRICS (3).