

ANALYSIS • B

In the example described in the last lesson we had three different stages of analysis: threading, treading, and tie-up. But in practice there are often two more intermediary operations.

Let us take another example (fig.1). We find first the threading in the same way as in the last lesson (fig.2). But here we may

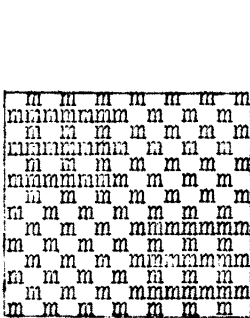


Fig.1

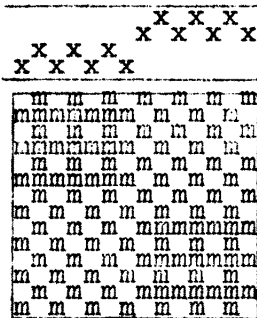


Fig.2

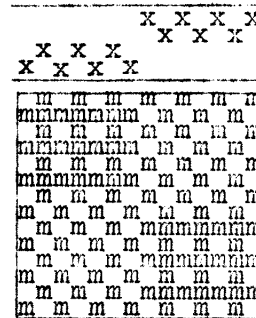


Fig.3

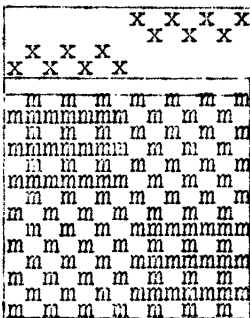


Fig.4

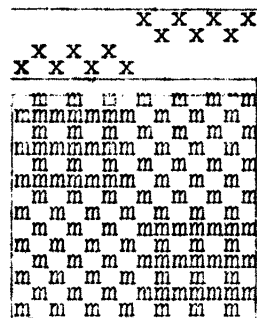


Fig.5

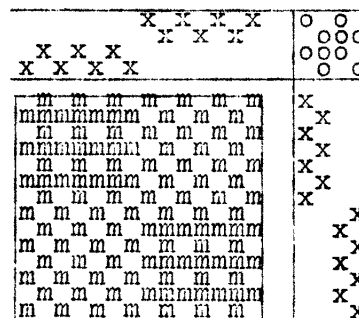


Fig.6

stop for a while. First of all - the reason why we start with threading (we could as well start with treading) is that if we discover at this stage that the number of frames required is too high for our purposes, we may as well stop here, and save time and effort. The other reason is that we may find the threading rather unorthodox, with unusual sequence of harness-frames. At this stage it is quite easy to change the threading into a simpler or more conventional draft, because neither the tie-up or the treading are made as yet. For instance in fig.2 we have a draft which is quite correct, but unconventional. We may find the threading easier if we change it into the draft in fig.3 simply by exchanging frames 3 and 4. This is the first intermediary stage: the rearranging of the threading draft.

Then we find the treading draft as usual, and in result we get the draft on fig.4. There is nothing wrong with it, except that if we use it for weaving, we shall not be able to alternate the feet, which spoils the rhythm of weaving.

Here again by exchanging the last two columns we can get a better draft as in fig.5. Now we can use the right and the left foot alternately. And this is the second intermediary stage of analysis. The last stage is the same as before: we find the tie-up from both: threading and treading (fig.6).

Thus we have now 5 stages of analysis:

1. Finding the threading draft.
2. Rearranging it.
3. Finding the treading draft.
4. Rearranging it.
5. Finding the tie-up.

When rearranging a draft we must remember that there are not less than twenty four ways of writing the same draft for 4 frames, and it would be pointless to try all of them before deciding which one we like best. We must have a definite purpose when changing a draft. Usually we would like to make it simpler, easier to thread, or to adapt it to a standard tie-up. For instance in fig.7 we made a simple draft from an apparently complicated one:

$$\begin{array}{c}
 \overline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x} \\
 \underline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x}
 \end{array}
 =
 \begin{array}{c}
 \overline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x} \\
 \underline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x}
 \end{array}
 \text{ Fig.7}$$

In fig.8 we have changed the original draft into an easier one:

$$\begin{array}{c}
 \overline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x} \\
 \underline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x}
 \end{array}
 =
 \begin{array}{c}
 \overline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x} \\
 \underline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x}
 \end{array}
 \text{ Fig.8}$$

In fig.9 the second draft can be woven on a standard tie-up:

$$\begin{array}{c}
 \overline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x} \\
 \underline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x}
 \end{array}
 =
 \begin{array}{c}
 \overline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x} \\
 \underline{x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x \ x}
 \end{array}
 \text{ Fig.9}$$

Not every treading draft can be arranged so that the feet can be used alternately, therefore one should not try too hard. For instance if one repeat of treading has an odd number of picks then it can not be arranged to our entire satisfaction. However if the same treadle is used twice in succession, then it counts as one pick. E.g.: 121334243 has 9 picks or an odd number, but it can be arranged as follows: 232441314. Of course such rearrangements can be done only before the tie-up is figured out, or it would mean changes in the tie-up as well.

In the next lesson we shall deal with drafts which are too long for ordinary analysis.

IN THE NEXT ISSUE: Gadgets in Handweaving. Pickets and Riddles. Satins and Sateens. Doubling the Weft. Analysis 4.
