

The MULTIPLE-HARNESS WEAVER

EXPANDED M's AND O's

By Harriet Tidball

Commonly drafted and used as a four-harness weave, *M's and O's*, like most other techniques, takes on added interest when it is expanded for more harnesses. This multiple-harness expansion is not unknown in the literature, though as far as I have been able to determine, it is developed in Finland but not elsewhere. The examples of multiple-harness *M's and O's* found in my own library are in *Kutokaa Kuviollisia Kankaita* by Ester Perheentupa (Helsinki 1950), drafts 33, 66, and in *Kankaiden Sidokset* by Helvi Pyysalo (Helsinki 1950), drafts 204, 205, 206. (Drafts 43 and 67 in Perheentupa are multiple-harness *M's and O's* which offer a different problem that will be taken up in a later issue.)

Analysis of the draft forms of these two authors shows that both use a "unit system" with one harness forming the foundation for the first half of each block, another harness forming the foundation for the last half of each block. But they do not agree on the matter of which harnesses should be used for the foundation; for her two six-harness drafts, Perheentupa uses harness 5 for the first foundation, harness 2 for the second (harnesses read bottom to top in the American manner). Pyysalo, on the other hand, uses harnesses 2 and 1 as foundation in one six-harness draft, harnesses 6 and 5 in the other, and harnesses 8 and 7 in the eight-harness draft. This inconsistency makes the method for drafting and for determining tie-ups difficult. Therefore, if we are to handle the technique creatively instead of simply copying by rote designs which are contrived for that purpose, we must first find a generally applicable drafting system.

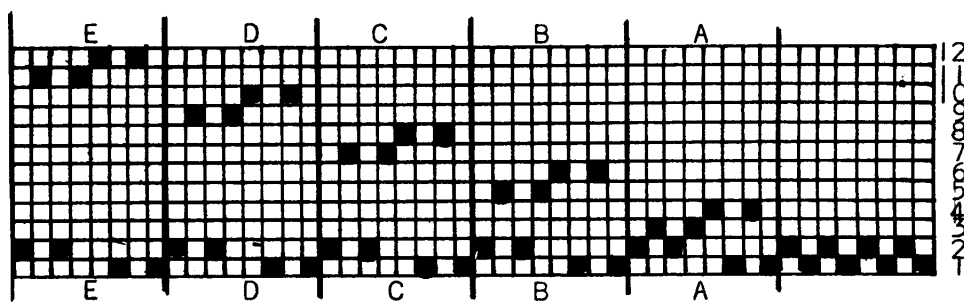
What are the requirements for a good, technique drafting system, realizing that any draft can be twisted and manipulated until it becomes either clear and generally useful, or confused, unrecognizable and useless for general designing? The draft must be graphic, so that individual design elements stand out clearly and recognizably. It must be consistent, without exceptions, so that it can be applied to all design problems. It must have some fundamental characteristics which are easily related to other techniques, since technique knowledge is a continuous study in which one learns through relating the new and unknown to the familiar and already mastered systems.

The starting-point for constructing a good drafting system is an analysis of existing drafts. The five drafts in three forms which we are considering show

these facts: the drafts are composed of eight-thread units each of which may be used alone or may be repeated according to the dictates of the pattern at hand; each one of the eight-thread units has the first and third thread on one specific harness which may be called "x" until a good placement for it is found; the sixth and eighth threads on another harness which can be designated as "y"; the second and fourth threads of each unit are on one harness, and the fifth and seventh are on another, these differing from unit to unit according to the pattern.

The conclusions from these analysed facts are that the eight-end threading unit is static; there are two harnesses, *x* and *y*, which because of their perfectly regular occurrence throughout the draft form the foundation for the drafting system; there are further harnesses which control pattern arrangements, threads appearing in pairs on these, and two pattern harnesses are required for forming each pattern block, in addition to the *x* and *y*.

Relating this information to other techniques, we place the *x* foundation on harness 1, the *y* foundation on harness 2, similar to the way this problem is handled in *Summer and Winter*, *Atwater-Bronson*, and other Unit weaves of this type. All remaining harnesses, regardless of the number, are used as pattern harnesses, with two serving to form each block. Thus we make a trial, drafting unit A as 1,3,1,3; 4,2,4,2; unit B as 1,5,1,5; 6,2,6,2; etc. By diagramming a tabby under the unit draft, it becomes evident that this draft will form a true tabby which falls on 1-4-6-8 and 2-3-5-7. Because we understand odds-and-evens tabby better, due to our general familiarity with the twill and overshot weaves, these tabbys suggest that the familiar tabby arrangement could be achieved by switching the order of the pattern harnesses so that the odd-numbered foundation harness (*x* or 1) associates with even-numbered pattern harnesses (4, 6, 8, 10, etc), and the even-numbered foundation harness (*y* or 2) associates with odd-numbered pattern harnesses (3, 5, 7, 9, etc.). This gives us a different draft unit: block A is 1,4,1,4; 3,2,3,2; block B is 1,6,1,6; 5,2,5,2; block C is 1,8,1,8; 7,2,7,2; etc. These units are drafted:



One might wonder at the advantage of expanding the *M's and O's* draft to this system, since six harnesses are required to produce the same number of pattern blocks as with our standard four-harness system. For the weaver with a six-harness loom there are three important advantages—advantages which make

A six-harness draft for producing two blocks in *M's and O's* with tabby separating the motifs was woven in 8/2 drapery cotton for transparent curtains. This curtain is shown on the cover, in detail, and again on page 20 to illustrate the remarkably good draping quality it had. The full directions for this fabric are:

Warp material: Lily 8/2 drapery cotton (Art 108)

Weft material: Lily 8/2 drapery cotton, same color as warp, and
Lily chenille (Art 106), same color as warp.

Warp beamed at 15 ends per inch.

Threading: 1, 2 alternated—12 ends

Unit A once —8 ends

Unit B once —8 ends

Unit A once —8 ends

Repeated throughout.

Sley: In a 10-dent reed, sley the 12 ends threaded on 1, 2 at one per dent, then the 24 ends threaded to pattern units at two per dent.

Tie-up: Six treadles: the first six harnesses of blocks A and B, plus the two true tabby treadles.

Weave: 20 shots with drapery cotton, placing weft at 10 shots per inch, on block B (treadles 3, 4 alternated).

1 shot on tabby *a* with chenille.

12 shots with drapery cotton, placing weft at 20 shots per inch, on block A (treadles 1, 2 alternated).

1 shot on tabby *b* with chenille.

This is repeated throughout.
