



		Layer							
		1	2	3	4				
Layer	4	8	8						8
	3	7	7					6	6 6
	2	5	5			5	5	5	5 5
	1	3	4	3	4	4	4	4	4 4
		2	2	2	2	2	2	2	2 2
		1	1	1	1	1	1	1	1 1
2 shuttles		X						X	
			X						X
				X					
					X				
						X			
							X		

Figure 7: Four-layer draft, treadling for two tubes, one inside the other.

The treadling sequence in Figure 6, if woven with one shuttle, will also create a four-page book that is bound on one selvage.

The treadling sequence in Figure 7 is particularly amazing, and almost has to be woven to be believed. When woven with two shuttles, one weaving the sheds for layers 1 and 4, and a second shuttles weaving the sheds for layers 2 and 3, two tubes, one inside the

other, are created. No, you don't need a miniature shuttle to weave the inside tube—one shuttle simply follows the other as the two tubes build up simultaneously.

For all of the two-shuttle configurations, it is necessary to be sure that your two shuttles do not interlock at the selvages if you do not want your layers tied together.

multiple layers with layer exchange

In each of the previous examples, each layer always stays in its own position, regardless of the order in which the layers are woven. But we can also switch the positions of the layers to create any number of different configurations.

The easiest way to understand how this works is to draw out a diagram showing the positions of all your layers. Your layers may or may not be different colors, but if you draw them each in a different color in your diagram, it will be easier to follow the pathway of each layer.

Each time that your layers exchange positions, you need to create a new tie-up (or weave on a table loom or a computerized dobby loom). No matter what positions the layers are in, the same rule applies. To weave any given layer, you must lift all of the layers above that layer in addition to the individual shafts for that layer, whether these are in numerical order or not. In the following example, red is on shafts 1 and 2, yellow is on shafts 3 and 4, blue is on shafts 5 and 6, and green is on shafts 7 and 8. There are six different sections where the layers are in different positions.