Volume 3, Chapter 16:
Putting on the Strings in Order

Translator's note: This procedure does not answer the question about just where the first or fifth string should be set in terms of absolute pitch? See the chapter on tuning for more information. Here we will just point out that string one might be more loosely set at A1, or more tightly set at C2 (a minor third in difference). That being the case, then string five would vary from Gb/F# 2 to A2, depending on the desired pitch for string one. A piano or an electronic tuner can be helpful for establishing an absolute pitch as a reference.

At first when the fifth string is put on, it should be neither too tight nor too loose. *[If too loose, then the first string will be too low and without sound. If too tight, then the seventh string will be too tight and may break].* Then put on the sixth string. *[The left-hand ring finger presses the string at some position and the thumb plucks on an open and pressed string. Follow this methodology for successive (strings)].* First press the fifth string at hui twelve. Then pluck the open sixth string and make it match the pressed fifth string. Both should be at the same pitch. If the sound (of the sixth string) matches the pressed fifth string above position twelve (towards the bridge), then loosen string six. If (the match is) below hui twelve, then string six is loose and should be tightened. Repeat when putting on string seven. In this case determine how tight it should be based on string five, hui ten as the standard. Strings five, six, and seven should all be put around the wild goose foot on the right side.

After this put on string one. Press it at hui eight. This should match with string five played as an open string. If the match is above hui eight, then the open string is tight or the pressed string is loose. Tighten the pressed string. If the match is below the hui, then the open string is loose and the pressed string is tight. One should loosen the pressed string. Follow this in succession with string two. Press string two at hui position nine, which should match string five as an open string. Follow this with string three, which should be pressed at hui eleven. This should match string five as an open string. Follow again with string four which should be pressed at hui thirteen. Again this should match string five as an open string. *[Or press string four at the tenth hui, which should match string six as an open string].* In general the model is that the string being put on matches the sound of some other string already placed in terms of some matching sound position. Thus we put on strings one, two, three, and four in turn wrapping them around the left-hand side wild goose foot.

When we refer to matching, we are talking about two strings, one pressed, and the other open with the same sound. This sound (pattern) is called a "xian-weng" (仙翁).[1] We first put on string five, and do not put string one on first. This is because one fears that if string one is put on and made tight, then when you reach string seven, it may be too tight

[1] See Volume 3, Chapter 24, *String Tuning Methods* for more details.

and break. Huainanzi (淮南子) said: “if the great string is tight, then the small string will break”. This is exactly our point.