Volume 2, Chapter 8: Hollowing the Chest and Containing the Sound

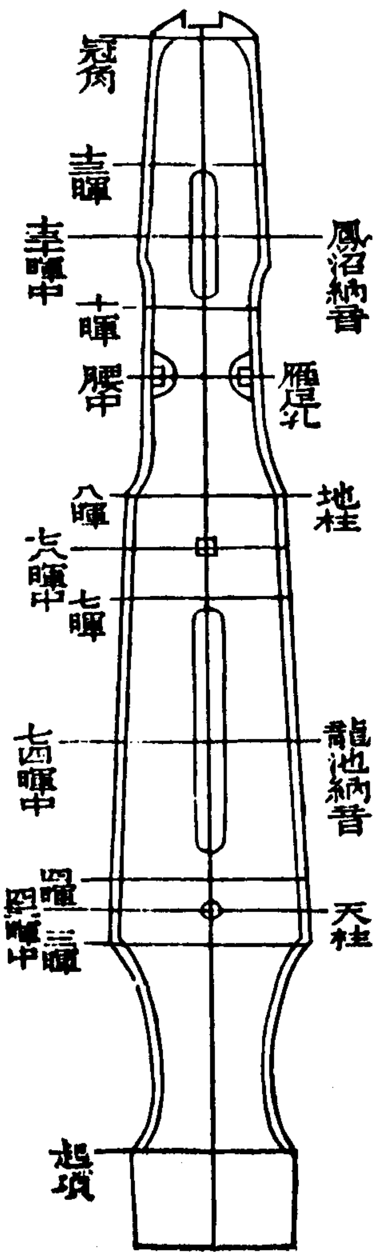

Figure 0: Inside of ch'in

The face of the ch'in is the exterior. Inside is the belly. Although there is nothing inside, it is still not empty. When it is hollowed out, it resembles a valley. While the sounds of the strings go forth to the outside, the music resounds and fills the inside. Harmonics and unstopped string tones, high and low are all produced. One must consider the quality of the material used. Also know that it depends on the thickness of the surface (board). If it is too thick, then the music is repressed and cannot rise, and thus loses its clarity. If too thin, then the music is superficial and not full and thus becomes empty and fleeting. So then there is a distinction between the thickness and thinness. But one can only guess at the way it should be done; there is no definite method. This is because there are differences between softness, hardness, and density in materials. There is also the question of whether or not the resin has been removed from new or old materials. So one has to do it according to the materials and there are no hard or fast rules when it comes to thickness. When constructing, one will certainly have to test it at various times in order to make adjustments.

The method: It is necessary to draw a center base line on the inner face of the ch'in. Now draw a crosswise line for the beginning of the nape, a ⊓ form for the cap, and lines for the rims around the sides. These should all be the same as the bottom in order to facilitate matching up *[between the top and the bottom.]* Further draw out lines for the na-yin (納音) (sound retainers) at the dragon pond and phoenix pool. These sound retainers should be equally long with the pond or pool, respectively, but should be bigger around by 3/10's of an inch. At the places where the wild geese feet are located, leave some wood according to the form of the base in order to help strengthen the holes for the feet. All the places in the belly where wood should be left match up with equivalent places on the bottom board. When all the lines have been drawn, then dig out the cavity. From just within the rims on either side, out to the middle, it should be shallow, (gradually) getting deeper. One should approximately dig out 2-3/10's of an inch. One should dig out a little, then put it (the top and bottom) together and test the sound at various times. *[It cannot be carved too deeply, lest the face board be thin, the sound then becoming empty and dissipated. This then is hard to repair! So then one must carve out a little and test it, taking it through the stage of retaining (wood) or discarding. Do not be afraid of the work involved in putting on the strings.]* The goal is that the musical sounds should be clear and full and not empty or dull. If the distinguishing of the sounds is not done in a masterful manner, then one might take emptiness for brightness, or dullness for fullness. Often because of the desire for a booming sound, someone will go to excess in terms of thinness. Or they may make the ch'in noisy and often they will not know it. Now one should leave wood to fill in around the bridge and nut. If here one carves too near or even to the point of breaking through, there will be nothing for the sound to rely on and it will on the contrary not be transmitted.

Or if one leaves too much wood in these spots, then the sound will not be released. One needs to be very circumspect in determining this. By all means do not be neglectful. Be especially careful.

As for the sound retainers, one must consider their height; that is, the form should be bulging. This is because the pond and the pool are the places where the musical ch'i[1] is transmitted (to the outside). The ch'i must be held and restrained lest it leak out and scatter. Also in so much as this place with the belly is broad and empty, it is possible that the ch'i might dissipate and not build up, so a rim is put around the borders of the pool and pond in order to collect the breath. This is one of the marvels created through the experience of Lei Wei.[2] The sound retainers above and below, left and right, gradually bulge up like the backbone of a sword, without exposing an sharp center edge. If they are too tall, they will block the mouths of the pond and pool and cause the sound to be stifled. If (these places) are closed up correctly then it will be made very well indeed.

Now set up the two pillars, heaven and earth.[3] The heaven pillar is set up at the border of the third and fourth hui.[4] The earth pillar is set up at the border of the seventh and eighth hui. Heaven is round and earth is square.[5] The diameters should be 3/10's of an inch. They should be as tall as the inner cavity and should reach up to the face and down to the bottom. (Their purpose) is to prevent warping.[6]

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[1] Breath or energy.
[2] See Volume 2, Chapter 1 for a reference to the Lei family ch'in makers.
[3] See Figure 1.
[4] In the middle between the two hui.
[5] This is the traditional cosmological attitude. The pillars also follow this idea. The pillar of heaven is round and the earth pillar is square.
[6] They could possibly also have some function to play in transmission of energy from the top board to the bottom board. Of course, this role would be less than the bridge.

Now as for the method of carving out the belly cavity, there should be equal (depth) over the whole. Do not let there be any excessively thick or thin places. The best thing to do is mark out clearly all the demarcations and straighten things up so there are not any obstacles.

After this, carve in the date, an inscription, and the name of the maker on the left and right of the sound retainer (for the dragon pong). All this is brought together within and can be seen from without. Do not hide it away deep in the inside.