

Photographs of bow and arrow making shop, 1935

By Peter Dekker, August 16, 2013

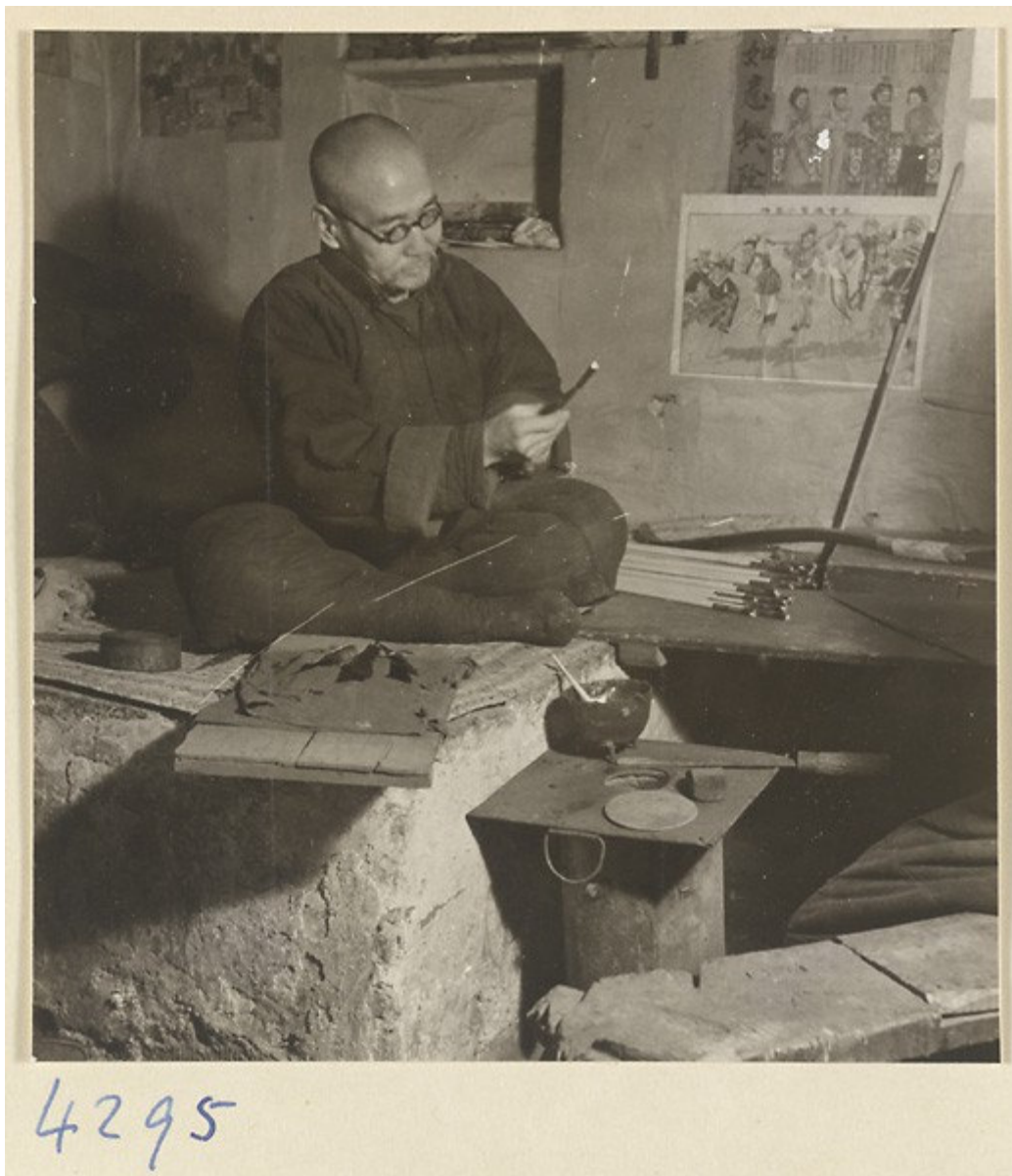
Hedda Hammer Morrison (1908-1991) was a resident of Beijing from 1933 to 1946. During this time she took many thousands of photographs of Beijing life. Her photographs are not only very well composed, the quality is really rather impressive. Some of these photographs she mounted in a number of albums with different themes. Among these themes were a series of handicrafts albums. The third album contains a series of photographs taken at the bow and arrow-making quarters in the city, reproduced below.

Source: These pictures are now in the [Harvard-Yenching Library](#). The whole handicraft album can be found here at the [Visual Information Access of the Harvard-Yenching Library](#).

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The bow and arrow-making workshop



The arrow-maker is about the fletch an arrow. It took a five-year apprenticeship preceded becoming an arrow-maker. Anyone who fletched such long feathers by hand, using natural glue, will appreciate why it takes so long to do this fast and efficiently.



Putting the collagen-based fish or hide glue on the feather. Note that he seems to do them in two, instead of in one go. While by far most antique arrows are fletched with a single feather, I've seen such splicings before on antiques.



Putting the feather on the shaft. Timing is very important here, letting the hot glue not cool down too much before letting the surfaces touch.



Not sure what he is doing here. But look at all the arrows in the background: The striped wrappings are actually yellow and black, such arrows are still found in collections.



Also not sure of what we are looking at here. Perhaps he is making holes in what will become a whistle head?



The bowyer¹ applying the horn to the belly of the core using a rope, a binding tool, and a bow-press. The process is exactly the same as that described in INVESTIGATIVE REPORT OF BOW AND ARROW MANUFACTURE IN CHENG'TU (By Tan Danjong (T'an Tan-Chiung), Soochow University Journal of Chinese Art History Vol. XI. 1981.).

¹Stephen Selby of ATARN.ORG identified this man as being Yang Ruilin, who bought Ju Yuan Hao of the Wang family. Yang Ruilin is the grandfather of Yang Fuxi who still runs Ju Yuan Hao. [Who is Yang Fuxi?](#) [What is Ju Yuan Hao?](#). Thanks Mr. Selby!



This man is doing the birch-bark decoration on a finished short-eared bow referred to as "monkey bow". Most of these were to be strung with a double string with a pocket to serve as a pellet-bow. Another finished "monkey bow" is on the table.



Bending one bow limb over a bending block, or *gong nazi*. Heavy Manchu bows are really hard to string and using this method you pre-bend the limbs so that the stringing process is made easier for the handler and less risky for the bow.



Stringing the bow. Note that it has a bending block on the inside of each limb, making stringing easier. Very few people can string Manchu bows above 80 pounds of draw weight without these. Composite bows are sensitive devices. Such bending blocks are also important for new bows to "teach" the bow how and where to bend.¹ The first few months of use are critical to the habits a traditional composite will develop. If it is not well-treated and corrected during this period it is likely to form bad habits such as a limb that constantly needs to be corrected from twisting.²

¹ Thanks José Dominguez from Argentina

² Thanks Lukas Novotny of [Saluki bows](#)



Thanks, Nils Visser, for pointing this one out to me!

This one is from the same photographer but now in a different collection. It is currently held in the [Powerhouse Museum](#) collection. It depicts a man working on what is going to be a pellet crossbow with a small adze with a composite handle. Behind him are some bows, some very serious ones on the upper left.