

prior to the exile to

record of any silver work being done at Fort Sumner, so it must have been after the return in 1868 that the craft began to be practised. That it spread rapidly is evident from all the early records of the period between 1870-1880, for by the time that Dr. Washington Mathews was stationed at Fort Wingate, there were a good many proficient craftsmen. Dr. Mathews employed two whom he established near his residence where he could observe them at work, ^{and} for he has left a detailed account of the art.

While tools and methods have changed somewhat in recent years, the following brief analysis of Dr. Mathews' observations follows:

the fine early work of the Navaho smiths was made by the methods recorded for us by both Dr. Mathews and Father Berard Haile.

THE FORGE

The forge was a square structure of stones and adobe mud built to a convenient height with the rear slightly elevated. Air tubes were made of two pieces of wood, grooved and fitted together, lined with both inside and out with adobe.

BELLOWS

X
The bellows was made of sheepskin in the form of a sack about 18" in diameter. Held distended by three or more hoops of willow twigs. One end of bellows was firmly secured to a nozzle and fitted into one of the tubes leading to the fireplace. The other end was closed by tacking into it a round disk of wood with a leather valve in the center. The bellows had two arms of different lengths, the longer projected downward. The lower handle rested on the ground, the upper worked the bellows.

ANVIL

X Commercial bellows became available as the craft developed
The anvil was a hard piece of stone, or a piece of iron when obtainable from a plow or a part of a wagon, pickhead wedge or bolt. After the coming of the railroad, a piece of a rail was used. The iron was usually fastened to the top of a piece of log, cut to the right height.

CRUCIBLES

The crucibles for melting the silver, were made of clay and baked hard in a fire. They were about the size of a tumbler and had an outward curved rim and one or more spouts. These were not very durable and were replaced by commercial long lasting crucibles as soon as these became available. *George Smith found that a piece of prehistoric pottery from a ruin was used for the purpose & was more durable than any.*

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wherever he had his forge. When more & more hawako
were working in silver and devoting long hours
to their craft, benches or chairs were used to
relieve the low position.

That it spread rapidly is evident from all the early records of the period between 1870 and 1880, for by the time that Dr. Washington Mathews was stationed at Fort Wingate at the latter date, there were a good many proficient craftsmen. Dr. Mathews employed two Navaho silversmiths whom he established near his residence where he might observe them at their work, and he has left for posterity a detailed account of the art as practised by these two men. ^{in the District of} Father Berard Haile also left a detailed record of his findings over a wider area during his early years on the reservation. ^{first} The fine early work of the Navaho silversmiths was produced with ~~the following~~ ^{the} simple ^{of} equipment ~~and methods~~ as recounted by both of these observers.

THE FORGE

The early forge was a square structure of stones and adobe mud built to a convenient height with the rear slightly elevated. Air tubes were made of two pieces of wood, grooved and fitted to-gether, lined both inside and out with adobe. The smith sat crosslegged on the floor where ever he had his forge. As more and more Navaho began to make silver jewelry and were devoting long hours to the craft, benches and later chairs were used to relieve this low position.

BELLOWS

The early bellows was made of sheepskin in the form of a sack about 18" in diameter. Held distended by three or more hoops of willow twigs. One end of the bellows