

Traders soon began to stock tools for the
Silversmiths - dividers, metal workers saws, files of many
degrees of fineness, later gasoline blow torches. The dies
used by the smiths - were made from all sorts of worn
tools, such as worn down cold chisels - bolts & other pieces
of scrap. On the end the designs were ~~filed~~ cut by the
use of very fine files. ~~The~~ Designs were at first
copied from Mexican decorations on leather, then the
Hawaiian mounted his own designs & cut his dies to
satisfy his own use.

8 Earrings

There are earrings of ~~many~~ ^{several} types. A Round circular hoop with a silver bead strung loosely onto the hoop which moves. Flat slightly decorated rings. Pendants, narrow cone shaped with a ~~silver~~ ^{sharp} flared petals at the end. The most widely used earrings among the men are pieces of turquoise with a piece of string threaded through a small hole drilled in one end of the stone.

10 Buttons

A great variety of buttons have been made, both by the hammered and cast methods. Some conical with lines indented into a cold chisel, in many sizes. Some with small turquoise insets. Some simple plain silver discs, or with an incised decoration. Buttons are used to ornament collars, cuffs, leggings, moccasins, pouches, narrow leather straps.

Unusual Pieces.

11

The Indian-in-law bell. Made from a quarter hammered to a thin bell by pounding a round headed bar into a corresponding receptacle. ^{clapper} ~~small stick~~ fastened to the inside. These were made for older women who wore them on their belts to notify their sons in law of their approach.

The Powder horn

A rare piece to find to-day for the early ones were probably melted to make other pieces when their horns were no longer necessary. A horn held a charge of powder with a decorated handle extending at one end. It was carried around by a chain from the center of the horn.

The bell was fastened
at the end of a small string
of beads.

Tobacco
Caskets

Tobacco Caskets

These were ^{seldom} ~~not~~ ^{any more} made & there are only a comparative few in existence, mostly in Museum collection. The Casket was a very difficult piece to fashion, requiring difficult soldering ~~and~~

To day there is a large business in producing silver ornaments for the white trade. Not only do all the traders have silver for sale, but shops far and wide carry a variety of Hawaiki Silver jewelry. There ~~is~~ also a large quantity of imitation jewelry on the market, and any purchaser will do well to go to reliable shops or buy direct from the Hawaiki Arts & Crafts guild, ^{a local project.} This organization has recently erected a beautiful new building near Window Rock where ~~they~~ a wide variety of crafts are constantly on display. Prices of the finest quality may be found, pieces of expert craftsmanship and of uniquely Hawaiki design.

The hawake learned ^{the methods of} his craft from watching another smith. This is usually a relative and the apprentice pays for his instruction by helping his teacher as soon as he is able. In the rare cases of a man learning from a non relative, he pays his apprenticeship in sheep, sometimes in cash, or some other way.

Again the ingenuity & resourcefulness of the hawake is seen in his ability to fashion tools ~~which~~ similar in use to ones he was unable to buy.

Articles of jewelry.

1. the Conchas

The round or oval disks made for ornamenting belts & bridles.

2. Buckles

Silver buckles for belts & bridles - Metal buckles for ^{saddles} girths.

3. metal Buckles

4. Kietoks

The hawake long ago adopted ^{the use of pieces of} a leather ~~waist~~ worn around the waist as a protection from the snap of the hoostening. Later these had silver decorative ornaments.

They are now worn as ornaments.

Kietoks are ~~some~~ of the finest of the hawake products, beautiful in design and craftsmanship. They are the only pieces that are not made for sale to the white man. ^{which have} I do believe Kietoks are one of the rarest pieces ^{never} been commercialized.

5. Bracelets

There are many types of bracelets. Simple bands of silver, 1 to 2 in in width, with only slight decoration. Some with mounted

Turquoise. Plain Mancos beads with stamped design, and many types with mounted turquoise. There are also beads with open design - with or without turquoise.

most complete
3 Buckles

Headstalls mounted with silver bars, ^{the only ones} some plain later some ornamented to a varied degree. Conchas often used at joints with the silver bars. Sometimes a pendant of the cross piece across the forehead of the horse.

Necklaces.

6.

Necklaces of silver beads, constructed in two pieces & soldered together. Sometimes the so-called squash blossom ornaments are strung between beads at intervals. Mr. Cadeau thinks these ornaments were copied for Mexican ornaments, ~~for~~ fashioned to resemble the Pomegranate Blossoms. Many necklaces have pendant Najah - a nearly circular design with an opening at the bottom.

7 Rings

Garnets
8

Early rings were plain silver bands. Then some had single incised designs. The Turquoise was used in the early 1800s. Some cast rings were made. Other stones used such as smachite, garnets - carnel coal, sometimes polished petrified wood.

9 Pins

Pins of many shapes & designs - both cast & hammered silver, both with & without turquoise.

ely it is desired to oxydize the piece.

Materials

Some of the early smiths worked in copper & brass as well as in silver. The first silver used was American coin silver, melted and fashioned to the desire of the craftsman. When the U.S. Govt. put a stop to the use of coin for this purpose, the Mexican Peso soon appeared. The Navaho smiths preferred the peso for it had less alloy and was softer. ~~Then the bra~~ As the traders began buying Navaho jewelry to sell - they provided silver

~~slugs~~, usually in 13 slugs in quality of fineness approximately that of coin. ^{or containing the right amount of alloy.} The traders also provided turquoise either ready cut & polished or in chunks. This came from mines, not too far away; one mine near Santa Fe, others in Utah. ~~For older~~

Turquoise first began to be used in about 1850

The early stans were set in deep bezels, with the edge coming slightly over the top of the stone holding it securely in place. As the craftsman acquired a greater skill he was able to set stans with a looser setting.

The Forge

could

In more recent times makeshift substitutes have been used, even to the use of a tin bucket with a hole cut near the base, as Mr. Adair describes in his book. But to-day for making small pieces the blowtorch is widely used. With the use of bellows through this hole, a glowing bed of charcoal is soon achieved.

Bellows

To-day, small bellows are often purchased for a trader or store in a nearby town.

Crucibles.

A piece of prehistoric pottery is ^{sometimes} often used as a crucible, for it is more desirable than the commercial variety.

Mold.

Solder.

Borax & water & small bits of silver

Cleaning

Dipped in a container holding a diluted nitric acid solution.

Then put in bowl of water & brushed with a wire brush.

Buffed by hand & with a buffing pad attached to a grindstone. Jewels run on the pad.

melts
reduces
the melting
point.

difference
new to all

Primarily the Navaho made ~~silver~~ jewelry for his own adornment, and than of his family. It was not long, however, until there was a demand ~~for~~ with a ready market. ~~By~~ just prior to 1900 the Fred Harvey Company saw an ever growing market, and placed orders with traders who had contact with the smiths in their region. Then came a demand for lighter pieces, at lower cost, so that soon the smith was producing two types of jewelry, the old heavy pieces for his fellow Navaho, the light weight, cheap jewelry for sale to white people.