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ON JEWELRY MADE IN THE CONTEMPORARY SOUTHWESTERN (U.S.A.) STYLE

David E. Dear*

1.

Metalworking by Amerindians of the southwest U.S.A. has a relatively short-history [1-3]. Methods for working several types of metals were introduced in the region comprising primarily New Mexico and Arizona by the Spanish who arrived there about 1540. Although local Indians served as laborers for the Spanish blacksmiths and undoubtedly observed their techniques, the earliest Navajo silver pieces known date to about 1860; their cast iron jewelry dates back perhaps a few decades earlier. Prior to that time they made jewelry exclusively from shells, bone and semi-precious stones. They mined turquoise, a favored stone, locally and traded some of it to other tribes, some located as far away as the Pacific coast and the coast of the Gulf of Mexico.

Jewelry-making was a family pursuit, and some families continue the tradition today. Artifacts brought by the Spanish from Europe (some of which bore Moorish characteristics) had initially a strong influence on the Indian metalwork. They copied buttons, belts, iron bits for horses, knives, etc. Some early decorative pieces were made from brass. Beginning around 1880 many objects were made from silver coins of the U.S.A. and silver pesos of Mexico. The latter were used exclusively after the use of the former became illegal.

With the installation of railroad lines, the demands of tourists for jewelry of Indian tribes began to be felt. The sale of jewelry to tourists was aided by the establishment of trading posts beginning at about 1890. As a consequence of an expanding growth in production of jewelry, the quality of most pieces being sold eventually was lower, an effect noted as early as the 1920s. Today, in my opinion, there are but a few jewelry makers in the Southwest whose work is of artistic merit.

2.

I am a gold-, silver- and ironsmith of Welsh, German and Cherokee Indian ancestry. My love for the Southwest and my family roots in the region account for my interest in reviving and retaining some of the early southwestern metalworking techniques, an interest that I share with other metalworkers in the region. For this purpose, I have studied private and museum collections (especially those at the Museum of Anthropology, the Wheelwright Museum (formerly, the Museum of Navajo Ceremonial Art), and the Museum of New Mexico at Santa Fe, New

Mexico). Beginning in 1968 I taught myself several metalworking techniques, and in 1970 I turned to silversmithing professionally. There are no schools at the present that emphasize the teaching of traditional Southwestern metalworking techniques, but I hope that soon there will be. I have given courses in traditional and contemporary Southwestern techniques at the Museum of New Mexico's Educational Division and workshops and lectures at several universities.

The jewelry that I make is contemporary in design, yet it possesses characteristics of the regional Southwestern metalwork. Although I am experienced in the use of up-to-date equipment and techniques [4], I employ primarily hand tools, which I enjoy forging myself, similar to those used by the early local silversmiths. Examples of my jewelry work are presented in Figs. 1 to 3 and Fig. 4 (cf. color plate).

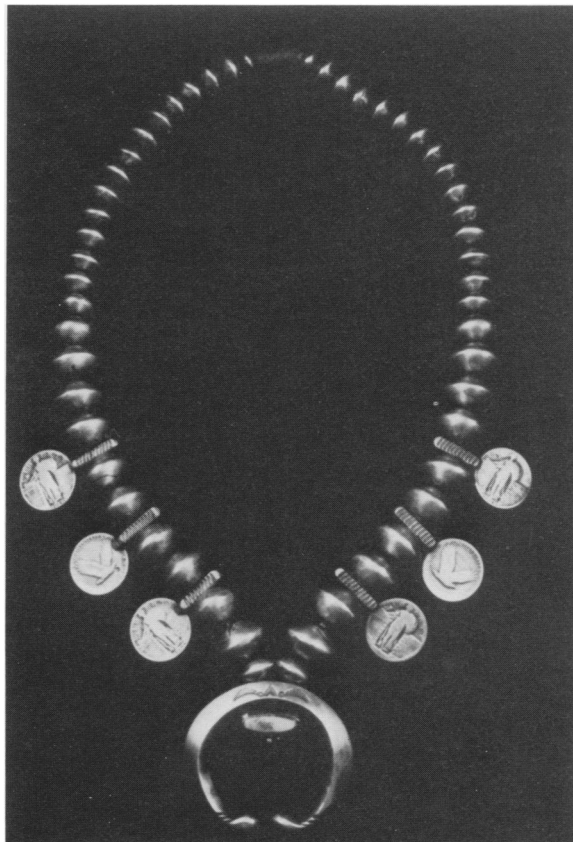


Fig. 1. Necklace, sterling silver, turquoise, and six silver coins, 1976.

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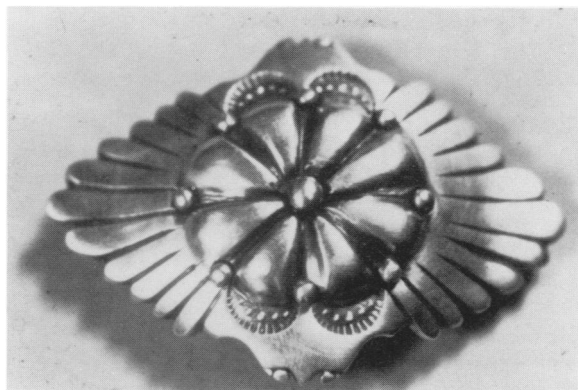


Fig. 2. Winged-button belt buckle, sterling silver, 1977.

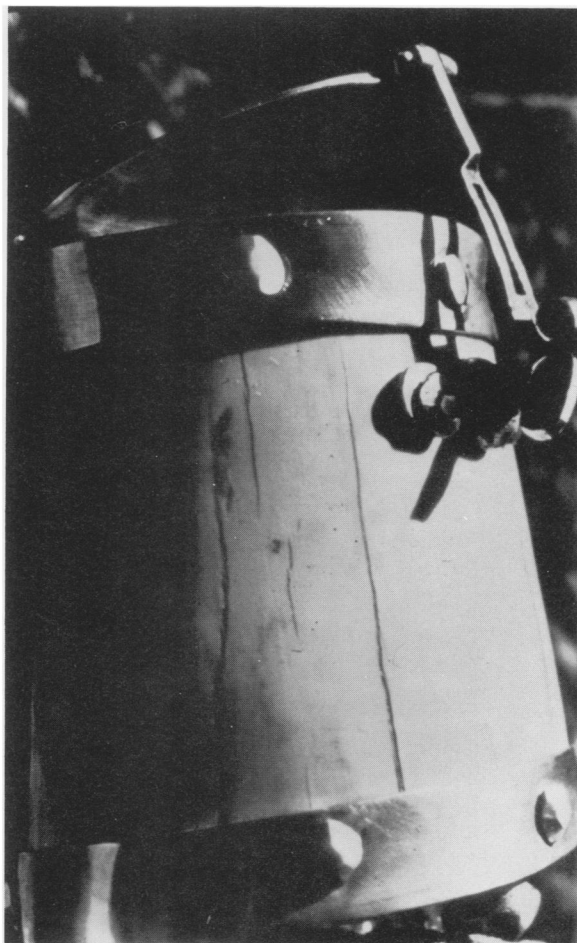


Fig. 3. Jewelry box, sterling silver, mastodon tusk ivory, height 10 cm, diam. 6.4 cm, 1976.

3.

The tools, small dies and stamps employed by the Southwestern Indian silversmiths were of the types introduced in the region by the early Spanish settlers and employed by Spanish artisans for generations thereafter. Wagon springs and other items of high carbon steel served as materials for their dies. Today, drill rod and a variety of pre-annealed high carbon steels are readily available, but salvaged steel is still one of the best inexpensive sources.

For making dies and stamps, I use old steel files broken into desired lengths (usually 4 to 8 cm). I heat the metal

pieces in a forge or in the flame of an acetylene gas torch until they become a cherry red color, and then I quickly submerge them in wood ashes or in powdered lime where they cool slowly for eight to twelve hours. The steel, annealed in this way, is soft enough to be filed into desired shapes. Then the resulting tools are hardened and tempered. The hardening is accomplished by heating the pieces again to a cherry red color and quenching them quickly in oil or water. Tempering is necessary to overcome the brittleness of hardened steel, so that the tools made from it will not crack when struck by a hammer. Tempering is done by sanding and polishing the hardened steel until shiny white metal appears and by slowly heating the piece by a forge or welding torch until the surface becomes a certain color. As heating progresses, the surface color passes through the following sequence: yellow, straw, bronze, red, blue and gray. For dies to be used on silver or gold, heating to a stage between dark straw and bronze-blue is sufficient. When the desired color is reached the hot die is immersed quickly in oil. I employ dies and stamps made in this way to make impressions on cold annealed silver, brass and gold with the use of a hammer and anvil.

Southwestern Indian silversmiths continue to use a heat resistant volcanic stone called *tufa* for making molds for silver casting. I use the same material for both casting silver ingots and heavy silver wire for making heavy silver jewelry. The mold is made in two halves with a flat joining face on each half. In the case of cast jewelry, I carve its form into the two halves and introduce a sprue to channel the molten metal into the mold. I melt down silver coins, scrap sterling silver and silver filings and pour the molten metal into the mold where it cools and solidifies quickly. Fig. 2 shows a sterling silver belt buckle that I cast in *tufa*. To obtain silver sheet, silver is first cast into ingots and then hammered and forged on a steel block or on an anvil. The sterling silver sheet shown on my box constructed from mastodon tusk ivory were formed in this manner (Fig. 3). The other parts were also cast in *tufa* and forged into shape. While I generally employ the above casting technique in my work, I sometimes turn to the lost-wax casting technique for making certain intricate forms and basic shapes that are later worked by forging.

4.

Traditionally, the Southwestern Indian silversmiths employed a solder consisting of an alloy of brass (copper and zinc) and silver. They did their soldering over a charcoal fire using a blowpipe to intensify the production of heat. In my work I employ an alloy that I prepare and also commercial silver solder and an acetylene-air flame. They melted silver in a crucible in the hot coals of a forge with forced air supplied by bellows. I use either a forge or an acetylene-air torch. Borax in water is a particularly good flux, because it keeps the work clean during soldering.

The Indian silversmiths commonly rubbed their silver jewelry with leather and with wood ashes to obtain a high luster finish. But, after years of use, the shiny surface of their jewelry became worn, displaying a satiny low-luster finish. It is this soft patina that silversmiths in the Southwest now try to produce. To get this low luster in my work, I use files first, then sandpaper and finally a fine steel wool.

Generally, one does not find shells (for example, abalone) and semi-precious stones (for example, turquoise, coral, jet) in silver mountings in the earliest examples of Southwestern jewelry. But at about 1880, shell and

turquoise began to be used in this manner. A shell or a stone was held in place by a rim or *bezel* made from thin forged silver sheet pushed around its perimeter. Following its introduction to this use, turquoise has been employed in most Indian silver jewelry made in this region. Collectors of Indian jewelry seek those pieces made with the turquoise from the region, which is found in various shades in the blue-greens. Some contemporary pieces contain imported pale blue Persian turquoise.

My principal interest is in making jewelry without stones, using forging and hand finishing techniques. Only about 15% of my jewelry contains turquoise. For mounting stones, I employ bezels made from forged silver sheet cut into narrow strips, generally about 3 mm wide and 1 mm thick. The strip is soldered onto a forged silver sheet backing, and the stone is then set by working the silver around the upper edge of the stone with the use of a hammer, a technique that is not employed by present-day regional silversmiths. The latter prefer to use manufactured bezels, which are sufficiently soft and thin to be worked easily. My bezels are usually embellished by filed marks and impressions made by stamping and appear similar to the thick cast silver bezels of the early Southwestern pieces. One can find stones fastened by means of glue without bezels in much present-day Southwestern jewelry, but in my opinion bezels are a more dependable means for holding stones securely for a long time. An example of one of my silver bracelets containing a turquoise stone is shown in Fig. 4 (cf. color plate).

Southwestern jewelry is characterized by simple square, oval, round, triangular and rectangular designs. Animal and plant motifs were used, as were Hopi and Pueblo Indian pottery designs. A pomegranate flower, commonly called 'squash blossom' in the region, was used on necklaces. Many designs have a Spanish-Moorish influence, such as large discs or ovals embossed into a shell form. These embossed designs were used in buckles. Fig. 2 gives an example of such a design. Oftentimes a series of

shell forms were strung on leather stripping forming what was called a *concha belt*. Concha belts were characterized by a larger buckle different in design from the shell forms, much like the one in Fig. 2. The Spanish-Moorish influence can also be seen in the crescent or half-moon shape of the *najahe*, a pendant used as the central medallion on squash blossom necklaces and as a decoration along with shell shapes on bridles. I have employed najahes in my work, an example of which is shown in Fig. 1.

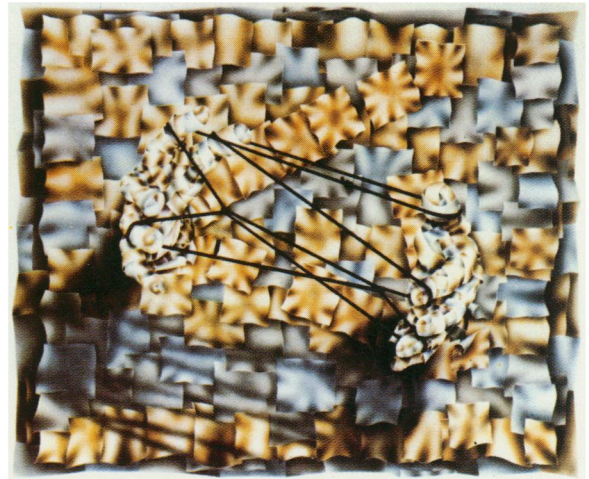
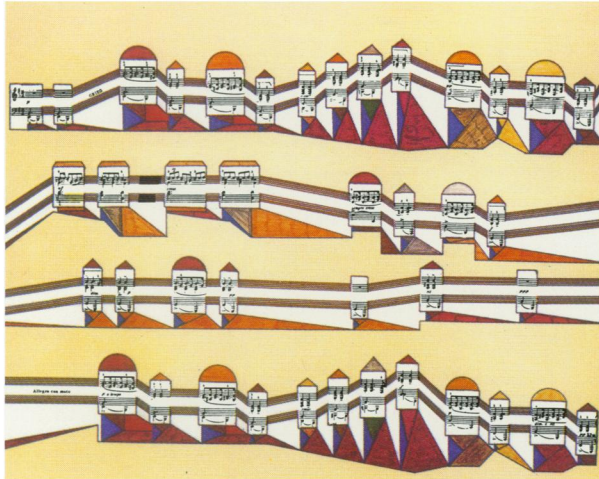
5.

While I continue to draw inspiration principally from the beautiful old pieces of Southwestern jewelry, I am basically interested in examining and drawing ideas from designs found in other cultures as well. Nevertheless, in all my work I strive to allow my imagination to be unrestrained. My recent work concerns hollowwares, for example viles, locket, boxes and canteens.

Many who see my work find it pleasing and easy to relate to the Southwestern art of the region. I believe my major obstacle outside the region is the antipathy of the public in the U.S.A. who witnessed a fad during the years 1972-1975 when poor quality, mass-produced Indian turquoise jewelry was sold. I am confident, however, that present-day artistic quality Southwestern jewelry will be more and more appreciated.

References

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2. A. Woodward, *Navajo Silver* (Flagstaff, Arizona: Northland Press, 1971).
3. M. Wright, *Hopi Silver* (Flagstaff, Arizona: Northland Press, 1972).
4. O. Untracht, *Metal Techniques for Craftsmen* (New York: Doubleday, 1968).



Top left: Stephen Jablonsky. 'Grieg: Folk Song', *Musigraph*, lithograph, 48 × 61 cm, 1978. (Fig. 2, cf. page 308)

Top right: James W. Davis. 'Variation on a Cat's Cradle', watercolors, *Prismacolor*, *Arches intaglio print paper*, 51 × 61 cm, 1976–77. (Collection of Priscilla and Robert Beeching, Fresno, Calif.) (Fig. 3, cf. page 267)

Bottom left: David E. Dear. *Bracelet*, sterling silver, turquoise, 1976. (Fig. 4, cf. page 303)

Bottom right: Perle Hessing. 'Cabbalist's Temptation', oil on canvas, 22 × 26 cm, 1978. (Photo: M. Slingsby, London) (Fig. 4, cf. page 306)