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## **Barter, Blankets, and Bracelets: The Role of The Trader in the Navajo Textile and Silverwork Industries, 1868-1930**

**ROBERT W. VOLK**

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Trade can be considered a mechanism of social change from many perspectives. It serves to spread cultural elements from one society to another (diffusion). It encourages societies and areas within societies to specialize production within the national and international economies according to available resources (comparative advantage). Yet nowhere is the role of trade as an effective agent of change more striking or pivotal than in areas where traditional economic activities and relations are confronted by capitalistic ones—a situation typical of reservations.<sup>1</sup> In this situation, the nature, scope, and operating practices of trade greatly affect production, determining to a large extent the economic options and well-being of the resident population. Consequently, an historical analysis of trade is crucial in understanding the dynamics of reservation economies.

This analysis of the Navajo economy focuses on the middle-man activities of the traders in relation to the Navajo crafts industry. Supplementing the previously established wool trade, this industry was at the cutting edge in the expansion of market relations on the Reservation. Composed primarily of blankets and silver jewelry, craft production grew constantly until it

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peaked in the 1920's before collapsing with the failure of the national economy into the Great Depression. However, far from being a static industry—save for the increase in output—this industry proved to be highly dynamic as forces from within and without the Reservation wrought changes in the design, production, and distribution of these crafts.

At the heart of this process lay the trader, the major representative of merchant capital,<sup>2</sup> who directed relations between the Navajo and outside world while attempting to maximize profits and protect their market positions. To this end they were affected by their direct relations with the Navajo, external alliances and competition, and the qualities of the products themselves. Before comparing the Navajo blanket and silverwork industries, it is necessary to sketch the background conditions that allowed the traders to gain a foothold, prosper, and then procure a dominant position in the Navajo economy.

### **The Rise of The Trading Post**

The first permanent trading post opened shortly after the establishment of the Navajo Reservation. In 1875 there were only seven posts operating on or near the reservation.<sup>3</sup> This meant that in this early period trading outlets were inconvenient for most Navajo and barely accessible for those living deep in the hinterland. However, as indicated in Table 1, this number rose dramatically so that there were thirty-six trading posts operating a decade later and nearly a hundred posts open for business by the turn of the century. Various interrelated factors contributed to this expansion. The military defeat of the Navajo prior to the establishment of the Reservation involved a scorched earth strategy that destroyed the subsistence agricultural base and ended raiding as a viable economic activity. The subsequent simplification in the Navajo economy would produce greater reliance on herding as the principal production activity on the Reservation. The experiences endured by the Navajo during their four years of incarceration at Bosque Redondo served to spread new production techniques (e.g., plow, metalworking) and change consumption patterns as tastes for new items were acquired (e.g., sugar, wheat flour, coffee, manufactured clothing). Consequently, the surplus produced by Navajo herds and the desire for non-reservation products created a vacuum that pioneering

**TABLE 1**  
**GROWTH OF TRADING POSTS ON OR NEAR**  
**THE NAVAJO RESERVATION<sup>a</sup>**

	Stores Opened	Stores Closed	Net Growth	Total Number Of Stores
1868-1870	3	0	3	3
1871-1875	4	0	4	7
1876-1880	12	2	10	17
1881-1885	21	2	19	36
1886-1890	16	4	12	48
1891-1895	12	3	9	57
1896-1900	26	4	22	79
1901-1905	15	3	12	91
1906-1910	29	4	25	116
1911-1915	19	3	16	132
1916-1920	18	6	12	144
1921-1925	8	4	4	148
1926-1930	11	5	6	154

<sup>a</sup>Excludes stores whose opening or closing dates are unknown.  
Source: Kelley, Klara B., 1977, 251-6.

merchants would fill and, indeed, nurture. Also, the arrival of the railroad to the Reservation in 1881 would facilitate the flow of goods and encourage other traders to open posts on or near the Reservation.<sup>4</sup>

In addition to subsidizing the railroad, U.S. Government policy further encouraged the establishment of trading posts through a variety of direct and indirect measures. All trading posts had to be licensed by the Indian Bureau. In this way the State could control the number and location of posts as well as monitor and effect changes in trade and commodity circulation. Some traders, however, were able to avoid such interference by locating their posts just off the Reservation.<sup>5</sup> However, these licensing laws, in effect, guaranteed a monopsonistic position for the traders because it prevented outside buyers from entering the Reservation and paying higher prices for Navajo wool and lambs.<sup>6</sup> It was understood that the licensed traders operated under the protection

of the U.S. Army and, therefore, should not be molested for to do so would invite reprisal.<sup>7</sup> Although the Navajo could easily find informal methods for removing unwanted traders, such as boycotting, this form of protection may have been important in cases where the trader was opposed by a few Navajo who perceived him as a threat to the traditional way of life.

Commercial pastoralism was encouraged over traditional subsistence activities through a variety of methods. These methods included the distribution of small stock to the Navajo on several occasions, the restriction on the purchase of ewes by traders,<sup>8</sup> and the establishment of various programs designed to improve stock raising conditions such as sheep dipping against scabies, breed alteration to increase the weight and wool output of Navajo stock, and irrigation projects to provide more watering holes. At the same time a constant shortage of seeds stymied crop production,<sup>9</sup> and the seeds that were distributed were those of cash crops. Indian Bureau agents were also involved in the promotion of Navajo products in the eastern markets. Agent William Army actually set himself up as a middleman between the sutler at Fort Defiance and eastern carpet manufacturers in the sale of Navajo wool<sup>10</sup> and also promoted the sale of Navajo blankets. Eventually, a tagging system was devised to authenticate Navajo products, and exhibitions were sponsored to promote them.<sup>11</sup>

Finally, the reservation system, the U.S. Army, and trade licensing practices served to discourage intertribal trade and also cut off the Chihuahuan and Sonoran markets for Navajo goods.<sup>12</sup> These markets represented the traditional outlets for Navajo surplus. This strategy was motivated, in part, by sentiments in the Indian Bureau and the U.S. military that in order to keep the previously marauding Native American groups subjugated it was necessary to break traditional patterns of contact. This process worked to channel trade toward Anglo markets located primarily in the East.

In sum, the material conditions of the early reservation period, coupled with a government policy that encouraged commercial pastoralism, created business opportunities that did not exist in pre-reservation days. Trading posts were licensed to assume the marketing functions initially performed at the military posts. The early traders consisted largely of Mormons in the northern part of the Reservation and former Army sutlers in the south.<sup>13</sup> After establishing market connections to the East via Santa Fe and

Albuquerque, the traders gained control of the trade in Navajo wool, which was highly marketable, being easily transportable and non-perishable. This was in contrast to lamb, which had the further disadvantage of an highly unstable market.<sup>14</sup> However, the traders soon would be negotiating in other items, including Navajo blankets and silverwork.

### **The Trading Post as a Social Institution**

The trading posts rapidly became an integral part of Navajo social organization after the establishment of the reservation and continued as such for decades. Communicating in a kind of pidgin Navajo, known as "trader Navajo,"<sup>15</sup> the traders became the mediators between the Navajo and the outside world, which included the agents of the U.S. Government. Often placed in a position of trust among the Navajo, traders were called upon for various tasks such as burying the dead, killing sheep killers (especially bears, which are considered sacred), settling disputes between clans and families, and assisting with government forms.<sup>16</sup> The trading post also became a gathering place where families and friends congregated to exchange news and gossip, tell stories, and engage in other social activities.<sup>17</sup> Yet all of these functions were secondary and complementary to the role that the trader performed in the production relations on the Reservation.

### **Devices for Capturing Trade**

The traders used a variety of methods to establish, maintain, and increase business with the Navajo under monopolistic conditions. Initially, nearly all transactions were conducted by barter as money was almost nonexistent on the Reservation.<sup>18</sup> In fact, disdain for paper currency, checks, and even gold continued among the Navajo for decades. Silver was the preferred medium of exchange, when direct barter was not practical, because of its intrinsic value and its potential for reworking by local silver-smiths.<sup>19</sup> There is also evidence that traders refused to pay cash for Navajo products in any event.<sup>20</sup>

Whereas barter helped to facilitate transactions between the traders and the Navajo, other measures were used more specifically to tie them into the trader's web. The extension of credit in lean times between harvests or while a blanket was being

made was a common practice and guaranteed the trader a portion of their patrons' surplus. The institution of pawn also became an important source of credit as the pawn rack became a familiar sight in the trading posts. Silverwork, including concha belts, bracelets, bridles, and turquoise necklaces, was accepted for credit with the understanding, and later regulation, that the items could be redeemed at a later date. After the agreed period of not less than six months had passed, the unclaimed items became "dead pawn" and the trader was free to sell them to tourists, merchants, or other Native Americans.<sup>21</sup> In this way, pawn served the Navajo as a bank and provided a means for them to display their wealth. Some Navajo apparently preferred to pawn their heavy silverwork rather than haul it to their winter hogans.<sup>22</sup> Although frowned upon by the Indian agents,<sup>23</sup> the institution of pawn would thrive for many years<sup>24</sup> and continues today.<sup>25</sup>

The Navajo extended credit to the traders by accepting tokens, sometimes called "scrip," "seco," or "tin money," when the traders' stock was depleted or when they wanted to make purchases at a later date.<sup>26</sup> The Navajo had been accustomed to their use since their days of captivity at Fort Sumner, a practice reinforced by rationing procedures upon their return to the Reservation. Somewhat ironically, tokens had the effect of strengthening the position of the trader. Tokens were generally accepted only at the place of issue because they were not legal tender. This, of course, had the effect of reinforcing the monopolistic position of the trader because the Navajo patrons were not free to shop elsewhere.<sup>27</sup>

Attempts by the Indian Office to prohibit the use of tokens date back as far as 1878<sup>28</sup> and were part of an effort to regulate traders and curtail unfair trading practices. It was not until 1935, however, by which time their usefulness had passed, that an agreement between the Indian Office and the United Traders Association marked the end of the use of tokens on the Reservation.<sup>29</sup>

One of the most effective ways in which the traders increased their transactions with the Navajo was to offer a greater variety of goods. In the beginning the majority of transactions consisted of exchanging wool for flour, coffee, and sugar. Soon the list expanded to include other foods such as canned milk, fruit, and vegetables but also manufactured goods such as textiles, metal

tools, wagons, and saddles.<sup>30</sup> The list of Navajo goods that were exchanged also expanded to include piñon nuts, pelts, and more importantly, blankets and silver jewelry, the markets for which were developed primarily by the traders working in conjunction with national merchants. This increase in trading activity involved two important processes. First, the Navajo began purchasing processed foods and cheap manufactured goods that substituted for items previously produced by the consumer using traditional methods. For example, Pendleton blankets manufactured in Oregon were purchased by the Navajo so that they could sell their more expensive, higher quality, hand-woven blankets. Coffee replaced local beverages made from wild plants. Wheat flour gained increasing favor over flour made from maize, a traditional staple in the Navajo diet.<sup>31</sup> This also contributed to the declining importance of crop cultivation and the increase in Navajo herds as imported foodstuffs provided an alternative to mutton consumption. The more valuable wool harvest could be sold or woven in blankets.

Second, as the blanket and jewelry markets developed, traders moved to increase their control over the production process. This involved supplying raw materials, dictating designs, and providing tools to be used in manufacturing. In this manner the traders were able to realize a high level of vertical integration in these markets.

### **The Navajo Blanket Industry**

Historical documents indicate that the Navajo were weaving in wool by the eighteenth century and that by shortly after the turn of the century, their blankets had become a significant item of trade in New Mexico, Sonora, and Chihuahua.<sup>32</sup> The Pueblo loom and Spanish sheep provided the essential ingredients, while a livelihood centered around herding, which is less labor intensive than horticulture or gathering and is frequently done by children. Navajo women were thus allowed sufficient time to develop a superior product. Nevertheless, weaving was primarily designed for Navajo use with only a relatively small surplus entering the trading circuits, probably most of this through traveling merchants or at trading fairs (e.g. Taos, Santa Fe).

It was not until after the establishment of the Reservation that weaving became a substantial commodity-producing industry.

Although the Indian agents and the distribution of clothing in the form of rations encouraged commodity production, it was the traders who most actively promoted the weaving trade. Some of the more ambitious traders promoted Navajo blankets in the East directly through mimeographed circulars and mail order catalogs and established wholesale supply houses in the border towns to handle the trade.<sup>33</sup>

Information concerning the total output and value of Navajo blankets sold is sporadic. The Navajo Agent in 1878 reported that a large quantity of blankets found their way to southern Utah in exchange for horses, although it is not clear through what channels they were exchanged.<sup>34</sup> Without supplying figures, the Agents in 1880, 1881, and 1882 comment on the considerable amount of Navajo blankets being sold to traders, with the Agent in 1882 reporting an increase in demand since the arrival of the railroad.<sup>35</sup>

In 1887, about 1,800 of the 2,700 blankets woven were reported sold for prices ranging from one to one hundred dollars.<sup>36</sup> By 1890, \$40,000 worth of blankets were made with \$25,000 of them being sold.<sup>37</sup> Amsden provides figures of \$50,000 in blankets in 1899, \$500,000 in 1913, \$750,000 in 1923, and sales which reached the million dollar mark in 1931.<sup>38</sup> James' estimate of \$711,000 for 1912 fits neatly into this pattern.<sup>39</sup>

The data on blanket sales are not complete enough to consider yearly or short term variations. However, it is clear that the blanket trade was well established by 1890. It is also evident that blanket production and trade generally increased until the Depression and that the stock reduction period of the 1930's disrupted the Navajo economy. It was the entry of large national firms into the blanket business that propelled Navajo weaving into a major industry.

### **Changes in the Production Process**

It is doubtful that the blanket industry could have achieved this high volume without significant changes in the production process. Traditionally, the Navajo had virtually complete control over the means of production of their textiles. They would shear their sheep with a knife or sharp piece of metal, pay little attention to cleaning, and would prepare the wool for the loom by carding and spinning with tools they made themselves. Native

mordants (e.g. urine, alum) and vegetable dyes were used. Acquired materials used in production such as bayeta, a predominantly red cloth that usually was raveled, re-twisted and used as weft, and indigo were used for aesthetic purposes (color) and not to increase production.<sup>40</sup>

The trader, overseeing the commercialization of the Navajo blanket, insisted on changes that significantly altered the product both in design and in the materials used in production. Blankets were woven in a variety of sizes and grades. Initially, most trade was aimed at the Southwest and involved relatively small multi-purpose blankets used for bedding, protection against the weather, or as saddle blankets. The blankets gradually became larger and thicker, first as cowboys demanded larger blankets and then as they were marketed as rugs in the East.<sup>41</sup> This increase in size and volume required an increase in production that was not viable, utilizing strictly traditional techniques that were very labor intensive and time consuming. Consequently, the trader imported new materials to be used in Navajo weaving which included manufactured yarn, artificial dyes, and cotton warp. Concomitantly, the importation of Pendleton blankets manufactured in Oregon almost completely replaced Navajo blankets made for personal use.<sup>42</sup> The introduction of manufactured yarns was probably facilitated by the Navajo experience at Bosque Redondo, where soldiers would provide yarn to the Navajo to be woven into blankets for souvenirs.<sup>43</sup> The early European yarns, the most famous being Saxony, and possibly some of the early Germantown yarn<sup>44</sup> were vegetable-dyed yarns. The Navajo weaver would retwist the yarn to make it firmer before weaving in a similar manner that was used to prepare bayeta. As a result, these yarns, being already of fine quality, did not lower the quality of the product to any significant degree but the yarns also did not significantly increase production. They were too costly and still required a good deal of labor in preparation for the loom. For these reasons few blankets are made entirely of the old commercial vegetable-dyed yarns.

The situation changed dramatically with the use of aniline-dyed Germantown yarn in the 1880's.<sup>45</sup> These yarns were also expensive compared to native wool. Manufactured yarns went straight to the loom where they were used to weave blankets more quickly and loosely. James laments the change in color that accompanied this yarn:

When, too, the Germantown yarns began to be dyed with aniline dyes they lost their old time charms, gave to the civilized world more gorgeous brilliant hues, dazzled its eyes as well as those of the Navaho weavers, and helped pervert the popular taste in regard to color, just as too much salt in a cooked dish destroys the subtler and finer flavors and essential essences of the dish itself.<sup>46</sup>

A similar statement can be made about the use of aniline dyes to color native wool. Introduced at about the same time as the Germantown yarns and cotton warp, it greatly simplified the coloring process by combining mordant and dye in a small package that would be added to wool in boiling water. The problem in this case is not just the degradation in color combination but also the quality of the dye. The Navajo were accustomed to preparing their wool for native dyes and mordants and not for aniline dyes, which required that the wool be thoroughly cleaned for correct adherence. This produced wool that was unevenly colored and which tended to fade prematurely.

The quality of Navajo blankets further declined with the incorporation of cotton warp. The traders imported cotton twine and sold it to the Navajo to be used as warp in place of the traditional woolen warp. Although this undoubtedly increased production by eliminating the necessity of making the warp, quality was sacrificed as cotton warp do not last as long as woolen ones. These changes translated into increased profits for the trader as the middlemen role expanded with each exchange.

The deterioration in quality in the 1890's did produce somewhat of a crisis for the Navajo textile industry as sales declined.<sup>47</sup> The problem was further abetted by the practice common among traders of paying for blankets by the pound. Ironically, this crisis, rather than serving to return control of production to the Navajo weaver had just the opposite effect. As retailers, such as the Fred Harvey Company, began to insist on higher standards and agreed to pay higher prices for them, traders such as J. Lorenzo Hubbell and J. B. Moore took steps to protect their trade by taking an even more active role in blanket production.<sup>48</sup> These steps included refusing any blankets made with cotton warp and frowning on the use of manufactured yarns, including Germantown. Aniline dyes remained but color options were limited, and

most of the vulgar colors and combinations were eliminated as a result. Thorough cleaning of native wool before dyeing was demanded along with firmer and tighter spinning and weaving. Some traders went as far as having the wool carded, scoured, and even dyed in mills off the Reservation so that the wool was ready for spinning by the time it reached the Navajo weaver. Finally, traders insisted on designs based on traditional geometric patterns. Several traders actually required that weavers follow specific designs illustrated by paintings or other blankets used as prototypes. In this manner, the tendency toward what Amsden called a "standardization of pattern"<sup>49</sup> became manifest in Navajo weaving.<sup>50</sup> This completed the process in which traders gained control over almost every aspect of production.

### **Vertical Integration and Concentration in the Navajo Blanket Market**

The Navajo blanket industry was characterized by a high level of vertical integration which was reinforced by several factors. First, government licensing laws effectively granted trading post operators a monopsonistic position in the purchasing of Navajo blankets, a position further enhanced by a program to authenticate Navajo blankets through a tagging system.<sup>51</sup> Second, there existed an increasingly high level of concentration among trading post ownership, many of which were connected to or owned outright by wholesalers located in the border towns,<sup>52</sup> and who also operated retail outlets on a national basis.<sup>53</sup> This was due in part to trading posts licensing laws which required a \$10,000 bond,<sup>54</sup> a significant sum at that time. Moreover, the granting of licenses was a blatantly political process dependent largely on the discretion of the Indian Agent and the Commissioner of Indian Affairs.<sup>55</sup> Representatives of national capital most certainly would have better access to those in decision-making positions because they tended to be located in the East. Both of these conditions probably contributed to the growing acquisition of wholesale houses by firms in larger cities<sup>56</sup> as trading post custom guaranteed a reasonable return on investment. Finally, the alliance between local and merchant capital, particularly the activity of the Fred Harvey Company,<sup>57</sup> cemented control of Navajo weaving from retail outlet to the sources of production.

### Challenge from Manufacture

This situation made it possible for merchant capital to withstand a challenge by industrial capital in the form of machine-made imitation Navajo blankets.<sup>58</sup> These blankets could be made more cheaply as industrialists attempted to capture part of the blanket trade by taking advantage of the inefficient production techniques (in terms of labor) of the Navajo. For the most part these attempts were thwarted. The high level of vertical integration achieved by merchant capital meant that industrial capital would have to develop its own marketing channels. This would require a substantial investment.

The position of merchant capital was further strengthened by the fact that the intricate pattern of Navajo hand weaving could not be duplicated by machine.<sup>59</sup> This allowed the Fred Harvey Company, the main representative of national merchant capital, to protect its market position by first insisting on high quality blankets, while compensating suppliers accordingly, and then by exposing inferior work and cheap imitations through its national displays:

Fred Harvey fought cotton warp and Germantown yarn from the first, labeling specimens of the latter, "This is not Indian spun." The aim was to make and keep the Navaho rug an honest and genuinely Indian piece of merchandise, one that could be sold year after year to a satisfied and constantly growing public. . . .

The Harvey Company at about the same time spiked another incipient abuse of Navaho artistry—a very flagrant one—when a rug factory brought out a rug with Navaho designs and sent its company a sample consignment. The shipment was accepted and paid for, and the samples hung in various Harvey stores with big placards telling what they were. Nothing more was heard of the pseudo-Navaho rug.<sup>60</sup>

Thus the concentration of ownership and control within the Navajo blanket industry coupled with the difficulty of duplication by machinery placed industrial capital in a disadvantageous position in relation to the blanket trade. Those elements of industrial capital that benefitted from the Navajo blanket industry did

so indirectly by working through the wholesalers/traders. These included suppliers of items that replaced those previously made on the loom for use such as blankets, jeans, and other garments, and also the makers of materials used by the Navajo in weaving such as aniline dyes and, to a lesser extent, commercial yarns and cotton twine used for warp.

### **The Navajo Silverwork Industry**

Compared to the Navajo weaving tradition which dates back centuries, the Navajo silverworking craft is relatively young. It is generally believed that although the Navajo appreciated silverwork by this time and obtained substantial amounts of it, chiefly through trade and plunder, they did not begin to work metal until the 1850's. At this time, the first civil agent assigned to Navajo country, Henry Linn Dodge, brought in George Custer, a blacksmith, to teach the Navajo the principles of metalworking. Interestingly, Dodge also brought in Juan Anea, a Mexican silversmith, to serve as an assistant.<sup>61</sup> It seems certain that Anea must have passed on some knowledge of his trade to the Navajo. Other Navajo, most notably Herrero Delgadito (also known as Slim Little Smith or Aasiiti Saani), were learning something from Mexicans albeit they only worked in iron.<sup>62</sup>

These smiths were given an excellent opportunity to pass on their knowledge to other Navajo during their incarceration at Fort Sumner in the 1860's, where for the first time they lived in close proximity to one another. This knowledge was probably augmented by that of the army smiths assigned to the post. The testimony of George Gwynther provides evidence of the skill level attained by the Navajo smiths as it was displayed in their ability to forge ration tickets:

These tickets were at first made of cardboard, were so often willingly lost or the writing on them so skillfully forged, that stamped metal slips were substituted; but in a short time it was found that their ingenuity had enabled them to make dies and forge the impressions successfully; and it was ultimately found necessary to send to Washington for tickets with special and intricate designs on them that proved beyond their skill to imitate.<sup>63</sup>

This demonstrates that the Navajo had learned to use metal-working tools and dies effectively. Most of the jewelry worked at Fort Sumner took the form of simple bracelets and rings made from copper and brass wire, the only source metal available.<sup>64</sup>

Upon the return of the Navajo to the Reservation, silver became available in the form of coin which could be used as exchange for wool, blankets, pelts, or piñon nuts from the traders. Silver quickly superseded brass and copper as the preferred medium in which to work. American silver dollars were most common in the beginning but were replaced by Mexican pesos by the turn of the century.<sup>65</sup> This change was hastened by the drop in silver prices, which reduced the price of Mexican pesos to the trader who could purchase them in banks in the border towns.<sup>66</sup> More importantly, the Navajo silversmiths preferred the peso because of its greater purity, having slightly less copper content than the American dollar, making it more conducive to reworking. Eventually even this source would be replaced by ounce silver and sheet silver.<sup>67</sup>

By the 1880's the Navajo had acquired a considerable amount of skill in silverworking as well as silver itself. Bourke, observing some Navajo in 1881, recorded the following description in his notes:

Both men and women are passionately fond of silver ornaments and being good workers in that metal, it need surprise no one to be told that many of the grown men and women, more particularly the former, are fairly loaded down with it. It is used as ear-rings, great circular loops, each containing at least one trade dollar; as belts, to gird about the waist, as sashes, to run across the breast and shoulder, as rings, as bangles (not infrequently can be seen a squaw with ten and eleven on each arm) as buttons to moccasins, leggings and last, but by no means least, to encrust their saddles and bridles. They make it into fantastic necklaces which contest the supremacy of their affections with chalcuitl and red coral, the latter brought into the country during the Mexican domination. . . .<sup>68</sup>

Most silver production was produced for Native American use at this time, the majority for Navajo use, but some of this out-

put was traded to the Pueblos. Small amounts of silverwork may have been sold to soldiers as souvenirs.<sup>69</sup>

Despite this high level of development, the tools of production were quite primitive. The forge was made from stone and adobe and fueled by charcoal (juniper) while the bellows was constructed of goatskin and wood. Crucibles were ceramic and made of kaolin<sup>70</sup>, but many smiths obtained Pueblo pottery for this purpose because of its high quality. Ingot molds were usually made of sandstone but could also be carved into soft iron, hardwood, or even clay. Anvils as well as small tools such as chisels, awls, punchers, dies, and tongs were made from any suitable scrap iron that the smith could find. Blowpipes were made from brass wire. Most polishing was accomplished with sandstone and sand, and ashes and almogen were mined to be used as flux and as the whitening agent. Although evidence from Fort Sumner indicates that some Navajo knew how to make dies, stamps were not widespread in this period. Settings were also rare in which garnets native to the region, including peridots, malachite, abalone shell, and jet, predominated. Turquoise settings before 1900 were extremely rare.<sup>71</sup>

Articles made by the Navajo silversmiths included such items as bracelets, conchas (belts with heavy silver disks), bridles, buttons, rings, earrings, ketohs (bow guards), tobacco cases, and purses. Silverwork was not only acquired in appreciation of the intrinsic value but also because it was a display of wealth and a source of collateral when pawned at the traders.<sup>72</sup>

### **Changes in the Production Process**

As traders began to spread across the Reservation in the 1880's, they began to influence Navajo silverwork. Initially, trading posts represented the major source of silver, as already mentioned, but soon they were supplying the silversmith with an increasing number of tools used in production. Tin buckets made more efficient forges than those constructed of stone and adobe and were easily transported. Commercial heart-shaped bellows replaced the crude goatskin devices. One trader, George M. (Barney) Williams, is said to have built up a considerable business in manufactured crucibles.<sup>73</sup> Borax replaced almogen as flux, and sandpaper and emery paper facilitated polishing. The traders also imported

an assortment of small tools such as metal saws, dividers, pliers, chisels, and hammers. The introduction of fine files by 1890 allowed for more elaborate designs, most of which were copied from Mexican leatherwork. These files made die-making feasible as stamping superseded the old method of decorating silver with awls, chisels, and punches.<sup>74</sup>

This high level of development in Navajo silverwork was reached without the impetus of an external market. The traders encouraged this development by providing materials and tools of production and by accepting silverwork as pawn. This relationship began to change, however, at the turn of the century when efforts were made to produce silverwork for external consumption. In 1899, the Fred Harvey Company began supplying traders with ounce silver and polished turquoise from mines in Nevada for consignment to Navajo silversmiths in their area who were paid by the ounce. In this manner the trader could exercise greater control over the quality of the jewelry as to its size, weight, and design, thus tailoring the product to the tourists' tastes. This resulted in jewelry that was lighter and more heavily stamped with designs, especially arrows and swastikas. This proved to be a successful method of supplying the Fred Harvey tourist outlets with Native American jewelry, and it was not long before the big mercantile companies located in Gallup were also using this "farming out" system.<sup>75</sup>

The traders were active on other fronts of the silverwork industry. According to Van Valkenburgh, traders brought in silversmiths to spread their skills to Navajo living in their vicinity.<sup>76</sup> In the early 1900's, various traders sought to establish direct market links to the East through mail order and catalogs. This strategy, earlier employed for marketing blankets, was generally unsuccessful, and disappointing sales forced the traders to abandon these efforts.<sup>77</sup> It appears, then, that at this time the market for Navajo silverwork outside the Reservation was, in the main, limited to the tourist trade of the Southwest. This trade would continue to grow well into the 1920's.<sup>78</sup>

### **Challenge from Manufacture**

The Navajo silverwork industry was greatly affected by attempts to capture some of the silver jewelry market by factory-

produced imitations.<sup>79</sup> As early as 1910, a Denver firm employing white labor began manufacturing these imitations. Small merchants in Santa Fe and Albuquerque also began setting up small shops, using mostly Pueblo labor which could allow for the marking "Indian Made." These firms were able to undercut the prices of the hand-made Navajo jewelry being sold through the traders. Consequently, the Gallup dealers lowered their standards of Navajo jewelry in an effort to cheapen the product and remain competitive.<sup>80</sup> Although data are lacking, these attempts to market imitations appear to have had considerable success, judging from the effects on genuine Navajo jewelry and on the reactions of those interested in this form of art. This occurred despite limited attempts by the state to protect the industry.<sup>81</sup> Bedinger, writing in 1936, cites the Introduction to American Indian Art:

In recent years this silver-work has had to meet a more devastating attack than any other craft in the Southwest. First there has been the pressure to put swastikas, thunderbirds, and a hundred other gimcrack designs, on the silver. Then, there is a constant campaign by commercial whites to introduce low-grade, thin silver, and all the mechanical appliances of miniature factories; a drive, really, to bring this inherently expensive craft down to the souvenir price level, and which can succeed only by utterly debasing the product. More than this, factories are flooding the market with entirely fraudulent, low-grade silver, hideous beyond belief, cheap and satisfactory to the curio mind, while several ingenious souls have hired real Indians—the public is invited to come in and see the real Indians at work—to manufacture jewelry wholesale by straight factory methods, save that designs are stamped on by a man with a hammer. . . . The factory-made "Indian" jewelry infests tourist centers from Denver south, and even spreads like a pest into gift shops and curio stores in the Northwest and the East. These things consist of thin sheets of alloyed silver, cut, stamped and bent by machinery in white men's factories into rings, bracelets, brooches and trinkets, as foreign to the Indian as key-rings, stick-pins, watch-bracelets and ash-trays. This trash is everywhere thrust under the nose of the

unwary, labelled "Indian jewelry," to the genuine specimens of which it bears about as much resemblance as a ten-cent brooch does to the fine work of Cartier or Tiffany. . . .<sup>82</sup>

The competition from factory-made jewelry adversely affected Navajo jewelry production. It contributed to a lowering of quality, both in design and craftsmanship. It also affected the organization of production by accelerating the tendency toward mass production techniques and the proletarianization of the Navajo silversmith. Silversmiths were increasingly becoming wage workers, a process began with the farming out system of the Fred Harvey Company, and would eventually result in workshops employing hundreds of Navajo working for wages.<sup>83</sup> Although the imitation jewelry manufacturers probably contributed to the general market expansion in Native American crafts which created a boon for the Navajo silversmiths, in the long run this market was stunted. In the 1940's Adair<sup>84</sup> estimated that six hundred Navajo were working silver on the Reservation. Kluckhohn and Leighton set the contribution of silverwork to the total income of the Navajo at less than two percent in 1940 and noted fifteen year decline.<sup>85</sup>

These tendencies were countered somewhat by the traditional element of Navajo silverwork, which was reinforced by the institution of pawn and custom. In terms of design, Hegemann<sup>86</sup> asserted that silverwork extant in the northwest part of the Reservation was a generation behind that of the "railroad" Navajo centered around Gallup. She described it as being heavier and less elaborate in turquoise and stamps. Traditional Navajo were less willing to accept the tourist jewelry, which they considered cheap and flimsy. Eventually, however, this lighter form of silverwork worked its way north. More silversmiths were enticed to produce for the tourist market as money income gained in importance in the overall economic relations of the Reservation. In fact, Adair<sup>87</sup> reports virtually no silversmiths in the northwestern part of the Reservation making silverwork in any quantity since most of them had migrated toward Gallup where the silver industry was concentrated and the bulk of silversmiths resided.

## **The Blanket And Silverwork Industries Compared**

General tendencies that operated in both industries as they increasingly became geared to the external market include: greater control over the production process by local and national merchants; a change in craftsmanship (materials and design) to meet consumer (non-Navajo) demand, which generally resulted in lower standards accompanied by greater volume; and a challenge to capture some of these profits by machined imitations. But there exist considerable differences within these tendencies, accounting in part for the greater success and resilience of the blanket industry. These include the following:

1. **Materials And Instruments Of Production.** The traders provided producers with the means of production, including both the raw materials (coin-silver and later, turquoise) and tools early in silverwork development. This preceded the rise of the external market. In the weaving industry, by contrast, with the minor exception of clipping shears to remove fleece,<sup>88</sup> the tools of production remained unchanged. Attempts to provide the materials of production in the form of commercial yarns, aniline dyes, cotton warp, and even preprocessed wool had mixed results and occurred after the external market had been established being dictated by efforts to increase production.

2. **Internal Consumption.** Traditional patterns of consumption of silverwork was encouraged by custom (e.g., appreciation of the intrinsic value of silver, display of wealth) and the institution of pawn (silver as a source of collateral and method of savings) which produced a highly developed and resilient internal network of trade. Navajo consumption of textiles took the form of imported manufactured garments of which Pendleton blankets were especially important. These articles were offered at the trading posts and replaced items previously woven for personal use by the Navajo. This pattern was fostered by the distribution of rations in the form of clothing, which freed Navajo weavers to produce almost entirely for the external market.

3. **Market Protection.** The silverwork and blanket industries both received challenges from industrial capital in the form of machine-made imitations. This attempt by industrialists to capture some of the profits from the demand for "Indian-style" crafts was more successful in the silver jewelry trade.

The nature of the products favored the Navajo blanket industry over its silverwork counterpart. The hand-made blankets

were less prone to duplication and had a practical application as rugs. The differences between the factory-made blankets and genuine articles were quite pronounced and could be pointed out to consumers. This allowed the Navajo blanket dealers to protect their market position by insisting on high standards of quality and exposing the inferior copies. The differences between the authentic and imitation silverwork were more subtle, a condition exacerbated by the encroachment of mass production techniques and the tendency toward lower standards in Navajo silverwork itself. The situation was further complicated by the Hopi and Zuni, who also began providing silverwork for the tourist trade.

Market organization was also a significant factor in responding to this challenge. The traders failed in their attempt to establish direct links for Navajo silverwork to retail outlets, especially those in the East. This failure, coupled with the necessity of importing nearly all of the materials of production from other sources, indicates a lower degree of vertical integration than achieved in the blanket industry. This created opportunities for dealers to take advantage of in the market, which consisted primarily of the tourist trade in the Southwest and West. Only a relatively small amount of capital outlay was required to set up a silver workshop. Thus, traders were in a vulnerable position in the silverwork market in contrast to the blanket market where they operated from a position of strength.

### **Concluding Remarks**

Rosa Luxemburg argued that force, taxation, and the importation of cheap manufactured or processed goods constitute the mechanisms by which capitalist relations replace traditional ones.<sup>89</sup> The use of force on the Navajo Reservation had been relegated chiefly to the maintenance of law and order, given that the Navajo had already been subjugated by the time the Reservation was established. Taxation, which forces people to seek wage work or sell part of their surplus in order to make payment, was not a factor because Native American reservations are exempt. Under these conditions, trade became the critical vehicle by which market relations expanded. Trade can be viewed as both a measure and perpetrator of capitalism.

Seen in this light, the activities of the traders proved to be pivotal as they guided the transformation of the Navajo economy

toward exchange through their roles as merchants, entrepreneurs, and intermediaries between the Navajo and outside world. This analysis of the dynamics of the Navajo economy within the specific context of the blanket and silverwork industries illuminates some of the changes brought to Navajo life. These changes included a growing reliance on trade for income and basic necessities, which subsequently altered the diet and clothing of the Navajo. Increased dependence on the external market as an outlet for products resulted in the loss of control over the production process as pressure mounted to tailor the design and materials of Navajo crafts to Anglo tastes as well as to alter the production techniques in order to increase output.

Finally, the changes accompanying the increase in trade also had ecological and demographic ramifications on the Reservation. The wool and blanket industries encouraged an increase in herd size, while the availability of imported foodstuffs discouraged mutton consumption and plant cultivation. This served to exacerbate (soil) erosion, a constant problem on the Reservation. Trade also encouraged the Navajo to migrate toward the commercial centers for better access to markets. This was particularly true among the silverworkers, who migrated to the southwestern part of the Reservation, an area which was the hub of the industry.

Along with this increase in trade came an increase in vulnerability. Perhaps this is best demonstrated by the hardship experienced by the Navajo as a result of the collapse of the crafts industry during the Great Depression. All of these factors underscore the importance of the changes initiated and perpetuated by the traders.

#### NOTES

1. Robert W. Volk, "An Historical Analysis of the Functions and Reproduction of the Navajo Reservation" (Ph.D. dissertation, University of Illinois, 1987).

2. For the purposes of this study, merchant capital is a broadly defined, referring to those elements and relations of capital that lie outside the production process and deal with accumulation through exchange activities (commerce). For a discussion of merchant capital and its development on the Navajo Reservation, see Lawrence David Weiss, *The Development of Capitalism: A Political-Economic History* (Minneapolis: MEP Publications, 1984).

3. Klara B. Kelley, "Commercial Networks in the Navajo-Hopi-Zuni Region" (Ph.D. dissertation, University of New Mexico, 1977); Frank McNitt, *The Indian*

*Traders* (Norman, OK: University of Oklahoma Press, 1962); Mary Shepardson, "Navajo Ways in Government: A Study in Political Process," *American Anthropological Association*, Memoir 46, 65:3, Part 2 (Menasha, WI:1963).

4. Kelley, "Commercial Networks in the Navajo-Hopi-Zuni Region" (Ph.D. dissertation, University of New Mexico, 1977); McNitt, *The Indian Traders*; Volk, "An Historical Analysis of the Functions and Reproduction of the Navajo Reservation."

5. McNitt, *The Indian Traders*, 71.

6. U.S. Congress, Survey of Conditions of the Indians of the United States, 70th Congress, 2nd Session, Hearings, (Washington, D.C.: GPO, 1932), 8936, 9813; Weiss, *The Development of Capitalism in the Navajo Reservation*, 74.

7. See, e.g., Charles Avery Amsden, *Navaho Weaving: Its Technic and History* (Santa Ana: Fine Arts Press, 1934), 176.

8. New Mexico Association on Indian Affairs, *Urgent Navajo Problems: Observations and Recommendations Based on a Recent Study* (Sante Fe: 1940), 6.

9. Ruth M. Underhill, *The Navajos* (Norman: University of Oklahoma Press, 1971), 154; John Upton Terrell, *The Navajos: The Past and Present of a Great People* (New York: Weybright and Tally, 1970), 209.

10. Raymond Friday Locke, *The Book of the Navajos* (Los Angeles: Mankind Publishing Co., 1976), 399; Terrell, *The Navajos: The Past and Present of a Great People* (New York: 1970), 218; Underhill, *The Navajos*, 181.

11. U.S. Office of Indian Affairs, *Annual Reports of the Commissioner of Indian Affairs* (Washington: G.P.O. 1914), 36-7.

12. McNitt, *The Indian Traders*; Katina Simmons and Carol Stout, *East Meets West: Oriental and Navajo Floor Rugs* (Albuquerque: Maxwell Museum of Anthropology, 1975).

13. James F. Downs, *The Navajo* (New York: Holt, Rinehart & Winston, 1972); McNitt, *The Indian Traders*; Amsden, *Navajo Weaving: Its Technic and History*; Underhill, *The Navajos*; Shepardson, "Navajo Ways in Government: A Study in Political Process."

14. Henry F. Dobyns and Robert C. Euler, *The Navajo Indians* (Phoenix: Piñon Press, 1972); Richard Van Valkenburgh, "A Short History of the Navajo People," in *Navajo Indians III*, ed. David A. Horr (New York: Garland Publishing, 1974), 201-267.

15. James F. Downs, *The Navajo*.

16. Downs, *The Navajo*; McNitt, *The Indian Traders*; Amsden, *Navajo Weaving: Its Technic and History*; Underhill, *The Navajos*; Shepardson, "Navajo Ways in Government: A Study in Political Process."

17. Terrell, *The Navajos: Past and Present of a Great People*; Clyde Kluckhohn and Dorothea Leighton, *The Navajo* (Cambridge: Harvard University Press: 1947).

18. McNitt, *The Indian Traders*; Downs, *The Navajo*; Underhill, *The Navajos*.

19. Amsden, *Navajo Weaving: Its Technic and History*; McNitt, *The Indian Traders*.

20. U.S. Congress, Survey of the Conditions of the Indians of the United States, 70th Congress, 2nd Session, Hearings (Washington, GPO, 1931), 8963, 8983.

21. Amsden, *Navajo Weaving: Its Technic and History*, 178; McNitt, *The Indian Traders*, 55-7.

22. Elizabeth Compton Hegemann, "Navajo Silver," *Southwest Museum*

Leaflets No. 29 (Los Angeles: Southwest Museum, 1962), 13-4; Kluckhohn and Leighton, *The Navajo*, 80; John Adair, *The Navajo and Pueblo Silversmiths* (Norman: University of Oklahoma Press, 1946), 99, 108-9; David F. Aberle, *The Peyote Religion Among The Navajo* (Chicago: Aldine Publishers, 1966), 87-88.

23. U.S. Office of Indian Affairs, *U.S. Annual Report* (Washington, GPO, 1887), 174.

24. Adair, *The Navajo and Pueblo Silversmiths*, 108-12; U.S. Congress, Survey of the Conditions of the Indians of the United States, 70th Congress, 2nd Session, Hearings (Washington, GPO, 1932), 8963.

25. U.S. Federal Trade Commission, *The Trading Post System on the Navajo Reservation* (Staff Report to the Federal Trade Commission, Washington, GPO, 1973).

26. U.S. Congress, Survey of the Conditions of the Indians of the United States, 70th Congress, 2nd Session, Hearings (Washington: GPO, 1931), 8983-4.

27. McNitt, *The Indian Traders*, 83-86; Weiss, *The Development of Capitalism in the Navajo Reservation*, 55-6.

28. U.S. Department of the Interior, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1878), 491.

29. McNitt, *The Indian Traders*, 86.

30. Downs, *The Navajo*; Dobyns and Euler, *The Navajo Indians*; Underhill, *The Navajos*.

31. For a discussion of changes in the Navajo diet see Judy Kopp, "Cross-cultural Contacts: Changes in the Diet and Nutrition of the Navajo Indians," *American Indian Culture and Research Journal*, 10:4 (1986): 1-30.

32. Amsden, *Navaho Weaving: Its Technic and History*, 133.

33. Amsden, *Navajo Weaving: Its Technic and History*, George Warton James, *Indian Blankets and Their Makers* (New York: Tudor Publishing Co., 1937); McNitt, *The Indian Traders*.

34. U.S. Department of Interior, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1878), 158.

35. U.S. Department of the Interior, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1880), 131; (1881) 137; (1882) 129.

36. U.S. Department of Interior, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1887), 172.

37. U.S. Department of the Interior, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1890), 162.

38. Amsden, *Navaho Weaving: Its Technic and History*, 182.

39. James, *Indian Blankets and Their Makers*, 58.

40. Amsden, *Navaho Weaving: Its Technic and History*; James, *Indian Blankets and Their Makers*.

41. Amsden, *Navaho Weaving: Its Technic and History*.

42. Edward H. Spicer, *A Short History of the Indians of the United States*, (New York: D. Van Nostrand Co., 1969), 558; Amsden, *Navaho Weaving: Its Technic and History*, 103; McNitt, *The Indian Traders*, 211.

43. Amsden, *Navaho Weaving: Its Technic and History*, 183.

44. James, *Indian Blankets and Their Makers*, 46.

45. Amsden, *Navaho Weaving: Its Technic and History*, 184; James, *Indian Blankets and Their Makers*, 46.

46. James, *Indian Blankets and Their Makers*, 46-7.

47. James, *Indian Blankets and Their Makers*, 49.
48. Erna Fergusson, *Our Southwest* (New York: Alfred A. Knopf, 1946), 217.
49. Amsden, *Navaho Weaving: Its Technic and History*, 190.
50. James, *Indian Blankets and Their Makers*; McNitt, *The Indian Traders*; 254-5; Underhill, *The Navajos*, 186-190.
51. U.S. Department of the Interior, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1914), 36-7; (1937), 225.
52. U.S. Congress, *Survey of the Conditions of the Indians of the United States, 70th Congress, 2nd Session, Hearings* (Washington: GPO, 1932) 9812-5; Kelley, "Commercial Networks in the Navajo-Hopi-Zuni Region," 190; Downs, *The Navajo*, 115.
53. Amsden, *Navaho Weaving: Its Technic and History*, 194; McNitt, *The Indian Traders*; Weiss, *The Development of Capitalism on the Navajo Reservation*.
54. U.S. Office of Indian Affairs, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1878), 491.
55. McNitt, *The Indian Traders*.
56. Kelley, "Commercial Networks in the Navajo-Hopi-Zuni Region," 36.
57. Fred Harvey entered contractual agreements with the Atchison, Topeka & Santa Fe Railroad beginning in 1876 to provide dining facilities. The first "Harvey House," a lunchroom, was opened that year in Topeka, Kansas but operations quickly expanded to include hotels, eating houses, and later, train dining cars and newsstands. These agreements eventually allowed Harvey to operate every hotel and restaurant on the Santa Fe line. Harvey establishments had a reputation for high quality that was guaranteed by tight control over all aspects of production and distribution and protected by a monopolistic position. A degree of vertical integration was achieved as indicated by the ownership of farms to provide some items. The Santa Fe outlets represented the nucleus of Fred Harvey operations although interests were also owned on the Kansas Pacific and the Atlantic and Pacific Railroads. By the time of his death in 1901, Fred Harvey headed a national enterprise whose interests spread across twelve states and included forty-five eating houses, twenty dining cars, and fifteen newsstands. Although Fred Harvey was interested in the indigenous cultures of the Southwest, and used them to promote tourism, the Fred Harvey Company did not begin to market Native American crafts through its concession outlets until shortly after its founder passed from the scene. (James David Henderson, *Meals by Fred Harvey: A Phenomenon of the American West* (Fort Worth: Texas Christian University Press, 1969).
58. U.S. Congress, *Survey of the Conditions of the Indians of the United States, 70th Congress, 2nd Session, Hearings* (Washington: GPO, 1932), 9565-6.
59. See Pendleton Woolen Mills testimony [June 23, 1902] in James, *Indian Blankets and Their Makers*, 162-3.
60. Amsden, *Navaho Weaving: Its Technic and History*, 191.
61. Van Valkenburgh, "A Short History of the Navajo People," 217; Raymond Friday Locke, *The Book of the Navajos*, 283.
62. Kluckhohn and Leighton, *The Navajo*; Adair, *The Navajo and Pueblo Silversmiths*; Van Valkenburgh, "A Short History of the Navajo People."
63. Van Valkenburgh, "A Short History of the Navajo People," 234.
64. Margery Bedinger, "Navajo Indian Silver-Work," *Old West Series Pamphlets*, 8, (Denver: John Vanmale, 1936).

65. Adair, *The Navajo and Pueblo Silversmiths*, 8.
66. McNitt, *The Indian Traders*, 84; Van Valkenburgh, "A Short History of the Navajo People," 253.
67. Bedinger, "Navajo Indian Silver-Work;" McNitt, *The Indian Traders*; Adair, *The Navajo and Pueblo Silversmiths*.
68. Lansing B. Bloom, "Bourke in the Southwest," *New Mexico Historical Review* 26 (1936), 82.
69. Adair, *The Navajo and Pueblo Silversmiths*.
70. McNitt, *The Indian Traders*, 169.
71. Bedinger, "Navajo Indian Silver-Work," Adair, *The Navajo and Pueblo Silversmiths*, McNitt, *The Indian Traders*.
72. See Hegemann, "Navaho Silver;" Bedinger, "Navajo Indian Silver-Work;" Adair, *The Navajo and Pueblo Silversmiths*; McNitt, *The Indian Traders*.
73. McNitt, *The Indian Traders*, 169.
74. Adair, *The Navajo and Pueblo Silversmiths*; Bedinger, "Navajo Indian Silver-Work."
75. Adair, *The Navajo and Pueblo Silversmiths*; Hegemann, "Navaho Silver;" Bedinger, "Navajo Indian Silver-Work."
76. McNitt, *The Indian Traders*, 210.
77. McNitt, *The Indian Traders*, 256.
78. Adair, *The Navajo and Pueblo Silversmiths*, 26.
79. Spicer, *A Short History of the Indians of the United States*.
80. Adair, *The Navajo and Pueblo Silversmiths*, 27, 117; Fergusson, *Our Southwest*, 217.
81. U.S. Office of Indian Affairs, *Annual Reports of the Commissioner of Indian Affairs* (Washington: GPO, 1937), 225.
82. Bedinger, "Navajo Indian Silver-Work," 35-6.
83. Adair, *The Navajo and Pueblo Silversmiths*, 204; Kelley, "Commercial Networks in the Navajo-Hopi-Zuni Region" 204.
84. Adair, *The Navajo and Pueblo Silversmiths*, 117.
85. Kluckhohn and Leighton, *The Navaho*, 59.
86. Hegemann, "Navaho Silver," 8-10, 24.
87. Adair, *The Navajo and Pueblo Silversmiths*, 116.
88. Amsden, *Navaho Weaving: Its Technic and History*, 33.
89. See Barbara Bradby, "The Destruction of Natural Economy," *The Articulation of Modes of Production*, ed. Harold Wolpe, (London: Routledge and Kegan Paul, 1980).